



NATRONA COUNTY BOARD OF COUNTY COMMISSIONERS

AGENDA

Paul Bertoglio, Commissioner
Forrest Chadwick, Commissioner
Rob Hendry, Commissioner
Brook Kaufman, Commissioner
Jim Milne, Commissioner

Tuesday, May 19, 2020 5:30 p.m.
Natrona County Courthouse, 200 North Center, Casper, Wyoming
Large Courtroom, 2nd Floor

- I. CALL MEETING TO ORDER**
- II. ROLL CALL**
- III. PLEDGE OF ALLEGIANCE**
- IV. APPROVAL OF CONSENT AGENDA**
- V. PUBLIC COMMENTS**

Your input is valuable. Please visit www.natrona.net/publiccomment and complete the interactive form with your name, address, phone number and a brief description of the subject matter. Upon submission, the information you provided will be delivered to our office. When the public comment period opens, you will be contacted by phone and placed on speaker to share your thoughts with the Commission. To avoid feedback, please mute your computer speakers. So that we can hear you clearly, please silence any other distractions. Tune into the Natrona County YouTube Channel and watch the meeting live. Please contact the County Commissioners' Office at (307) 235-9202 with any questions or if you do not have internet. Deadline for submission is 5:00 p.m. Monday, April 20th.
- VI. COMMISSIONER COMMENTS**
- VII. ADJOURNMENT**

Agendas are subject to amendments



**NATRONA COUNTY
BOARD OF COUNTY COMMISSIONERS**

Paul Bertoglio, Commissioner
Forrest Chadwick, Commissioner
Rob Hendry, Commissioner
Brook Kaufman, Commissioner
Jim Milne, Commissioner

CONSENT AGENDA

Tuesday, May 19, 2020 5:30 p.m.

Natrona County Courthouse, 200 North Center Street, Casper, Wyoming
Large Courtroom, 2nd Floor

- I. APPROVAL OF MAY 5, 2020 MEETING MINUTES
APPROVAL OF MAY 8, 2020 SPECIAL MEETING MINUTES**
- II. APPROVAL OF BILLS \$3,722,299.91**
- III. CONTRACTS, AGREEMENTS, RESOLUTIONS:**
 - A. Contract between NC and AECOM Technical Services, Inc. (third party quality control/quality assurance of the 2020 NC Aerial Mapping Update)
 - B. Amendment to NC Contract for Services with Smith Fire & Life Safety Consultants, LLC
 - C. Resolution Opening the Courthouse
- IV. STATEMENT OF EARNINGS: R&B \$125.00; County Clerk \$76,381.75; Lake \$249,192.00; Parks \$1598.05;**
- V. LICENSES**
 - A. Buchholz Land & Cattle LLC- Chris & Marcie Buchholz-CR#121/Bishop-Approach-lic. #29-20-09
 - B. Philip & Lovi Johnson-cr #201/Poison Spider Road-2" Domestic Water Line-lic. #29-20-10
 - C. Donaldo Hermosillo-CR#201/Poison Spider Road-Water Line-lic. #29-20-11
- VI. TAXROLL CORRECTION 2019: PHILLIPS, JOHNNIE W CFD: PHILLIPS, JAKE L \$-4,554.06; MOONEY, SHANE \$-218.47; HICKS, BENJAMIN J \$-203.74; NELSON, CHARLES W \$-2,407.85; COX, MICHAEL J \$-6,847.18; NAOMI B BURGESS Y=TRUST \$-31,012.63; HEACOCK, BOB \$-849.7**

Agendas are subject to amendments

BOARD OF COUNTY COMMISSIONERS
MINUTES OF PROCEEDINGS
May 5, 2020

The regular meeting of the Board of County Commissioners was brought to order at 5:30 p.m. by Chairman Rob Hendry. Those in attendance were Commissioner Chairman Paul Bertoglio, Commissioner Jim Milne, Commissioner Brook Kaufman, Commissioner Forrest Chadwick, County Attorney Eric Nelson, County Clerk Tracy Good and Commissioners' Assistant Michelle Maines.

Consent Agenda:

Chairman Hendry announced prior to the meeting item F. CNFR Hosting sponsorship Agreement (2023-2027) has been pulled from the agenda.

Commissioner Bertoglio moved for approval of the Consent Agenda. Commissioner Kaufman seconded the motion. Motion carried.

Contracts, Agreements, Resolutions:

A. Recommendation/Notice of Award- Alcova Full Hook UP RV Campground-Phase II: Haass Construction Co.

Commissioner Bertoglio moved for approval of the agreement subject to the County Attorney's legal review. Commissioner Milne seconded the motion. Motion carried.

Public Hearings

A. CUP20-1 Conditional Use Permit (CUP) to allow land reclamation and drainage improvements. The CUP is for lot 2 of Douglass Subdivision, the address being 3799 Douglass Rd.

Commissioner Milne moved to table CUP20-1 until 8-4-2020. Commissioner Chadwick seconded the motion. Motion carried.

Public Comments:

Chairman Hendry opened the floor to Public Comments.

Hearing comments the floor was closed.

Commissioner Comments:

Chairman Hendry opened the floor to Commissioner Comments.

Hearing no further comments the floor was closed.

Adjournment:

There being no further business to come before the Board of Commissioners, Chairman Hendry adjourned the meeting at 5:48p.m.

BOARD OF NATRONA COUNTY COMMISSIONERS

Robert L. Hendry, Chairman

ATTEST:

NATRONA COUNTY CLERK

Tracy Good

**BOARD OF COUNTY COMMISSIONERS
MINUTES OF PROCEEDINGS
May 8, 2020**

The special meeting of the Board of County Commissioners was brought to order at 3:00 p.m. by Chairman Hendry. Those in attendance were Commissioner Paul Bertoglio, Commissioner Jim Milne, Commissioner Forrest Chadwick, Commissioner Brook Kaufman, Eric Nelson, County Clerk Tracy Good and Commissioners' Assistant Michelle Maines.

Contracts, Agreements, Resolutions:

A. Resolution 19-20 Amending Restrictions on Certain County Buildings and Encouraging the Public to Conduct Business via Mail, Email and Telephone

Commissioner Chadwick moved for approval of Resolution 19-20. Commissioner Milne seconded the motion. Motion carried.

B. Natrona County Contract for Services with Smith Fire & Life Safety Consultants, LLC – Provide Plan Reviews & Inspection for the Building Department

Commissioner Kaufman moved for approval of the Contract. Commissioner Bertoglio seconded the motion. Motion carried.

Executive Session:

3:09 p.m. to 4:37 p.m. Commissioner Chadwick moved to go into Executive Session for the purpose of a legal update. Commissioner Kaufman seconded the motion. Motion carried. Commissioner Chadwick moved to come out of Executive Session. Commissioner Milne seconded the motion. Motion carried.

Adjournment:

There being no further business to come before the Board of Commissioners, Chairman Hendry adjourned the meeting at 4:39 p.m.

BOARD OF NATRONA COUNTY COMMISSIONERS

Robert L. Hendry, Chairman

ATTEST:

NATRONA COUNTY CLERK

Tracy Good

Newspaper listing for Bills 4/29/2020 through 5/12/2020

162 vendors listed

Total: \$ 3,722,299.91

12-24 CLUB INC \$2815.33	JOHNSON CONTROLS. \$36406.67
ABRASIVE MANAGEMENT \$6000.00	KAUFMAN, JAHNA K \$300.00
ACTION GLASS \$6593.65	KIESTER, JILL \$14.16
ADAMSON POLICE PROD \$56728.00	LIFETIME HEALTH & FITNESS \$909.26
AFLAC PREMIUM HOLDING \$3197.26	LINCARE INC \$88.95
AGRICULTURE DEPARTMENT \$13672.19	LUM STUDIO \$2587.00
ALSCO \$357.51	MCMURRY READY MIX \$11976.85
AMAZON CAPITAL SVCS \$790.16	MERCER FAMILY RESOURCE CENTER \$15069.71
AMBI MAIL & MARKETING \$5653.77	MTN STATES LITHOGRAPHING \$100.11
ASSESSOR \$50896.71	NAPA AUTO PARTS \$385.85
ATLAS OFFICE PROD \$491.02	NC EMPLOYEE \$340961.19
AXIS FORENSIC TOXICOLOGY \$2316.00	NC IMPREST ACCOUNT S/O \$3067.86
BAR D SIGN CO \$127.45	NC TREASURER \$336155.65
BARGREEN ELLINGSON DBA KNAPP SUPPLY & EQUIPT \$82.80	ORCHARD TRUST \$9844.94
BENNETT, THOMAS L MD \$3600.00	ORION HEALTHCARE \$3628.00
BIG O TIRES \$79.99	OUTPATIENT RADIOLOGY \$163.38
BLACK HILLS ENERGY \$1130.33	OVERHEAD DOOR CO \$283.92
BLOEDORN LUMBER \$168.53	PLANSOURCE NGE \$2136.44
BNSF RAILWAY CO \$97.87	PROTECTED TRUST \$1728.00
BRYAN CAVE LEIGHTON PAISNER LLP \$41214.59	RAMKOTA HOTEL/CASPER \$881.25
BURBACK'S REFRIGERATION & APPLIANCE REPAIR \$761.30	RECONNECT \$425.96
BUSH-WELLS SPORTING GOODS \$15.00	REDWOOD TOXICOLOGY LABORATORY \$38.50
CA STATE DISBURSEMENT \$378.00	RICOH USA INC \$896.52
CAPITAL BUSINESS SYS \$2618.83	RMP \$4135.09
CAPITAL BUSINESS SYS INC \$332.11	ROAD & BRIDGE - LAKE \$13683.03
CARPET ONE COMMERCIAL FLOORING \$4360.35	ROAD & BRIDGE/ADMINISTRATION \$67498.25
CASPER FIRE EXTINGUISHER \$9.75	ROAD & BRIDGE/PARKS DEPT \$9185.99
CENTRAL FAIR AND RODEO \$70190.91	ROAD & BRIDGE/VEHICLE SVC \$16236.25
CENTRAL WY OUTPATIENT \$4124.00	ROSE JONES \$180.97
CENTURYLINK \$9200.23	RT COMMUNICATIONS INC \$39.83
CHARM-TEX \$767.50	RUSSELL INDUSTRIES \$6701.91
CHILD SUPPORT ENFORCEMENT \$52983.60	SALT CREEK COMMUNITY \$219.28
CIRCUIT COURT OF THE SEVENTH \$1408.54	SHAMROCK FOODS CO \$17322.43
CITY OF CASPER \$13702.40	SHERIFF/ADMINISTRATION \$305640.50
CLERK OF COURT/ADMINISTRATION \$43764.63	SHERIFF/COURTHOUSE SECURITY \$61524.84
CLERK OF DISTRICT COURT \$7559.94	SHERIFF/EMERGENCY MANAGEMENT \$10610.00
CLERK/ADMINISTRATION \$62138.03	SHERIFF/NEW JAIL \$447760.75
CMBC \$15500.00	SHOWTIME INDUSTRIES \$2148.00
COASTAL CHEMICAL CO \$151.98	SINCLAIR FLEET TRACK \$429.73
COCA-COLA BOTTLING CO \$15.50	SOUTHLAND MEDICAL \$171.87
COLONIAL LIFE & ACCIDENT INS \$73.47	SPECTRUM \$1079.73
COMMISSION/ADMINISTRATION \$10416.65	STANLEY ACCESS TECH \$1021.03
COMMISSION/COUNTY ATTORNEY \$24218.23	STAPLES \$20.80
COMMISSION/COUNTY DEVELOPMENT \$36166.87	STERLING TALENT \$187.28
COMMISSIONER/ HR \$7083.34	STEWART & STEVENSON \$5329.78
COMMISSIONERS/MAINT. SALARIES \$27396.72	STOTZ EQUIPT \$189.54
COMMUNICATION TECHNOLOGIES INC \$28139.79	SUMMIT ELECTRIC \$1808.02
CONVERGEONE INC \$5632.73	SUPERIOR SIGNS & SUPPLY \$25.00
CORNERSTONE PROGRAMS \$51.45	SUTHERLANDS \$1137.53
CORNERSTONE PROGRAMS CORP \$146861.00	THOMSON REUTERS \$504.00
CORONER \$17934.78	TITAN MACHINERY \$1856.98
COTTON, TIMOTHY C PC \$6351.75	TLC CLEANING \$23700.00
COURTNEY, TAYLOR \$217.41	TREASURER \$49807.86
COWBOY CHEMICAL \$211.00	UNITED WAY OF NC \$80.00
CST \$2100.44	UNIVERSITY OF WY/COLL OF AG BUS. \$9306.00
DEWITT WATER SYS \$57.55	US FOODS \$2253.92
DISTAD, ERIC A \$5250.00	VERIZON \$2292.80
DOT FHWA \$2662.60	VITAL RECORDS CONTROL (VRC) \$842.40
DRIVEN POWER SPORTS INC \$357.37	VITAL RECORDS HOLDINGS \$265.20
DRUG COURT \$21153.33	WASHINGTON NATIONAL INS \$2133.30
DRUG TESTING SVCS NC \$232.00	WCTA/WY COUNTY TREASURER'S ASSOC. \$200.00
EAGLE UNIFORM & SUPPLY CO \$533.16	WELLS FARGO BANK NA CTS \$702904.42
EMERGENCY MEDICAL PHYSICIANS \$1894.00	WELLS FARGO CORPORATE TRUST \$2500.00
ENTENMANN-ROVIN CO \$241.75	WESTERN WY LOCK & SAFE \$91.88
FEDERAL EXPRESS \$26.55	WHIPPS, JAMES \$39.59
FORT COLLINS WHOLESALE NURSERY \$748.50	WINNELSON \$337.38

