



NATRONA COUNTY BOARD OF COUNTY COMMISSIONERS

AGENDA

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

Tuesday, August 4, 2020 5:30 p.m.
Natrona County Courthouse, 200 North Center, Casper, Wyoming
Large Courtroom, 2nd Floor
Teleconference: 235-9518

I. CALL MEETING TO ORDER

II. ROLL CALL

III. PLEDGE OF ALLEGIANCE

IV. APPROVAL OF CONSENT AGENDA

V. PUBLIC HEARING

A. CUP20-1 CUP to allow land reclamation and drainage improvements. The CUP is for Lot 2 of Douglass Subdivision, the address being 3799 Douglass Rd.

B. PS20-2-Request to subdivide a 5.04 acre parcel of land into 2 lots to be known as Zero Road Industrial Park, Lots 3A &3B. This parcel currently has 2 buildings addressed as 1014 & 1028 N. Robertson Road.

C. CUP20-3-A CUP by Union Wireless/Hemphill for and 84-foot self-supporting communication tower on an existing site located at 56252 W. US Highway 20-26. Applicant is requesting 100-feet to include all appurtenances. This location is approximately 4 miles west of Hiland.

D. CUP 20-4-A CUP by Union Wireless/Hemphill for and 84-foot self-supporting communication tower on an existing site located at15303 Arminto Rd. Applicant is requesting 100-feet to include all appurtenances.

E. CUP20-5- Union Wireless/Hemphill for and 84-foot self-supporting communication tower on an existing site located at 21755 State Highway 220. Applicant is requesting 100-feet to include all appurtenances. The location is east of Highway 220 and north of Grey Reef Rd.

VI. PUBLIC COMMENTS

VII. COMMISSIONER COMMENTS

VIII. 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, August 4, 2020 5:30 p.m.
Natrona County Courthouse, 200 North Center Street, Casper, Wyoming
Large Courtroom, 2nd Floor
Teleconference: 235-9518

- I. APPROVAL OF JULY 21, 2020 MEETING MINUTES
APPROVAL OF JULY 22, 2020 SPECIAL MEETING MINUTES
APPROVAL OF JULY 28, 2020 SPECIAL MEETING MINUTES
APPROVAL OF JULY 28, 2020 SPECIAL MEETING MINUTES**
- II. APPROVAL OF BILLS \$1,246,686.86**
- III. CONTRACTS, AGREEMENTS, RESOLUTIONS:**
 - A. Amendment No.1 to Small Enterprise Agreement County and Municipality (E214-3) (ESRI Regional Government Enterprise Agreement (RG1) (Feb 8, 2021 –Feb 7, 2024)
 - B. Alcova Reservoir Trailer Lot Lease: John & Brandi Ramage
 - C. Alcova Reservoir Trailer Lot Lease: Razi & Cheryl Saydjari, Zara Mason & Russell Mason, JTWROS
 - D. Alcova Reservoir Trailer Lot Lease: Todd & Stacey Pearson
 - E. Alcova Reservoir Trailer Lot Lease: Harold & Kathy Jette, JTWROS
 - F. Alcova Reservoir Lakefront Cabin Site Lease: J.R. & Heather Boyles Living Trust
 - G. Alcova Reservoir Lakefront Cabin Site Lease: J. Richard & Teri Leigh Black
 - H. Alcova Reservoir Non-Lakefront Cabin Site Lease: Steven J. & Theresa Berdahl
 - I. Alcova Reservoir Non-Lakefront Cabin Site Lease: Patrick Cox Exempt Trust
 - J.
- IV. STATEMENT OF EARNINGS:** Clerk of Court \$16,203.69; Planning \$12,390.75; R&B \$122.24; Parks \$2,950.00; Lake \$27,492.80
- V. LICENSES**
 - A. 71 Construction-Water Service-Tavares Rd-Lic. #29-20-18
 - B. Spellbound Energy, LLC-West Poison Spider Road/CR#201-Approach-lic. #29-20-19
- VI. TAXROLL CORRECTION 2019:** WYOMING MEDICAL CENTER \$-10,715.34; WYOMING MEDICAL CENTER \$-797.11; WYOMING MEDICAL CENTER \$-2,303.40; SUNBURST PROPERTIES LLC \$578.90; DISTAD, LOIS MC KIN \$-140.32; PHILLIPS, JOHNNIE \$-4,387.59; PHILLIPS JOHNNIE \$-1,199.42

Agendas are subject to amendments

**BOARD OF COUNTY COMMISSIONERS
MINUTES OF PROCEEDINGS**

July 21, 2020

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

Consent Agenda:

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

Public Comments:

Chairman Hendry opened the floor to Public Comments.

Tracy Lamont (Casper), Paul Thoroughman (Casper)

Hearing no further 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 5:53 p.m.

BOARD OF NATRONA COUNTY COMMISSIONERS

Robert L. Hendry, Chairman

ATTEST:
NATRONA COUNTY CLERK

Tracy Good

**BOARD OF COUNTY COMMISSIONERS
MINUTES OF PROCEEDINGS
July 22, 2020**

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

A. Presentation of Proposed WMC/Banner/Natrona County Transaction

Introduction: Eric Nelson, County Attorney

WMC: Jessica Oden, WMC Foundation, Michele Chulick, President/CEO

Banner: David Bixby, Legal Representative

Public Comment:

Barbara Cubin (Casper), Dan Odell (Casper), Carl Harris (Casper), Tom Morton (Casper), Terry Wingerter (Casper), Vickie Diamond (Casper), Pat Sweeney (Casper), Michael Reid (Casper)

Adjournment:

There being no further business to come before the Board of Commissioners, Chairman Hendry adjourned the meeting at 6:43 p.m.

BOARD OF NATRONA COUNTY COMMISSIONERS

Robert L. Hendry, Chairman

ATTEST:

NATRONA COUNTY CLERK

Tracy Good

**BOARD OF COUNTY COMMISSIONERS
MINUTES OF PROCEEDINGS
July 28, 2020**

The special meeting of the Board of County Commissioners was brought to order at 2:00 p.m. by Chairman Hendry. Those in attendance were Commissioner Paul Bertoglio, Commissioner Jim Milne, Commissioner Forrest Chadwick, Commissioner Kaufman, Eric Nelson, County Clerk Tracy Good and Commissioners' Assistant Michelle Maines.

Commissioner Replacement:

Interviews were held for the appointment of Commissioner in the following order: Leah Juarez, David Carpenter, Kevin O'Hearn.

After the interviews were completed the Commissioner went into Executive Session for discussion and reconvened.

Commissioner Replacement Announcement:

Commissioner Kaufman moved to appoint Kevin O'Hearn to fill the unexpired term in House District 59. Chairman Hendry called for the vote. All Commissioners were in favor. Motion carried.

Adjournment:

There being no further business to come before the Board of Commissioners, Chairman Hendry adjourned the meeting at 4:00 p.m.

BOARD OF NATRONA COUNTY COMMISSIONERS

Robert L. Hendry, Chairman

ATTEST:

NATRONA COUNTY CLERK

Tracy Good

**BOARD OF COUNTY COMMISSIONERS
MINUTES OF PROCEEDINGS
July 28, 2020**

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

A. Presentation of Proposed WMC/Banner/Natrona County Transaction

Introduction: Eric Nelson, County Attorney

WMC: Jessica Oden, WMC Foundation, Michele Chulick, President/CEO

Banner: Scott Nordlund, Chief Strategy & Growth Officer

Public Comment:

Charlie Scott (Casper), Al Cantwell (Casper), Mike McNulty, Dr. Eric Lawrence (Casper), Dr. Paul Jones (Casper), John Masterson (Casper), Jeff McCarty (Casper), Dr. Jim Anderson (Casper), Matt Mitchell (Casper), Dr. Ken Gassman (Casper), Dr. Mark Dowell (Casper), Bill McDowell (Casper),

Adjournment:

There being no further business to come before the Board of Commissioners, Chairman Hendry adjourned the meeting at 6:46 p.m.

BOARD OF NATRONA COUNTY COMMISSIONERS

Robert L. Hendry, Chairman

ATTEST:

NATRONA COUNTY CLERK

Tracy Good

107 vendors listed

Total: \$ 1,246,686.86

ABC LEGAL SVCS \$510.00	JASMANN, BOBBETTE S \$3682.25
ACE HARDWARE \$11.16	JH MECHANICAL \$1239.01
ACTIVE DATA SYS \$133.78	JIVIDEN, KEN \$210.33
AIRGAS USA \$141.13	KISTLER TENT & AWNING CO \$92.00
ALL AROUND TOWING & RECOVERY \$7700.00	KNIGHT PC \$955.00
ALSCO \$999.96	LEXISNEXIS MATTHEW BENDER \$181.31
AMAZON CAPITAL SVCS \$853.18	LOU'S GLOVES \$393.00
AMBI MAIL & MARKETING \$1274.53	M.A.D. TRANSPORTATION & TOWING \$9100.00
AMERIGAS - 5221 \$205.99	MERCER FAMILY RESOURCE CENTER \$18145.84
ATLAS OFFICE PROD \$1446.51	MOUNTAIN WEST OILFIELD BODY DBA ALPINE \$31.08
AXIS FORENSIC TOXICOLOGY \$555.00	MTN STATES LITHOGRAPHING \$17178.07
BARGREEN ELLINGSON DBA KNAPP SUPPLY & EQUIPT \$51.15	NAPA AUTO PARTS \$1307.53
BENNETT, THOMAS L MD \$5400.00	NC PUBLIC LIBRARY \$661655.00
BIG D OIL \$61.37	NEWCOMER FUNERAL HOME & CREMATORY \$1000.00
BLACK HILLS ENERGY \$1805.60	NORCO SEATTLE \$1736.60
BLOEDORN LUMBER \$61.59	ON THE HOOK \$700.00
BROWN LAW OFFICE P.C. \$5714.65	OVERHEAD DOOR CO \$2335.00
BUSTARD'S FUNERAL HOME INC \$1000.00	PROCESS SVC OF WY INC \$2205.00
CAEDA \$4166.66	RICOH USA INC \$1930.77
CAPITAL BUSINESS SYS \$2574.50	RMP \$39500.89
CAPITAL BUSINESS SYS INC \$370.46	SCHENFISCH, GAIL P \$60.00
CARBON COUNTY SHERIFF \$50.00	SHAMROCK FOODS CO \$620.60
CARRELL PROPERTIES INC \$400.00	SHOWTIME INDUSTRIES \$1074.00
CASPER AREA CHAMBER COMMERCE \$75.00	SMITH, JUSTIN \$260.00
CASPER TIRE INC \$65.00	SMITHS DETECTION INC \$8423.00
CASTEEL II, ROBERT S \$5602.20	SOURCE OFFICE & TECHNOLOGY \$446.24
CEC INC \$240.00	SOUTHLAND MEDICAL \$370.84
CENTRAL FAIR AND RODEO \$60000.00	SPECTRUM \$1007.12
CENTURYLINK \$25.60	STERLING TALENT \$291.34
CITY OF CASPER \$29041.41	SUMMIT ELECTRIC \$9669.67
CIVICPLUS \$14943.10	SUTHERLANDS \$54.98
CLERK OF DISTRICT COURT \$3517.18	THOLSON, MIKE \$295.80
COASTAL CHEMICAL CO \$1047.34	THOMSON REUTERS \$640.76
CONVERGEONE INC \$11296.06	TLC CLEANING \$23700.00
COTTON, TIMOTHY C PC \$7287.31	TNVC \$63305.20
COWBOY AUTO SPA \$29.25	TRUE NORTH STEEL \$1200.00
COWBOY CHEMICAL \$1850.30	VERIZON \$77.04
CST \$2326.00	VITAL RECORDS CONTROL (VRC) \$278.98
DALLAS CHOPPING \$60.00	WARRIOR KIT SAFETY & SURVIVAL GEAR \$2354.28
DENNIS SUPPLY CO \$34.96	WASTE CONNECTIONS OF WY \$14116.66
DEWITT WATER SYS \$546.50	WEAR PARTS INC \$293.23
DRUG TESTING SVCS NC \$575.00	WESTERN WY LOCK & SAFE \$170.50
E & F TOWING TRANS & RECOVERY \$9920.00	WILLOUGHBY, PHILLIP T. \$8750.00
EAGLE UNIFORM & SUPPLY CO \$1015.18	WIMACTEL INC \$154.00
ED JPB \$30655.50	WLC ENGINEERING \$6733.20
EMBLEM ENTERPRISES \$303.78	WONDER WASH \$16.20
ENERGY LABORATORIES INC \$182.00	WOOD, CINDI ATTYN AT LAW \$5726.15
FIRST CALL COMMUNICATIONS \$42.50	WY COUNTY COMMISSIONERS ASSOC \$36232.00
GEOTEC INDUSTRIAL SUPPLY \$192.00	WY MEDICAL CENTER INC \$257.80
GRAINGER \$119.48	WY ORAL & MAXIOFACIAL SURGERY \$4060.00
GREENUP, JENNIFER L \$5000.00	WY SIGNS \$132.48
HAASS CONSTRUCTION CO INC \$62791.24	YOUTH CRISIS CENTER INC \$2500.00
HARDEN, CHAD E \$5565.00	

**AMENDMENT NO. 1 TO SMALL ENTERPRISE AGREEMENT
COUNTY AND MUNICIPALITY GOVERNMENT (E214-3)
Esri Agreement #00283667.0**

Amendment No. 1 to the *Small Enterprise Agreement County and Municipality Government (E214-3)* is made and entered into this 2nd day of January, 2021, by and between Environmental Systems Research Institute ("ESRI"), with an address of 380 New York Street, Redlands California, 92373-8100, and the City of Casper, Wyoming ("Customer"), a Wyoming municipal corporation with an address of 200 North David Street, Casper, Wyoming 82601. Throughout Amendment No. 1, ESRI and Customer may be individually referred to as "Party" or together as "Parties."

RECITALS

- A. The Parties want to enter into the three-year, *Small Enterprise Agreement County and Municipality Government (E214-3)* Agreement ("SGEA").
- B. The SGEA does not have Wyoming Governmental Claims Act provisions.
- C. In consideration of the Customer executing the SGEA, ESRI agrees to add Wyoming Governmental Claims Act language to the Agreement by Amendment No. 1.
- D. Amendment No. 1 shall be executed contemporaneously with the SEGA, and remain in full force throughout the term of the SGEA and any subsequent amendments to it.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the Parties hereto agree by and between them as follows:

1. INCORPORATION OF RECITALS

The recitals set forth above are hereby incorporated herein at this point as if fully set forth as part of this Amendment No. 1.

2. ADDITION OF SECTION 10. WYOMING GOVERNMENTAL CLAIMS ACT

Section "10. WYOMING GOVERNMENTAL CLAIMS ACT" is hereby added to the SGEA as follows:

10. WYOMING GOVERNMENTAL CLAIMS ACT

The Customer does not waive any right or rights it may have pursuant to the Wyoming Governmental Claims Act, Wyoming Statutes Section 1-39-101 *et seq.*, and the Customer specifically reserves the right to assert any and all rights, immunities, and defenses it may have pursuant to the Wyoming Governmental Claims Act.

3. RATIFICATION

The terms and conditions of the SGEA, as modified by Amendment No. 1, are ratified by the parties and shall remain in full force and effect.

IN WITNESS WHEREOF, the undersigned duly authorized representatives of the Parties have executed this Amendment No. 1 as of the day and year above.

APPROVED AS TO FORM



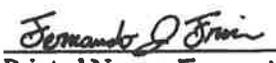
ATTEST

Fleur Tremel
City Clerk

CITY OF CASPER, WYOMING
A Municipal Corporation

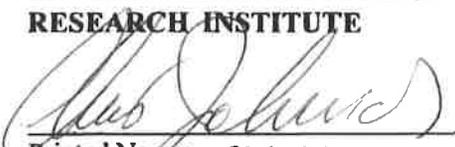
Steven K. Freel
Mayor

WITNESS



Printed Name: Fernando Frias
Title: Contracts Assistant

**ENVIRONMENTAL SYSTEMS
RESEARCH INSTITUTE**



Printed Name: Chris Johnson
Title: Manager, Commercial & Government Contract

**AMENDMENT NO. 1 TO SMALL ENTERPRISE AGREEMENT
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APPROVED AS TO FORM



ATTEST

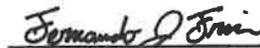
CITY OF CASPER, WYOMING
A Municipal Corporation

Fleur Tremel
City Clerk

Steven K. Freel
Mayor

WITNESS

**ENVIRONMENTAL SYSTEMS
RESEARCH INSTITUTE**



Printed Name: Fernando Frias
Title: Contracts Assistant



Printed Name: Chris Johnson
Title: Manager, Commercial & Government Contract

Esri Use Only:
 Cust. Name _____
 Cust. # _____
 PO # _____
 Esri Agreement #00283667.0



**REGIONAL GOVERNMENT
 ENTERPRISE AGREEMENT
 (RG1)**

This Agreement is by and between City of Casper ("Managing Customer") and **Environmental Systems Research Institute, Inc. ("Esri")**.

This Agreement sets forth the terms for Managing Customer's use of Products and incorporates by reference (i) the Quotation and (ii) the Master Agreement. Should there be any conflict between the terms and conditions of the documents that comprise this Agreement, the order of precedence for the documents shall be as follows: (i) the Quotation, (ii) this Agreement, and (iii) the Master Agreement. This Agreement shall be governed by and construed in accordance with the laws of the state in which Managing Customer is located without reference to conflict of laws principles, and the United States of America federal law shall govern in matters of intellectual property. The modifications and additional rights granted in this Agreement apply only to the Products listed in Table A.

**Table A
 List of Products**

Uncapped Quantities

Desktop Software and Extensions (Single Use)

ArcGIS Desktop Advanced
 ArcGIS Desktop Standard
 ArcGIS Desktop Basic
 ArcGIS Desktop Extensions: ArcGIS 3D Analyst, ArcGIS Spatial Analyst, ArcGIS Geostatistical Analyst, ArcGIS Publisher, ArcGIS Network Analyst, ArcGIS Schematics, ArcGIS Workflow Manager, ArcGIS Data Reviewer

Enterprise Software and Extensions

ArcGIS Enterprise and Workgroup (Advanced and Standard)
 ArcGIS Enterprise Extensions: ArcGIS 3D Analyst, ArcGIS Spatial Analyst, ArcGIS Geostatistical Analyst, ArcGIS Network Analyst, ArcGIS Schematics, ArcGIS Workflow Manager

ArcGIS Monitor

Enterprise Additional Capability Servers

ArcGIS Image Server

Developer Tools

ArcGIS Engine
 ArcGIS Engine Extensions: ArcGIS 3D Analyst, ArcGIS Spatial Analyst, ArcGIS Engine Geodatabase Update, ArcGIS Network Analyst, ArcGIS Schematics
 ArcGIS Runtime (Standard)
 ArcGIS Runtime Analysis Extension

Limited Quantities

One (1) Professional subscription to ArcGIS Developer
 Two (2) Esri CityEngine Single Use Licenses
 250 ArcGIS Online Viewers
 250 ArcGIS Online Creators
 37,500 ArcGIS Online Service Credits
 250 ArcGIS Enterprise Creators
 5 Insights in ArcGIS Enterprise
 5 Insights in ArcGIS Online
 50 Tracker for ArcGIS Enterprise
 50 Tracker for ArcGIS Online
 4 ArcGIS Parcel Fabric User Type Extensions (Enterprise)
 4 ArcGIS Utility Network User Type Extensions (Enterprise)

OTHER BENEFITS

Number of Esri User Conference registrations provided annually	4
Number of Tier 1 Help Desk individuals authorized to call Esri	4
Maximum number of sets of backup media, if requested*	2
Self-Paced e-Learning	Uncapped
Five percent (5%) discount on all individual commercially available instructor-led training classes at Esri facilities purchased outside this Agreement	

*Additional sets of backup media may be purchased for a fee

Managing Customer may accept this Agreement by signing and returning the whole Agreement with (i) the Quotation attached, (ii) a purchase order, or (iii) another document that matches the Quotation and references this Agreement ("Ordering Document"). **ADDITIONAL OR CONFLICTING TERMS IN MANAGING CUSTOMER'S PURCHASE ORDER OR OTHER DOCUMENT WILL NOT APPLY, AND THE TERMS OF THIS AGREEMENT WILL GOVERN.** This Agreement is effective as of the date of Esri's receipt of an Ordering Document, unless otherwise agreed to by the parties ("Effective Date").

This Agreement authorizes the entities listed in Attachment 1 (each an "Authorized Entity") to use Products listed in Table A, provided Authorized Entity signs and returns an executed Authorized Entity Acknowledgment Statement and agrees to be bound by the terms and conditions of this Agreement. Managing Customer may not Deploy any Products to an Authorized Entity until Managing Customer has received and sent to Esri the executed Authorized Entity Acknowledgment Statement.

Term of Agreement: Three (3) years, February 8, 2021 - February 7, 2024

This Agreement supersedes any previous agreements, proposals, presentations, understandings, and arrangements between the parties relating to the licensing of the Products. Except as provided in Article 4—Product Updates, no modifications can be made to this Agreement.

Accepted and Agreed:

City of Casper
(Managing Customer)

By: _____
Authorized Signature

Printed Name: _____

Title: _____

Date: _____

MANAGING CUSTOMER CONTACT INFORMATION

Contact: Denyse Wyskup

Telephone: (307) 235-8455

Address: 200 N David St

Fax: _____

City, State, Postal Code: Casper, WY 82601

E-mail: dwyskup@casper.wy.gov

Country: USA

Quotation Number (if applicable): g-4115234

1.0—ADDITIONAL DEFINITIONS

In addition to the definitions provided in the Master Agreement, the following definitions apply to this Agreement:

"Case" means a failure of the Software or Online Services to operate according to the Documentation where such failure substantially impacts operational or functional performance.

"Customer" means Managing Customer and Authorized Entity.