GALLS \$2422.18
GEOTEC INDUSTRIAL SUPPLY \$2035.00
GOLDSTAR PROD INC \$2396.05
GRAINGER \$1592.82
GREENUP, JENNIFER L \$5000.00
GREINER FORD OF CASPER \$480.65
HEALTHSMART BENEFIT SOL \$992.00
HIGH PLAINS POWER INC \$698.36
HOMAX OIL SALES INC \$1575.98
HOOD'S EQUIPT \$144.99
ICMA RETIREMENT TRUST - 457 \$155.00
INDUSTRIAL DISTRIBUTORS \$85.80
INFORMATION TECHNOLOGY \$39848.31
INLAND TRUCK PARTS & SVC \$47.18
JH MECHANICAL \$138.60

WIRRENGA, KARLENE \$67.50
WLC ENGINEERING \$1614.50
WSFP WESTERN STATES FIRE PROT. DBA \$4005.00
WY ANESTHESIA \$880.00
WY CHILD SUPPORT STATE DISBURSEMENT UNIT \$685.00
WY COUNTY COMMISSIONERS ASSOC \$400.00
WY DEPT OF HEALTH/CHEMICAL TESTING PROGRAM \$5580.00
WY DEPT. OF WORKFORCE SVC \$17307.84
WY MACHINERY CO \$17311.20
WY MEDICAL CENTER INC \$23.10
WY ORAL & MAXIOFACIAL SURGERY \$1175.00
WY OTOLARYNGOLOGY PC \$1403.00
WY RETIREMENT SYS \$238154.58
WY STEEL RECYCLING IRON & \$118.74
YOUTH CRISIS CENTER INC \$2500.00

NATRONA COUNTY CONTRACT FOR PROFESSIONAL SERVICES

1. **PARTIES.** The parties to this contract are NATRONA COUNTY ("County") and AECOM Technical Services, Inc. ("Contractor"). The parties' respective contact information is:

NATRONA COUNTY
200 N Center ST, Room 115
Casper, WY 82601

AECOM Technical Services, Inc.
12420 Milestone Center Drive, Suite 150
Germantown, MD 20876

2. **PURPOSE.** The purpose of this Contract is obtain third party quality control/quality assurance of the 2020 Natrona County Aerial Mapping Update. In exchange for the provisions herein, the parties enter this Contract.

3. **CONTRACTOR'S OBLIGATIONS.**

- A. **SCOPE OF WORK.** See Attachment A, *Abbreviated Scope of Work*.

- B. **GENERAL.**

- i. **Facility, Equipment, and Material.** Contractor will provide a facility and all equipment and materials necessary to perform Work.
- ii. **Compliance with Laws.** Contractor will, in accordance with the Standard of Care, identify, reasonably interpret and respond to all applicable federal, state, and local laws and regulations in its performance of this Contract.
- iii. **Incorporation.** Contractor will remain active and in good standing with the Wyoming Secretary of State.
- iv. **Indemnification.** Contractor will indemnify County and County's board members, elected officials, and employees from losses, costs and damages to the extent caused by the negligent acts, errors or omissions of Contractor in the performance of this Contract.
- v. **Insurance.** Prior to commencing performance of this Contract, Contractor will provide to County proof of its insurance coverage. Throughout the term of this Contract, Contractor will maintain the following insurance and in each policy (1) except professional liability and workers compensation insurance, include County as additional insured; (2) except professional liability insurance, include a provision prohibiting the insurance company from subrogating against County; and (3) require the insurance company to send any and all notices of termination of any policy to County in addition to Contractor.
 - a) **General.** Contractor will maintain and provide proof of comprehensive general liability insurance in an amount of \$2,000,000 per occurrence and in the aggregate from a company authorized to conduct business in Wyoming with a current A.M. Best's rating of no less than A:VII unless County approves a lower rated company in writing.
 - b) **Scope.** Coverage will be as broad as *ISO Form CG 00 01* covering CGL on an "occurrence" basis, including property damage, bodily injury, personal & advertising injury, and liquor liability coverage.
 - c) **Professional.** Contractor will maintain insurance appropriate for Contractor's profession in an amount of \$500,000 per claim and in the aggregate from a company acceptable to County.

- d) Auto. Contractor will maintain vehicle insurance in an amount of \$500,000 per occurrence from a company acceptable to County.
 - e) Primary. Contractor's CGL and Auto insurance will be the primary insurance for all incidents related to this Contract. Except with regard to professional liability insurance, Contractor's insurance provider(s) will not subrogate against County.
 - f) Vendors and Service Providers. Contractor is responsible for all of its vendors and service providers.
- vi. **Unemployment and Workers' Compensation.** Prior to commencing performance of this Contract, Contractor will provide proof it is in compliance with Wyoming unemployment insurance and workers' compensation laws.

COUNTY'S OBLIGATIONS. In consideration of the performance of services rendered under this Contract, the Contractor shall be compensated for services performed in accordance with this Contract, not to exceed a fee of Twenty-Two Thousand, Five Hundred and Seventy-Five dollars (\$22,575.00). Contractor's hourly rates used as a basis for payment mean salaries and wages (basic and incentive) paid to all Consultant's personnel engaged directly on the Project.

Invoices shall be accepted on a monthly basis for services provided in the prior month. Contractor invoices will be paid within thirty (30) days of County's receipt of approved invoice.

4. **EFFECTIVE DATE AND TERM OF CONTRACT.** This Contract becomes effective upon the date of the last required signature.
5. **STANDARD PROVISIONS.**
- A. **GOVERNMENTAL IMMUNITY.** County does not waive and specifically retains all immunity provided by the Wyoming Governmental Claims Act, Wyo. Stat. §§ 1-39-101, et seq., and all other immunity and the right to assert immunities as a defense.
 - B. **APPLICABLE LAW AND VENUE.** The laws of the State of Wyoming govern the interpretation and enforcement of this Contract. The courts in the State of Wyoming have jurisdiction over this Contract and the parties. A court in Natrona County, Wyoming will be the proper venue for any legal action involving this Contract.
 - C. **ASSIGNMENT AND COLLATERAL.** The parties will not assign, transfer any right, or delegate any responsibility of this Contract nor use this Contract as collateral without prior written consent of the other party.
 - D. **AUDIT.** If one party authorizes an audit that includes this Contract, the other party will cooperate with the auditor and provide its records related to this Contract to the auditor as requested.
 - E. **AVAILABILITY OF FUNDS.** This Contract is conditioned upon the availability of funds to County. If such funds are not available to County, County may terminate this Contract upon reasonable notice and will not be liable for any alleged damage resulting from such termination. County must not claim unavailability of funds in order to acquire similar services from a third party.
 - F. **BREACH.** If Contractor fails to perform in accordance with this Contract, COUNTY may at its discretion:
 - i. withhold payment until Contractor satisfactorily performs in accordance with this Contract,

- ii. pursue any other remedy allowed by law.
- G. **CONFLICT OF INTEREST.** The parties will not engage in any activity that could result in a conflict of interest or the appearance of a conflict of interest related to this Contract.
- H. **ENTIRE CONTRACT.** This five page document and Attachment A constitute the entire agreement and supersede all prior written and oral communications. Any change to this Contract must be in writing signed and dated by both parties.
- I. **FORCE MAJEURE.** A party will not be liable for failure to perform in accordance with this Contract if such failure to perform arises out of a cause beyond the nonperforming party's control and with no fault or negligence of the nonperforming party. Such causes may include, but are not limited to, an act of a public enemy, earthquake, embargo, epidemic, disease, pandemics, health emergencies, virus emp (e.g. SARS Cov-2), fire, flood, quarantine, and unusually severe weather. This provision is effective only if the nonperforming party takes reasonable steps to minimize effects of its nonperformance.
- J. **HEADINGS.** Headings in this Contract are for reference only and are not to be used to construe any part of this Contract.
- Q. **INDEPENDENT CONTRACTOR.** Contractor is an independent contractor. Contractor will determine the means and manner of its performance under this Contract. Contractor is solely responsible for its actions, debts, and other liabilities. Contractor is solely responsible for any taxes and other costs resulting from its performance of this Contract including, but not limited to, federal, social security, and sales taxes and workers' compensation and unemployment insurance. Contractor is not entitled to any compensation or other benefit from County except what is contained in this Contract.
- K. **MATERIAL PREPARED PURSUANT TO CONTRACT.** All finished and unfinished material prepared by Contractor pursuant to this Contract is the property of County. Such material includes, but is not limited to, physical, electronic, and any other form of data, document, application, report, survey, map, specifications, design, model, photograph, film, video, and object. Contractor may retain a copy or other replica of the material for its own use. Contractor will treat the material as confidential and not reveal the material without consent from County. Any modification, reuse or use of incomplete portions of the Contractor's work product shall be without liability to the Contractor or its subconsultants.
- L. **NONDISCRIMINATION.** The parties will not discriminate against any individual based on age, gender, gender-preference, pregnancy, color, race, religion, national origin, a disability that can be reasonably accommodated, or any other protected class.
- M. **NOTICE.** A party will give notice to the other party by certified mail sent to the respective address given in this Contract or by an email acknowledged by a director, supervisor, or official of the non-sending party.
- N. **RELATED CONTRACT.** County may enter a separate contract(s) for a service and/or deliverable related to this Contract. Contractor will reasonably cooperate regarding such contract(s).
- O. **SEVERABILITY.** If any portion of this Contract is determined by a court with jurisdiction to be illegal or unenforceable, the remainder of this Contract will remain in effect, and, if either party initiates

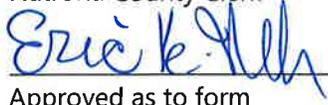
negotiations regarding the term(s) affected by the severance, the other party will negotiate in good faith.

- R. **SIGNATURE.** The person signing below for each party is authorized to sign this Contract on behalf of her/his party. If the person who signs is not authorized to sign and her/his party refuses to be bound by this Contract, the person who signed is individually liable for her/his party's performance of this Contract.
- S. **TERMINATION.**
- i. **Immediate.** County may terminate this Contract immediately if Contractor fails to maintain insurance or Contractor ceases to be active and in good standing with the Wyoming Secretary of State.
 - ii. **Material Breach.** Either party may terminate this Contract if, after giving reasonable notice of a material breach to the other party, the other party fails to cure the material breach.
 - iii. **Notice.** Either party may terminate this Contract upon 90 days notice to the other party.
 - iv. **Survival.** Indemnity, liability coverage, warranties, and other pertinent Contract provisions survive termination of this Contract.
- T. **THIRD PARTY BENEFICIARY.** The parties do not intend this Contract to create any third party beneficiary.
- U. **TIME.** Contractor recognizes the importance of meeting the schedule that is applicable to its Services and shall perform the Services as expeditiously as is consistent with the exercise of professional skill and care and the orderly progress of the Project.
- V. **WAIVERS.** If a party waives a breach by the other party of a provision of this Contract, it will not constitute a waiver of any prior or subsequent breach. Failing to object to a breach will not constitute a waiver. Neither party to this Contract shall be liable to the other party or any third party claiming through the other respective party, for any special, punitive, liquidated, incidental, delay, indirect or consequential damages of any kind including but not limited to lost profits or loss of use, loss of access, that may result from this Contract, or out of any goods or services furnished hereunder.
- W. **Standard of Care.** Contractor will use that degree of care and skill ordinarily exercised by members of same profession performing the same or similar services under similar conditions in similar localities. No other warranties, express or implied, are made or intended. The performance by Contractor of its services hereunder shall not constitute an assumption by Contractor of the obligations of the County or its other contractors. Comments by the Contractor to the County will be based on the Contractor's exercise of professional judgment, knowledge, information, and belief from selective observation and sampling that the deliverables provided by Fugro.
- X. **Reliance.** Contractor shall be entitled to rely upon the accuracy of data and information provided by County or others without independent review or evaluation.
- Y. **Limitations.** To the fullest extent permitted by law, the total aggregate liability of Contractor to County for all claims, losses, costs or damages whatsoever arising out of the performance or non-intentional breach of this Agreement shall not exceed the one-hundred percent (100%) of the compensation paid to Contractor under this Contract.

Each party to this Contract, through its undersigned authorized representative(s), agrees to the provisions in this Contract.

NATRONA COUNTY	AECOM TECHNICAL SERVICES, INC
_____	_____
Robert Hendry, Chair Natrona County Board of Commissioners	Date
Date	

ATTEST:

Tracy Good
Natrona County Clerk


Approved as to form
County Legal Department

ABBREVIATED SCOPE OF WORK
– QC/QA OF GIS DELIVERABLES
FROM THE 2020 NATRONA
COUNTY AERIAL MAPPING
UPDATE

SOLICITATION NUMBER MPO 20-01

Natrona County, Wyoming

April 15, 2020

ABBREVIATED SCOPE OF WORK – QC/QA OF GIS
DELIVERABLES FROM THE 2020 NATRONA
COUNTY AERIAL MAPPING UPDATE

Prepared for:

Natrona County, Wyoming

Prepared by:

AECOM
12420 Milestone Center Drive
Suite 150
Germantown, MD 20876

T: +1 (301) 944 2559
aecom.com

Copyright © 2020 by AECOM

All rights reserved. No part of this copyrighted work may be reproduced, distributed, or transmitted in any form or by any means without the prior written permission of AECOM.

Table of Contents

Statement of Project Requirements	4
Scope of Work – Quality Assurance	6
Draft Project Work Schedule.....	15
SOW Assumptions.....	16
Personnel and Prior Experience	17
Check Point Survey.....	18
QA Checklist Examples.....	20

Statement of Project Requirements

AECOM understands that Natrona County has selected Fugro USA, Inc. (Fugro) to acquire aerial imagery for the 2020 aerial mapping update. This data will be processed into high resolution and accuracy RGB/CIR band digital orthoimagery. This imagery is to be utilized by multiple Natrona County stakeholders to support a myriad of Natrona County activities, programs, and services.