"Deploy", "Deployed" and "Deployment" mean to redistribute and install the Products and related Authorization Codes within Customer's organization(s).

"Fee" means the fee set forth in the Quotation.

"Maintenance" means Tier 2 Support, Product updates, and Product patches provided to Managing Customer during the Term of Agreement.

"Master Agreement" means the applicable master agreement for Esri Products incorporated by this reference that is (i) found at <https://www.esri.com/en-us/legal/terms/full-master-agreement> and available in the installation process requiring acceptance by electronic acknowledgment or (ii) a signed Esri master agreement or license agreement that supersedes such electronically acknowledged master agreement.

"Product(s)" means the products identified in Table A—List of Products and any updates to the list Esri provides in writing.

"Quotation" means the offer letter and quotation provided separately to Managing Customer.

"Technical Support" means the technical assistance for attempting resolution of a reported Case through error correction, patches, hot fixes, workarounds, replacement deliveries, or any other type of Product corrections or modifications.

"Tier 1 Help Desk" means Managing Customer's point of contact(s) to provide all Tier 1 Support within Customer's organization(s).

"Tier 1 Support" means the Technical Support provided by the Tier 1 Help Desk.

"Tier 2 Support" means the Esri Technical Support provided to the Tier 1 Help Desk when a Case cannot be resolved through Tier 1 Support.

2.0—ADDITIONAL GRANT OF LICENSE

2.1 Grant of License. Subject to the terms and conditions of this Agreement, Esri grants to Customer a personal, nonexclusive, nontransferable license solely to use, copy and Deploy quantities of the Products listed in Table A—List of Products for the Term of Agreement (i) for the applicable Fee and (ii) in accordance with the Master Agreement. Additionally, Esri grants to Managing Customer the right to Deploy for Customer's internal use, provided prior to Deploying to an Authorized Entity, Esri receives a signed copy of the Authorized Entity Acknowledgment Statement.

2.2 Consultant Access. Esri grants Customer the right to permit Customer's consultants or contractors to use the Products exclusively for Customer's benefit. Customer will be solely responsible for compliance by consultants and contractors with this Agreement and will ensure that the consultant or contractor discontinues use of Products upon completion of work for Customer. Access to or use of Products by consultants or contractors not exclusively for Customer's benefit is prohibited. Customer may not permit its consultants or contractors to install Software or Data on consultant, contractor, or third-party computers or remove Software or Data from Managing Customer locations, except for the purpose of hosting the Software or Data on Contractor servers for the benefit of Customer.

3.0—TERM, TERMINATION, AND EXPIRATION

3.1 Term. This Agreement and all licenses hereunder will commence on the Effective Date and continue for the duration identified in the Term of Agreement, unless this Agreement is terminated earlier as provided herein. Customer is only authorized to use Products during the Term of Agreement. For an Agreement with a limited term, Esri does not grant Customer an indefinite or a perpetual license to Products.

3.2 No Use upon Agreement Expiration or Termination. All Product licenses, all Maintenance, and Esri User Conference registrations terminate upon expiration or termination of this Agreement.

3.3 Termination for a Material Breach. Either party may terminate this Agreement for a material breach by the other party. The breaching party

will have thirty (30) days from the date of written notice to cure any material breach.

3.4 Termination for Lack of Funds. For an Agreement with government or government-owned entities, either party may terminate this Agreement before any subsequent year if Managing Customer is unable to secure funding through the legislative or governing body's approval process.

3.5 Follow-on Term. If the parties enter into another agreement substantially similar to this Agreement for an additional term, the effective date of the follow-on agreement will be the day after the expiration date of this Agreement.

3.6 Termination of an Individual Authorized Entity. Esri may terminate the license rights of a particular Authorized Entity for material breach without terminating this Agreement with Managing Customer. The breaching Authorized Entity will be given a period of thirty (30) days from the date of written notice to cure any material breach. Upon the termination of an Authorized Entity, all Products Deployed to the Authorized Entity will also terminate. Managing Customer shall reasonably cooperate with Esri in termination of an Authorized Entity for material breach of this Agreement, including enforcement of the Agreement with respect to such Authorized Entity. There will be no reduction in the Fee if an Authorized Entity's rights are terminated. The terminated Authorized Entity will have no further access to any benefits, entitlements, rights, or other items included in or otherwise related to this Agreement.

3.7 Termination by Authorized Entity. If an Authorized Entity no longer desires to participate in this Agreement, the Authorized Entity may terminate; however, there will be no decrease in the Fee as a result.

4.0—PRODUCT UPDATES

4.1 Future Updates. Esri reserves the right to update the list of Products in Table A—List of Products by providing written notice to Managing Customer. Customer may continue to use all Products that have been Deployed, but support and upgrades for deleted items may not be available. As new Products are incorporated into the standard program, they will be offered to Managing Customer via written notice for incorporation into the Products schedule at no

additional charge. Customer's use of new or updated Products requires Customer to adhere to applicable additional or revised terms and conditions in the Master Agreement.

4.2 Product Life Cycle. During the Term of Agreement, some Products may be retired or may no longer be available to Deploy in the identified quantities. Maintenance will be subject to the individual Product Life Cycle Support Status and Product Life Cycle Support Policy, which can be found at <https://support.esri.com/en/other-resources/product-life-cycle>. Updates for Products in the mature and retired phases may not be available. Customer may continue to use Products already Deployed, but Managing Customer will not be able to Deploy retired Products.

5.0—MAINTENANCE

The Fee includes standard maintenance benefits during the Term of Agreement as specified in the most current applicable Esri Maintenance and Support Program document (found at <https://www.esri.com/en-us/legal/terms/maintenance>). At Esri's sole discretion, Esri may make patches, hot fixes, or updates available for download. No Software other than the defined Products will receive Maintenance. Customer may acquire maintenance for other Software outside this Agreement.

a. Tier 1 Support

1. Managing Customer will provide Tier 1 Support through the Tier 1 Help Desk to all Customer's authorized users.
2. The Tier 1 Help Desk will be fully trained in the Products.
3. At a minimum, Tier 1 Support will include those activities that assist the user in resolving how-to and operational questions as well as questions on installation and troubleshooting procedures.
4. The Tier 1 Help Desk will be the initial point of contact for all questions and reporting of a Case. The Tier 1 Help Desk will obtain a full description of each reported Case and the system configuration from the user. This may include obtaining any customizations, code samples, or data involved in the Case.

5. If the Tier 1 Help Desk cannot resolve the Case, an authorized Tier 1 Help Desk individual may contact Tier 2 Support. The Tier 1 Help Desk will provide support in such a way as to minimize repeat calls and make solutions to problems available to Customer's organization.
6. Tier 1 Help Desk individuals are the only individuals authorized to contact Tier 2 Support. Managing Customer may change the Tier 1 Help Desk individuals by written notice to Esri.

b. Tier 2 Support

1. Tier 2 Support will log the calls received from Tier 1 Help Desk.
2. Tier 2 Support will review all information collected by and received from the Tier 1 Help Desk including preliminary documented troubleshooting provided by the Tier 1 Help Desk when Tier 2 Support is required.
3. Tier 2 Support may request that Tier 1 Help Desk individuals provide verification of information, additional information, or answers to additional questions to supplement any preliminary information gathering or troubleshooting performed by Tier 1 Help Desk.
4. Tier 2 Support will attempt to resolve the Case submitted by Tier 1 Help Desk.
5. When the Case is resolved, Tier 2 Support will communicate the information to Tier 1 Help Desk, and Tier 1 Help Desk will disseminate the resolution to the user(s).

6.0—ENDORSEMENT AND PUBLICITY

This Agreement will not be construed or interpreted as an exclusive dealings agreement or Customer's endorsement of Products. Either party may publicize the existence of this Agreement.

7.0—ADMINISTRATIVE REQUIREMENTS

7.1 OEM Licenses. Under Esri's OEM or Solution OEM programs, OEM partners are authorized to embed or bundle portions of Esri products and services with their application or service. OEM partners' business model, licensing terms and conditions, and pricing are independent of this

Agreement. Customer will not seek any discount from the OEM partner or Esri based on the availability of Products under this Agreement. Customer will not decouple Esri products or services from the OEM partners' application or service.

7.2 Annual Report of Deployments. At each anniversary date and ninety (90) calendar days prior to the expiration of this Agreement, Managing Customer will provide Esri with a written report detailing all Deployments. Upon request, Customer will provide records sufficient to verify the accuracy of the annual report.

8.0—ORDERING, ADMINISTRATIVE PROCEDURES, DELIVERY, AND DEPLOYMENT

8.1 Orders, Delivery, and Deployment

- a. Upon the Effective Date, Esri will invoice Managing Customer and provide Authorization Codes to activate the nondestructive copy protection program that enables Managing Customer to download, operate, or allow access to the Products. If this is a multi-year Agreement, Esri may invoice the Fee up to thirty (30) calendar days before the annual anniversary date for each year.
- b. Undisputed invoices will be due and payable within thirty (30) calendar days from the date of invoice. Esri reserves the right to suspend Customer's access to and use of Products if Managing Customer fails to pay any undisputed amount owed on or before its due date. Esri may charge Managing Customer interest at a monthly rate equal to the lesser of one percent (1.0%) per month or the maximum rate permitted by applicable law on any overdue fees plus all expenses of collection for any overdue balance that remains unpaid ten (10) days after Esri has notified Managing Customer of the past-due balance.
- c. Esri's federal ID number is 95-2775-732.
- d. If requested, Esri will ship backup media to the ship-to address identified on the Ordering Document, FOB Destination, with shipping charges prepaid. Managing Customer acknowledges that should sales or use taxes become due as a result of any shipments of tangible media, Esri has a right to invoice and Managing Customer will pay any such sales or

use tax associated with the receipt of tangible media.

8.2 Order Requirements. Esri does not require Managing Customer to issue a purchase order. Managing Customer may submit a purchase order in accordance with its own process requirements, provided that if Managing Customer issues a purchase order, Managing Customer will submit its initial purchase order on the Effective Date. If this is a multi-year Agreement, Managing Customer will submit subsequent purchase orders to Esri at least thirty (30) calendar days before the annual anniversary date for each year.

- a. All orders pertaining to this Agreement will be processed through Managing Customer's centralized point of contact.
- b. The following information will be included in each Ordering Document:
 - (1) Managing Customer name; Esri customer number, if known; and bill-to and ship-to addresses
 - (2) Order number
 - (3) Applicable annual payment due

Change unless approved by Esri in writing in advance. If the assignment to the new entity is not approved, Customer will require any successor entity to uninstall, remove, and destroy the Products. This Agreement will terminate upon such Ownership Change.

9.0—MERGERS, ACQUISITIONS, OR DIVESTITURES

If Customer is a commercial entity, Customer will notify Esri in writing in the event of (i) a consolidation, merger, or reorganization of Customer with or into another corporation or entity; (ii) Customer's acquisition of another entity; or (iii) a transfer or sale of all or part of Customer's organization (subsections i, ii, and iii, collectively referred to as "**Ownership Change**"). There will be no decrease in Fee as a result of any Ownership Change.

- 9.1** If an Ownership Change increases the cumulative program count beyond the maximum level for this Agreement, Esri reserves the right to increase the Fee or terminate this Agreement and the parties will negotiate a new agreement.
- 9.2** If an Ownership Change results in transfer or sale of a portion of Customer's organization, that portion of Customer's organization will uninstall, remove, and destroy or transfer the Products to Customer.
- 9.3** This Agreement may not be assigned to a successor entity as a result of an Ownership

**ATTACHMENT 1
AUTHORIZED ENTITY LIST**

- | | |
|--|--|
| <p>1. Authorized Entity Name: <u>Natrona County</u>
 Contact Name: <u>Eileen Hill</u>
 Address: <u>200 N Center St</u>
 <u>Suite 105 Casper, WY 82601</u>
 Phone: <u>(307) 235-9351 or 9622</u>
 E-mail: <u>ehill@natronacounty-wy.gov</u></p> | <p>2. Authorized Entity Name: <u>Natrona County Fire District</u>
 Contact Name: <u>Brian Oliver</u>
 Address: <u>PO Box 820</u>
 <u>Mills, WY 82644</u>
 Phone: <u>(307) 234-8826</u>
 E-mail: <u>boliver@natronacounty-wy.gov</u></p> |
| <p>3. Authorized Entity Name: <u>Natrona County Health Dept</u>
 Contact Name: <u>Anna Kinder</u>
 Address: <u>475 S Spruce St</u>
 <u>Casper, WY 82601</u>
 Phone: <u>(307) 577-9722</u>
 E-mail: <u>a.kinder@cnchd.org</u></p> | <p>4. Authorized Entity Name: <u>Town of Edgerston</u>
 Contact Name: <u>Cindy Aars</u>
 Address: <u>311 N Second St</u>
 <u>Edgerston, WY 82635</u>
 Phone: <u>(307) 437-6763</u>
 E-mail: <u>townofe@stconnect.net</u></p> |
| <p>5. Authorized Entity Name: <u>Town of Mills</u>
 Contact Name: <u>Kevin O'Hearn</u>
 Address: <u>PO Box 789</u>
 <u>Mills, WY 82644</u>
 Phone: <u>(307) 234-6679</u>
 E-mail: <u>kohearn@mills.wy.gov</u></p> | <p>6. Authorized Entity Name: <u>Wardwell Water & Sewer District</u>
 Contact Name: <u>Gloria Brainard</u>
 Address: <u>PO Box 738</u>
 <u>Mills, WY 82644</u>
 Phone: <u>(307) 265-7034</u>
 E-mail: <u>wardwellwater@gmail.com</u></p> |
| <p>7. Authorized Entity Name: <u>Town of Evansville</u>
 Contact Name: <u>Chad Edwards</u>
 Address: <u>PO Box 158 1235 Curtis St</u>
 <u>Evansville, WY 82636</u>
 Phone: <u>(307) 234-6530</u>
 E-mail: <u>mayor@evansville.wy.com</u></p> | <p>8. Authorized Entity Name: <u>Casper/Natrona County International Airport</u>
 Contact Name: <u>Glenn Januska</u>
 Address: <u>8500 Airport PKY</u>
 <u>Casper, WY 82604</u>
 Phone: <u>(307) 472-6688 ext 12</u>
 E-mail: <u>gjanuska@iflycasper.com</u></p> |
| <p>9. Authorized Entity Name: <u>Town of Bar Nunn</u>
 Contact Name: <u>Patrick Ford</u>
 Address: <u>4820 N Wardwell Industrial Ave</u>
 <u>Bar Nunn, WY 82601</u>
 Phone: <u>(307) 237-7269</u>
 E-mail: <u>patrick.ford@townofbarnunn.com</u></p> | |

Prior to any Deployment to an Authorized Entity, Managing Customer shall require each such entity to be contractually bound to applicable terms and conditions by executing an Authorized Entity Acknowledgment Statement. Managing Customer shall keep a copy of the signed original acknowledgment for its records and forward a copy of the signed original to Esri. Esri may pursue remedies against Managing Customer or an individual Authorized Entity for material breach. Only Managing Customer has a right to Deploy.

AUTHORIZED ENTITY ACKNOWLEDGMENT STATEMENT

Environmental Systems Research Institute, Inc. ("Esri") and _____City of Casper _____ ("Managing Customer"), have entered into an Agreement for licensing certain rights to use and Deploy Products and to receive maintenance for the term of the Agreement, subject to payment of fees and adherence to the terms and conditions of this Agreement. Esri has authorized Managing Customer to Deploy Products to Authorized Entity provided Authorized Entity signs and returns this Authorized Entity Acknowledgment Statement.

Accordingly, Authorized Entity, as a Customer, represents it has received and read the Agreement, and understands and agrees to be bound by the Agreement, for use of Products received from Managing Customer. Authorized Entity agrees that Esri may pursue remedies against Authorized Entity for material breach of the Agreement. All Deployments made by Managing Customer to Authorized Entity shall be made through Managing Customer's centralized point of contact. Tier 1 Help Desk will provide Maintenance to Authorized Entity. Authorized Entity grants Managing Customer the right to unilaterally sign amendments to this Agreement, which shall be binding on Authorized Entity.

No other rights are granted to Authorized Entity under this acknowledgment.

Accepted and Agreed:

(Authorized Entity)

Signature: _____

Printed Name: _____

Title: _____

Date: _____



Alcova Reservoir Trailer Lot Lease

Rev. October 6, 2016

1. **Parties.** The parties to this contract are Natrona County ("County") and the following Lessee(s). The parties' respective contact information is:

Department Director
Natrona County Parks
P.O. Box 848
Mills, WY 82644
307-235-9325

Jane Doe
John Doe

Lot #

2. **Recitations.**

- A. County entered a contract with the United States, Department of the Interior, Bureau of Reclamation ("Reclamation") for the management, development, operation, and maintenance of recreation and related improvements and facilities at Alcova Reservoir¹, Natrona County, Wyoming. That contract is identified as "Management Agreement No. 15-LM-60-2364" (the "Management Agreement").
- B. This Lease is contingent upon the Management Agreement remaining in effect.
- C. This Lease is subordinate to the Management Agreement.
- D. The Management Agreement includes *Exhibit I* which is a site plan of the "Alcova Lake Trailer Park" (the "Site Plan") which identifies lots in the Alcova Lake Trailer Park (the "Trailer Park").
- E. Pursuant to the Management Agreement, Natrona County has authority to issue limited use authorizations in accordance with 43 CFR 429.5.²
- i. Limited use authorization does not convey ownership or other interest in the Federal real property.
 - ii. Limited use authorization shall be for a specified period.
 - iii. Limited use authorization shall not provide an automatic right of renewal.
 - iv. Limited use authorization is fully revocable at the discretion of Reclamation.
 - v. Limited use authorization shall be consistent with Reclamation's Resource Management Plan.

¹ The Management Agreement uses both "reservoir" and "lake" to refer to the same Alcova body of water.

² Management Agreement ¶ 19(i).

- F. Pursuant to the Management Agreement, this lease agreement recognizes the right of paramount use by Reclamation of the Reservoir Area for project purposes. Reclamation retains all of its rights, including, but not limited to its right to:
- i. Access and enter all property governed by the Management Agreement;
 - ii. Close all or part of the property governed by the Management Agreement;
 - iii. Revise the boundaries of the Operations Area defined by the Management Agreement;
 - iv. Remove material from the area included in the Management Agreement;
 - v. Change the level of Alcova Reservoir; and
 - vi. Not stand in the stead for the County if the management agreement expires or is terminated
- G. Title 43 of the Code of Federal Regulations, Part 423, Public Conduct on Bureau of Reclamation Facilities, Lands, and Waterbodies, applies to this Lease and the Lessees.
- H. This Lease grants no vested property right to Lessee but affords Lessee only a limited license to occupy the Lot, pending a greater public use as determined by Reclamation.**
3. **Purpose of Lease.** The purpose of this Lease is for County to lease a lot in the Trailer Park to Lessee. In consideration of the mutual covenants herein, the parties agree to this Lease.
4. **Effective Date and Term of Lease.** This Lease becomes effective upon the date of the last required signature. The term of this Lease is May 15, 2016 to May 18, 2021, inclusive. Following are the Lease years:
- A. First Lease year – May 15, 2016 through May 18, 2017
 - B. Second Lease year – May 19, 2017 through May 18, 2018
 - C. Third Lease year – May 19, 2018 through May 18, 2019
 - D. Fourth Lease year – May 19, 2019 through May 18, 2020
 - E. Fifth Lease year – May 19, 2020 through May 18, 2021
5. **Seasonal Operation Period.** April 15th through October 15th is the Seasonal Operation Period for all facilities in Alcova Reservoir including the lots in the Trailer Park. The trailer site shall not be the principal place of residence for the Lessee.

6. County's Obligation(s).

- A. County leases the Lot in the Trailer Park **as is** to Lessee.
- B. County will provide water and sewer to the Lot and dumpsters to the area shown on the Site Plan (the "Services") during the Seasonal Operation Period.

7. Lessee's Obligation(s). In exchange for County leasing the Lot to Lessee and providing Services:

A. PAYMENT of FEES.

- i. Lessee shall pay the following fees:
 - a. Rent. For the first Lease year, **\$2450.00** for annual rent.
 - b. Services. For the first Lease year, **\$100** for the Services. If the actual cost of the Services exceeds \$100, Lessee shall pay the additional cost of Services within ten days of the date of the annual letter from County which will contain the additional amount Lessee owes.
- ii. For the first Lease year, Lessee shall pay the fees for rent and services promptly upon notification of payment due. Each year thereafter, Lessee shall pay the annual rent and service fees no later than **May 19th** of that Lease year.
- iii. All fees are nonrefundable.
- iv. County will annually adjust the rent fee based on the *Wyoming Cost of Living Index* published by the Economic Analysis Division of the State of Wyoming.

B. MAINTAIN LIABILITY INSURANCE. During the entire term of this Lease, Lessee shall maintain comprehensive general liability insurance for the Site in a minimum amount of \$100,000 for each occurrence for bodily injury and property damage from a company acceptable to County. Lessee shall provide proof of insurance to the Department Director upon request.

C. ALLOW ACCESS. County and Reclamation and their respective agent(s) shall have at all times and places to have full ingress for passage over and egress from all land covered by this Lease for the purpose of carrying on operations of the United States and the County.

D. PROHIBITED. Lessee shall not:

- i. Change the use of the Lot;
- ii. Commit or allow anyone else to commit waste on the Lot;
- iii. Conduct a commercial enterprise on the premises;
- iv. Create or allow anyone else to create a nuisance on the Lot;
- v. Commit or allow anyone else to commit, any act whereby persons may be endangered or injured by use of the reservoir area.