Four band imagery having a 3" resolution will be collected over the Casper area of interest (AOI), encompassing 208 square miles. Four band imagery having a 6" resolution will be collected over a portion of Natrona County (Natrona AOI), encompassing 1,562 square miles.

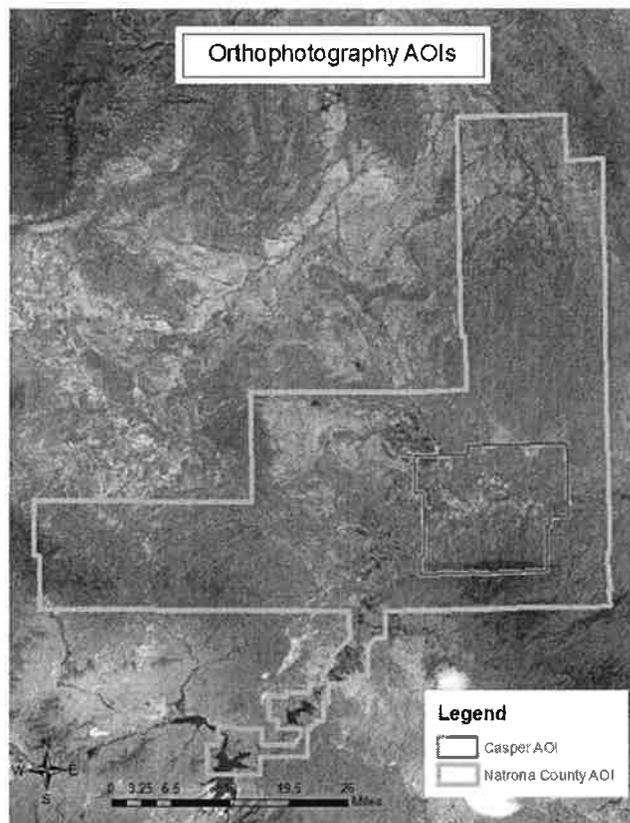


Figure 1: Casper and Natrona Orthophotography AOIs

AECOM understands that Natrona County is soliciting for geospatial QA services to ensure all imagery and related mapping products are delivered to stakeholders in adherence to the scope of work.

More specifically, Natrona County requests that various Fugro deliverable datasets be carefully reviewed for compliance to Natrona County's specifications and requirements. These requirements include meeting the appropriate "Highest accuracy works" in relation to pixel size, and RMSE_x and RMSE_y horizontal accuracies outlined in *ASPRS Positional Accuracy Standards for Digital Geospatial Data (Edition 1, Version 1.0- November 2014)*, as well as appropriate National Standard for Spatial Data Accuracy (NSSDA) specifications. To that end Natrona County is seeking to select a qualified geospatial contractor

familiar with Natrona County's goals and requirements to provide QA reviews and testing of the high resolution aerial orthoimagery, and precursive and derivative products referenced in *Third Party Quality Control/Quality Assurance of Geographic Information System Deliverables from the 2020 Aerial Mapping Update* RFP. Precursive and derivative products include Aerotriangulation (AT) reports, Ground Control reports, metadata, and compressed orthomosaic datasets.

All Natrona County AOI project deliverables are to be final by 11/30/20.

Throughout the project AECOM will provide "Ad Hoc" support as needed.

Defined Image Acquisition Parameters

Per the RFP the following parameters will be used regarding image acquisition.

- Leaf off and absent of snow image data acquisition will occur between April 15 – May 30, 2020 using industry standard large format photogrammetric mapping grade digital aerial cameras capable of capturing 4 band imagery (red, green, blue, and near infrared).
- Image sensors will utilize Forward Motion Compensation and Airborne Global Positioning System/Inertial Navigation Unit (GNSS/INS) systems installed on a Gyro-Stabilized Mount.
- Flying height will be performed at an elevation that supports the required final pixel resolution and accuracy of the data requirements.
- The sun angle exceeds 30 degrees
- Tilt is less than 4 degrees
- Relative tilt between image strips of less than 6 degrees
- Any 10 mile long flight line will have less than 2 degrees of tilt on average
- Entire project AOI will have less than 1 degree of tilt on average
- Sidelap minimum will be 15%, maximum will be 45% with an average of 20 – 30% over the entire flight line
- Ground is not obscured by atmospheric conditions or temporal ground conditions such as snow, flooding, or similar
- Cloud cover will not exceed 5% of the coverage of any tile, or 5% of the entire AOI

AECOM understands no fewer than two pilot areas will be identified within the Natrona AOI. Pilot area will be reviewed to assess production process intended to be performed on the datasets prior to proceeding into full production. Upon successful pilot submittals full production approvals will be granted to Fugro.

Scope of Work – Quality Assurance

Image Radiometry Review

Fugro will submit sample imagery as determined by the Fugro and Natrona County that best represents varying cover types of interest to Natrona County for review. AECOM feedback regarding the clarity/detail and radiometry (color balance, contrast, and saturation) will be returned to Natrona County and Fugro. Ultimately a radiometric signature for each of the cover types will be determined and will be applied to radiometric balancing processes during image mosaicking. The expectation being the cover types in the output image mosaic data mimic the approved radiometric signatures initially approved.

Ground Control and Block Aerotriangulation (AT)

Reliance and utilization of Global Navigation Satellite System/Inertial Navigation System (GNSS/INS) data alone is not an acceptable aerotriangulation (AT) solution. Aided by existing ground control provided by Natrona County, additional ground control points collected by Fugro, and the onboard GNSS/INS systems Fugro will perform AT on the imagery. If additional ground control is acquired Fugro must submit a survey report to Natrona County. For each AT block an AT report must be signed by Fugro ASPRS Certified Photogrammetrist and submitted for review by Natrona County and AECOM.

Based on prior direct experience AECOM assumes there will be one AT block over the Natrona AOI. Using ASPRS guidance, and utilizing independent check points surveyed by AECOM partner, CompassData, AECOM will assess the accuracy of the AT and orthoimagery against project requirements. To perform this, AECOM proposes to set 60 independent check points in the Natrona County AO. These check points will be used to assess horizontal and vertical accuracy of the AT solution and horizontal accuracy of the orthoimagery. A detailed description of the check point survey process is provided in the Check Point Survey section below.

Regarding assessing the AT accuracy, AECOM proposes to submit approximated check point coordinate values to Fugro. Fugro will then return the AT derived coordinate values at each of the check point locations. An assessment of accuracy will be prepared and included in the AT QA report. Additional details regarding the AT checks will be discussed ahead. Similarly, once available, AECOM will test the orthoimagery tiles that intersect the check point locations to assess horizontal accuracy. AECOM will not divulge the coordinate information of the check points to Fugro, thus ensuring the integrity of using the check points in subsequent acquisition programs. The accuracy of each project component tested must meet, or exceed, the thresholds presented below.

Image Resolution	Ground Control RMSE _y (25% of GSD RMSE)	AT RMSE _y (50% of GSD RMSE)	Ortho RMSE _y	Ortho Seamline Pixel Alignment (2X GSD)
0.50'	0.125'	0.25'	0.50'	1.0'

Table 1: Horizontal Accuracy Acceptance Thresholds

Orthorectification Production

Upon acceptance of the AT blocks Fugro will commence with orthorectification activities aided by elevation data provided by Natrona County, or using image based surface auto-correlation algorithms. If the former, presumably Fugro is responsible for updating the elevation data as necessary to achieve the program accuracy requirements and image quality expectations.

0.50 foot resolution four (RGBA) band (8bits/band) orthoimagery will be provided in full tiles that mimics the 2015 tile index in GeoTIFF+TFW format. An AOI wide single MrSID mosaic will also be delivered.

Accompanying each delivery, Fugro will include an internal quality report that includes horizontal accuracy results achieved with each deliverable block.

Other direct derivative products submitted for review not listed above include metadata and seamlines. All products will be delivered in Wyoming State Plane East Central Zone NAD 1983 (2011) US Survey Feet, NAVD88. Details regarding the quality assurance review methodology and the proposed solutions AECOM has available to offer are detailed below.

Proposed QA Methodology

The AECOM digital orthophotography QA/QC workflow was developed by AECOM's ASPRS Certified Photogrammetrists and ASPRS Mapping Scientists. This QA/QC workflow is assessed and enhanced quarterly to accommodate ever-changing base specifications, collection, and production technology gains. The workflow utilizes a suite of off-the-shelf and proprietary software, supported by the latest hardware technology. Its adaptability within a proven framework allows for efficient tailoring and assessment to specific scope of work requirements.

The AECOM Team's approach to performing QA/QC is tailored and driven by Natrona County's specific project requirements. The AECOM Team's QA/QC workflow is based upon the concept of Macro and Micro level data reviews that will be applied to Natrona County's orthoimagery, including derivative datasets to assess conformance with Natrona County's specifications.

The QA/QC process is based on a structured, sequentially gated process supported by Macro and Micro QA/QC Task Tracking Checklists, examples of which are available in the Tracking Checklists section below.



Figure 2: AECOM Geospatial Quality Assurance Workflow

The QA/QC review process contains two rounds. The Initial Review round analyzes each delivery block in detail per the Macro and Micro checks summarized below. AECOM will review each delivery block and report findings to Natrona County and Fugro. Fugro will address edit calls (suspected specification deviation locations) and observations (comments made that are worth noting but may not be a specification deviation) made. If required, a revised delivery dataset should be sent to AECOM where an additional Macro review is performed as well as a review of each of the edit calls and observation remarks. The expectation is no issues will be detected as part of the Validation Review (Macro level) and each call has been successfully addressed (Micro review). The benefits of this review structure are meaningful and are outlined below.

Macro Reviews

Macro reviews detect systematic issues immediately, permitting rapid feedback to Natrona County and Fugro shortly after receipt of the data, alleviating similar issues to be incorporated into current data production and future deliveries by Fugro. Detecting systematic issues at the beginning of the process speeds up Fugro correction times and mitigates pre-mature Micro review efforts resulting in schedule and budget erosion.

Macro reviews are primarily automated or semi-automated scripts and activities, designed to be accomplished on very large datasets in a fraction of the time of Micro reviews. Macro reviews are designed to evaluate data on a high level, searching for systematic scope deviations for all project tiles.

Based on experience, AECOM's QA review policy is that Macro QA edit calls need to be successfully addressed by Fugro prior to entering the Micro QA phase. Macro edit calls often impact a large number of files and the required corrective action necessitates the file be reprocessed in some manner. If any edit call, whether it be Macro or Micro, requires that a file be recreated, then a Macro QA will be re-performed on that corrected tile to ensure no new Macro related errors were introduced during the corrective processes by Fugro.

Micro Reviews

The bulk of the QA/QC work is devoted to the Micro review effort. Micro level reviews are more detailed in nature and conducted at an appropriate scale at the tile level. The bulk of the Micro reviews require manual/visual inspection of the data by experienced QA/QC analysts. As part of the Micro review process, for every file evaluated anomalies and deviations are spatially recorded and reported. If available, AECOM will also review micro level review calls made by Natrona County shareholders and include these calls in each QA report submittal.

AECOM's proposed methodology and solution options are structured based on the QA tasks and data deliverable types outlined in the RFP. AECOM will execute Macro and Micro reviews using experienced and qualified geospatial QA/QC professionals overseen by ASPRS certified professionals.

Results from the Macro and Micro reviews, which include precise locations of anomalies detected, will be stored in a geodatabase (GDB) and provided to Natrona County and Fugro. Call files permit quick and easily navigation to flagged anomalies. The GDB will also be used to develop maps that will be incorporated in status reports.

Below Natrona County will find the QA workflows, methodologies, and procedures AECOM proposes to employ to assist Natrona County in successfully completing the independent quality assurance effort. AECOM's approach is based upon our rich experience, subject matter expertise in employing geospatial QA programs for digital orthoimagery and significant lessons learned. The proposed methods have been successfully and repeatedly applied to numerous large federal, state, and local QA programs.

AECOM believes its considerable prior experience, performing geospatial QA since 2006, coupled with our customized workflows uniquely positions AECOM to provide the optimal solution to Natrona County. As evident in our reference projects, AECOM's QA services, specifically for digital orthoimagery, have been contracted repeatedly by the State of Maryland and the Commonwealth of Virginia.

The below table summarizes the QA effort.

Data Product	Macro Review	Micro Review
Aerotriangulation Report Review	100%	100%
Ground Control Report Review	100%	100%
4 Band GeoTIFF Orthoimagery Anomaly & Completeness Review	100%	100%
4 Band MrSID Orthoimagery Anomaly & Completeness Review	100%	-

Table 2: Proposed Quality Assurance Methodology Overview

Ground Control & Aerotriangulation Report Review Quality Assurance

AECOM will critically review Fugro’s ground control and AT reports against the proposed acceptance criteria listed below. As mentioned previously, AECOM will independently assess the accuracy of Fugro’s AT solution and retain the confidentiality of the QA check point coordinates for similar future Natrona County projects.

Ground Control & Aerotriangulation Data Checks	Review Level	
	Macro	Micro
Aerotriangulation		
Review ground control locations within the block		X
Review ABGPS data (trajectory files)		X
Analyze sidelap		X
Review Fugro Horizontal and Vertical RMSE of control points, tie points and pass points residuals	X	X
Review and calculate checkpoint RMSE of checkpoint coordinates provided by Fugro		X
Precision of Image Observations - Sigma (0) ≤ 5µ is acceptable		X
Review submitted data for completeness, readability and format		X
Check Metadata	X	X
Ground Control		
Review Ground control locations used in AT	X	X
A minimum of 2 base stations will be operating during collection – all data will be submitted for OPUS processing with final results overall RMS <3cm		X
Review NGS locations used as tie or base station		X
Review distance to HARN/NGS points		X
Review horizontal and vertical accuracy		X
Readability of Control Report		X
Review location sketch/image/description		X
Review GPS data for PDOP (Position Dilution of Precision)		X
Review GPS data for VDOP (Vertical Dilution of Precision)		X
Review time of GPS observations		X
Check Metadata	X	X

Table 3: Ground Control & Aerotriangulation Data Checks

The results of these critical reports provide significant insight into the quality and accuracy of the orthoimagery. Of particular importance is the AT report as this is the first look as to how well the data image aligns with the ground control.

Orthophotography Quality Assurance Process

Independent QA of the geospatial data files will begin immediately upon receipt of imagery data. Based on the RFP AECOM understands that there will be at least one, and not more than two, submittals for QA for each AOI.

AECOM’s geospatial QA process is based on a structured, sequentially gated process of Macro and Micro level reviews supported by Macro and Micro Task Tracking Checklists, for examples see the Tracking Checklists section below. AECOM’s Macro and Micro reviews will also assess the orthoimagery positional accuracy and ensure Natrona County’s aesthetic and functional values, as outlined in the SOW, are achieved.

Results from the Macro and Micro review, which include precise locations of anomalies detected will be stored in a Geodatabase (GDB), will be provided to Natrona County and Fugro allowing Fugro to easily navigate to flagged anomalies. The GDB will also be used to develop maps that will be incorporated in status reports. Detail regarding AECOM’s Macro and Micro Checks are provided in subsequent sections.

Macro Quality Assurance Workflow

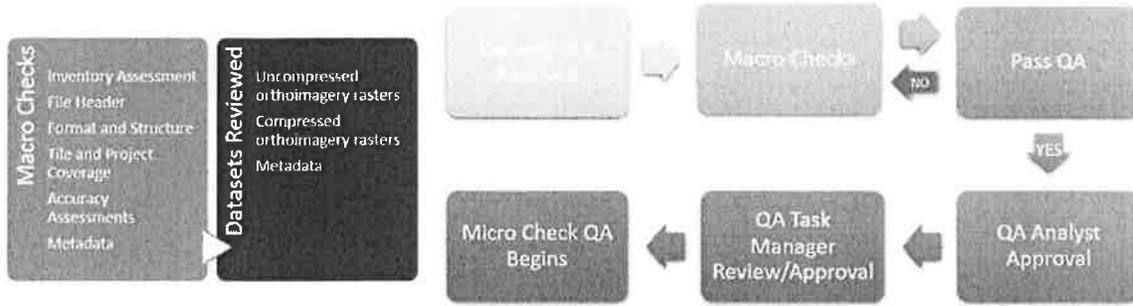


Figure 3. AECOM's Macro Review Quality Assurance Process

Below is a tabular summary of the proposed orthoimagery related checks that will be applied as part of AECOM's Macro and Micro QA review. Following the table is a more detailed description of AECOM's Macro QA processes and steps.

		Macro and Micro QA Review Summary Table	
		Macro	Micro
GeoTIFF Digital Orthophotography on a tile by tile basis			
	Media is readable	X	
	Correct band format (4 Band – R,G,B,IR)	X	
	All required tiles are delivered	X	
	Conformance of tile to index grid - Tiles are georeferenced and appear in the correct location. No tile gaps or tile overlaps exist	X	
	Check GeoTIFF 6.0 header against TFW(GeoTIFF world file)	X	
	Correctly defined projection information using Wyoming State Plane East Central Zone NAD 1983 (2011) US Survey Feet	X	
	Check pixel size using 0.50'	X	
	Pixel definition - GeoTIFF reference will be the upper left corner of the upper left-most pixel. World file reference will be the center of the pixel of the upper left-most pixel	X	
	Georeferencing precision – two significant digits	X	
	Horizontal Accuracy per ASPRS specifications for each scale	X	
Tonal Quality	Review color/contrast against approved pilot imagery	X	X
	Review imagery at 1:24,000 scale to identify significant tonal variations and/or data voids.	X	
	Check large areas for color balancing issues in RGB and CIR tiles	X	
	Check color balancing between different flightlines in RGB and CIR tiles	X	
Image Blemishes and Artifacts	Check for image blemish and artifacts		X
	If 1 pixel wide, 100 pixels in length.		
	If 2 pixels wide, 60 pixels in length.		
	If 3 pixels wide, 20 pixels in length.		
Image Appearance /Smears	If 4-12 pixels wide, 12 pixels in length.		
	Check for smears		X
	Check for wavy features (roads and building roofs)		X
	Review mosaic lines – buildings, roads, and bridges		X
	No seamlines through buildings and above ground transportation structures shall be avoided to the greatest extent practical		X
	"Noise" - blooming, bleeding, or other artifacts introduced in the acquisition		X
	Blurred or out of focus imagery		X
	Ability of see ground features in shadows and bright areas		X
	Cloud cover will not exceed 5% of the coverage of any tile, or 5% of the entire AOI	X	X
	Minimal glare or noise within waterbodies		X
Tall buildings do not obscure 20% of roadway		X	
Edge matching within (seamlines) or across tiles		X	
Check Metadata	X	X	

Table 4: Macro and Micro QA Review Summary Table

Uncompressed (GeoTIFF) Orthoimagery Macro Review Checks

The following Macro checks will be conducted on 100-percent of the data files:

Inventory Assessment

This first step in the macro QA process has three main components:

Completeness Review. The QA analyst will manually review the content of the delivered drive against the project tile layout for the expected orthophotography delivery. The number of expected tiles along with the expected format of the tiles (i.e., GeoTIFF, MrSID, etc.) will be checked against the relevant expected layout for the delivered block.

Inventory Review. The QA analyst will review file sizes to determine if any should be flagged as possibly being corrupt. For instance, all tiles are required to be full tiles, and should therefore be the same file size. A tile with a different file size would be flagged as likely being corrupt. Any flagged files will be further investigated to determine the source of the issue.

Readability of Media Verification. The QA analyst will then open random data files on the data drive using ArcGIS to ensure that the files are readable and that no corrupt files are present on the drive.

Image Header Check

The Image Header Check is an automated scripting process, which extracts and examines the image header information from the GeoTIFF and MrSID files.

Format and Structure Checks

Format and structure checks verify that the files have been delivered in the correct format, units, and band combinations. It is expected that the following formats will be received for this project:

- GeoTIFF with TFW world file (uncompressed)
- MrSID (MG3 / MG4 TBD) with world file at TBD compression ratio

Tile and Project Coverage

The QA analyst creates a mosaic dataset in ESRI ArcGIS and visually ensures that the imagery covers the expected project tile index. Additionally, gaps between and overlapping tiles are detected if present.

Horizontal Accuracy Assessment

Utilizing the QA check points collected by CompassData, the QA analyst will perform an assessment of the horizontal accuracy for each deliverable area. The tested accuracy results will be compared and reported against the required horizontal accuracies per the table below.

Image Resolution	Ortho RMSE _r	Ortho Seamline Pixel Alignment (2X GSD)
0.50'	0.50'	1.0'

Table 5: Orthoimagery Horizontal Accuracy Acceptance Thresholds

AECOM utilizes GeoCue's LP360 Control Point assessment tool to assess horizontal accuracy of orthophotography deliverables. Using this tool, the alignment between the imagery and each QA control point can be easily assessed, documented, and a detailed accuracy assessment report be prepared. The ASPRS based horizontal accuracy report will contain all the measurements and calculation results for each area. The report results will be reviewed and approved by an AECOM ASPRS Certified Photogrammetrist prior to submittal to Natrona County Project Manager.

Third Party Quality Control/Quality Assurance of
Geographic Information System Deliverables
from the 2020 Aerial Mapping Update

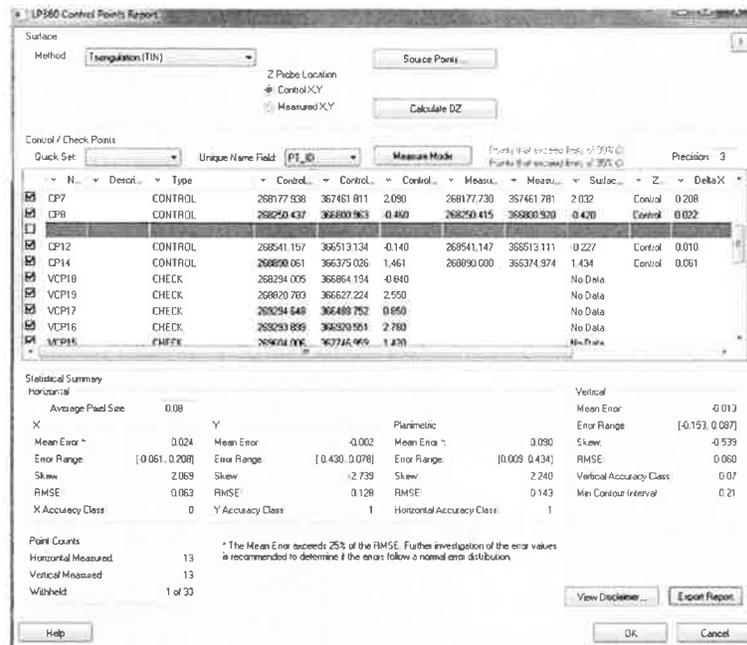


Figure 4: Sample Horizontal Accuracy Check Results

Metadata Review

The AECOM metadata review process will incorporate reviews for all relevant project metadata. XML metadata files will be evaluated using the U.S. Geological Survey (USGS) metadata validation service (<http://mrddata.usgs.gov/validation>) to check for proper FGDC structure and elements. Metadata files will initially be checked to confirm a 1 to 1 correspondence with corresponding data files, proper naming convention, and readable by ArcGIS. AECOM will review the metadata text for adequate and appropriate textual content. Content commentary will be included in the delivery area report.

Anticipated metadata will be provided on the project level for each product, listed below:

- ✱ Acquisition related data
- ✱ Aerotriangulation
- ✱ Ground Control
- ✱ Orthoimagery
- ✱ Seamline shapefiles

Uncompressed (GeoTIFF) Micro Review Checks

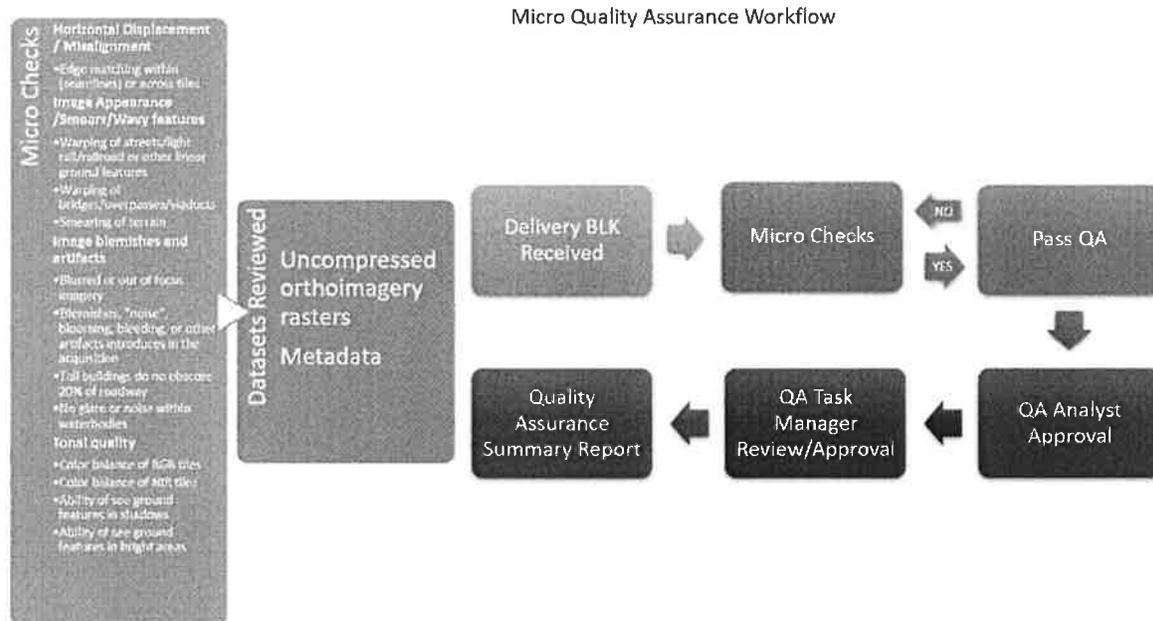


Figure 5. AECOM's Micro Review Quality Assurance Process

Micro reviews represent the bulk of the effort associated with an orthophotography QA review project. Micro reviews involve the manual, methodical, and visual review of the orthoimagery performed by an experienced AECOM QA Analyst using ArcGIS. QA analysts are searching for specific non-desirable aesthetic conditions, as well as other anomalies that may interfere, obscure, or falsify subsequent geospatial exploitation and analysis by Natrona County or its partners. Micro review processes record anomalies as outlined in Natrona County's acceptance criteria. During the Micro review, the QA Analyst will review the imagery at the appropriate scale to assess for, and spatially record, deviations as necessary.

The Micro checks are performed on **all** orthophotography tiles.

Horizontal Displacement / Misalignment

Horizontal displacement along an apparent seam line or along a tile boundary must be equal to or less than 2 pixels on well-defined ground features, such as roads, sidewalks, and curbs.

Tonal Quality

Check entire block to ensure tonal balancing across and between delivery blocks as well as between deliverables with differing resolutions and aligns with the approved pilot samples.