- vi. Keep more than one mobile home or trailer or camper or similar structure on the Lot;
- vii. Store any personal property other than a boat and trailer that are less than 24 feet long on the Lot from October 16th through April 14th;
- viii. Construct any improvement on the Lot, including, but not limited to a fence, deck, porch, shed, sun shade, or modification to exteriors of structures, without following the Site Modification Guidelines for Leaseholders at Alcova Reservoir, Natrona County, Wyoming.
- ix. Allow any construction on the Lot by any person who is not a Natrona County licensed contractor;
- x. Violate any County resolution, including the current *Zoning Resolution of Natrona County, Wyoming*, with the exception of a preexisting use;
- xi. Build or use any fire pit or fire ring other than a valved, manufactured appliance listed specifically for recreational fire use. LP gas or charcoal grills are excluded from this prohibition when used for cooking;
- xii. Leave or burn any refuse;
- xiii. Dispose of sewage except in accordance with federal, state, and local laws;
- xiv. Cut or take timber from any area covered by the Management Agreement; or
- xv. Build or place any improvements outside of the lot lease.
- xvi. Allow sleeping accommodations outside of the permitted structure on the lot.

E. REQUIRED. Lessee shall:

- i. Provide and maintain any service facilities on the Lot in a manner acceptable to County and shall be responsible for any and all damage to utility hookups;
- i. Promptly clean up after Lessee's dog(s);
- ii. Store all refuse in a tidy manner that prevents the refuse from being blown away; and
- iii. Submit all proposed construction activities to the Department Director in accordance with the Site Modification Guidelines for Leaseholders at Alcova Reservoir, Natrona County, Wyoming. The Department Director shall submit:
 - a. Proposals for *substantial* lot improvements to Reclamation.
 - b. All proposals and his/her recommendations on the proposed improvements to the Natrona County Development Department.

F. USE.

- i. The Lessee will use the said premises, or permit the said premises to be used, only and exclusively for proper and legitimate purposes.
- ii. The Lessee may stay overnight on the Lot during the Seasonal Operation Period. Lessee shall not stay overnight on the Lot from October 16th through April 14th.
- iii. Lessee shall not use the sewage facilities on the Lot or any other Alcova Reservoir facility from October 16th through April 14th.

G. OTHER SERVICES. If Lessee wants any service not specified in this Lease (nonexclusive examples include – water well, septic system, propane, electrical, satellite television), Lessee is solely responsible for obtaining the service and all costs associated with the proper installation of the service and fees.

8. Lease Transfer, Extension, Renewal and Termination. There shall be no assignment or transfer of this Lease. All leases shall be issued only by the County. Neither party has a right of extension or renewal of this Lease. Leases shall be issued to those parties that were successfully drawn from the lottery list. The County maintains a lottery list for Trailer Lot Leases that is renewed on February 1st of each year. If Lessee wants to terminate this Lease, s/he must follow the published Lottery Process.

9. General Provisions.

- A. Amendments. Any changes to this Lease shall be in writing signed and dated by all parties.
- B. Collateral. No party shall use this Lease or any part of this Lease as collateral without prior written consent of all parties.
- C. Waiver. If a party waives a breach by another party of a term of this Lease, it does not constitute a waiver of any prior or subsequent breach. Failure to object to a breach shall not constitute a waiver.
- D. Breach. If Lessee fails to perform in accordance with this Lease, the lessee shall be given written notice, by certified mail to the Lessee's address as designated within this Lease, of the breach or default, and Lessee shall have thirty (30) days from the receipt of such notice to correct the breach or take action likely to effect such correction. If such breach or default is not corrected within 30 days, County may at its discretion:
 - i. terminate this Lease, and/or
 - ii. demand specific performance in accordance with this Lease, and/or
 - iii. pursue any other remedy allowed by law.
- E. Termination. County may terminate this Lease immediately for cause if the Lessee fails to perform in accordance with this Lease. If County terminates this Lease for cause, Lessee is liable for all reasonable costs, County's attorneys' fees and expenses associated with enforcing this Lease, removing Lessee and Lessee's property, and otherwise recovering possession of the Lot.

- F. **Notices.** A party shall give notice to all parties by regular mail, facsimile, or personal delivery at the respective address given in this Lease or provided in writing hereafter.
- H. **Applicable Law and Venue.** The laws of the State of Wyoming shall govern the interpretation and enforcement of this Lease. The courts in the State of Wyoming shall have jurisdiction over this Lease and the parties. A court in Natrona County, Wyoming shall be the proper venue for any legal action involving this Lease.
- I. **Governmental Immunity.** The 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 immunities provided by law. Reclamation does not waive and specifically retains its sovereign immunity and all other immunities provided by law.
- J. **Compliance with Laws.** Lessee shall be aware of and comply with all applicable federal, state, and local laws, rules and regulations in force now or as may be promulgated or changed in the future.
- K. **Third-Party Beneficiary.** The parties do not intend this Lease to create any third-party beneficiary.
- L. **Indemnification.** Lessee shall indemnify, defend, and hold harmless County and Reclamation and their respective agents from any and all claims, lawsuits, losses, and liability arising out of Lessee's acts or omissions related to this Lease.
- M. **Force Majeure.** The parties shall not be liable for failure to perform in accordance with this Lease if such failure to perform arises out of a cause beyond the party's control and with no fault or negligence of the nonperforming party. Such causes may include, but are not limited to, earthquake, act of a public enemy, fire, flood, epidemic, quarantine, freight embargo, and unusually severe weather.
- N. **Time.** Time is of the essence in performance of this Lease.
- O. **Titles for Reference.** Titles of paragraphs in this Lease are for reference only and shall not be used to construe the language of this Lease.
- P. **Entire Lease.** This document consisting of 7 pages contains the entire legally binding agreement between the parties and supersedes any and all prior negotiations, representations, and agreements, written and oral with the exception that this Lease is contingent upon and subordinate to the Management Agreement.
- Q. **Severability.** If any portion of this Lease is determined by a court with jurisdiction to be illegal or unenforceable, the remainder of this Lease shall remain in effect, and either party may renegotiate the term(s) affected by the severance.

By signing Lessee(s) affirms that he/she/they are owners of the Trailer/RV and acknowledge that only an owner may lease the property.

NATRONA COUNTY

JANE DOE

Chair,
Board of County Commissioners

Date

Lessee

Date

ATTEST:

JOHN DOE

County Clerk

Date

Lessee

Date

Approved as to form
County Legal Department

All correspondence shall be sent to the following mailing address:

Address

City, ST Zip

Phone(s)



Alcova Reservoir Lakefront Cabin Site Lease

Rev. October 6, 2016

1. **Parties.** The parties to this contract are Natrona County ("County") and the following Lessee(s). The parties' respective contact information is:

Department Director
Natrona County Parks
P.O. Box 848
Mills, WY 82644
307-235-9325

Jane Doe
John Doe

Site #
Dock #

2. **Recitations.**

- A. County entered a contract with the United States, Department of the Interior, Bureau of Reclamation ("Reclamation") for the management, development, operation, and maintenance of recreation and related improvements and facilities at Alcova Reservoir¹, Natrona County, Wyoming. That contract is identified as "Management Agreement No. 15-LM-60-2364" (the "Management Agreement").
- B. This Lease is contingent upon the Management Agreement remaining in effect.
- C. This Lease is subordinate to the Management Agreement.
- D. The Management Agreement includes *Exhibit H* - "Alcova Cabin Sites" (the "Site Plan").
- E. Pursuant to the Management Agreement, County has authority to issue limited use authorizations in accordance with 43 CFR 429.5.²
- i. Limited use authorization does not convey ownership or other interest in the Federal real property.
 - ii. Limited use authorization shall be for a specified period.
 - iii. Limited use authorization shall not provide an automatic right of renewal.
 - iv. Limited use authorization is fully revocable at the discretion of Reclamation.
 - v. Limited use authorization shall be consistent with Reclamation's Resource Management Plan.

¹ The Management Agreement uses both "reservoir" and "lake" to refer to the same Alcova body of water.

² Management Agreement ¶ 19(i).

- F. Pursuant to the Management Agreement, this lease agreement recognizes the right of paramount use by Reclamation of the Reservoir Area for project purposes. Reclamation retains all of its rights, including, but not limited to its right to:
- i. Access and enter all property governed by the Management Agreement;
 - ii. Close all or part of the property governed by the Management Agreement;
 - iii. Revise the boundaries of the Operations Area defined by the Management Agreement;
 - iv. Remove material from the area included in the Management Agreement;
 - v. Change the level of Alcova Reservoir; and
 - vi. Not stand in the stead for the County if the management agreement expires or is terminated
- G. Title 43 Code of Federal Regulations (CFR), Part 21, Occupancy of Cabin Sites on Public Conservation and Recreation Areas, applies to this Lease and the Lessees.
- H. Title 43 CFR, Part 423, Public Conduct on Bureau of Reclamation Facilities, Lands, and Waterbodies, applies to this Lease and the Lessees.
- I. This Lease grants no vested property right to Lessee but affords Lessee only a limited license to occupy the Lot, pending a greater public use as determined by Reclamation.**
3. **Purpose of Lease.** The purpose of this Lease is for County to lease a cabin site shown on the Site Plan to Lessee. In consideration of the mutual covenants herein, the parties agree to this Lease.
4. **Effective Date and Term of Lease.** This Lease becomes effective upon the date of the last required signature. The term of this Lease is May 15, 2016 to May 18, 2021, inclusive. Following are the Lease years:
- A. First Lease year – May 15, 2016 through May 18, 2017
 - B. Second Lease year – May 19, 2017 through May 18, 2018
 - C. Third Lease year – May 19, 2018 through May 18, 2019
 - D. Fourth Lease year – May 19, 2019 through May 18, 2020
 - E. Fifth Lease year – May 19, 2020 through May 18, 2021
5. **Seasonal Operation Period.** April 15th through October 15th is the Seasonal Operation Period for all facilities in Alcova Reservoir including cabin sites. The cabin site shall not be the principal place of residence for the Lessee.

6. County's Obligation(s).

- A. County leases the lakefront cabin site **as is** to Lessee.
- B. County will provide dumpsters in the area shown on the Site Plan during the Seasonal Operation Period for Lessee to put his/her trash (the "trash service").
- C. Access to the cabin site lot will be from a public roadway.

7. Lessee's Obligation(s). In exchange for County leasing the Lot to Lessee:

A. PAYMENT of FEES.

- i. Lessee shall pay the following fees:
 - a. Rent. For the first Lease year, **\$3,250.00** for annual rent.
 - b. Trash Service. **\$60.00** for annual trash service. If the actual cost of trash service exceeds this amount, Lessee shall pay the additional cost of trash service within ten days of the date of the annual letter from County which will contain the additional amount Lessee owes.
 - c. Transfer. **If** the parties agree by prior written consent that Lessee may transfer this Lease, Lessee shall pay a \$25 transfer fee.
- ii. For the first Lease year, Lessee shall pay the fees for rent and trash service promptly upon notification of payment due. Each year thereafter, Lessee shall pay the annual rent and trash service fees no later than **May 19th** of that Lease year.
- iii. All fees are nonrefundable.
- iv. County will annually adjust the rent fee based on the ten-year weighted average of the Consumer Price Index as determined for recreational sites by the Trust Land Management Division of the State of Wyoming.

B. MAINTAIN LIABILITY INSURANCE. During the entire term of this Lease, Lessee shall maintain comprehensive general liability insurance for the Lot in a minimum amount of \$100,000 for each occurrence for bodily injury and property damage from a company acceptable to County. Lessee shall provide proof of insurance to the Department Director upon request

C. ALLOW ACCESS. County and Reclamation and their respective agent(s) shall have, at all times and places, full ingress for passage over and egress from all land covered by this Lease for the purpose of carrying on operations of the United States and the County.

D. PROHIBITED. Lessee shall not:

- i. Change the use of the Lot;
- ii. Prevent access to the Alcova Reservoir shoreline;
- iii. Conduct a commercial enterprise on the premises

- iv. Commit or allow anyone else to commit waste on the Lot;
- v. Create or allow anyone else to create a nuisance on the Lot;
- vi. Commit or allow anyone else to commit any act whereby persons may be endangered or injured by use of the reservoir area;
- vii. Store any personal property other than boats and trailers on the Lot from October 16th through April 14th;
- viii. Construct any improvement, including, but not limited, to a fence, landscaping, lot driveway modifications, deck, porch, shed, sun shade, or modification to exteriors of structures, without following the Site Modification Guidelines for Leaseholders at Alcova Reservoir, Natrona County, Wyoming.
- ix. Allow any construction on the Lot by any person who is not a Natrona County licensed contractor;
- x. Violate any Natrona County resolution, including the current *Zoning Resolution of Natrona County, Wyoming*, with the exception of a preexisting use;
- xi. Build or use any fire pit or fire ring other than a valved, manufactured appliance listed specifically for recreational fire use. LP gas or charcoal grills are excluded from this prohibition when used for cooking;
- xii. Leave or burn refuse;
- xiii. Dispose of sewage except in accordance with federal, state, and local laws;
- xiv. Cut or take timber from any area covered by the Management Agreement; or
- xv. Build or place any improvement outside of the lot lease.
- xvi. Allow sleeping accommodations outside of the permitted structure on the lot, unless permitted by the County.

E. REQUIRED. Lessee shall:

- i. Maintain the Lot driveway at Lessee's expense in a manner acceptable to County;
- ii. Provide and maintain any water facilities, sewage disposal, and refuse disposal in a manner acceptable to County;
- iii. Promptly clean up after Lessee's dog(s);
- iv. Store all refuse in a tidy manner that prevents the refuse from being blown away;
- v. Submit all proposed construction activities to the Department Director in accordance with the Site Modification Guidelines for Leaseholders at Alcova Reservoir, Natrona County, Wyoming. The Department Director shall submit:
 - a. Proposals for *substantial* lot improvements to Reclamation.

- b. All proposals and his/her recommendations on the proposed improvements to the Natrona County Development Department.

DOCK. The shoreline will at all times be open to the public. If there is no conflict with general public use, the Lessee may be permitted individually or jointly to construct or modify a dock facility at their sole cost and expense, following the Site Modification Guidelines for Leaseholders at Alcova Reservoir, Natrona County, Wyoming. This permission does not grant to the Lessee any exclusive use rights nor does it convey a right to a continuation of this permission beyond the end of the term of this Lease.

F. USE.

- i. The Lessee will use the said premises, or permit the said premises to be used, only and exclusively for proper and legitimate purposes.

- ii. Lessee may stay overnight on the Lot during the Seasonal Operation Period. Lessee shall not stay overnight on the Lot from October 16th through April 14th.

G. OTHER SERVICES. If Lessee wants any service not specified in this Lease (nonexclusive examples include – water well, septic system, propane, electrical, satellite television), Lessee is solely responsible for obtaining the service and all costs associated with the proper installation of the service and fees.

8. Lease Extension and Renewal. Neither party has a right of extension or renewal of this Lease.

9. General Provisions.

A. Amendments. Any changes to this Lease shall be in writing signed and dated by all parties.

B. Assignment. No party shall assign or transfer any right or delegate any responsibility of this Lease without prior written consent of all parties.

C. Collateral. No party shall use this Lease or any part of this Lease as collateral without prior written consent of all parties.

D. Waiver. If a party waives a breach by another party of a term of this Lease, it does not constitute a waiver of any prior or subsequent breach. Failure to object to a breach shall not constitute a waiver.

E. Breach. If Lessee fails to perform in accordance with this Lease, the lessee shall be given written notice, by certified mail to the Lessee's address as designated within this Lease, of the breach or default, and Lessee shall have thirty (30) days from the receipt of such notice to correct the breach or take action likely to effect such correction. If such a breach or default is not corrected within 30 days, County may at its discretion:

- i. terminate this Lease, and/or
- ii. demand specific performance in accordance with this Lease, and/or
- iii. pursue any other remedy allowed by law.

- F. **Termination.** County may terminate this Lease immediately for cause if the Lessee fails to perform in accordance with this Lease. If County terminates this Lease for cause, Lessee is liable for all reasonable costs, County's attorneys' fees and expenses associated with enforcing this Lease, removing Lessee and Lessee's property, and otherwise recovering possession of the Lot.
- i. Lessee shall remove improvements within 90 days of termination of this Lease.
- G. **Notices.** A party shall give notice to all parties by regular mail, facsimile, or personal delivery at the respective address given in this Lease or provided in writing hereafter.
- H. **Applicable Law and Venue.** The laws of the State of Wyoming shall govern the interpretation and enforcement of this Lease. The courts in the State of Wyoming shall have jurisdiction over this Lease and the parties. A court in Natrona County, Wyoming shall be the proper venue for any legal action involving this Lease.
- I. **Governmental Immunity.** The 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 immunities provided by law. Reclamation does not waive and specifically retains its sovereign immunity and all other immunities provided by law.
- J. **Compliance with Laws.** Lessee shall be aware of and comply with all applicable federal, state, and local laws, rules and regulations in force now or as may be promulgated or changed in the future.
- K. **Third-Party Beneficiary.** The parties do not intend this Lease to create any third-party beneficiary.
- L. **Indemnification.** Lessee shall indemnify, defend, and hold harmless County and Reclamation and their respective agents from any and all claims, lawsuits, losses, and liability arising out of Lessee's acts or omissions related to this Lease.
- M. **Force Majeure.** The parties shall not be liable for failure to perform in accordance with this Lease if such failure to perform arises out of a cause beyond the party's control and with no fault or negligence of the nonperforming party. Such causes may include, but are not limited to, earthquake, act of a public enemy, fire, flood, epidemic, quarantine, freight embargo, and unusually severe weather.
- N. **Time.** Time is of the essence in performance of this Lease.
- O. **Titles for Reference.** Titles of paragraphs in this Lease are for reference only and shall not be used to construe the language of this Lease.
- P. **Entire Lease.** This document consisting of 7 pages contains the entire legally binding agreement between the parties and supersedes any and all prior negotiations, representations, and agreements, written and oral with the exception that this Lease is contingent upon and subordinate to the Management Agreement.
- Q. **Severability.** If any portion of this Lease is determined by a court with jurisdiction to be illegal or unenforceable, the remainder of this Lease shall remain in effect, and either party may renegotiate the term(s) affected by the severance.

By signing Lessee(s) affirms that he/she/they are owners of the Cabin and acknowledge that only an owner may lease the property.

NATRONA COUNTY

JANE DOE

Chair,
Board of County Commissioners

Date

Lessee

Date

ATTEST:

JOHN DOE

County Clerk

Date

Lessee

Date

Approved as to form
County Legal Department

All correspondence shall be sent to the following mailing address:

Address

City, ST Zip

Phone(s)



Alcova Reservoir Non-Lakefront Cabin Site Lease

Revised October 6, 2016

1. **Parties.** The parties to this contract are Natrona County ("County") and the following Lessee(s). The parties' respective contact information is:

Department Director
Natrona County Parks
P.O. Box 848
Mills, WY 82644
307-235-9325

Jane Doe
John Doe

Site #
Dock #

2. **Recitations.**

- A. County entered a contract with the United States, Department of the Interior, Bureau of Reclamation ("Reclamation") for the management, development, operation, and maintenance of recreation and related improvements and facilities at Alcova Reservoir¹, Natrona County, Wyoming. That contract is identified as "Management Agreement No. 15-LM-60-2364" (the "Management Agreement").
- B. This Lease is contingent upon the Management Agreement remaining in effect.
- C. This Lease is subordinate to the Management Agreement.
- D. The Management Agreement includes *Exhibit H* - "Alcova Cabin Sites" (the "Site Plan").
- E. Pursuant to the Management Agreement, County has authority to issue limited use authorizations in accordance with 43 CFR 429.5.²
- i. Limited use authorization does not convey ownership or other interest in the Federal real property.
 - ii. Limited use authorization shall be for a specified period.
 - iii. Limited use authorization shall not provide an automatic right of renewal.
 - iv. Limited use authorization is fully revocable at the discretion of Reclamation.
 - v. Limited use authorization shall be consistent with Reclamation's Resource Management Plan.

¹ The Management Agreement uses both "reservoir" and "lake" to refer to the same Alcova body of water.

² Management Agreement ¶ 19(i).

- F. Pursuant to the Management Agreement, this lease agreement recognizes the right of paramount use by Reclamation of the Reservoir Area for project purposes. Reclamation retains all of its rights, including, but not limited to its right to:
- i. Access and enter all property governed by the Management Agreement;
 - ii. Close all or part of the property governed by the Management Agreement;
 - iii. Revise the boundaries of the Operations Area defined by the Management Agreement;
 - iv. Remove material from the area included in the Management Agreement;
 - v. Change the level of Alcova Reservoir; and
 - vi. Not stand in the stead for the County if the management agreement expires or is terminated
- G. Title 43 Code of Federal Regulations (CFR), Part 21, Occupancy of Cabin Sites on Public Conservation and Recreation Areas, applies to this Lease and the Lessees.
- H. Title 43 CFR, Part 423, Public Conduct on Bureau of Reclamation Facilities, Lands, and Waterbodies, applies to this Lease and the Lessees.
- I. This Lease grants no vested property right to Lessee but affords Lessee only a limited license to occupy the Lot, pending a greater public use as determined by Reclamation.**

3. **Purpose of Lease.** The purpose of this Lease is for County to lease a cabin site shown on the Site Plan to Lessee. In consideration of the mutual covenants herein, the parties agree to this Lease.
4. **Effective Date and Term of Lease.** This Lease becomes effective upon the date of the last required signature. The term of this Lease is May 15, 2016 to May 18, 2021, inclusive. Following are the Lease years:
- A. First Lease year – May 15, 2016 through May 18, 2017
 - B. Second Lease year – May 19, 2017 through May 18, 2018
 - C. Third Lease year – May 19, 2018 through May 18, 2019
 - D. Fourth Lease year – May 19, 2019 through May 18, 2020
 - E. Fifth Lease year – May 19, 2020 through May 18, 2021
5. **Seasonal Operation Period.** April 15th through October 15th is the Seasonal Operation Period for all facilities in Alcova Reservoir including cabin sites. The cabin site shall not be the principal place of residence for the Lessee.

6. County's Obligation(s).

- A. County leases the non-lakefront cabin site **as is** to Lessee.
- B. County will provide dumpsters in the area shown on the Site Plan during the Seasonal Operation Period for Lessee to put his/her trash (the "trash service").
- C. Access to the cabin site lot will be from a public roadway.