Image blemishes and artifacts

Artifacts exceeding the proposed limits above may be acceptable if ground feature detail is not obscured, or if the brightness value of the pixels in the artifact is fewer than 170. Artifacts within these limits may be rejected if critical ground features are significantly impacted. Critical features shall be defined as features having Natrona County significance (e.g., Courthouses, Hospitals, etc.). Clusters of artifacts that do not individually meet these criteria may be considered unacceptable if more than 12 are visible within a viewing screen at 1:1 zoom (5 or more artifacts within a 200 pixel area preferred).

Image Appearance/Smears

Smears corrected by adding mass points or breaklines to the DEM as necessary to reflect actual elevation or by image processing are appropriate. Where DEM corrections or image processing will result in reduced horizontal accuracy or misrepresentation of the location or appearance of important features (buildings, roads, etc.), the smear will remain untreated. 99% of distinct linear ground features (such as road markings, and curbs) shall be positionally correct and should not deviate from their apparent path by more than 5 pixels measured perpendicular to the feature within any 100-pixel distance measured along the feature length. On roads, measurements should be taken from centerline of road instead of road edges, shoulder and railings.

Mosaic line placement shall not result in artificial clipping of features along tile boundaries or missing photo areas anywhere within the project area.

Like buildings, other minor elevation structures such as pipelines, private footbridges, and boardwalks are not rectified as elevated roadways are. Distortion of these features is not grounds for rejection of the imagery.

Seam lines should not be visible at the viewing scale for which the imagery is produced. Typically, they should not be visible at 1.5 times the map scale. Because seam lines are run around buildings and other structures, the orientation of shadows associated with trees, poles, and buildings may fall in different directions on the imagery or may in some cases result in multiple shadows for a feature. Seam lines will not be edited to reflect shadow orientation.

AECOM will perform a detailed review of the RGB imagery initially. Subsequently a review of the CIR imagery will ensue.

AECOM will also review and apply Natrona County acceptance criteria to adjacent datasets as they are delivered to ensure there are minimal radiometric or geometric anomalies across delivery blocks.

Natrona County Assistance Expectations

AECOM's expectation with respect to Natrona County's participation is confined to the following items:

- * Provide timely clarification as necessary to AECOM project inquiries.
- * Provide honest feedback to AECOM submittals and/or communications.
- * Where there is a critical disagreement in the interpretation of a specification between AECOM and Fugro, Natrona County makes final decision.

Draft Project Work Schedule

AECOM understands Natrona County's need for timely, accurate, and complete deliveries of imagery and data products. AECOM's team is committed to effectively and efficiently performing QA review of the imagery and products within the pre-established timelines defined in the RFP for each deliverable data set.

AECOM understands that it is Natrona County's desire to receive accepted 0.50' data products by the end of November 2020. AECOM's QA tasks are dependent upon the delivery of data from Fugro, which will ultimately dictate the final schedule dates. The schedule below is therefore idealized having realistic turnaround timeframes for each Fugro deliverable. As this type of production work is common place in the geospatial industry the AECOM project team is confident that the project will be completed in the anticipated timeframe.

Task	Start Date	Finish Date	Invoice Amount	Invoice Month	Invoice Amount
Proposal Submittal	13-Mar				
Task Award (Estimated)	17-Mar				
Contract Negotiation (Estimated)	17-Mar	20-Mar			
Kick Off Meeting	April		\$ 1,000.00	May	\$ 12,060.00
Check Point Survey	April	May	\$ 10,560.00	May	
AECOM Ground Control Report Submission	May		\$ 500.00	May	
Fugro Ground Control Report Review	30-May	5-Jun	\$ 500.00	June	\$ 1,000.00
Fugro AT Report Review	20-Jun	25-Jun	\$ 500.00	June	
Pilot Project Review	13-Jul	17-Jul	\$ 1,500.00	July	\$ 1,500.00
GeoTIFF Tile & MrSID Mosaic Review	18-Oct	13-Nov	\$ 7,015.00	Nov	\$ 8,015.00
Orthoimage Backcheck, if necessary	26-Nov	27-Nov	\$ 1,000.00	Nov	

Table 6: QA Review Schedule (based on schedule provided in RFP)

For simplicity sake, status reports and invoicing activities were not included in the schedules above. Conference calls can be accommodated as needed.

Project Status Reporting

During the quality assurance activities, Mr. Riley, assigned Project Manager, will provide Natrona County status reports via email or phone, that document tasks completed, tasks anticipated, schedule compliance, and any outstanding items needing resolution or clarification. Mr. Riley will be available to meet with Natrona County and its partners as needed.

AECOM will deliver project status reports in .DOC or .PDF format that include status on the following items:

- * Quality Assurance tasks completed
- * Quality Assurance tasks in progress
- * Quality Assurance tasks on hold, including appropriate rationale
- * Action items and internal task owners
- * Quality Assurance project schedule and status percent complete

SOW Assumptions

The following assumptions were utilized as part of the preparation of AECOM's proposal.

- * AECOM's proposal does not include management of the data acquisition planning, post flight activities or a review of raw imagery files.
- * AECOM assumes there will be likely one, but no more than two AT blocks.
- * Data to be reviewed will be delivered on an AOI basis on hard drives.
- * Each delivery area will not be sub-divided into interim deliverable areas.
- * Fugro will provide image mosaic seamlines in SHP format.
- * All first round delivered data will undergo a comprehensive QA involving a 100-percent review of the data. Review of previously reviewed (first round) data will undergo a QA review that involves a 100-percent macro review, followed by a micro review localized to the first round of AECOM calls.
- * AECOM will apply the described Macro and Micro efforts on the uncompressed GeoTIFF imagery. As the compressed imagery will be compressed re-representations of the GeoTIFF imagery AECOM has estimated a Macro review of the compressed imagery but not a Micro review on the compressed imagery.

Personnel and Prior Experience

Staff Management Plan

The AECOM Team has successfully performed similar orthophotography QA services on multiple projects of similar size and complexity. The AECOM Team will be 100-percent committed to the Natrona County and the successful completion of Natrona County’s orthoimagery QA project.

The organization chart is found below. William O’Brien will serve as the Project Principal in Charge to whom the Project Manager, Bobby Riley, will report to directly. Descriptions of the roles and responsibilities of the Project Manager, QA /QC Manager, QA Assurance Analyst, as well as CompassData’s role and responsibilities specific to the Natrona County project are presented on the following pages.

Joining our AECOM Team is CompassData. CompassData will be performing the independent check point survey as a subcontractor. Details related to CompassData’s background and capabilities can be found below.

To support numerous concurrent QA projects, AECOM has invested significant capital in hardware, software, and network resources. AECOM has 60TB of dedicated spinning disk capacity to efficiently and effectively house and disseminate data files to QA reviewers over high speed and high capacity networks. AECOM corporate data backup routines are executed each evening ensuring a backup copy of project derived data is always available. AECOM has an Enterprise License Agreement (ELA) with Esri permitting AECOM to install as many ArcGIS desktop instances as are necessary. Additionally, the Germantown office has four highly skilled geospatial developers that are part of a substantial software development capability that can be called upon to enhance and increase the level of automation and throughput in geospatial workflows.

Team Organizational Chart

Each of the key staff members listed above (Project Manager, QA /QC Manager, and QA Assurance Analyst) will be made available upon project award. There is no lead time required to assign these staff members to the project.

Beyond key personnel referenced above, AECOM expects to assign 1-2 additional experienced GIS technicians if necessary to assist in the quality reviews. The Germantown, MD office has over 50 daily users of Esri ArcMap and the Geospatial Data Services Team comprises 13 highly experienced personnel that can be leveraged to assist should the need arise. The actual staffing numbers will fluctuate depending on the content, size, submittal timings/overlap, and complexity of each deliverable block.

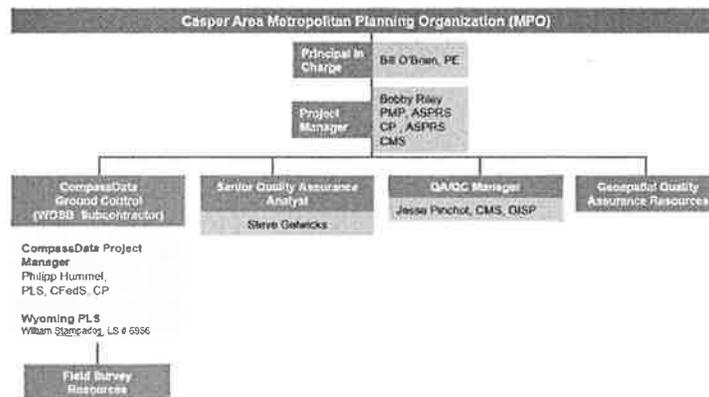


Figure 69: Proposed AECOM Table of Organization

Check Point Survey

Establishing a Network of Ground Control Check Points

Prior to commencement of survey activities, AECOM will provide the Natrona County project manager with a Blind Check point Survey plan (BCS). The BCS will describe the approach to establishing a network of 60 photo identifiable ground control check points to be utilized in the horizontal and vertical accuracy assessment of the AT data and the horizontal accuracy of the orthophotography. All survey work will be performed and overseen by CompassData using survey grade equipment. Philipp Hummel (PLS, CFedS, ASPRS CP) will serve as CompassData's project manager. All survey work will be supervised by a Wyoming Professional Licensed Surveyor.

The BCS report will be submitted to Natrona County for review and will include the following details:

- * The AECOM approach to selection and placement of photo-identifiable and targeted check points
- * A description of the surveying process to be utilized for the measurement of each control point
- * Proposed network accuracy specifications to be achieved
- * Geo-referenced locations of proposed check points in ESRI shapefile (SHP) and GoogleEarth KMZ formats

To the extent practical AECOM will set checkpoints in a well distributed manner across the AOI. Based on a review of the 2015 control points provided by MPO it was determined that majority of the existing check points had targets set and were not photo-identifiable features referencing natural or cultural features. As a general rule, photo-identifiable features will be surveyed in more urbanized settings and targets will be set in more rural settings.

Checkpoint survey activities will be coordinated with Fugro with the intent of setting targets prior to Fugro's image acquisition. If in the extreme event image acquisition commences, or completes, prior to check point survey activities photo-identifiable features will be surveyed in lieu of targets,

CompassData survey crews and processing team will utilize available local VRS systems when and where available.

Per ASPRS standards, check points should be 3X more accurate than the data being tested. The RMSE requirement for the 0.50' orthoimagery is 0.50'. Therefore, check point data should have a horizontal accuracy of at least 0.17' RMSE. Check points having this level of accuracy can also be leveraged by Natrona to assess future USGS QL2 level LiDAR data collections. The primary effort will be to collect photo identifiable check points to satisfy the accuracy testing of the orthoimagery. While not the principal intent of the check point collection, the vast majority of the check points will be collected in locations that satisfy characteristics necessary for assessing LiDAR data.

For this project CompassData will provide accuracy reports for the entire project which will include accuracy reporting for each individual point, as is their standard. Furthermore, each survey point will be processed simultaneously to produce one overall accuracy assessment and description of the processing involved for the network of survey points.

Satellite visibility will be conducted at each location to ensure that geological outcroppings or vegetation does not adversely affect the observation results. A GNSS observation plan will be developed to determine sequence and type of observations needed on each check point.

CompassData will collect all points with a combination of Real Time Kinematic (RTK) and static post processing. All points will be collected with survey grade GNSS equipment, which typically achieves a high precision in the range of sub 3 centimeter on a point-by-point basis. As a quality control practice, CompassData will also be collecting a

National Geodetic Survey (NGS) monument on a daily basis, where available, to check the collection methodology and accuracy. This allows for minimal duplication of point occupation, greatly reducing time in the field while still proving the accuracy of our data.

Upon completion of the check point survey a survey report will be presented to Natrona County for review. AECOM will also include the following information in SHP and tabular datasets in PDF format, as appropriate.

- * A complete list of the surveyed control check points
- * A unique reference ID per point
- * Geoid model
- * Coordinates in Lat/Long and Wyoming State Plane East Central Zone NAD 1983 (2011) US Survey Feet, NAVD88.
- * Vertical heights expressed as ellipsoidal and orthometric heights
- * A brief description of the physical location of the monument
- * A statement of GNSS level of accuracy for all points
- * A statement on the datum and adjustments used during the survey
- * Photos of all check points (datasheet format only)

QA Checklist Examples

AECOM has made investments in hardware and software that allows our comprehensive QA capabilities. Software tools include ESRI (Enterprise License Agreement), LP360, GlobalMapper, and customized scripts along with a dedicated geospatial server that allows the team to store and review up to 60TB of data.

Beyond hardware and software AECOM knows that checklists are a simple and effective solution to ensure comprehensive workflows are followed.

Performing QA can be complex process requiring the tracking of a multitude of deliverables and tasks comprising thousands of tiles and hundreds of process steps. Check lists are an invaluable tool to assure all checks are performed and performed correctly, which in turn are leveraged to monitor project budget and schedule metrics.

Orthophotography QA Process Tracking and QA Checklists

To maintain order and efficiency AECOM has developed and employs checklists designed to document the status of each deliverable against the dataset’s scope specific actions for each project area. Checklists are an integral tool used to support daily progress assessments and expedite status reporting.

Examples of the QA Checklists are provided below.

MPO Deliverable Completeness Checklist				AECOM
Deliverable Completeness				
		Received	Accepted	General Comments
Ground Control Report				
	GC Report			
Aerotriangulation Reports				
	Casper AOI			
	Natrona County AOI			
Uncompressed Digital Orthoimagery (GeoTIFF+TFW)				
	Casper AOI			
	Natrona County AOI			
Compressed Digital Orthoimagery (MrSID)				
	Casper AOI			
	Natrona County AOI			
Metadata (Acquisition related data, Aerotriangulation, DEM, Orthoimagery, Shapefiles)				
	Casper AOI			
	Natrona County AOI			

Sample QA Project Deliverables Checklist

The completeness checklist above ensures Fugro has provided to AECOM and Natrona County all the expected deliverables as defined by the project SOW.

The following QA checklist samples demonstrate and summarize AECOM’s Macro and Micro Check.

MPO Aerotriangulation Checklist		AECOM			
Area: XX					
Date Reviewed					
Reviewer					
Reviewer Backcheck					
Macro QA Checks		Comments to MPO and Fugro	Corrections/Comments Received	Redelivery Checked	General Comments
General Inventory Assessment					
File organization					
File Format					
Report Format					
Report Completeness					
Metadata present and complete					
Metadata has no USGS parsing errors					
Georeferencing Validation					
Wyoming State Plane					
Horizontal datum: NAD83 (2011)					
Horizontal Units - US Survey Feet					
Horizontal Accuracy Assessment (RMSEr \leq 0.25' or 0.50')					
Vertical datum NAVD88					
Vertical Units - US Survey Feet (Orthometric)					
Accuracy Assessment					
Precision of Image Observations					
Accuracy against image coordinates					
Max. offsets [E, N] to any one blind QA point					
NSSDA analysis [E, N] of 40 QA points					
Horizontal accuracy against ground control check points tested in accordance with 10+ points at NSSDA criteria					
Vertical accuracy against ground control check points tested in accordance with 10+ points at NSSDA criteria					

Sample Aerotriangulation Acceptance Checklist

MPO Orthophotography Checklist		AECOM						
Area: XX								
Date Reviewed								
Reviewer								
Reviewer Backcheck								
Macro QA Checks		# Tiles	# Tiles Accepted	# Tiles Rejected	Comments to MPO and Fugro	Corrections/Comments Received	Redelivery Checked	General Comments
General Inventory Assessment								
Conduct file inventory								
Verify readability of metadata								
Verify tile coordinates								
File Format								
Pixel definition								
32 bit (8 per channel) 4 band stacked image								
Verify project coverage								
Metadata present and complete								
Metadata has no USGS parsing errors								
Image Tile Naming Conventions								
Tile name validation								
Georeferencing Validation								
Wyoming State Plane								
Horizontal datum: NAD83 (2011)								
Horizontal Units - US Survey Feet								
Horizontal Accuracy Assessment (RMSEr \leq 0.5' or 1.0')								
Final Image Structure Assessment								
Pixel Resolution (0.25 feet or 0.50 feet)								
GeoTIFF - TFW Format (Uncompressed)								
Verify Tile size (TBD)								
Verify Bands (4 band)								
Mx3D MQ3 Generation 3 + SDW (2011 compression)								
Verify Tile size (TBD)								
Verify Bands (4 band)								
Micro QA Checks		File	Accepted	Rejected	Comments to MPO	Corrections/Comments Received	Redelivery Checked	General Comments
Final Image Aesthetics Check								
Horizontal Displacement / Misalignment								
Edges matching within (assemblies) or across tiles								
Image Appearance / Blurs/Wavy features								
Warping of straight/flat/railroad or other linear ground features								
Warping of bridges/overpasses/curved roads								
Smearing of terrain								
Image blemishes and artifacts								
Blurred or out of focus imagery								
Blemishes, "noise", blooming, bleeding, or other artifacts introduced in the acquisition								
Tall buildings do not obscure 20% of roadway								
No glare or noise within waterbodies								
Tonal quality								
Color balance of RGB tiles								
Color balance of NIR tiles								
Color balance sub regions								
Contrast balance sub regions								
Ability of see ground features in shadows								
Ability of see ground features in bright areas								

Sample Orthoimagery Acceptance Checklist

**NATRONA COUNTY CONTRACT FOR SERVICES WITH
SMITH FIRE & LIFE SAFETY CONSULTANTS, LLC**

1. **PARTIES.** The parties to this contract are NATRONA COUNTY ("County") and Smith Fire & Life Safety Consultants, LLC . ("Contractor"). The parties' respective contact information is:

NATRONA COUNTY
200 N Center ST, Room 115
Casper, WY 82601

Smith Fire & Life Safety Consultants, LLC
4000 Cynthia
Casper, WY 82609

2. **PURPOSE.** The purpose of this Contract is to enter into a contract to provide assistance to the Natrona County Building department by providing plan reviews, and inspections as requested. In exchange for the provisions herein, the parties enter this Contract.

3. **CONTRACTOR'S OBLIGATIONS.**

- A. **SCOPE OF WORK.** Contractor agrees to provide plan reviews and inspections as agreed upon by County and Contractor.

B. **GENERAL.**

- i. **Facility, Equipment, and Material.** Contractor will provide a facility and all equipment and materials necessary to perform Work.
- ii. **Compliance with Laws.** Contractor will be aware of and comply with all applicable federal, state, and local laws and regulations in its performance of this Contract.
- iii. **Incorporation.** Contractor will remain active and in good standing with the Wyoming Secretary of State.
- iv. **Indemnification.** To the fullest extent permitted by law, Contractor hereby acknowledges and agrees that it shall indemnify, hold harmless, and defend County and County's board members, elected officials, employees, and volunteers against any and all claims, damages, losses and expenses, including, but not limited to attorney's fees, arising out of or resulting from the negligent performance of Contractor. This includes any violations of the responsibility of the Customer listed above.
- v. **Insurance.** Prior to commencing performance of this Contract, Contractor will provide to County proof of its insurance coverage. Throughout the term of this Contract, Contractor will maintain the following insurance and in each policy (1) name County and County's agents as additional insureds; (2) include a provision prohibiting the insurance company from subrogating against County; and (3) require the insurance company to send any and all notices of termination or other limitation of any policy to County in addition to Contractor.
 - a) **General.** Contractor will maintain and provide proof of comprehensive general liability insurance in a minimum amount of \$250,000 per claimant and \$500,000 per occurrence from a company authorized to conduct business in Wyoming with a current A.M. Best's rating of no less than A:VII unless County approves a lower rated company in writing.

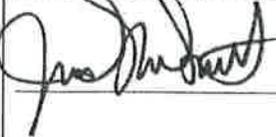
- b) Scope. Coverage will be at least as broad as *Insurance Work Form CG 00 01* covering CGL on an "occurrence" basis, including property damage, bodily injury, personal & advertising injury, and liquor liability coverage.
 - c) Coverage. If Contractor maintains broader coverage and/or higher limits than the contractual minimums, County is entitled to such broader coverage and higher limits. Any excess insurance proceeds will be available to County under the same conditions it is available to Contractor.
 - d) Professional. Contractor will maintain insurance appropriate for Contractor's profession in a minimum amount of \$250,000 per claimant and \$500,000 per occurrence from a company acceptable to County.
 - e) Auto. Contractor will maintain vehicle insurance in a minimum amount of \$250,000 per claimant and \$500,000 per occurrence from a company acceptable to County.
 - f) Primary. Contractor's insurance will be the primary insurance for all incidents related to this Contract. Contractor's insurance provider(s) will not subrogate against County.
 - g) Vendors and Service Providers. Contractor is responsible for all of its vendors and service providers.
- vi. Unemployment and Workers' Compensation. Prior to commencing performance of this Contract, Contractor will provide proof it is in compliance with Wyoming unemployment insurance and workers' compensation laws.
4. COUNTY'S OBLIGATIONS. The County is under no obligation to request any minimum level of services from Contractor. In the event that the County does request services, Contractor will submit detailed invoices monthly, with time spent on County requested work described and detailed in no greater than quarter hour increments. The County will pay Contractor an hourly rate of \$65.00 per hour for work described in the Scope of Work. The County shall process and pay approved invoices in accordance with County's bill paying process.
5. EFFECTIVE DATE AND TERM OF CONTRACT. This Contract becomes effective upon the date of the last required signature and remains in force through December 31, 2020. This contract can be extended if mutually agree by both parties.
6. STANDARD PROVISIONS.
- A. GOVERNMENTAL IMMUNITY. County does not waive and specifically retains all immunity provided by the Wyoming Governmental Claims Act, Wyo. Stat. §§ 1-39-101, et seq., and all other immunity and the right to assert immunities as a defense.
 - B. APPLICABLE LAW AND VENUE. The laws of the State of Wyoming govern the interpretation and enforcement of this Contract. The courts in the State of Wyoming have jurisdiction over this Contract and the parties. A court in Natrona County, Wyoming will be the proper venue for any legal action involving this Contract.
 - C. ASSIGNMENT AND COLLATERAL. The parties will not assign, transfer any right, or delegate any responsibility of this Contract nor use this Contract as collateral without prior written consent of the other party.

- D. **AUDIT.** If one party authorizes an audit that includes this Contract, the other party will cooperate with the auditor and provide its records related to this Contract to the auditor as requested.
- E. **AVAILABILITY OF FUNDS.** This Contract is conditioned upon the availability of funds to County. If such funds are not available to County, County may terminate this Contract upon reasonable notice and will not be liable for any alleged damage resulting from such termination. County must not claim unavailability of funds in order to acquire similar services from a third party.
- F. **BREACH.** If Contractor fails to perform in accordance with this Contract, COUNTY may at its discretion:
- i. withhold payment until Contractor satisfactorily performs in accordance with this Contract,
 - ii. pursue any other remedy allowed by law.
- G. **CONFLICT OF INTEREST.** The parties will not engage in any activity that could result in a conflict of interest or the appearance of a conflict of interest related to this Contract.
- H. **ENTIRE CONTRACT.** This five page document constitute the entire agreement and supersede all prior written and oral communications. Any change to this Contract must be in writing signed and dated by both parties.
- I. **FORCE MAJEURE.** A party will not be liable for failure to perform in accordance with this Contract if such failure to perform arises out of a cause beyond the nonperforming party's control and with no fault or negligence of the nonperforming party. Such causes may include, but are not limited to, an act of a public enemy, earthquake, embargo, epidemic disease, fire, flood, quarantine, and unusually severe weather. This provision is effective only if the nonperforming party takes reasonable steps to minimize effects of its nonperformance.
- J. **HEADINGS.** Headings in this Contract are for reference only and are not to be used to construe any part of this Contract.
- Q. **INDEPENDENT CONTRACTOR.** Contractor is an independent contractor. Contractor will determine the means and manner of its performance under this Contract. Contractor is solely responsible for its actions, debts, and other liabilities. Contractor is solely responsible for any taxes and other costs resulting from its performance of this Contract including, but not limited to, federal, social security, and sales taxes and workers' compensation and unemployment insurance. Contractor is not entitled to any compensation or other benefit from County except what is contained in this Contract.
- K. **MATERIAL PREPARED PURSUANT TO CONTRACT.** All finished and unfinished material prepared by Contractor pursuant to this Contract is the property of County. Such material includes, but is not limited to, physical, electronic, and any other form of data, document, application, report, survey, map, specifications, design, model, photograph, film, video, and object. Contractor may retain a copy or other replica of the material for its own use. Contractor will treat the material as confidential and not reveal the material without consent from County.
- L. **NONDISCRIMINATION.** The parties will not discriminate against any individual based on age, gender, gender-preference, pregnancy, color, race, religion, national origin, a disability that can be reasonably accommodated, or any other protected class.

- M. **NOTICE.** A party will give notice to the other party by certified mail sent to the respective address given in this Contract or by an email acknowledged by a director, supervisor, or official of the non-sending party.
- N. **RELATED CONTRACT.** County may enter a separate contract(s) for a service and/or deliverable related to this Contract. Contractor will reasonably cooperate regarding such contract(s).
- O. **SEVERABILITY.** If any portion of this Contract is determined by a court with jurisdiction to be illegal or unenforceable, the remainder of this Contract will remain in effect, and, if either party initiates negotiations regarding the term(s) affected by the severance, the other party will negotiate in good faith.
- P. **SIGNATURE.** The person signing below for each party is authorized to sign this Contract on behalf of her/his party. If the person who signs is not authorized to sign and her/his party refuses to be bound by this Contract, the person who signed is individually liable for her/his party's performance of this Contract.
- Q. **TERMINATION.**
 - i. **Notice.** Either party may terminate this Contract upon 30 days' notice to the other party.
- R. **THIRD PARTY BENEFICIARY.** The parties do not intend this Contract to create any third party beneficiary.
- S. **TIME.** Time is of the essence in performance of this Contract.
- T. **WAIVER.** If a party waives a breach by the other party of a provision of this Contract, it will not constitute a waiver of any prior or subsequent breach. Failing to object to a breach will not constitute a waiver.

Each party to this Contract, through its undersigned authorized representative(s), agrees to the provisions in this Contract.

REMAINDER OF THIS PAGE LEFT INTENTIONALLY BLANK

NATRONA COUNTY	Smith Fire & Life Safety Consultants, LLC.
<hr/> Robert Hendry, Chair Natrona County Board of Commissioners	 <hr/> Date 5/12/2020

ATTEST:

Tracy Good
Natrona County Clerk



Approved as to form County Legal Department

LICENSE

Date 04.16.2020 Road Bishop Rd 121

The BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF NATRONA, STATE OF WYOMING, (hereinafter called the "Board"), hereby grants a license to Buehholz Land & Cattle LLC - Chris & Marcie Buehholz

(hereinafter called the "Licensee"), to construct, maintain, use and operate approach (hereinafter called the "Facility"), located in Section 6 Township 34 N, Range 80 W, upon the property of the County of Natrona, acquired for and utilized in the operation and maintenance of a county road in the locations and positions and in strict accordance with the specifications shown on the print dated _____, attached hereto, marked Exhibit "A", and by this reference specifically made a part hereof.