7. Lessee's Obligation(s). In exchange for County leasing the Lot to Lessee:

A. PAYMENT of FEES.

- i. Lessee shall pay the following fees:
 - a. Rent. For the first Lease year, **\$2050** for annual rent.
 - b. Trash Service. **\$60** for annual trash service. If the actual cost of trash service exceeds this amount, Lessee shall pay the additional cost of trash service within ten days of the date of the annual letter from County which will contain the additional amount Lessee owes.
 - c. Transfer. **If** the parties agree by prior written consent that Lessee may transfer this Lease, Lessee shall pay a \$25 transfer fee.
- ii. For the first Lease year, Lessee shall pay the fees for rent and trash service promptly upon notification of payment due. Each year thereafter, Lessee shall pay the annual rent and trash service fees no later than **May 19th** of that Lease year.
- iii. All fees are nonrefundable.
- iv. County will annually adjust the rent fee based on the ten-year weighted average of the Consumer Price Index as determined for recreational sites by the Trust Land Management Division of the State of Wyoming.

B. MAINTAIN LIABILITY INSURANCE. During the entire term of this Lease, Lessee shall maintain comprehensive general liability insurance for the Lot in a minimum amount of \$100,000 for each occurrence for bodily injury and property damage from a company acceptable to County. Lessee shall provide proof of insurance to the Department Director upon request

C. ALLOW ACCESS. County and Reclamation and their respective agent(s) shall have, at all times and places, full ingress for passage over and egress from all land covered by this Lease for the purpose of carrying on operations of the United States and the County.

D. PROHIBITED. Lessee shall not:

- i. Change the use of the Lot;
- ii. Prevent access to the Alcova Reservoir shoreline;
- iii. Conduct a commercial enterprise on the premises

- iv. Commit or allow anyone else to commit waste on the Lot;
- v. Create or allow anyone else to create a nuisance on the Lot;
- vi. Commit or allow anyone else to commit any act whereby persons may be endangered or injured by use of the reservoir area;
- vii. Store any personal property other than boats and trailers on the Lot from October 16th through April 14th;
- viii. Construct any improvement, including, but not limited, to a fence, landscaping, lot driveway modifications, deck, porch, shed, sun shade, or modification to exteriors of structures, without following the Site Modification Guidelines for Leaseholders at Alcova Reservoir, Natrona County, Wyoming.
- ix. Allow any construction on the Lot by any person who is not a Natrona County licensed contractor;
- x. Violate any Natrona County resolution, including the current *Zoning Resolution of Natrona County, Wyoming*, with the exception of a preexisting use;
- xi. Build or use any fire pit or fire ring other than a valved, manufactured appliance listed specifically for recreational fire use. LP gas or charcoal grills are excluded from this prohibition when used for cooking;
- xii. Leave or burn refuse;
- xiii. Dispose of sewage except in accordance with federal, state, and local laws;
- xiv. Cut or take timber from any area covered by the Management Agreement; or
- xv. Build or place any improvement outside of the lot lease.
- xvi. Allow sleeping accommodations outside of the permitted structure on the lot, unless permitted by the County.

E. REQUIRED. Lessee shall:

- i. Maintain the Lot driveway at Lessee's expense in a manner acceptable to County;
- ii. Provide and maintain any water facilities, sewage disposal, and refuse disposal in a manner acceptable to County;
- iii. Promptly clean up after Lessee's dog(s);
- iv. Store all refuse in a tidy manner that prevents the refuse from being blown away;

- v. Submit all proposed construction activities to the Department Director in accordance with the Site Modification Guidelines for Leaseholders at Alcova Reservoir, Natrona County, Wyoming. The Department Director shall submit:
 - a. Proposals for *substantial* lot improvements to Reclamation.
 - b. All proposals and his/her recommendations on the proposed improvements to the Natrona County Development Department.

DOCK. The shoreline will at all times be open to the public. If there is no conflict with general public use, the Lessee may be permitted individually or jointly to construct or modify a dock facility at their sole cost and expense, following the Site Modification Guidelines for Leaseholders at Alcova Reservoir, Natrona County, Wyoming. This permission does not grant to the Lessee any exclusive use rights nor does it convey a right to a continuation of this permission beyond the end of the term of this Lease.

F. **USE.**

- i. The Lessee will use the said premises, or permit the said premises to be used, only and exclusively for proper and legitimate purposes.
- ii. Lessee may stay overnight on the Lot during the Seasonal Operation Period. Lessee shall not stay overnight on the Lot from October 16th through April 14th.

G. **OTHER SERVICES.** If Lessee wants any service not specified in this Lease (nonexclusive examples include – water well, septic system, propane, electrical, satellite television), Lessee is solely responsible for obtaining the service and all costs associated with the proper installation of the service and fees.

8. **Lease Extension and Renewal.** Neither party has a right of extension or renewal of this Lease.

9. **General Provisions.**

- A. **Amendments.** Any changes to this Lease shall be in writing signed and dated by all parties.
- B. **Assignment.** No party shall assign or transfer any right or delegate any responsibility of this Lease without prior written consent of all parties.
- C. **Collateral.** No party shall use this Lease or any part of this Lease as collateral without prior written consent of all parties.
- D. **Waiver.** If a party waives a breach by another party of a term of this Lease, it does not constitute a waiver of any prior or subsequent breach. Failure to object to a breach shall not constitute a waiver.
- E. **Breach.** If Lessee fails to perform in accordance with this Lease, the lessee shall be given written notice, by certified mail to the Lessee's address as designated within this Lease, of the breach or default, and Lessee shall have thirty (30) days from the receipt of such notice to correct the breach or take action likely to effect such correction. If such a breach or default is not corrected within 30 days, County may at its discretion:

- i. terminate this Lease, and/or
 - ii. demand specific performance in accordance with this Lease, and/or
 - iii. pursue any other remedy allowed by law.
- F. **Termination.** County may terminate this Lease immediately for cause if the Lessee fails to perform in accordance with this Lease. If County terminates this Lease for cause, Lessee is liable for all reasonable costs, County's attorneys' fees and expenses associated with enforcing this Lease, removing Lessee and Lessee's property, and otherwise recovering possession of the Lot.
- i. Lessee shall remove improvements within 90 days of termination of this Lease.
- G. **Notices.** A party shall give notice to all parties by regular mail, facsimile, or personal delivery at the respective address given in this Lease or provided in writing hereafter.
- H. **Applicable Law and Venue.** The laws of the State of Wyoming shall govern the interpretation and enforcement of this Lease. The courts in the State of Wyoming shall have jurisdiction over this Lease and the parties. A court in Natrona County, Wyoming shall be the proper venue for any legal action involving this Lease.
- I. **Governmental Immunity.** The 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 immunities provided by law. Reclamation does not waive and specifically retains its sovereign immunity and all other immunities provided by law.
- J. **Compliance with Laws.** Lessee shall be aware of and comply with all applicable federal, state, and local laws, rules and regulations in force now or as may be promulgated or changed in the future.
- K. **Third-Party Beneficiary.** The parties do not intend this Lease to create any third-party beneficiary.
- L. **Indemnification.** Lessee shall indemnify, defend, and hold harmless County and Reclamation and their respective agents from any and all claims, lawsuits, losses, and liability arising out of Lessee's acts or omissions related to this Lease.
- M. **Force Majeure.** The parties shall not be liable for failure to perform in accordance with this Lease if such failure to perform arises out of a cause beyond the party's control and with no fault or negligence of the nonperforming party. Such causes may include, but are not limited to, earthquake, act of a public enemy, fire, flood, epidemic, quarantine, freight embargo, and unusually severe weather.
- N. **Time.** Time is of the essence in performance of this Lease.
- O. **Titles for Reference.** Titles of paragraphs in this Lease are for reference only and shall not be used to construe the language of this Lease.

P. **Entire Lease.** This document consisting of 7 pages contains the entire legally binding agreement between the parties and supersedes any and all prior negotiations, representations, and agreements, written and oral with the exception that this Lease is contingent upon and subordinate to the Management Agreement.

Q. **Severability.** If any portion of this Lease is determined by a court with jurisdiction to be illegal or unenforceable, the remainder of this Lease shall remain in effect, and either party may renegotiate the term(s) affected by the severance.

By signing Lessee(s) affirms that he/she/they are owners of the Cabin and acknowledge that only an owner may lease the property.

NATRONA COUNTY

JANE DOE

Chair,
Board of County Commissioners

Date

Lessee

Date

ATTEST:

JOHN DOE

County Clerk

Date

Lessee

Date

Approved as to form
County Legal Department

All correspondence shall be sent to the following mailing address:

Address

City, ST Zip

Phone(s)

LICENSE

Date 7/27/20 Road Tavares Rd.

The BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF NATRONA, STATE OF WYOMING, (hereinafter called the "Board", hereby grants a license to 71 Construction

(hereinafter called the "Licensee"), to construct, maintain, use and operate Water service (hereinafter called the "Facility"), located in Section 24 Township 33 80 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 license, 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 7/30/20
(Five (5) day notice must be given County Road & Bridge Superintendent before start of construction)

Date of Completion 7/31/20
(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 R. [Signature] 7/27/2020
Road & Bridge Superintendent

By _____
County Surveyor

ATTEST:

County Clerk

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

[Signature]
President. X

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

EXHIBIT 'A'
COUNTY OF NATRONA
APPLICATION FOR 71 Construction

Applicant: IAN ALVSTAD

Address: 7072 Barton Dr Casper, WY Phone: 307-235-2922
PO Box 4600 Casper, WY 82604

Furnish the Following Information:

1) Location: Section 25, Township 33 North, Range 80 West.

2) County Road Designation Tavares

3) Surface of County Road Asphalt

4) Soils Type where applicable _____

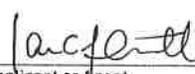
5) Reason for Application Water service tie-in

6) Specifications: (Attach 3 copies where applicable)

7) Plan: (Attach 3 copies where applicable)

SKETCH

Approved: 
Road and Bridge Superintendent

 7/27/20 X
Applicant or Agent Date

County Engineer _____

Wyo. Reg. P.E. _____ Date

County Commissioner _____

Approval Date: _____

Completion Date: _____

29-20-18
5255 CY Ave
water service

Legend

Tavares Rd



100 ft

Google Earth

© 2020 Google



LICENSE

Date 7/28/2020 Road WEST POISON SP, DEER - CTY 201

The BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF NATRONA, STATE OF WYOMING, (hereinafter called the "Board", hereby grants a license to SPELLBOUND ENERGY, LLC

(hereinafter called the "Licensee"), to construct, maintain, use and operate ROAD APPROACH (hereinafter called the "Facility"), located in Section 13 Township 33N N, Range 83 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 7/28/20, 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 8/5/2020
(Five (5) day notice must be given County Road & Bridge Superintendent before start of construction)

Date of Completion 8/10/2020
(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. Hays 7/28/2020
Road & Bridge Superintendent

ATTEST: _____
County Clerk

By _____
Chairman of the Board of County Commissioners.

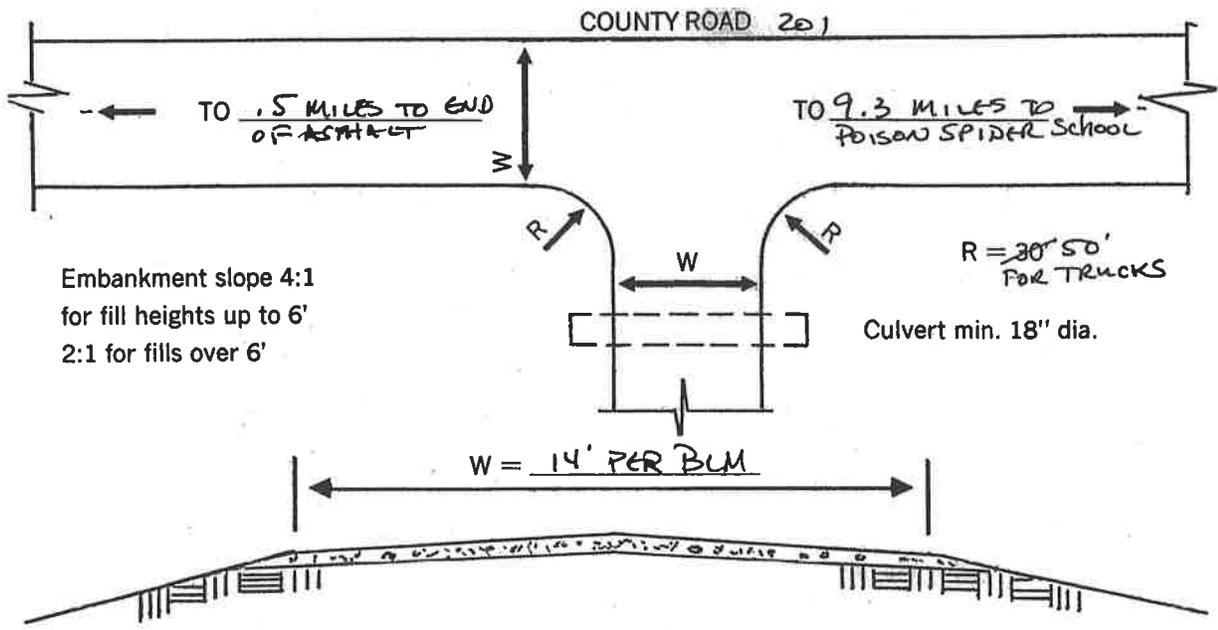
The undersigned, the Licensee mentioned in the forgoing License, hereby accepts the same, subject to the terms and conditions contained therein.

ATTEST: _____
Secretary

_____ President.

COUNTY OF NATRONA
APPLICATION FOR AN APPROACH

Applicant: SPELBOUND ENERGY, LLC Jeff Bennett 259-5555
Address: 611 16TH STREET, DENVER, CO 80202 Phone 303-407-8630



Furnish the Following Information:

- 1) Location: Section 13, Township 33N North, Range 83 West.
- 2) County Road Designation WEST POISON SPIDER ROAD (CTY 201)
- 3) Surface of County Road GRAVEL
(Surface of approach must be same as surface of County Road.)
- 4) Soil Type SAWDY LOAM
- 5) Sight Distance on County Road 0.4 MILES WEST 0.2 MILES EAST
- 6) Reason for Approach ACCESS TO NEW DRILLING PAD - OIL WELL

7) Requirements:

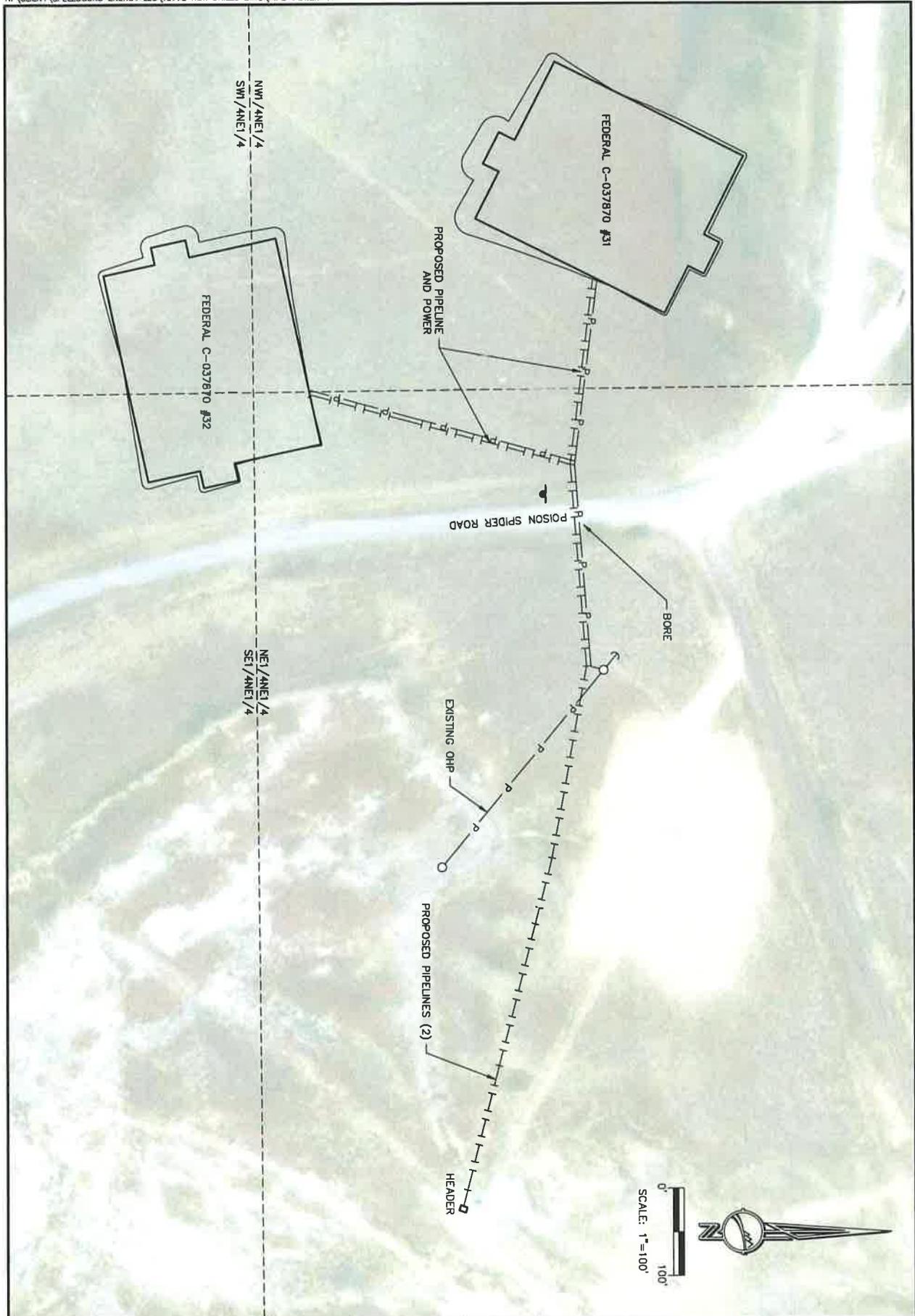
- A) Approach must meet specifications for construction and surfacing of subdivision roads and streets.
- B) All disturbed areas must be seeded with a mixture and using methods approved by County Road Superintendent.
- C) Any changes to the approach required because of change to the County Road will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

Approved: Michael D. Hays 7/28/2020
Road & Bridge Superintendent

Jeff Bennett 7/28/2020
Applicant Date

County Surveyor _____
County Commissioner _____
Approval Date: _____

Registered Engineer or Land Surveyor _____ Date _____
Completion Date: 8/10/2020



DATE: 3-6-19 SHEET NO: 1 OF 1	PLATTED FIELD NOTES OF POISON SPIDER FIELD LOCATED IN PORTIONS OF SECTION 13, T.33N., R.83W. OF THE 6TH P.M. NATRONA COUNTY, WYOMING	REVISIONS:	Des. By: JSD W.O. No.: 16773 Chk. By: PFM Book No.: Acad File: PIPE-POWER-1-4 FOR: SPELLBOUND ENERGY LLC 511 16TH ST., SUITE 600 DENVER, COLORADO 80202	 <p>ENGINEERING • SURVEYING 200 PRONSHORN, CASPER, WY. 82401</p>
----------------------------------	--	------------	--	--

PLATTED FIELD NOTES OF SURVEY
 MARKING WELL LOCATION
 NW1/4NE1/4, SECTION 13
 T.33N., R.83W., 6th P.M.
 NATRONA COUNTY, WYOMING
 FOR
 SPELLBOUND ENERGY LLC



SCALE: 1"=1000'

BASIS OF BEARING:
 NAD 83/2011
 WYOMING STATE PLANE
 EAST CENTRAL ZONE
 DISTANCES: GRID
 US SURVEY FOOT

LOCATION

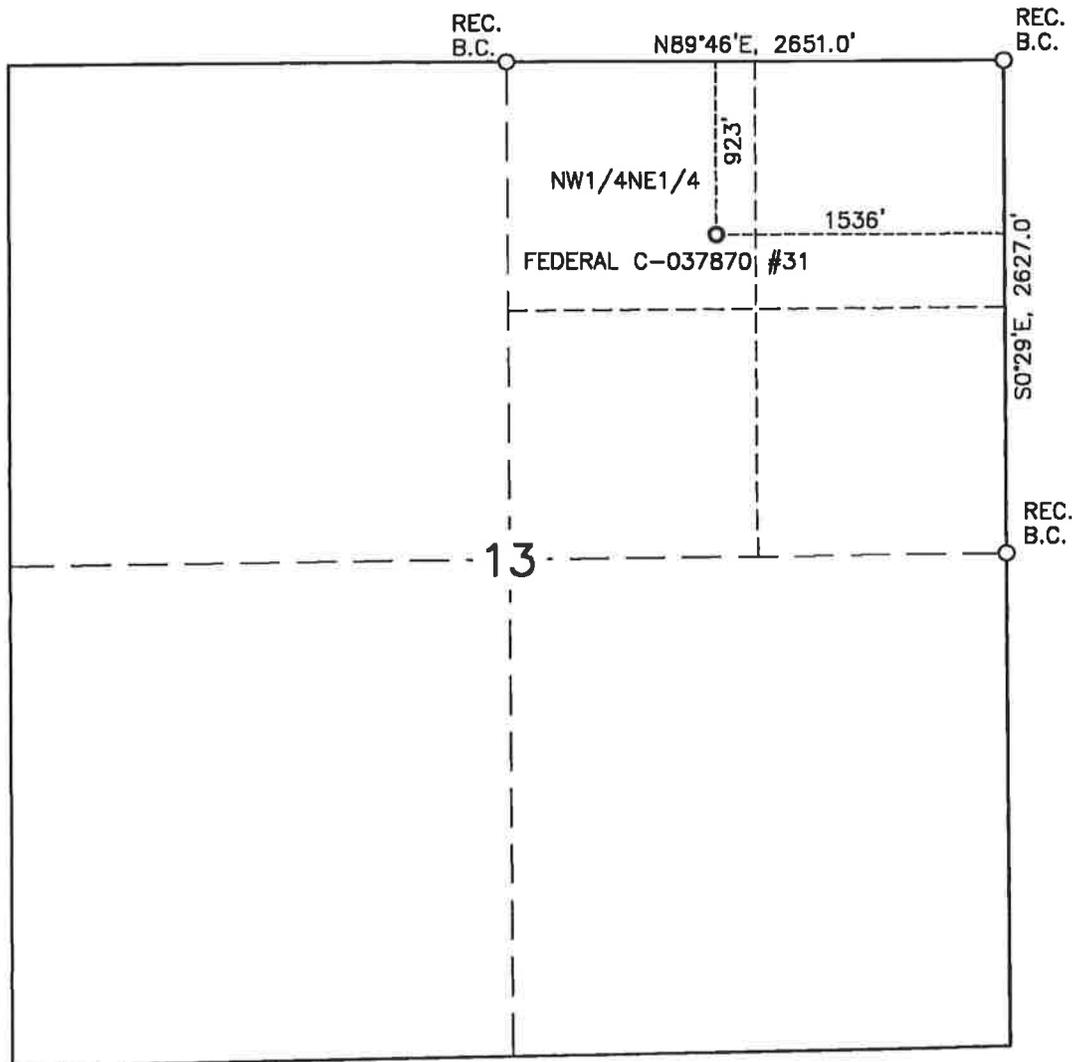
NAD27
 LAT..... 42.833300°
 LONG..... 106.735668°

NAD83
 LAT..... 42.833264°
 LONG..... 106.736268°

ELEVATIONS

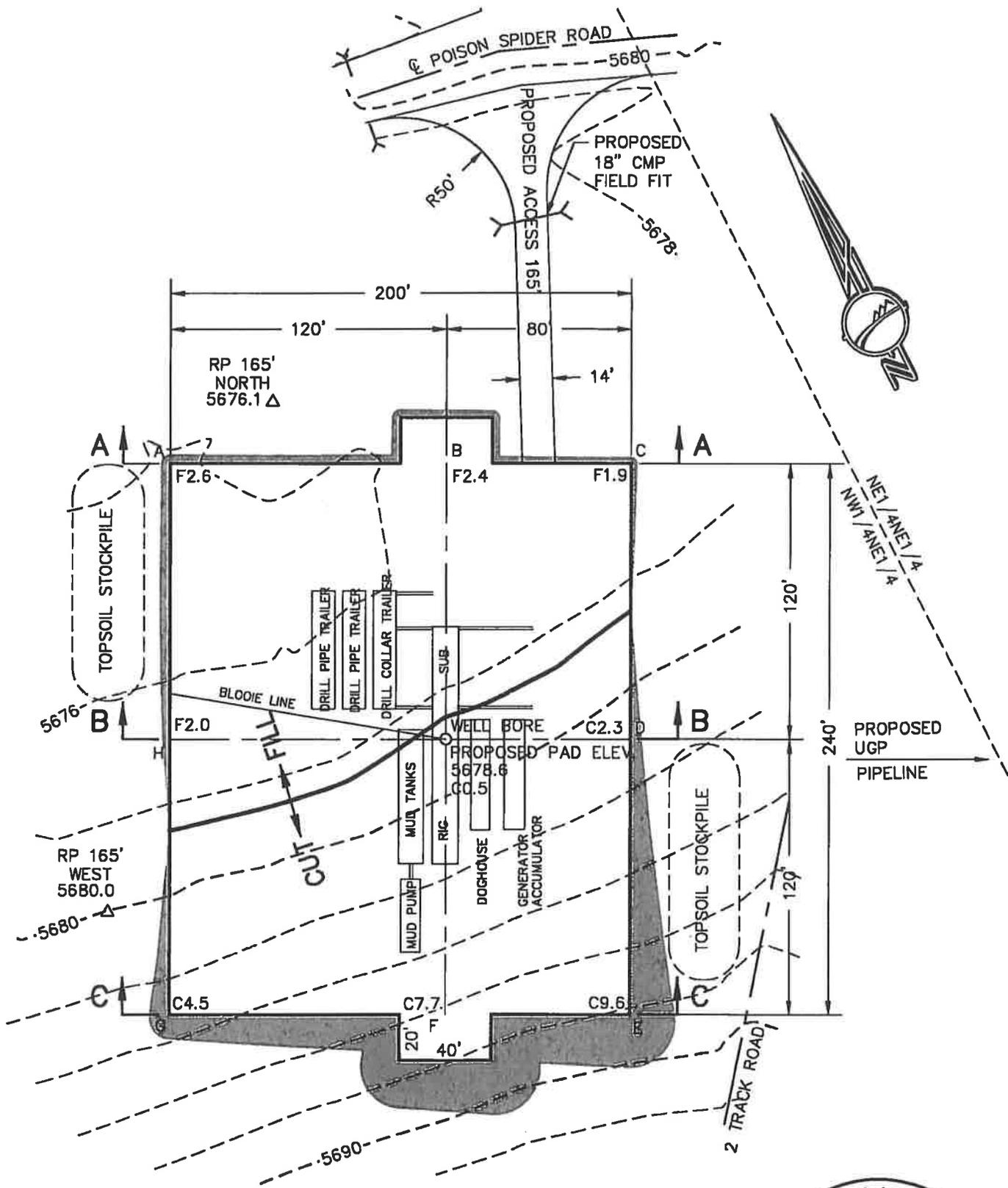
Location..... 5679.1
 R.P. 165' N. 5676.1
 R.P. 165' W. 5680.0
 Elevations referred to
 NAVD88 (GEOID12A)

NOTE: THIS WELL WAS
 STAKED BY THE
 SURVEYOR OR OTHERS
 UNDER HIS DIRECT
 SUPERVISION AS
 EXHIBITED ON THE PLAT.



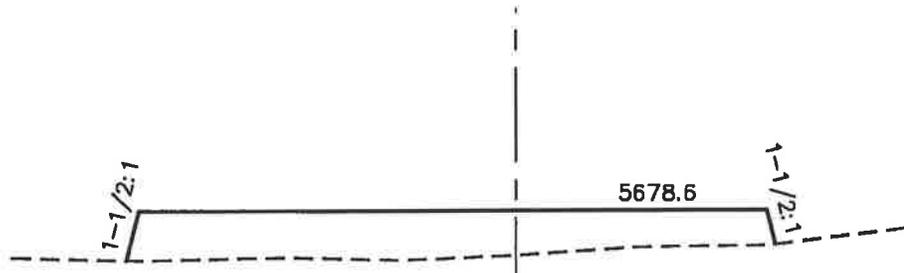
Revised: 01-28-20 REV1
 Dated: 4-30-19
 Work Order No.: 16773-01
 Book No.: 1332, Pg. 38
 ACAD DWG: 31
 Page 1 of 5

Survey & Plat By
 WLC ENGINEERING & SURVEYING
 200 Pronghorn Street, Casper, Wyoming 82601



FEDERAL C-037870 #31
 SCALE: 1"=60'
 CONTOUR INTERVAL = 2'

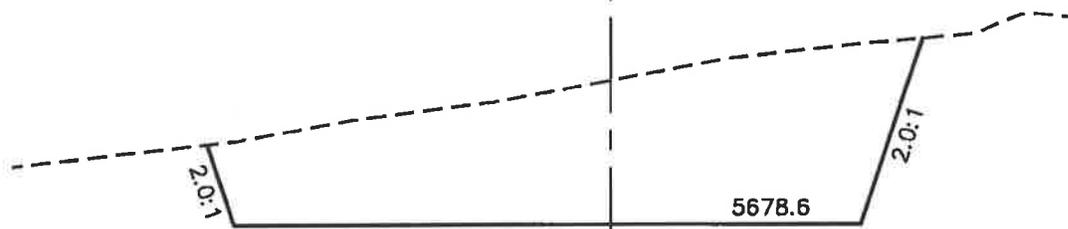




SECTION A-A



SECTION B-B

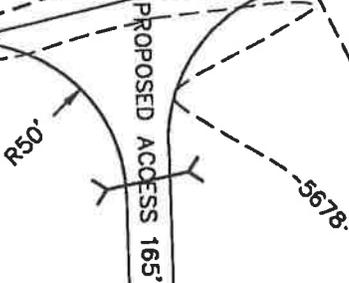
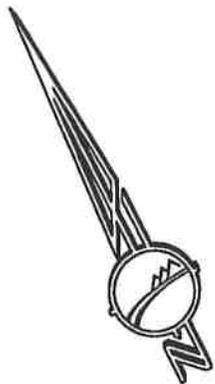


SECTION C-C

CUT - 3540 CU. YDS.
 FILL - 2652 CU. YDS. (w/ 15% SHRINK FACTOR)
 TOPSOIL - 1069 CU. YDS. (@ 6" DEPTH)

FEDERAL C-037870 #31
 SCALE: 1"=60' HORZ., 1"=10' VERT.



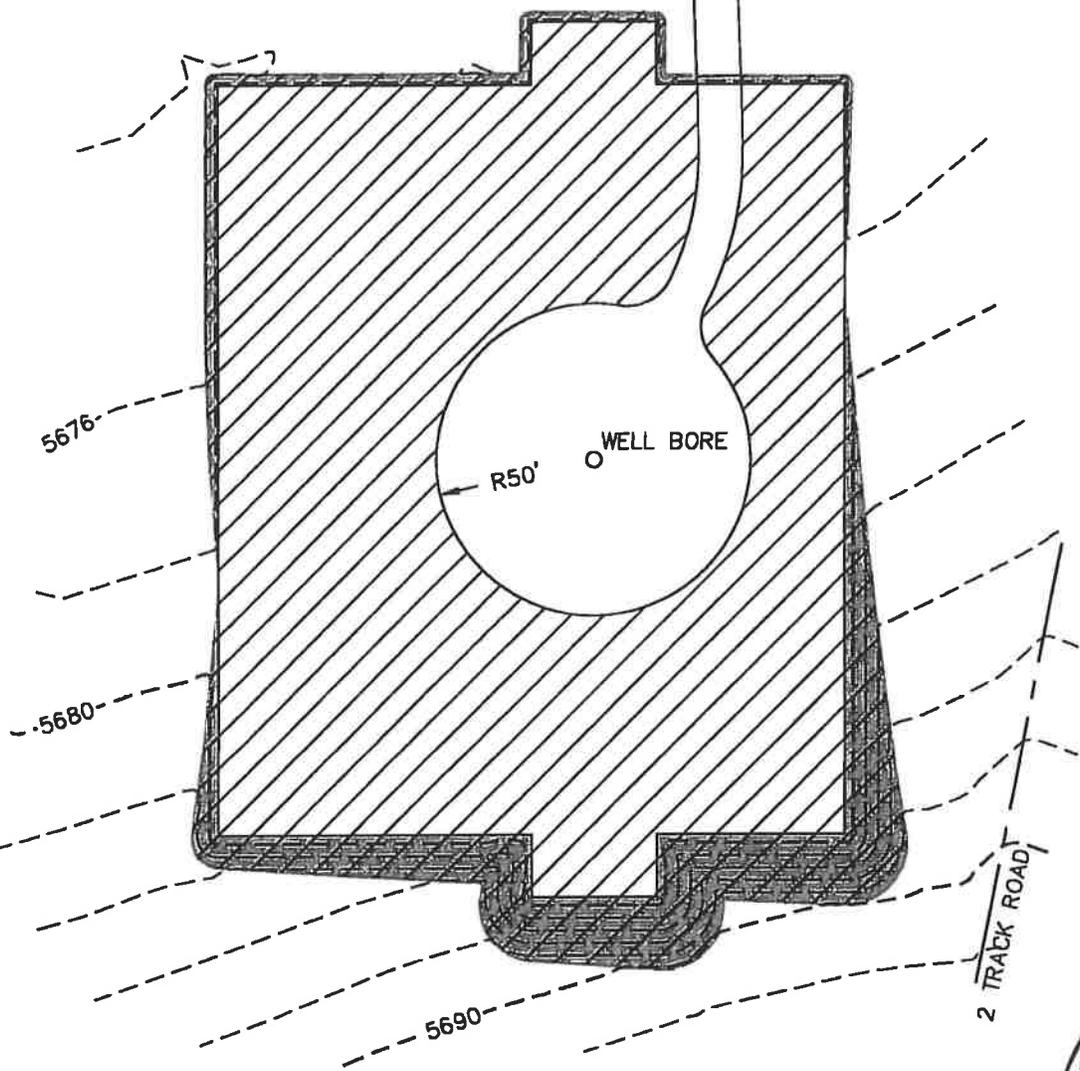


NE1/4NE1/4
NW1/4NE1/4

PROPOSED
UGP
PIPELINE

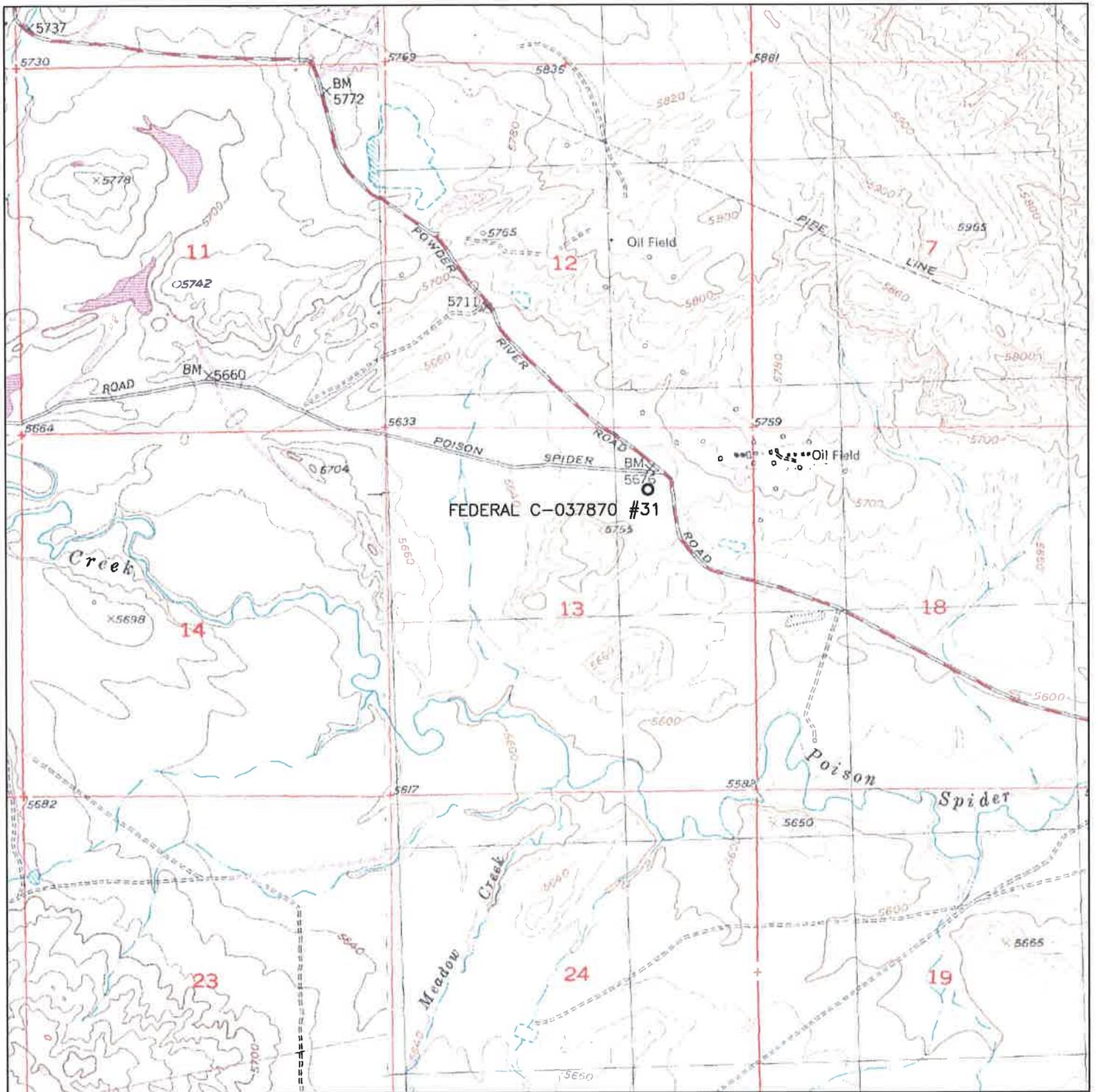
2 TRACK ROAD

WELL PAD INITIAL DISTURBANCE = 1.325 ACRES
WELL PAD LONG TERM DISTURBANCE = 0.208 ACRES
WELL PAD INTERIM RECLAMATION = 1.117 ACRES
ACCESS LONG TERM DISTURBANCE = 0.083 ACRES



FEDERAL C-037870 #31
RECLAMATION PLAN
SCALE: 1"=60'
CONTOUR INTERVAL = 2'





BASE MAP: U.S.G.S. QUADRANGLE MAP
 POISON SPIDER, OIL MOUNTAIN
 SCALE: 1"=2000'

ACCESS ROAD MAP
 FOR
 FEDERAL C-037870 #31
 SECTION 13, T.33N., R.83W.
 NATRONA COUNTY, WYOMING



NATRONA COUNTY

Development Department

200 North Center Street, Room 202
Casper, WY 82601

AGENDA
BOARD OF COUNTY
COMMISSIONERS MEETING
August 4, 2020

Planning Commission Recommendations

- Planning Commission Recommendation:** **Remove from Table/Approve**
CUP20-1 – A 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.
- Planning Commission Recommendation:** **Approve**
PS20-2 – Request to subdivide a 5.04-acre parcel of land into 2 lots to be known as Zero Road Industrial Park, Lots 3A & 3B. This parcel currently has 2 buildings addressed as 1014 & 1028 N. Robertson Road.
- Planning Commission Recommendation:** **Approve**
CUP20-3 – A Conditional Use Permit (CUP) by Union Wireless/Hemphill for an 84-foot self-supporting communication tower on an existing site located at 56252 W. US Highway 20-26. Applicant is requesting 100-feet to include all appurtenances. This location is approximately 4 miles west of Hiland.
- Planning Commission Recommendation:** **Approve**
CUP20-4 – A Conditional Use Permit (CUP) by Union Wireless/Hemphill for an 84-foot self-supporting communication tower on an existing site located at 15303 Arminto Rd. Applicant is requesting 100-feet to include all appurtenances.
- Planning Commission Recommendation:** **Approve**
CUP20-5 – A Conditional Use Permit (CUP) by Union Wireless/Hemphill for an 84-foot self-supporting communication tower on an existing site located at 21755 State Highway 220. Applicant is requesting 100-feet to include all appurtenances. This location is east of Highway 220 and north of Grey Reef Rd.



NATRONA COUNTY

Development Department

200 North Center Street, Room 205
Casper, WY 82601

Jason Gutierrez, PE, Director
County web: www.natronacounty-wy.gov

Phone: 307-235-9435
Fax: 307-235-9436
Email: jgutierrez@natronacounty-wy.gov

"The purpose of the Natrona County Development Department is to provide necessary services to implement sound land use planning and economic development policies to protect and enhance the quality of life for present and future inhabitants of Natrona County."

MEMORANDUM

To: Board of County Commissioners

From: Jason Gutierrez, P.E., Director

Date: July 7, 2020

RE: Land reclamation and drainage improvements not associated with a building permit.

cc: Applicant, County Attorney, File

Planning and Zoning Commission Recommendation:

Approve w/conditions

At its March 10, 2020 meeting, the Planning Commission, with all Commissioners present, acted to recommend approval of the requested Conditional Use Permit to the Board of County Commissioners with the following conditions:

- The land reclamation shall be completed by the applicant and inspected by the County Engineer within 12 months of the Board of County Commissioner approval (Staff added).
- If upon inspection it is determined that remediation of drainage is required, plans will be presented to staff and brought back to Planning Commission for review and approval (Planning Commission added).

(Motion passed unanimously).

After the Planning Commission meeting, staff reached out to the neighborhood and hosted a meeting with a majority of the property owners to discuss the formation of an Improvement and Service District (ISD) for the continued maintenance of Douglass Road. Currently, the landowners are working towards the formation of the ISD.

CONDITIONAL USE PERMIT APPLICATION

(Please read GENERAL INFORMATION AND APPLICATION INSTRUCTIONS before filling out.)

I (We), the undersigned, do hereby petition the Board of County Commissioners of Natrona County, Wyoming, for a Conditional Use Permit, as provided in Chapter 11, 2000 Natrona Zoning Resolution.

Applicant's Name:

Applicant's Address:

Applicant's Phone:

Owner's Name:

Owner's Address:

Owner's Phone:

Explain why you are requesting this conditional use permit and detail the proposed use:

Legal description and size of property (If within a platted subdivision, give subdivision name, block and lot number. If not within a platted subdivision, give quarter-section, section, township and range.):

Current zoning of property:

Type of sewage disposal: Public Septic Holding Tank Other

Source of water:

This property was purchased from:

The date this property was purchased:

On separate sheets of paper, please respond to the following questions and provide explanations for your answers:

- * Will granting the conditional use permit contribute to an overburdening of County Services?
- * Will granting the conditional use permit cause undue traffic, parking, population density or environmental problems?
- * Will granting the conditional use permit impair the use of adjacent property or alter the character of the neighborhood?
- * Will granting the conditional use permit detrimentally affect the public health, safety and welfare?

I (We) hereby certify that I (We) have read and examined this application and know the same to be true and correct to the best of my (our) knowledge. Granting this request does not presume to give authority to violate or cancel any State or local laws. All information within, attached to or submitted with this application shall become part of the public record. **I (We) further understand that all application fees are non-refundable.** By signing the application I am (We are) granting the Development Department access to our property for inspections.