This license is granted upon such express terms and conditions as are inserted below, and should the Licensee at any time violate any of the said terms or conditions herein contained or use or attempt to use said facility for any other or different purpose than that above specified, or refuse or fail to comply with any rule or direction of the County Road and Bridge Superintendent, made by said Superintendent under his general supervisory powers of control and supervision of county roads for the use and safety of the general public, then the Board may, at its option, immediately revoke this license.

This license is subject to the following conditions:

FIRST. The work of constructing, altering and maintaining of the Facilities shall be prosecuted and completed in a good and workmanlike manner at the sole expense of the Licensee and under supervision of, and to satisfactorily meet the specifications of the County Road and Bridge Superintendent. Such work of construction, alteration and maintenance of the Facility shall be done in such a manner as to in no way interfere with the use, operation and maintenance by the County of Natrona of a county road for county road purposes, and in such manner as to in no way endanger the general public in use of said county road right-of-ways.

SECOND. The said Licensee shall give to the Board, through the County Road & Bridge Superintendent, at least ten days notice, in writing, before entering upon the county road right-of-way for the purpose of construction or alteration of the Facility or to make necessary repairs, except in case of genuine emergency requiring immediate repair, then in that event, the Licensee shall notify the Board, through the County Road & Bridge Superintendent, or local maintenance authority immediately enter upon the county road right-of-way and make necessary repairs. Licensee shall be responsible for any repairs necessary to road or right-of-way for 180 days after completion of construction.

THIRD. The said Licensee agrees to forever indemnify and defend the Board, their agents or employees, against and save them harmless from all liability for damage to property or injury to or death of persons, including all costs and expenses incident hereto, arising wholly or in part from or in connection with the existence of, construction, alteration, maintenance, repair, renewal, reconstruction, operation, use or removal of the said Facility as it pertains to county road property.

FOURTH. The Board reserves the right to use, occupy and enjoy its right-of-way for a county road and for county road purposes, in such manner and at such times as it shall desire, the same as if the instrument had not been executed by it. If any such use shall at any time necessitate any change in the location or manner of use of said Facility, or any part thereof, such change or alteration shall be made by the Licensee, at the sole expense of said Licensee, upon the demand of the Board, through the County Road & Bridge Superintendent, and neither the Board nor the County of Natrona shall be liable to the said Licensee on account thereof, or on account of any damage growing out of any use which the County of Natrona or the Board, or either of them, may make of its said right-of-way.

FIFTH. The Board shall have the right at any time to revoke this license by the giving of thirty (30) days notice in writing to the said Licensee, and at the expiration of the time limited by said notice, or upon the express revocation of this license for any of the causes enumerated herein, the Licensee shall promptly and in the manner directed by the Board, through the County Road & Bridge Superintendent, remove said Facility and each and every part thereof, hereby authorized, from the premises of the county road right-of-way and leave said premises in the same condition in which they were before the installation of said Facility. Upon the refusal or failure of the Licensee so to do, the Board may remove the Facility and each and every part thereof and restore the county road right-of-way to the same condition as before the granting of this license, and the Licensee hereby agrees promptly to pay to the County of Natrona the cost of said removal of the Facilities, and each and every part thereof.

SIXTH. The County of Natrona and the Board, for the purpose of this licensee, hereby disclaims any representation or implication that it retains any title in any county road right-of-way other than a perpetual easement for road purposes for so much land as described by the instrument conveying such easement. The Licensee by these present accepts notice and agrees that any expenses or damages incurred by said Licensee as a result of this disclaimer shall be borne by said Licensee at no expense whatsoever to the Board or the County of Natrona. It shall be also understood that on Access Facility Highways, ingress and egress shall be limited to those locations as designated by the Board, or their Designated Representative, and shown on plans on file in the office of the County Road Department and County Surveyor

SEVENTH. The waiver of any breach of any of the terms or conditions of this Licensee shall be limited to the act or acts constituting such breach, and shall never be construed as being a continuing or permanent waiver of any such term or condition, all of which shall be and remain in full force and effect, as to the future acts or happenings, notwithstanding any such individual waiver or any breach thereof.

EIGHTH. The said Licensee agrees to locate underground facilities when needed by the County or other users for future construction and maintenance activities. This location information will include the marking of the facility on the ground, as specified by W.S. §37-12-301 et seq., with the appropriate color and including the nature and elevation of the utility and shall be tied both horizontally and vertically, by coordinates, by a licensed land surveyor to a public land survey corner. This information shall be shown on plans created by the utility company or facility owner and a copy will be sent to the Natrona County Surveyor's Office in Casper, Wyoming. **Costs for identifying and locating the facility will be the responsibility of the utility company or facility owner on County right-of-ways.**

No official or employee of the County of Natrona, other than the Board of County Commissioners, shall have authority to waive any term or condition herein contained. Any amendments to this license agreement shall be in writing, signed by the licensee and designated representative of the county commissioners.

Date of Commencement _____
(Five (5) day notice must be given County Road & Bridge Superintendent before start of construction)

Date of Completion _____
(County Road & Bridge Superintendent must be notified within five (5) days after construction)

IN WITNESS WHEREOF, The Board of County Commissioners, has caused this license to be executed on the _____ day of _____, A.D., 19 _____.

COUNTY OF NATRONA
By Michael R. Long 5/6/2020
Road & Bridge Superintendent
By _____
County Surveyor
By _____
Chairman of the Board of County Commissioners.

ATTEST:

County Clerk

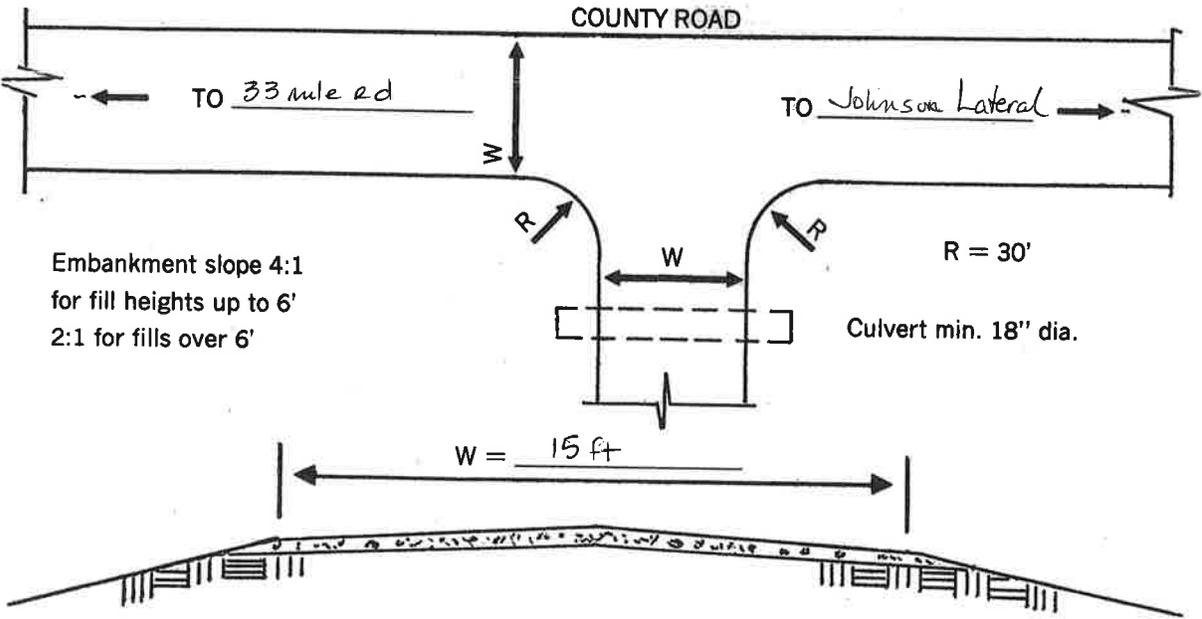
The undersigned, the Licensee mentioned in the forgoing License, hereby accepts the same, subject to the terms and conditions contained therein.
ATTEST:

Secretary
Chris Buehholz
President.

(the original instrument must be recorded in the County Clerk's office by Licensee)

COUNTY OF NATRONA
APPLICATION FOR AN APPROACH

Applicant: Buehholz Land & Cattle LLC Chris & Marcie Buehholz
 Address: 9745 Bishop Road Phone 307.253.8492
307.315.3960



Furnish the Following Information:

- 1) Location: Section 6, Township 34 North, Range 80 West.
- 2) County Road Designation 0121 - Bishop Rd
- 3) Surface of County Road gravel
(Surface of approach must be same as surface of County Road.)
- 4) Soil Type clay
- 5) Sight Distance on County Road west 1/2 mile east 1 mile plus
- 6) Reason for Approach property access to barn and corrals - we have received an encroachment approval from CAID to cross the siphon tube in present location.

7) Requirements:

- A) Approach must meet specifications for construction and surfacing of subdivision roads and streets.
- B) All disturbed areas must be seeded with a mixture and using methods approved by County Road Superintendent.
- C) Any changes to the approach required because of change to the County Road will not be the responsibility of the County.

Approved: Michael [Signature] 5/6/2020
 Road & Bridge Superintendent

Chris Buehholz 16 April 2020
 Applicant Date

County Surveyor _____
 County Commissioner _____

Registered Engineer _____ Date _____
 or Land Surveyor

Approval Date: _____

Completion Date: _____

LICENSE

Date 5-5-2020 Road Poison Spider Rd.

The BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF NATRONA, STATE OF WYOMING, (hereinafter called the "Board", hereby grants a license to Philip B. and Lovi M. Johnson

(hereinafter called the "Licensee"), to construct, maintain, use and operate 2" diameter domestic water line 80 (hereinafter called the "Facility"), located in Section 9 Township 33 N, Range W, upon the property of the County of Natrona, acquired for and utilized in the operation and maintenance of a county road in the locations and positions and in strict accordance with the specifications shown on the print dated _____, attached hereto, marked Exhibit "A", and by this reference specifically made a part hereof.

This license is granted upon such express terms and conditions as are inserted below, and should the Licensee at any time violate any of the said terms or conditions herein contained or use or attempt to use said facility for any other or different purpose than that above specified, or refuse or fail to comply with any rule or direction of the County Road and Bridge Superintendent, made by said Superintendent under his general supervisory powers of control and supervision of county roads for the use and safety of the general public, then the Board may, at its option, immediately revoke this license.

This license is subject to the following conditions:

FIRST. The work of constructing, altering and maintaining of the Facilities shall be prosecuted and completed in a good and workmanlike manner at the sole expense of the Licensee and under supervision of, and to satisfactorily meet the specifications of the County Road and Bridge Superintendent. Such work of construction, alteration and maintenance of the Facility shall be done in such a manner as to in no way interfere with the use, operation and maintenance by the County of Natrona of a county road for county road purposes, and in such manner as to in no way endanger the general public in use of said county road right-of-ways.

SECOND. The said Licensee shall give to the Board, through the County Road & Bridge Superintendent, at least ten days notice, in writing, before entering upon the county road right-of-way for the purpose of construction or alteration of the Facility or to make necessary repairs, except in case of genuine emergency requiring immediate repair, then in that event, the Licensee shall notify the Board, through the County Road & Bridge Superintendent, or local maintenance authority immediately enter upon the county road right-of-way and make necessary repairs. Licensee shall be responsible for any repairs necessary to road or right-of-way for 180 days after completion of construction.

THIRD. The said Licensee agrees to forever indemnify and defend the Board, their agents or employees, against and save them harmless from all liability for damage to property or injury to or death of persons, including all costs and expenses incident hereto, arising wholly or in part from or in connection with the existence of, construction, alteration, maintenance, repair, renewal, reconstruction, operation, use or removal of the said Facility as it pertains to county road property.

FOURTH. The Board reserves the right to use, occupy and enjoy its right-of-way for a county road and for county road purposes, in such manner and at such times as it shall desire, the same as if the instrument had not been executed by it. If any such use shall at any time necessitate any change in the location or manner of use of said Facility, or any part thereof, such change or alteration shall be made by the Licensee, at the sole expense of said Licensee, upon the demand of the Board, through the County Road & Bridge Superintendent, and neither the Board nor the County of Natrona shall be liable to the said Licensee on account thereof, or on account of any damage growing out of any use which the County of Natrona or the Board, or either of them, may make of its said right-of-way.

FIFTH. The Board shall have the right at any time to revoke this license by the giving of thirty (30) days notice in writing to the said Licensee, and at the expiration of the time limited by said notice, or upon the express revocation of this license for any of the causes enumerated herein, the Licensee shall promptly and in the manner directed by the Board, through the County Road & Bridge Superintendent, remove said Facility and each and every part thereof, hereby authorized, from the premises of the county road right-of-way and leave said premises in the same condition in which they were before the installation of said Facility. Upon the refusal or failure of the Licensee so to do, the Board may remove the Facility and each and every part thereof and restore the county road right-of-way to the same condition as before the granting of this license, and the Licensee hereby agrees promptly to pay to the County of Natrona the cost of said removal of the Facilities, and each and every part thereof.

SIXTH. The County of Natrona and the Board, for the purpose of this licensee, hereby disclaims any representation or implication that it retains any title in any county road right-of-way other than a perpetual easement for road purposes for so much land as described by the instrument conveying such easement. The Licensee by these present accepts notice and agrees that any expenses or damages incurred by said Licensee as a result of this disclaimer shall be borne by said Licensee at no expense whatsoever to the Board or the County of Natrona. It shall be also understood that on Access Facility Highways, ingress and egress shall be limited to those locations as designated by the Board, or their Designated Representative, and shown on plans on file in the office of the County Road Department and County Surveyor

SEVENTH. The waiver of any breach of any of the terms or conditions of this Licensee shall be limited to the act or acts constituting such breach, and shall never be construed as being a continuing or permanent waiver of any such term or condition, all of which shall be and remain in full force and effect, as to the future acts or happenings, notwithstanding any such individual waiver or any breach thereof.