Applicant: German G. Treto
(Signature)

Date: 6-17-2019

Print Applicant Name: German G. Treto

Owner: Same as above
(Signature)

Date: 6-17-2019

Print Owner Name: German G. Treto



CASPER
200 PRONGHORN
CASPER, WY 82601
P: 307-266-2524

January 15, 2020

Trish Chavis
County Planner
Natrona County Development Department
200 North Center Street, Roo, 202
Casper, WY 82601

RE: Application for Conditional Use Permit for Land reclamation at 3799 Douglass Road

Ms. Chavis,

Mr. German Treto would like to request a conditional use permit to complete the site grading at his property located at 3799 Douglass Road. The following will explain how granting this CUP will not contribute to an overburdening of County services:

Will granting the conditional use permit contribute to an overburdening of County Services?

Response: Granting of the conditional use permit will not contribute to an overburdening of County services. The existing site currently does not have any hard surfacing creating difficult access during rain and snow events. The proposed grading plan and recycled asphalt surfacing improvements will improve site maneuverability allowing the County to better access the entire property. The grading plan also includes an updated grading of Douglass Road providing improved access not only to the site but to adjacent properties as well. The proposed grading plan also includes drainage improvements for the property and Douglass Road. Drainage from the property will now slope away from the building directing runoff to the east side of Douglass Road through a new storm sewer pipe and drainage ditch routing water away from existing downstream properties.

Will granting the conditional use permit cause undue traffic, parking, population density or environmental problems.

The updated grading plan will not only improve the existing property but will include the re-grading of Douglass Road improving access to surrounding properties. Increased traffic or the need for additional parking is not expected with the proposed grading improvements. Storm water runoff routing along the boundary of the site, hard surfacing improvements and conveying runoff along a newly established ditch on the east side of Douglass Road will help to prevent area erosion and minimize impacts to adjacent properties. The site grading plan also includes the installation of erosion control matting

CHEYENNE

RAWLINS

DEDICATED TO CLIENTS. DEFINED BY EXCELLENCE.

and site seeding to decrease overall erosion while minimizing impacts to downstream facilities. Improvements will also include the delineation of property lines, establish a visible property access site and be more accessible to emergency vehicles.

Will granting the conditional use permit impair the use of adjacent property or alter the character of the neighborhood?

Granting the conditional use permit will improve the use of adjacent property and will not alter the character of the neighborhood. The re-grading of Douglass Road will direct storm water runoff to the east side of the road minimizing impacts to the adjacent westerly properties. Adding recycled asphalt base to the road will improve the look of the road, increase access and reduce existing erosion.

Will granting the conditional use permit detrimentally affect the public health, safety and welfare?

Granting of the conditional use permit will not detrimentally affect the public health, safety and welfare. The proposed grading plan will clean up the existing area, provide hard surfacing to reduce vehicle tracking of mud off site and improve rodent control. Existing areas to receive recycled asphalt surfacing will include the removal of weeds and unsightly vegetation allowing for better fire control of the area. Site erosion and poorly directed storm water runoff will be improved with grading, the addition of storm sewer pipe and the installation of erosion control blankets.

Please feel free to contact me with any and questions or additional comments.

Sincerely,



Brad Holwegner
Project Manager



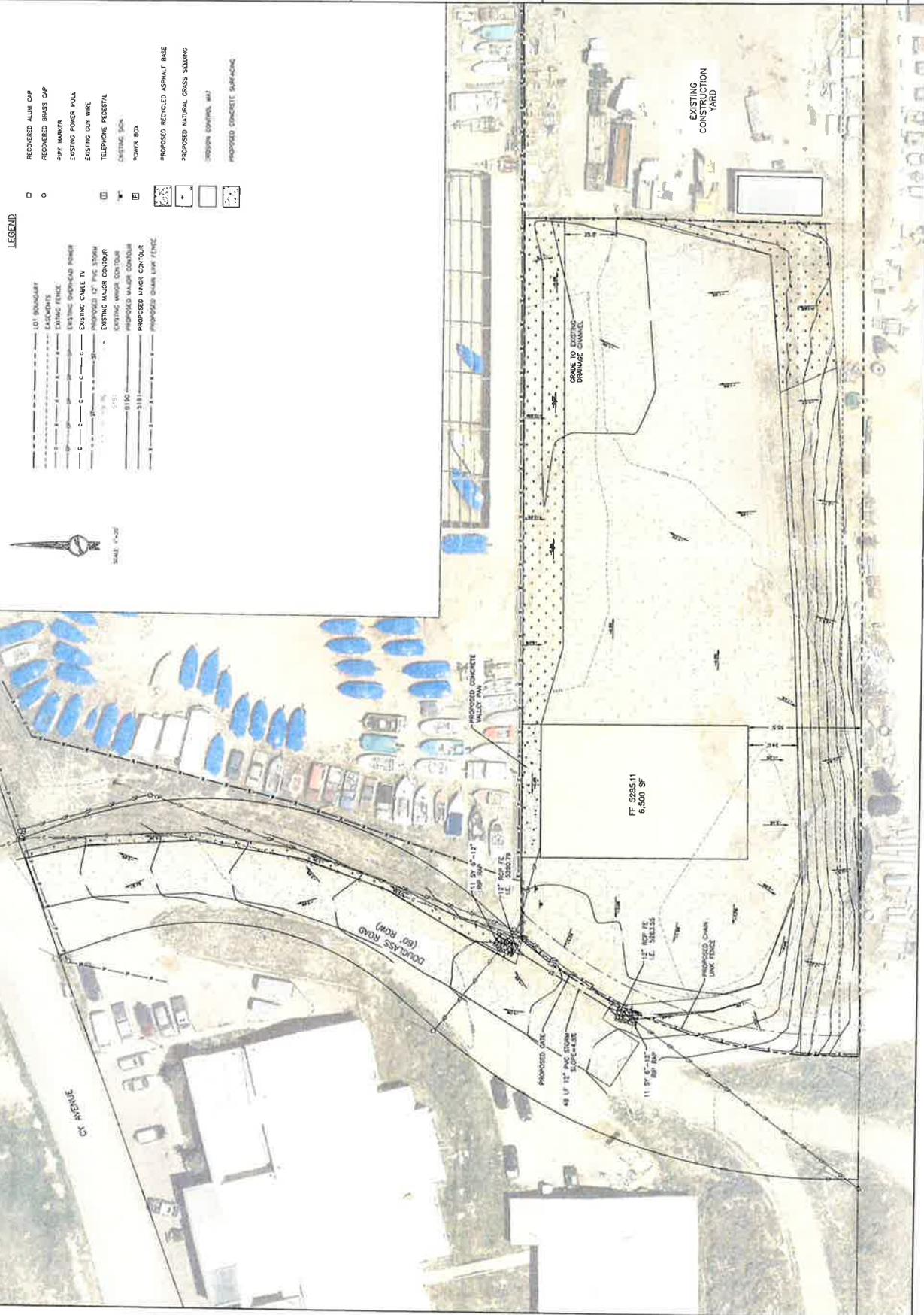
FOR: TRETO CONSTRUCTION, LLC
 CASPER, WY 82609
 P.O. BOX 50610
 GOSWAM TRETO

Drawn By: BSH
 Date: 01/14/2019
 W.O. No.: 16979
 Ck: JMB
 Book No.:
 Acad File: TRET0 TRT ELEC.DWG

REVISIONS

TRETO CONSTRUCTION YARD EXPANSION
 GRADING PLAN
 3799 DOUGLASS ROAD
 NATRONA COUNTY, WYOMING

SHEET NO.
 01 OF 01
 DATE
 01/14/2019



- LEGEND**
- LOT BOUNDARY
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - EXISTING CABLE TV
 - EXISTING CABLE TV
 - EXISTING MAJOR CONTOUR
 - EXISTING MAJOR CONTOUR
 - PROPOSED MAJOR CONTOUR
 - PROPOSED MAJOR CONTOUR
 - PROPOSED CHAIN LINK FENCE
 - RECOVERED ALUM CAP
 - RECOVERED BRASS CAP
 - PIPE MARKER
 - EXISTING POWER POLE
 - EXISTING OUT WIRE
 - TELEPHONE PEDESTAL
 - EXISTING SIGN
 - POWER BOX
 - PROPOSED RECYCLED ASPHALT BASE
 - PROPOSED NATURAL GRASS SEEDING
 - PROPOSED CONCRETE SURFACING



CONDITIONAL USE PERMIT REQUEST

CUP20-1

Staff Report: Trish Chavis
February 25, 2020

For

March 10, 2020
Planning and Zoning Commission

And

April 7, 2020
Board of County Commissioner Meeting

Applicant: German G. Treto

Request: Land reclamation and drainage improvements not associated with a building permit.

Location and Zoning

The parcel is located south of CY Avenue on Douglass Road. The address being 3799 Douglass Road.

The subject parcel and the parcels to the north and west are zoned Commercial (C). The parcels to the east and south are zoned Light Industrial (LI).

Background

The applicant is applying for the CUP to come into compliance with the Zoning Resolution. A CUP is required for land reclamation and fill not controlled by the regulations of other governmental agencies or not associated with a building permit.

A letter was issued in April of 2019 for the applicant to apply for a CUP for unpermitted land reclamation. The Planning Department had received complaints about drainage from the subject parcel onto Douglass Rd., and adjacent properties as a result of grading without proper engineering.

The applicant is applying for general site grading to provide positive drainage away from the existing building and to prevent storm water draining onto adjacent properties.

General Standards
For
Conditional Use Permits

Criteria for Approval

1. Will granting the Conditional Use Permit contribute to an overburdening of county services?

No. The proposed grading plan and recycled asphalt surfacing improvements will improve the site for better access to the entire property. The grading plan also includes an updated grading of Douglass Road providing improved access not only to the site but to adjacent properties as well. The plan also includes drainage improvements for the property and Douglass Road.

Proposed Finding of Fact.

The grading and drainage improvements will make Douglass Road and the subject property more accessible for emergency response and any additional services. Douglass Road is not maintained by Natrona County but is dedicated to the use of the public.

2. Will granting the Conditional Use Permit cause undue traffic, parking, population density or environmental problems?

Increased traffic or the need for additional parking is not expected with the proposed grading improvements.

Proposed Finding of Fact.

By permitting land reclamation for drainage and grading, as designed by WLC, there will not be any negative impacts to traffic, parking, population density or environmental problems.

3. Will granting the Conditional Use Permit impair the use of adjacent property or alter the character of the neighborhood?

It will improve the use of adjacent property and will not alter the character of the neighborhood in a negative way. The re-grading of Douglass Road will direct storm water runoff to the east side of the road minimizing impacts to the adjacent westerly properties. Adding recycled asphalt base to the road will improve the look of the road, increase access and reduce existing erosion.

Proposed Finding of Fact.

By grading and providing for drainage on the subject property and Douglass Road, the CUP will not impair the use of adjacent property or alter the character of the neighborhood in a negative way.

4. Will granting the Conditional Use Permit detrimentally affect the public health, safety and welfare, or nullify the intent of the Development Plan or Zoning Resolution?

The proposed grading plan will clean up the existing area, provide for hard surfacing to reduce vehicle tracking of mud off site and improve rodent control. Existing areas to receive recycled asphalt surfacing will include the removal of weeds and unsightly vegetation allowing for better fire control of the area.

Proposed Finding of Fact.

The grading plan will provide for drainage, hard surfacing, improved access and stabilization of the southern property boundary. This will not be detrimental to the public health, safety and welfare. With an approved CUP, the land reclamation will be compliant with the Development Plan and Zoning Resolution.

Public Comment

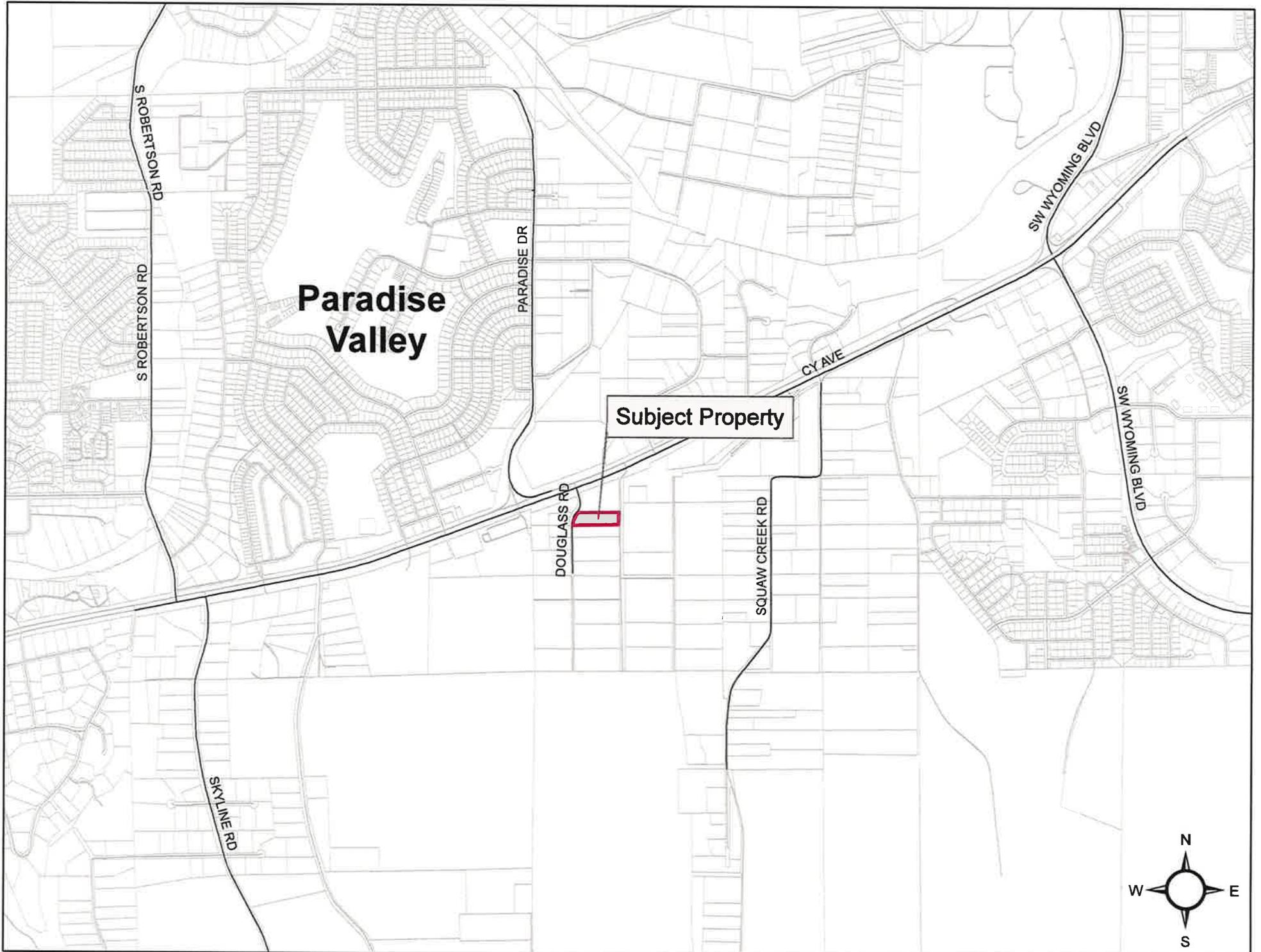
As of the date of this staff report there have been no comments received. Staff sent the public notice to 14 neighbors.

Recommendation

Staff proposes a motion and vote by the Planning and Zoning Commission to recommend approval of the requested Conditional Use Permit, by the Board of County Commissioners with the following condition:

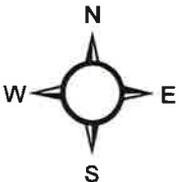
- The land reclamation shall be completed by the applicant and inspected by the County Surveyor/Engineer within 12 months of the Board of County Commissioner approval.

Staff also recommends the Planning Commission incorporate by reference all findings of fact set forth herein and make them a part thereof.



Paradise Valley

Subject Property





Subject Property

TAVARES RD





DOUGLASS RD

Subject Property

TAVARES RD













NATRONA COUNTY

Development Department

200 North Center Street, Room 205
Casper, WY 82601

Jason Gutierrez, PE, Director
County web: www.natronacounty-wy.gov

Phone: 307-235-9435
Fax: 307-235-9436
Email: jgutierrez@natronacounty-wy.gov

"The purpose of the Natrona County Development Department is to provide necessary services to implement sound land use planning and economic development policies to protect and enhance the quality of life for present and future inhabitants of Natrona County."

MEMORANDUM

To: Board of County Commissioners
From: Jason Gutierrez, P.E., Director
Date: July 15, 2020
RE: Request to plat two lots to be known as Zero Road Industrial Park, Lots 3A & 3B.
cc: Applicant, County Attorney, File

Planning and Zoning Commission Recommendation:

Approve

At its July 14, 2020 meeting, the Planning Commission, acted to recommend approval of the requested subdivision to the Board of County Commissioners.

(Motion passed unanimously)

Board of County Commissioners Review and Procedure: The following options are available to the Board of County Commissioners when acting on an item:

- Approve the application as recommended by the Planning Commission;
- Approve the application as submitted;
- Approve the application on its own conditions;
- Deny the application;
- Remand the application to the Planning Commission for reconsideration;
- Table to a date specific; or with the express consent of the applicant, the Board may table indefinitely or dismiss the application.

Applicant Name: Energy 307, LLC

Applicant Address: 6790 Casper Mountain Road, Casper, WY 82601

Applicant Phone: 307-215-6057

Owner Name: SAME

Owner Address: Same

Owner Phone: Same

Explain why you are requesting this major subdivision and detail the proposed use:

Plan to divide the parcel into two lots and develop both lots for commercial use

Legal description, acreage, and Parcel Identification number (PID) (if within a platted subdivision, give subdivision name, block and lot number. If not within a platted subdivision, give quarter-section, section, township and range).

Lot 3 Zero Road Industrial Park
PID# 33800310200300

Current zoning of property: LI

Type of sewage disposal Public Septic Holding Tank Other

Source of Water: Town of Mills

This property was purchased from: Daniel J McGlade

The date this property was purchased: 10/19/17

I (We) hereby certify that I (We) have read and examined this application and know the same to be true and correct to the best of my (our) knowledge. Granting this request does not presume to give authority to violate or cancel the provisions of any other State or local laws. Falsification or misrepresentation is grounds for voiding this request, if granted. All information within, attached to or submitted with this application shall become part of the public record. I (We) further understand that all application fees are non-refundable.

Applicant: 
(Signature)

Date: 5-26-2020

Print Name: Dan McGlade

Owner: 
(Signature)

Date: 5-26-2020

Print Name: Dan McGlade


Initials

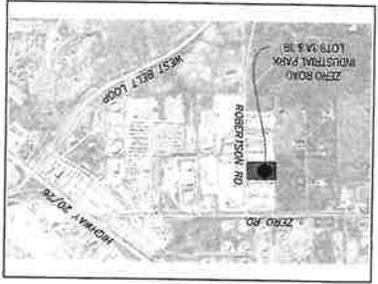
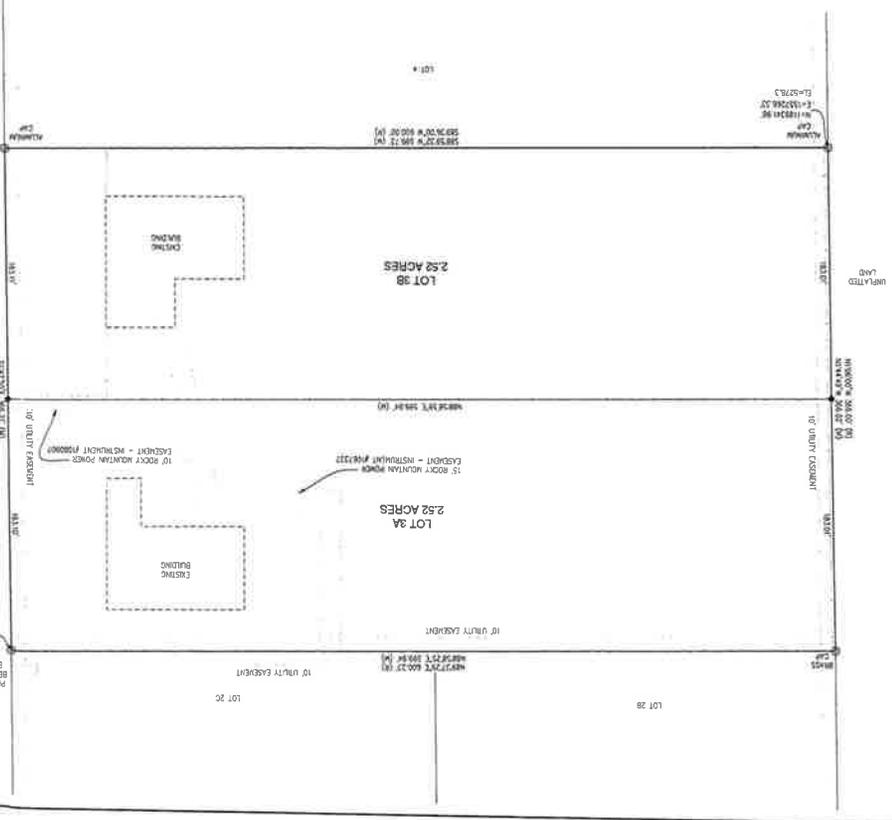
I (We) are aware that the Legal notice fees and the County Surveyor fees must be reimbursed to the Development Department prior to the recording of the Subdivision plat. In the event that the Subdivision is not approved, withdrawn, or not recorded, we are still responsible for the County Surveyor fees.