EIGHTH. The said Licensee agrees to locate underground facilities when needed by the County or other users for future construction and maintenance activities. This location information will include the marking of the facility on the ground, as specified by W.S. §37-12-301 et seq., with the appropriate color and including the nature and elevation of the utility and shall be tied both horizontally and vertically, by coordinates, by a licensed land surveyor to a public land survey corner. This information shall be shown on plans created by the utility company or facility owner and a copy will be sent to the Natrona County Surveyor's Office in Casper, Wyoming. Costs for identifying and locating the facility will be the responsibility of the utility company or facility owner on County right-of-ways.

No official or employee of the County of Natrona, other than the Board of County Commissioners, shall have authority to waive any term or condition herein contained. Any amendments to this license agreement shall be in writing, signed by the licensee and designated representative of the county commissioners.

Date of Commencement 5-11-2020
(Five (5) day notice must be given County Road & Bridge Superintendent before start of construction)

Date of Completion 06-11-20
(County Road & Bridge Superintendent must be notified within five (5) days after construction)

IN WITNESS WHEREOF, The Board of County Commissioners, has caused this license to be executed on the _____ day of _____, A.D., 19 _____.

COUNTY OF NATRONA
By Michael D. Haigh 5-5-2020
Road & Bridge Superintendent

ATTEST:

County Clerk

By _____
County Surveyor

By _____
Chairman of the Board of County Commissioners.

The undersigned, the Licensee mentioned in the forgoing License, hereby accepts the same, subject to the terms and conditions contained therein.

ATTEST:

Secretary

President.

(the original instrument must be recorded in the County Clerks office by Licensee)

COUNTY OF NATRONA

APPLICATION FOR underground 2" domestic water supply line to be bored under the road

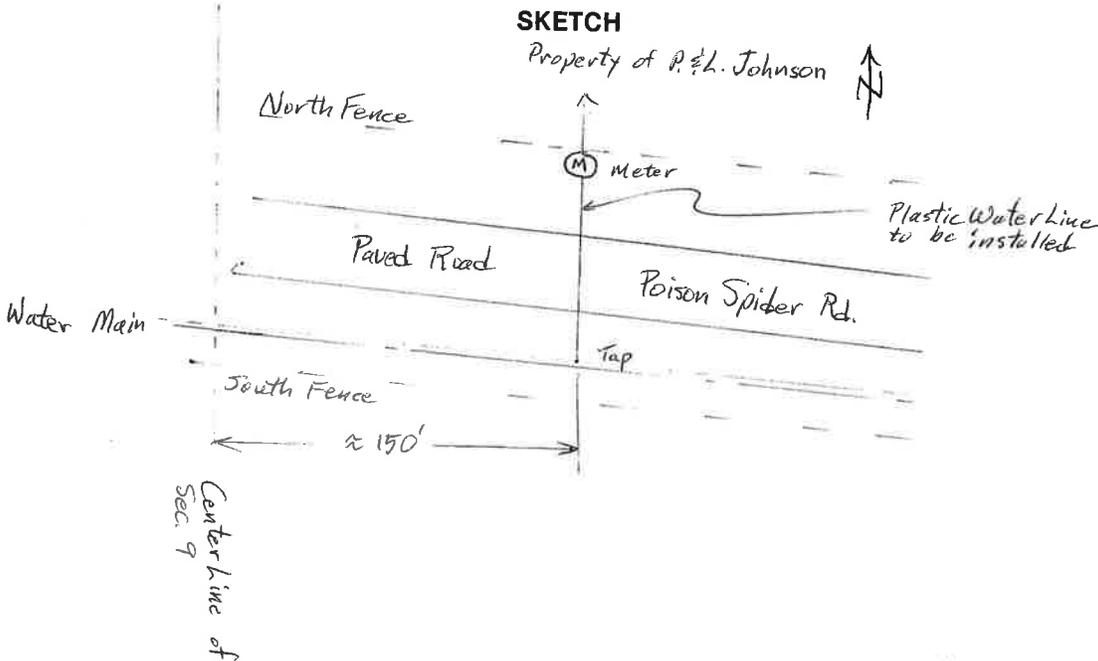
Applicant: Philip B. and Lori M. Johnson

Address: 7600 W. Poison Spider Rd. Phone: 307-262-7874

Furnish the Following Information:

- 1) Location: Section 9, Township 33 North, Range 80 West.
- 2) County Road Designation Poison Spider Rd. Cty Rd. #201
- 3) Surface of County Road asphalt pavement
- 4) Soils Type where applicable _____
- 5) Reason for Application to bore under the road and install 2" plastic water line. Tap south of pavement and meter at north fence line.
- 6) Specifications: (Attach 3 copies where applicable)

7) Plan: (Attach 3 copies where applicable)



Approved: Michael D. Hanna 5/5/2020
Road and Bridge Superintendent

Philip B. Johnson 5-5-2020
Applicant or Agent Date

County Engineer _____

Wyo. Reg. P.E. _____ Date

County Commissioner _____

Approval Date: _____

Completion Date: _____

LICENSE

Date 05-06-2020 Road Poison Spider Rd 201

The BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF NATRONA, STATE OF WYOMING, (hereinafter called the "Board"), hereby grants a license to Donaldo Hermasillo

(hereinafter called the "Licensee"), to construct, maintain, use and operate water line 80 (hereinafter called the "Facility"), located in Section 9 Township 33 N, Range 80, upon the property of the County of Natrona, acquired for and utilized in the operation and maintenance of a county road in the locations and positions and in strict accordance with the specifications shown on the print dated _____, attached hereto, marked Exhibit "A", and by this reference specifically made a part hereof.

This license is granted upon such express terms and conditions as are inserted below, and should the Licensee at any time violate any of the said terms or conditions herein contained or use or attempt to use said facility for any other or different purpose than that above specified, or refuse or fail to comply with any rule or direction of the County Road and Bridge Superintendent, made by said Superintendent under his general supervisory powers of control and supervision of county roads for the use and safety of the general public, then the Board may, at its option, immediately revoke this license.

This license is subject to the following conditions:

FIRST. The work of constructing, altering and maintaining of the Facilities shall be prosecuted and completed in a good and workmanlike manner at the sole expense of the Licensee and under supervision of, and to satisfactorily meet the specifications of the County Road and Bridge Superintendent. Such work of construction, alteration and maintenance of the Facility shall be done in such a manner as to in no way interfere with the use, operation and maintenance by the County of Natrona of a county road for county road purposes, and in such manner as to in no way endanger the general public in use of said county road right-of-ways.

SECOND. The said Licensee shall give to the Board, through the County Road & Bridge Superintendent, at least ten days notice, in writing, before entering upon the county road right-of-way for the purpose of construction or alteration of the Facility or to make necessary repairs, except in case of genuine emergency requiring immediate repair, then in that event, the Licensee shall notify the Board, through the County Road & Bridge Superintendent, or local maintenance authority immediately enter upon the county road right-of-way and make necessary repairs. Licensee shall be responsible for any repairs necessary to road or right-of-way for 180 days after completion of construction.

THIRD. The said Licensee agrees to forever indemnify and defend the Board, their agents or employees, against and save them harmless from all liability for damage to property or injury to or death of persons, including all costs and expenses incident hereto, arising wholly or in part from or in connection with the existence of, construction, alteration, maintenance, repair, renewal, reconstruction, operation, use or removal of the said Facility as it pertains to county road property.

FOURTH. The Board reserves the right to use, occupy and enjoy its right-of-way for a county road and for county road purposes, in such manner and at such times as it shall desire, the same as if the instrument had not been executed by it. If any such use shall at any time necessitate any change in the location or manner of use of said Facility, or any part thereof, such change or alteration shall be made by the Licensee, at the sole expense of said Licensee, upon the demand of the Board, through the County Road & Bridge Superintendent, and neither the Board nor the County of Natrona shall be liable to the said Licensee on account thereof, or on account of any damage growing out of any use which the County of Natrona or the Board, or either of them, may make of its said right-of-way.

FIFTH. The Board shall have the right at any time to revoke this license by the giving of thirty (30) days notice in writing to the said Licensee, and at the expiration of the time limited by said notice, or upon the express revocation of this license for any of the causes enumerated herein, the Licensee shall promptly and in the manner directed by the Board, through the County Road & Bridge Superintendent, remove said Facility and each and every part thereof, hereby authorized, from the premises of the county road right-of-way and leave said premises in the same condition in which they were before the installation of said Facility. Upon the refusal or failure of the Licensee so to do, the Board may remove the Facility and each and every part thereof and restore the county road right-of-way to the same condition as before the granting of this license, and the Licensee hereby agrees promptly to pay to the County of Natrona the cost of said removal of the Facilities, and each and every part thereof.

SIXTH. The County of Natrona and the Board, for the purpose of this licensee, hereby disclaims any representation or implication that it retains any title in any county road right-of-way other than a perpetual easement for road purposes for so much land as described by the instrument conveying such easement. The Licensee by these present accepts notice and agrees that any expenses or damages incurred by said Licensee as a result of this disclaimer shall be borne by said Licensee at no expense whatsoever to the Board or the County of Natrona. It shall be also understood that on Access Facility Highways, ingress and egress shall be limited to those locations as designated by the Board, or their Designated Representative, and shown on plans on file in the office of the County Road Department and County Surveyor

SEVENTH. The waiver of any breach of any of the terms or conditions of this Licensee shall be limited to the act or acts constituting such breach, and shall never be construed as being a continuing or permanent waiver of any such term or condition, all of which shall be and remain in full force and effect, as to the future acts or happenings, notwithstanding any such individual waiver or any breach thereof.

EIGHTH. The said Licensee agrees to locate underground facilities when needed by the County or other users for future construction and maintenance activities. This location information will include the marking of the facility on the ground, as specified by W.S. §37-12-301 et seq., with the appropriate color and including the nature and elevation of the utility and shall be tied both horizontally and vertically, by coordinates, by a licensed land surveyor to a public land survey corner. This information shall be shown on plans created by the utility company or facility owner and a copy will be sent to the Natrona County Surveyor's Office in Casper, Wyoming. **Costs for identifying and locating the facility will be the responsibility of the utility company or facility owner on County right-of-ways.**

No official or employee of the County of Natrona, other than the Board of County Commissioners, shall have authority to waive any term or condition herein contained. Any amendments to this license agreement shall be in writing, signed by the licensee and designated representative of the county commissioners.

Date of Commencement 05-11-20
(Five (5) day notice must be given County Road & Bridge Superintendent before start of construction)

Date of Completion 06-11-20
(County Road & Bridge Superintendent must be notified within five (5) days after construction)

IN WITNESS WHEREOF, The Board of County Commissioners, has caused this license to be executed on the _____ day of _____, A.D., 19 _____.

COUNTY OF NATRONA
By Michael O. Hays 5/6/2020
Road & Bridge Superintendent
By _____
County Surveyor
By _____
Chairman of the Board of County Commissioners.

ATTEST:

County Clerk

The undersigned, the Licensee mentioned in the forgoing License, hereby accepts the same, subject to the terms and conditions contained therein.

ATTEST:

Secretary

President.

(the original instrument must be recorded in the County Clerks office by Licensee)

COUNTY OF NATRONA

APPLICATION FOR underground 2" domestic water supply line to be bored under the road.

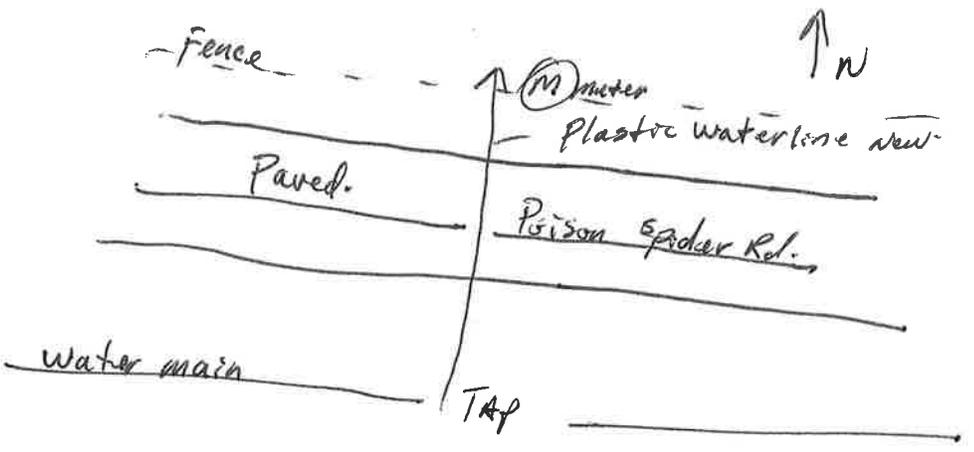
Applicant: Donald Horosillo

Address: 7808 Poison Spider Rd Phone: 307-258-2143
units 4720 Vista Way Casper WY 82401

Furnish the Following Information:

- 1) Location: Section 9, Township 33 North, Range 80 West.
- 2) County Road Designation Poison Spider Rd.
- 3) Surface of County Road _____
- 4) Soils Type where applicable _____
- 5) Reason for Application Water line
- 6) Specifications: (Attach 3 copies where applicable)
- 7) Plan: (Attach 3 copies where applicable)

SKETCH



Approved: Michelle Hodge 5/6/2020
Road and Bridge Superintendent

[Signature] 05-6-20
Applicant or Agent Date

County Engineer _____

Wyo. Reg. P.E. _____ Date

County Commissioner _____

Approval Date: _____

Completion Date: _____