SCALE: 1" = 40'



- NOTES
1. THERE IS A 10' UTILITY EASEMENT ALONG THE WEST LINE OF THIS LOT.
 2. THERE IS A 10' UTILITY EASEMENT ALONG THE WEST LINE OF THIS LOT.
 3. THERE IS A 10' UTILITY EASEMENT ALONG THE WEST LINE OF THIS LOT.
 4. THERE IS A 10' UTILITY EASEMENT ALONG THE WEST LINE OF THIS LOT.
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 7. THERE IS A 10' UTILITY EASEMENT ALONG THE WEST LINE OF THIS LOT.
 8. THERE IS A 10' UTILITY EASEMENT ALONG THE WEST LINE OF THIS LOT.



APPROVED: BOARD OF COUNTY COMMISSIONERS OF MARION COUNTY, IOWA BY RESOLUTION PASSED THIS _____ DAY OF _____ 2020.

ATTEST: COUNTY CLERK _____

BOARD CHAIRMAN _____

RESPECTS AND APPROVES THIS _____ DAY OF _____ 2020.

COUNTY HEALTH DEPARTMENT _____

COUNTY SHERIFF _____

COUNTY SHERIFF'S OFFICE _____

BEING A PORTION OF LOT 3 (NEWLY)
 OF SECTION 1, T3N, 200N, 87W, R1M
 MARION COUNTY, IOWA
 MAY, 2020

ZERO ROAD INDUSTRIAL PARK
 AS
 ZERO ROAD INDUSTRIAL PARK
 PLAT OF LOT 3
 LOTS 3A & 3B

STATE OF IOWA
 COUNTY OF MARION

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME BY WILLIAM K. FREDERICK
 THIS _____ DAY OF _____ 2020.

NOTES BY ME AND OTHERS: _____



THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME BY DANIEL J. HOLCOMB
 THIS _____ DAY OF _____ 2020.

STATE OF IOWA
 COUNTY OF MARION

CERTIFICATE OF SURVEYOR

NOTARY PUBLIC _____

NOTES BY ME AND OTHERS: _____

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME BY DANIEL J. HOLCOMB
 THIS _____ DAY OF _____ 2020.

STATE OF IOWA
 COUNTY OF MARION

CERTIFICATE OF DEDICATION

STATE OF IOWA
 COUNTY OF MARION

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME BY DANIEL J. HOLCOMB
 THIS _____ DAY OF _____ 2020.

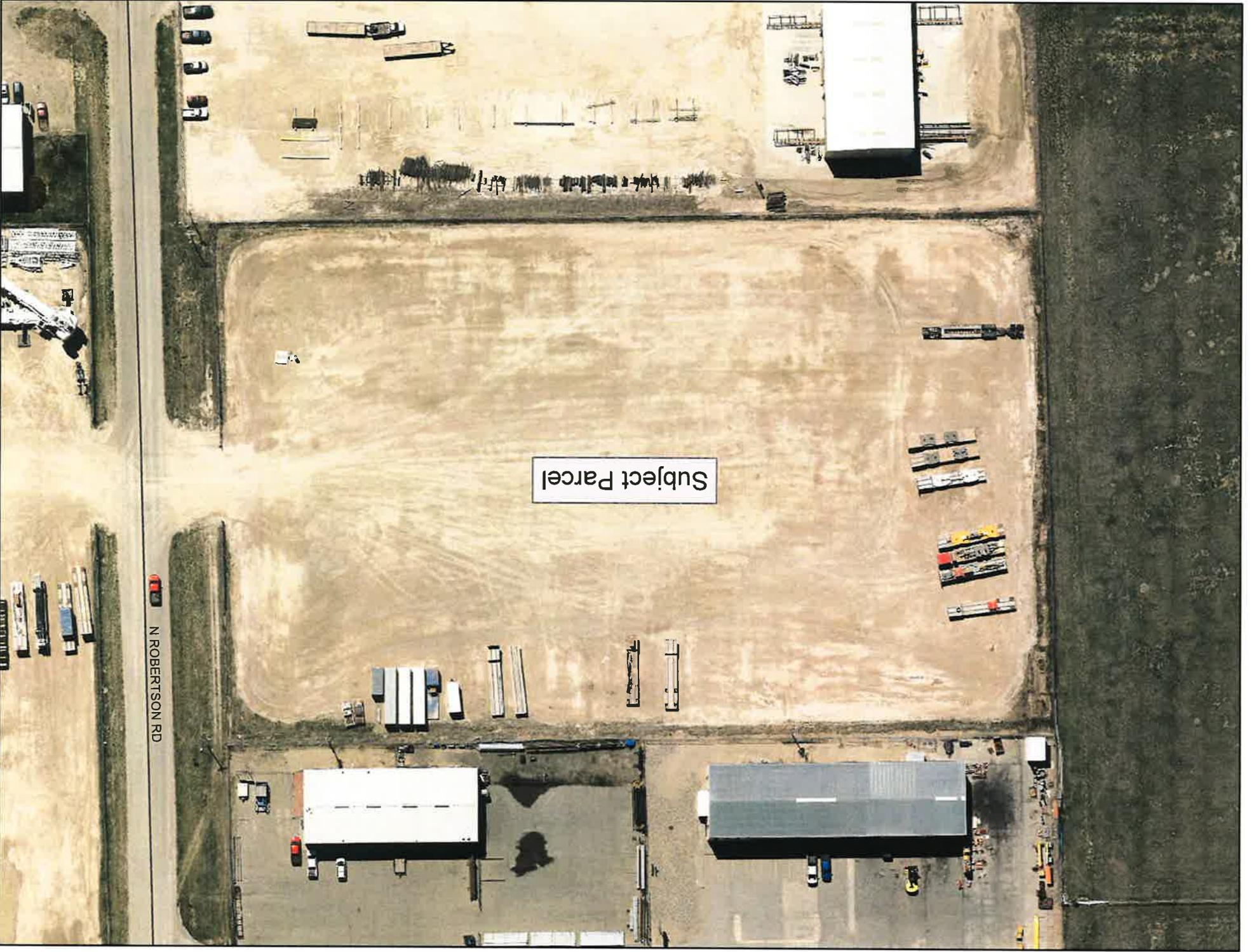
STATE OF IOWA
 COUNTY OF MARION

CERTIFICATE OF DEDICATION

STATE OF IOWA
 COUNTY OF MARION

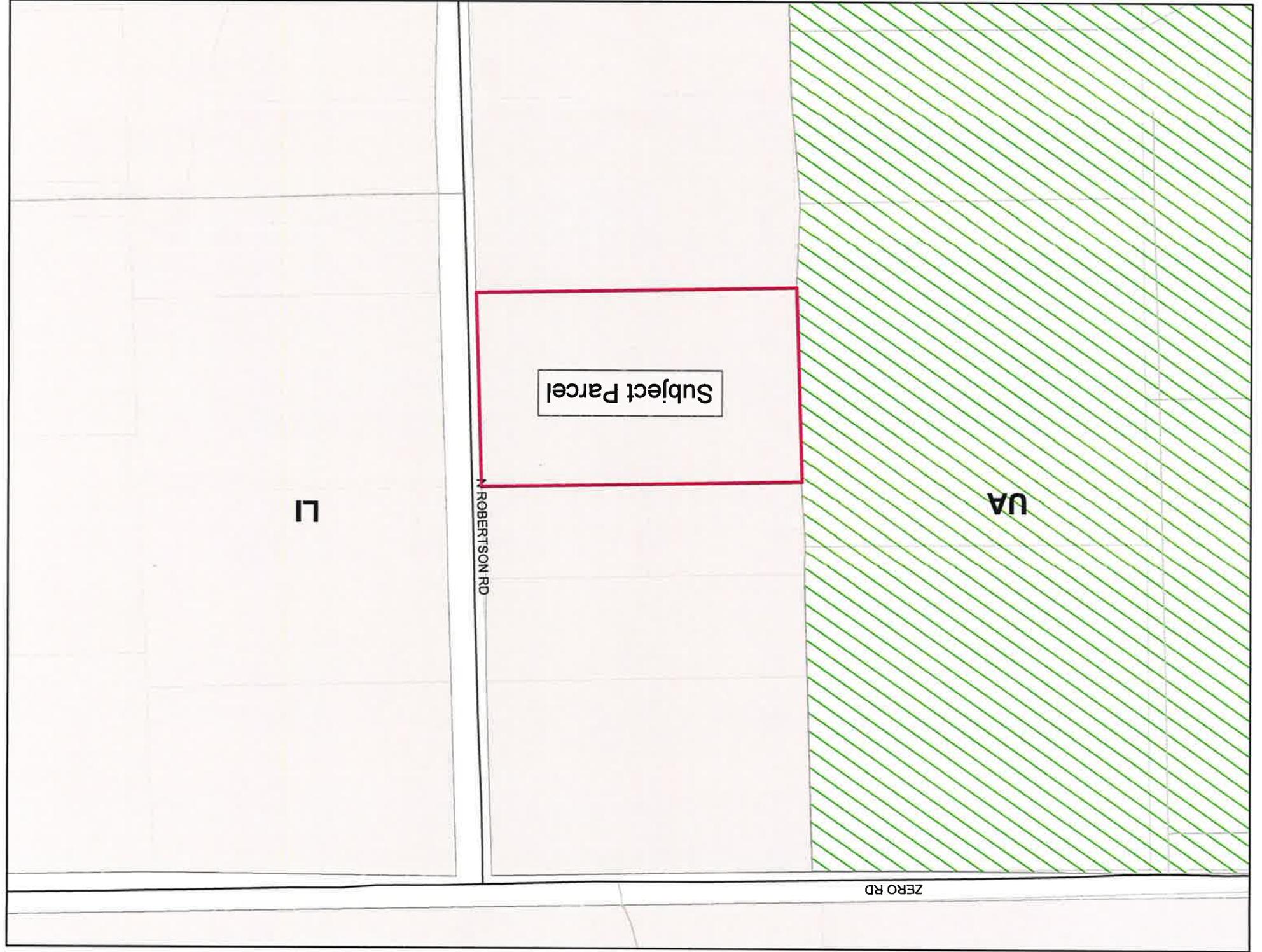
CERTIFICATE OF DEDICATION

STATE OF IOWA
 COUNTY OF MARION



Subject Parcel

N ROBERTSON RD



Subject Parcel

LI

UA

N ROBERTSON RD

ZERO RD



W YELLOWSTONE HWY

WEST BELT LOOP

N ROBERTSON RD

ZERO RD

SIX MILE RD

SIX MILE RD

Subject Parcel

PS20-2

STAFF REPORT: Trish Chavis
June 10, 2020

For

July 14, 2020
Planning and Zoning Commission Meeting
&
August 4, 2020
Board of County Commissioner Meeting

APPLICANT: Energy 307, LLC

REQUEST: To subdivide a 5.04-acre parcel of land into 2 lots to be known as Zero Road Industrial Park, Lots 3A & 3B.

LOCATION AND ZONING

The parcel currently has 2 buildings addressed as 1014 & 1028 N. Robertson Rd.

The subject parcel, parcels to the north, east, and south are zoned Light Industrial (LI). The parcels to the west are zoned Urban Agriculture (UA).

DEFINITION AND APPLICATION

1. Intent and purpose. The intent and purpose of the Light Industrial (LI) district is to provide for light manufacturing and storage facilities. Zoning Resolution of Natrona County, Wyoming, Chapter VI, Section 11 at page 42.

2. Major Subdivision. A Major Subdivision is a division of one parcel into two or more parcels. Subdivision Regulations of Natrona County, Wyoming, Chapter 2, Section 1d at page 9.

The proposed subdivision will consist of two lots.

GENERAL STANDARDS
FOR
MAJOR SUBDIVISIONS

1. Criteria for Approval

- a) The subdivision is consistent with the Natrona County Development Plan and the Natrona County Zoning Resolution.

The proposed subdivision is located in Neighbor 14 (West Belt Loop/Robertson) of the 2016 Development Plan. The Development Plan recommends industrial development with residential development closer to Mills.

Proposed Finding of Fact. The proposed subdivision is developed and does comply with the Development Plan and Zoning Resolution.

- b) The subdivision is in conformance with the General Provision (Chapter 1) and Subdivision Design Standards (Chapter 7).

Proposed Finding of Fact. This subdivision has been processed in accordance with the applicable General Provisions and Subdivision Design Standards of the 2013 Natrona County Subdivision Regulations.

- c) The applicant has provided evidence that a sufficient water supply system will be acquired in terms of quantity, quality, and dependability for the type of subdivision proposed.

The existing structures are currently supplied water from an existing Mills waterline.

Proposed Finding of Fact. Both structures currently have water served by the Town of Mills.

- d) The applicant has provided evidence that a public sewage disposal system will be established and, if other methods are proposed, evidence that the system complies with state and local laws and regulations.

Proposed Finding of Fact. Both structures have newly installed septic systems that were approved through the Department of Environmental Quality (DEQ).

- e) The applicant has provided evidence to show all areas of the proposed subdivision, which may involve soil or topographical conditions presenting hazards or requiring special precautions, have been identified by the applicant and the proposed uses of the areas are compatible with such areas.

The subdivision does not lie within any established flood plain. There are no soil or topographical conditions that currently exist.

- f) Necessary services, including fire/police protection, schools, recreation, utilities, open space and transportation system, are available to serve the proposed subdivision.

This subdivision will be within the Natrona County Sheriff's jurisdiction. The proposed subdivision has adequate utility easements provided. This will be an area of industrial/commercial uses, no recreation or schools are proposed.

- g) The subdivision appears to be compatible with the surrounding area, not detrimental to the future development of the area, and not detrimental to the health, safety, and general welfare of the inhabitants of the area and the County.

Proposed Finding of Fact. The subdivision is developed. There will be no detriment to the health, safety and general welfare of the inhabitants of the area and the County.

- h) Documentation satisfactory to the Board of County Commissioners that the Improvement and Service District requirements have been met.

Proposed Finding of Fact. Access to the subdivision is from Robertson Road and is maintained by NC Road & Bridge. An Improvement and Service District will not be required for this subdivision.

- i) Documentation that the subdivider has adequate financial resources to develop and complete water and/or sewage systems or any facility proposed or represented to be the responsibility of the subdivider, but not limited to the above mentioned.

As stated above, the systems are in place, no financial guarantee is required.

PUBLIC COMMENT

The property owners within 1/4 mile were notified resulting in 9 neighbors being notified.

As of the date of this staff report, no comments have been received.

PROPOSED MOTION

Staff proposes that the Planning and Zoning Commission enter a motion and vote to recommend approval of the requested major subdivision by the Board of County Commissioners and incorporate by reference all findings of fact set forth herein and make them a part thereof.



NATRONA COUNTY

Development Department

200 North Center Street, Room 205
Casper, WY 82601

Jason Gutierrez, PE, Director
County web: www.natronacounty-wy.gov

Phone: 307-235-9435
Fax: 307-235-9436
Email: jgutierrez@natronacounty-wy.gov

"The purpose of the Natrona County Development Department is to provide necessary services to implement sound land use planning and economic development policies to protect and enhance the quality of life for present and future inhabitants of Natrona County."

MEMORANDUM

To: Board of County Commissioners

From: Jason Gutierrez, P.E., Director

Date: July 15, 2020

RE: CUP20-3 Construct an 84-foot self-supporting communication tower to allow for the expansion of an existing Union Wireless site. The applicant is requesting 100-foot total height to include all appurtenances.

cc: Applicant, County Attorney, File

Planning and Zoning Commission Recommendation:

Approve

At its July 14, 2020 meeting, the Planning Commission, acted to recommend approval of the requested Conditional Use Permit to the Board of County Commissioners.

(Motion passed unanimously).

Board of County Commissioners Review and Procedure: The following options are available to the Board of County Commissioners when acting on an item:

- Approve the application as recommended by the Planning Commission;
- Approve the application as submitted;
- Approve the application on its own conditions;
- Deny the application;
- Remand the application to the Planning Commission for reconsideration;
- Table to a date specific; or with the express consent of the applicant, the Board may table indefinitely or dismiss the application.



Site Name: Poison Creek
Site Address: 56252 W. US Highway 20-26, Casper WY 82604
GEOCODE: 37882730000700 **Lat/Long:** 43 8 26.5 -107 24 29.04

Purpose of Request

Union Wireless is committed to improving coverage and expanding network capacity to meet customer demand throughout the State of Wyoming. The existing Wireless Communication Facility (WCF) provides residents, visitors and businesses with high quality reliable wireless service for both personal & business, in addition to enhancing emergency services.

Union Wireless is proposing the following at the existing WCF located at 56252 W. US Highway 20-26, Casper.

Details of Request

Union Wireless is proposing a new 80' self-support tower at the existing WCF, but **requesting approval for a 100' self-support tower**. The existing site footprint will be expanded to accommodate the upgrades as detailed on the attached site plan/elevation (see sheet C2-1). The existing 50' Union self-support tower will remain for a period to accommodate the transfer of equipment to the new tower.

The proposed upgrades are necessary to allow Union Wireless to continue providing the best possible service to the adjacent community, in addition to enhancing emergency service capabilities through FIRSTNET.

Technical Information

Steel four leg 80' self-support tower designed to accommodate multiple carriers, please see Exhibit A for tower structural/technical details.

Valmont self-support tower, proposed antennas are COMMSCOPE NNH4-65C-R6-V3, please see Exhibit A for tower structural/technical details and Exhibit B for antenna spec's.

Union/Hemphill is proposing an 80' Self-Support Tower with 3 sectors of antennas, please see Exhibit A for tower details. No lighting is required at the proposed location/height per FAA TowAir.

The proposed frequency range is 698-896 MHz to 1695-2360 MHz

Please see Exhibit B - Antenna Spec's for the actual intended transmission, effective radiated power etc.

Please see Exhibit B - Antenna Spec's for direction of maximum lobes and associated radiation of the antennas etc.

Please see Exhibit C - NIER Report.

Union Wireless is an FCC licensed carrier, therefore all transmissions will be within the allocated frequencies and will not cause interference with any other licensed transmission.

Please see the Exhibit D – Union FCC License Info.

Please see Exhibit F for information on proposed tower foundation, soils etc.

FAA does not require lighting for the proposed height, which is typical for sites under 200' unless the site is very close to an Airport.

The proposed 80' Self-Support tower will replace the existing 40' Union Self-support at the existing cell-site, and is structurally designed to accommodate multiple carriers.

Please see Exhibit A with information on the tower/foundation engineering compliant with local, County, State and Federal structural requirements.

Grounding and Bonding, please sheets E4-1, G1-1 and G1-2 for details.

The existing cell-site is far removed from the nearest residential. The site is visible from US HWY 20-26, however setback far enough to not be in the peripheral view of passing traffic.

Please see the attached photo simulations of the before and after views.

The subject location is an existing cell-site. The proposed changes mainly in tower height will be noticeable but should have little visual impact or public concern give the setback of the existing sites.

The existing cell-site currently has screening in place, so Union Wireless will continue to maintain the current screening to maintain consistency with the existing screening.

Please let me know if you need any additional information.

Sincerely,

A handwritten signature in black ink that reads "Declan Murphy". The signature is written in a cursive, slightly slanted style.

Declan Murphy
Coal Creek Consulting for Union Wireless/Hemphill
2166 E. University Dr. #201, Tempe, AZ 85281
Tel: (602) 326-0111
Email: dmurphy@coal-creek.com

and Zoning Commission and Board of County Commissioners shall require showings concerning all of the following:

1. The owner of record or contract purchaser has signed the application.
2. Granting the conditional use permit will not contribute to an overburdening of County Services.
3. Granting the conditional use will not cause undue traffic, parking, population density, or environmental problems.
4. Granting the conditional use permit will not impair the use of adjacent property or alter the character of the neighborhood.
5. Granting the conditional use permit will not detrimentally affect the public health, safety, and welfare, or nullify the intent of the Development Plan or the Zoning Resolution.

APPLICATION INSTRUCTIONS

This is an application for a conditional use permit for wireless telecommunication facilities on the parcel described hereon. By completing the application form and providing the other requested information, your application will be acted upon in the fastest, fairest manner prescribed by law.

Person preparing report:

Name: Declan Murphy for Union Wireless/Hemphill

Address: 2166 E University Drive, Suite 201, Tempe AZ 85281

Phone Number: 602 326 0111

Property Owner:

Name: Deer Creek Ranch Inc

Mailing Address: 112 Missouri Road, Shoshoni WY 82649

Phone Number: 307 856 4401

Physical Address: US Hwy 20, Casper WY 82601

Tax map parcel no: 37882730000700

Name: Declan Murphy for Union Wireless/Hemphill

Address: 2166 E. University Drive, Suite 201, Tempe AZ 85281

Phone Number: 602 326 0111

Legal form (Corporation, LLC, etc.): Union Telephone Company

If purchased tower, date of purchase: Original Lease date 9/16/2008

GPS coordinates of tower: Lat/Long: 43 8 26.5 -107 24 29.04

Original Conditional Use Permit resolution number:

Dated of original Conditional Use Permit:

Operator:

Name: Union Wireless

Address: PO Box 160, Mountain View WY 82939

Phone Number: 602 326 0111

Signatures

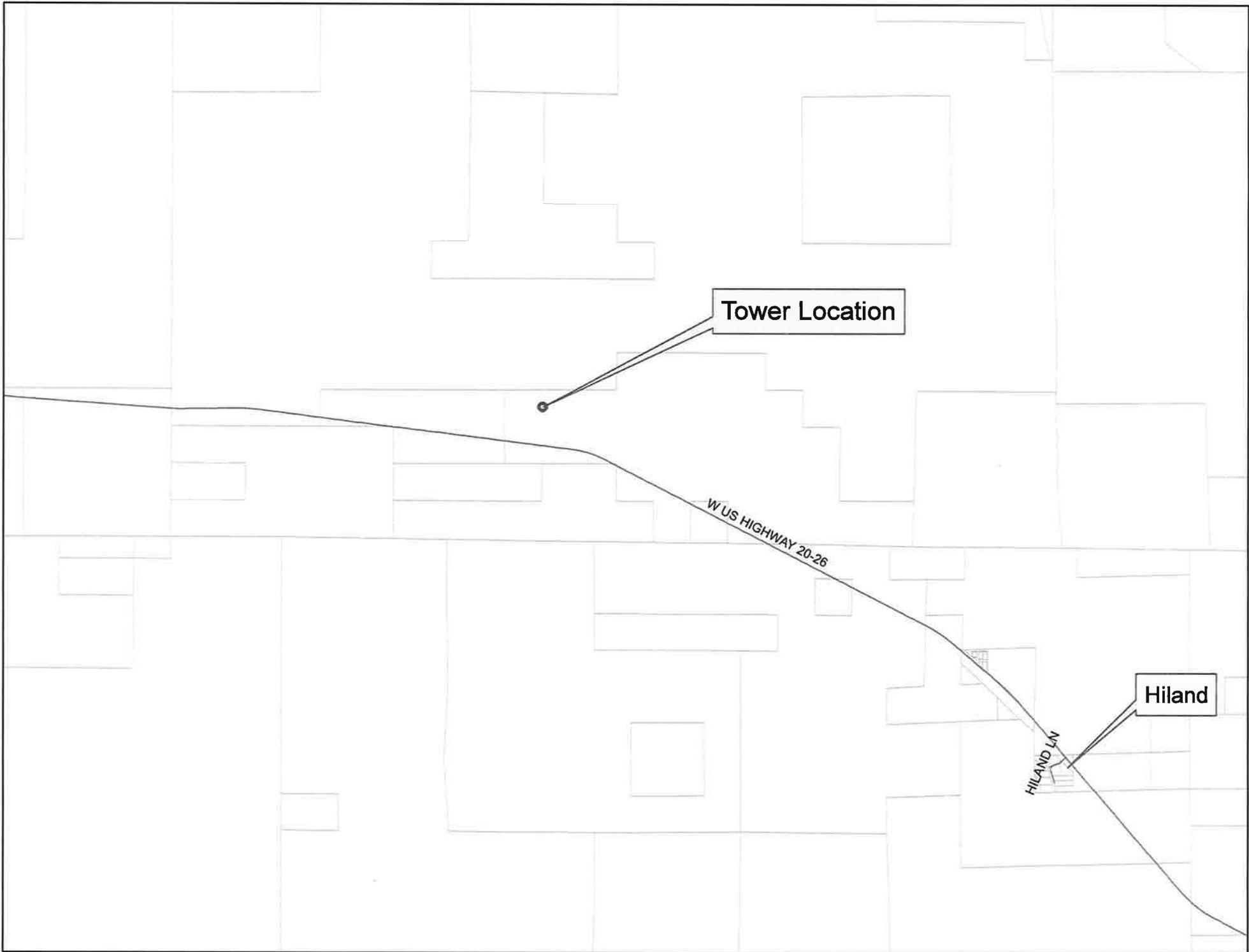
I (We) hereby certify that I (We) have read and examined this application and know the same to be true and correct to the best of my (our) knowledge. Granting this request does not presume to give authority to violate or cancel the provisions of any other State or local laws. Falsification or misrepresentation is grounds for voiding this request, if granted. All information within, attached to or submitted with this application shall become part of the public record, except as modified by applicable regulations. I (We) further understand that all application fees are non-refundable. By signing the application I am (We are) granting the Development Department access to our property for inspections.

Applicant: Declan Murphy (Signature) Date: 3-3-20

Print Applicant Name: Declan Murphy

Owner: Robert Pingetzer MAN (Signature) Date: 5-28-2020

Print Owner Name: Robert Pingetzer MAN
Pingetzer Six Iron Ranch LLC

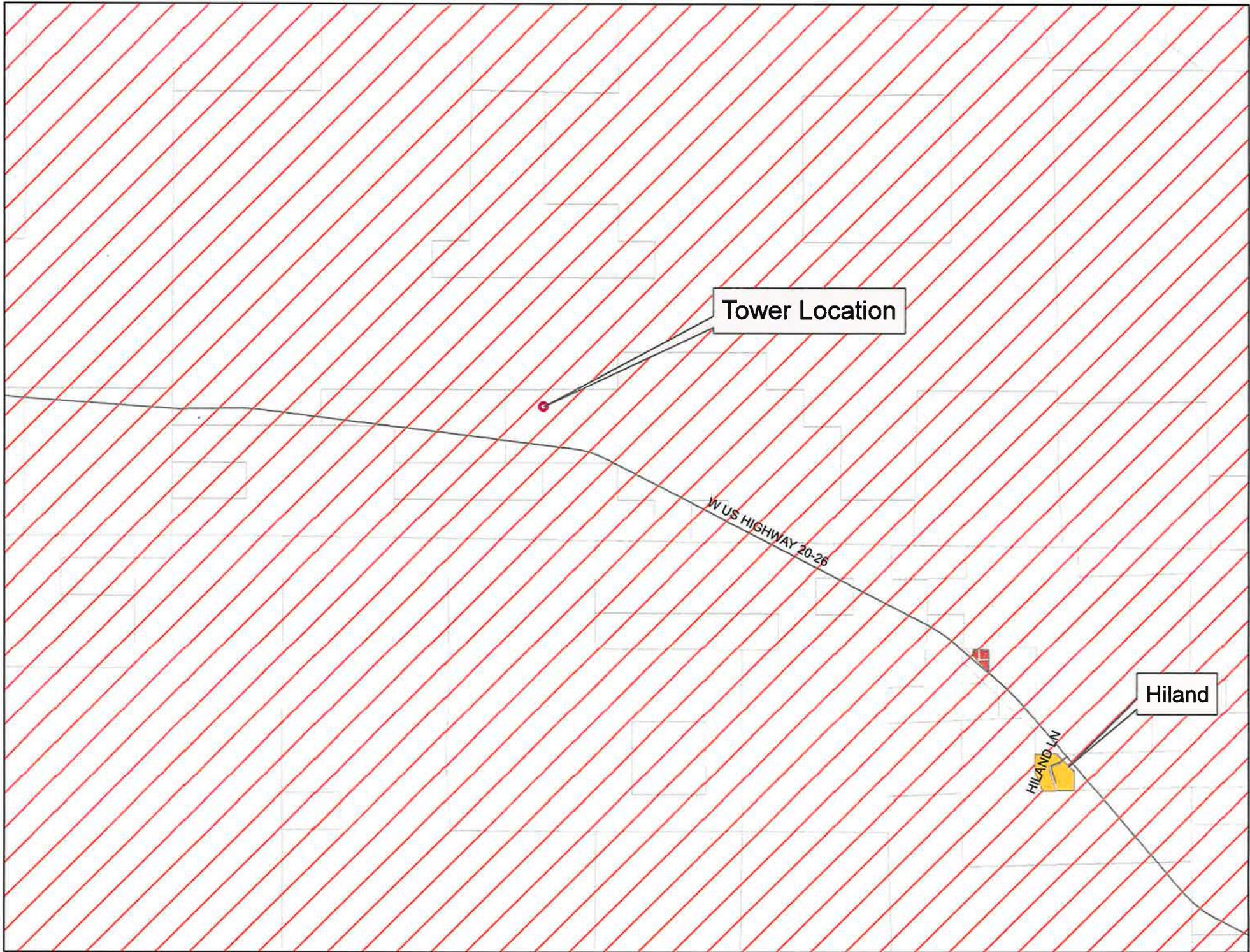


Tower Location

W US HIGHWAY 20-26

Hiland

HILAND LN



Tower Location

W US HIGHWAY 20-26

Hiland

HILAND LN

PHOTO SIMULATIONS

12063 - Poison Creek

LAT 43° 8' 26.25"

LONG -107° 24' 29.04"



Note: Simulations are an artistic illustration created to represent how the proposed project may look once constructed. Simulations are create to match the current design as accurately as possible, but are not guaranteed to match the final build.



Before:



PHOTO SIMULATIONS

12063 - Poison Creek

LAT 43° 8' 26.25"

LONG -107° 24' 29.04"

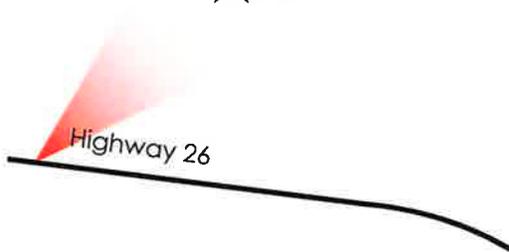
After:



View 1
Looking Northeast



Highway 26



Before:



PHOTO SIMULATIONS

12063 - Poison Creek

LAT 43° 8' 26.25"

LONG -107° 24' 29.04"

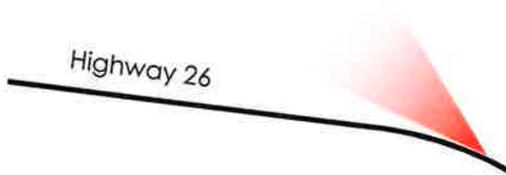
After:



View 2
Looking Northwest



Highway 26





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

GEOTECHNICAL ENGINEERING REPORT
NEW HEMPHILL 4-LEG SELF-SUPPORT TOWER
POISON CREEK – SITE # 12063
US HIGHWAY 20
NATRONA COUNTY, CASPER, WYOMING

Prepared for:

Hemphill, LLC
1350 North Louisville Avenue
Tulsa, Oklahoma 74115

Prepared by:



Springfield, MO
4168 W. Kearney Springfield, MO 65803
Call 417.864.6000 Fax 417.864.6004
www.ppimo.com

PROJECT NUMBER: 261436

May 13, 2020

May 13, 2020

Hemphill, LLC
1350 North Louisville Avenue
Tulsa, Oklahoma 74115

Attn: Mr. Scot Tinker, Director of Tower Operations
Email: scot.tinker@hemphill.com

RE: Geotechnical Engineering Report
New Hemphill 4-Leg Self-Support Tower - Poison Creek
US Highway 20
Natrona County, Casper, Wyoming
PPI Project Number: 261436

Dear Mr. Tinker:

Attached, please find the report summarizing the results of the geotechnical investigation conducted for the proposed New Hemphill 4-Leg Self-Support Tower in Natrona County, Casper, Wyoming. We appreciate this opportunity to be of service. If you have any questions, please don't hesitate to contact this office.

PALMERTON & PARRISH, INC.
By:



R. Todd Hercules, P.E.
Geotechnical Engineer

PALMERTON & PARRISH, INC.
By:



Brandon R. Parrish, P.E.
Vice-President

Submitted: One (1) Electronic .pdf Copy

BRP/BRP/RTH

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APPENDICES

- Appendix I - Figure
- Appendix II - Boring Log & Key To Symbols
- Appendix III - General Notes
- Appendix IV – Grain Size Test
- Appendix V - Important Information Regarding Your Geotechnical Report

EXECUTIVE SUMMARY

A Geotechnical Investigation was performed for the proposed New Hemphill 4-Leg Self-Support Tower located near US Highway 20 in Natrona County, Casper, Wyoming. It is understood that a new 80-foot Self-Support Tower will be constructed at the project site. Cut and fill depths are anticipated to be less than 1 foot across the subject site to provide finished subgrade elevations.

Based upon the information obtained from the boring drilled and subsequent laboratory testing, the site is suitable for the proposed Self-Support Tower. Important geotechnical considerations for the project are summarized below. However, users of the information contained in the report must review the entire report for specific details pertinent to geotechnical design considerations.

- Subsurface soils consisted of poorly-graded sand with silt extending the depth of the subsurface exploration. Sparse vegetation was noted at the ground surface;
 - The poorly-graded sand was generally loose to dense and excavatable without rock excavation equipment. The poorly-graded sands may be collapsible in excavations;
 - Mat foundations bearing on loose sands for the new Self-Support Tower can be designed for an allowable bearing capacity of 2,300 psf. Mat foundations bearing on medium dense sands at a depth of 8 feet or more for the new Self-Support Tower can be designed for an allowable bearing capacity of 5,000 psf. Micropiles may be used in conjunction with the mat foundation to resist overturning and lateral loads and provide additional bearing capacity. Alternatively, the proposed Self-Support Tower can be supported by a drilled pier foundation;
 - Drilled pier design parameters have been included in Section 8. Collapsible materials may be encountered in the drilled pier excavations. Accordingly, it is recommended that the drilled pier contractor have casing available in case these conditions are encountered;
-

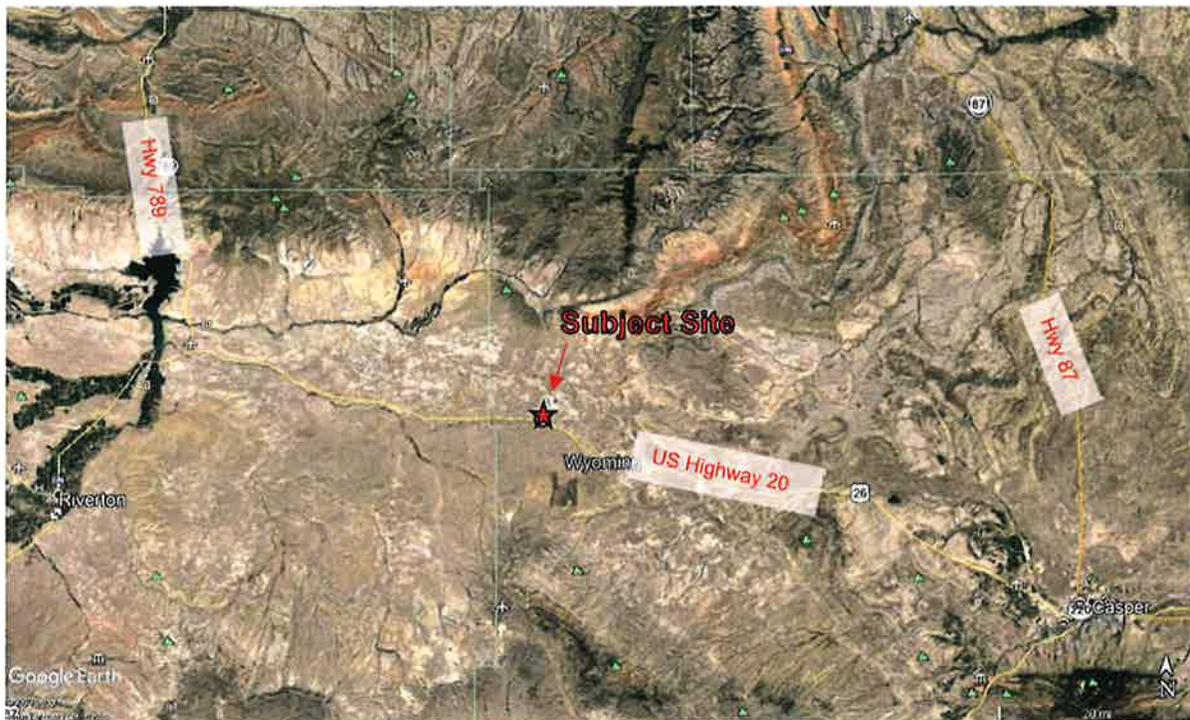
EXECUTIVE SUMMARY - CONTINUED

- The project site classifies as a Site Class D in accordance with Section 1613 of the 2012 International Building Code (IBC); and
 - Construction materials testing should be performed on tower foundations by a qualified engineer and close monitoring of subgrade preparation work is considered critical to achieve adequate subgrade performance.
-

**GEOTECHNICAL ENGINEERING REPORT
NEW HEMPHILL 4-LEG SELF-SUPPORT TOWER
POISON CREEK
US HIGHWAY 20
NATRONA COUNTY, CASPER, WYOMING**

1.0 INTRODUCTION

This is the report of the Geotechnical Investigation performed for the proposed New Hemphill 4-Leg Self-Support Tower located near US Highway 20 in Natrona County, Casper, Wyoming. This investigation was in accordance with a letter proposal dated October 8, 2019, and authorized by Mr. Scot Tinker with Hemphill. The approximate site location is shown below:



2.0 PROJECT PURPOSE

The purpose of this Geotechnical Investigation was to provide information for foundation design and construction planning for the proposed Self-Support Tower. PPI's scope of services includes field and laboratory testing, investigation of the subsurface conditions in the vicinity of the tower base, engineering analysis of collected data and development of recommendations for foundation design and construction planning, and preparation of this Engineering Report.

3.0 PROJECT DESCRIPTION

It is understood that a new 80-foot Self-Support Tower supported upon either a mat foundation or drilled piers is proposed at the project site. It is understood that micropiles may be utilized in combination with a mat foundation for additional overturning, lateral loading, and bearing capacity. Foundation loadings, both compressive and overturning are anticipated to be moderate. Cut and fill depths are anticipated to be less than 1 foot across the subject site to provide finished subgrade elevations.

4.0 SUBSURFACE INVESTIGATION

Subsurface conditions were investigated through completion of a subsurface boring and subsequent laboratory testing. Below is a picture of the boring location:



4.1 Subsurface Boring

The tower center was selected and staked in the field by the Client. The approximate boring location is shown on [Figure 1, Boring Location Plan](#). The Wyoming One-Call System was notified prior to the investigation to assist in locating buried public utilities.

A log of the boring showing descriptions of soil and rock units encountered, as well as results of field tests, laboratory tests and a “Key to Symbols” are presented in [Appendix II](#).

The boring was drilled on April 25, 2020 using air rotary methods and a 4-inch O.D. tricone bit powered by an ATV-mounted drill-rig. Soil samples were generally collected at 2.5 to 5-foot centers during drilling using a split spoon sampler while performing the Standard Penetration Test (SPT) in general accordance with ASTM D1586. Please refer to Appendix III for general notes regarding boring logs and additional soil sampling information.

4.2 Laboratory Testing

Collected samples were sealed and transported to the laboratory for further evaluation and visual examination. Laboratory soil testing included the following:

- Moisture Content (ASTM D2216); and
- Grain Size Analysis (ASTM D6913).

Laboratory test results are shown on each boring log in Appendix II and are summarized in the following table.

Depth (ft.)	Moisture Content (%)	USCS Symbol	Percent Passing No. 200 Sieve (%)
0	6.3	SP-SM	12
13.5	4.2	SP-SM	9

5.0 SITE GEOLOGY

Based on information available from the Wyoming Geological Survey, the subject site is located over dune sand and loess. These materials consist primarily of sand in active and dormant dune formations. Loess materials are windblown materials that are deposited in a “card house stacked” fashion and are collapsible if exposed to water.

The subject site is located on wind deposits according to the Wyoming Geological Survey. Accordingly, windblown deposits and/or the hazards of windblown material may impact the subject site in the future. Hazards include drift of dunes and soils which may partially bury structures or temporarily close roadways. Vegetation disturbance, if any, in these areas should be kept to a minimum.

6.0 GENERAL SITE SUBSURFACE CONDITIONS

Based upon subsurface conditions encountered within the boring drilled at the project site, generalized subsurface conditions are summarized in the table below. Soil stratification lines on the boring log indicate approximate boundary lines between different types of soil units based upon observations made during drilling. In-situ transitions between soil types are typically gradual.

6.1 Subsurface Stratums

Generalized subsurface conditions are summarized in the table below:

Depth	Stratum	Subsurface Material	Density/Consistency
0 to 50 feet	Sand	Poorly-Graded Sand, with Silt (SP-SM)	Loose to Dense

6.2 Groundwater

Shallow groundwater was not observed within the boring on the date drilled. Groundwater levels should be expected to fluctuate with changes in site grading, precipitation, and regional groundwater levels. Groundwater may be encountered during wetter periods.

7.0 EARTHWORK

Grading plans for the proposed Self-Support Tower were not provided. Grading for the project site is anticipated to have less than 1 foot of cut and/or fill to establish final grades. The initial phase of site preparation should include the steps listed below;

- Clearing and grubbing of any vegetation within the tower footprint; and
- Areas scheduled to receive controlled fill, if any, should be proof-rolled and approved in accordance with the following section of this report.

7.1 Site Preparation

Proof-rolling consists essentially of rolling the ground surface with a loaded tandem axle dump truck or similar heavy rubber-tired construction equipment and noting any areas which rut or deflect during rolling. All soft subgrade areas identified during proof-

rolling should be undercut and replaced with compacted fill as outlined below. Proof-rolling, undercutting and replacement should be monitored by a qualified representative of the Geotechnical Engineer.

7.2 Fill Material Types

Fill Type ¹	USCS Classification	Acceptable Location for Placement
Low Volume Change (LVC) Engineered Fill ²	CL, GC, or SC (LL < 45%)	All locations and elevations
On-Site Natural Soils	SP-SM	All locations and elevations
Rock Fill ³	GW	All locations and elevations

1. Controlled, compacted fill should consist of approved materials that are free of organic matter and debris and contain maximum rock size of 4 to 6 in. Frozen material should not be used and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to the Geotechnical Engineer for evaluation prior to its use.
2. Low plasticity cohesive soil or granular soil having at least 15% low plasticity fines.
3. See Section 7.2.1 if rock fill will be utilized at the project site.

7.2.1 Rock Fill

If rock is to be used as the primary filling medium, embankments should be constructed using rock having maximum dimensions in excess of 4 inches, but no greater than 8 inches. Rock material should be placed in horizontal layers having a thickness of approximately the maximum size of the larger rock comprising the lift, but not greater than 12 inches. Rocks or boulders too large to permit placing in a 12-inch thick lift should be reduced in size as necessary to permit placement or be bladed over the edge of the fill and not used in the compacted fill. Rock fill should not be dumped into place but should be distributed in horizontal lifts by blading and dozing in such a manner as to ensure proper placement into final position in the embankment. Finer material including rock fines and limited soil fines should be worked into the rock voids during this blading operation. Excessive soil and rock fine particles preventing interlock of cobble and boulder sized rock should be prohibited. Rock fill should be consolidated by a minimum of three (3) passes of a large diameter self-propelled vibratory compactor. Terminal fill slopes using rock may be constructed 1.5 horizontal to 1 vertical for fill height of 15 feet or less. The testing of rock fill quality should include the requirements that a representative of the Geotechnical Engineer be present daily, but not necessarily

continuously during the placement of the fill to observe the placement of rock fill in order to determine fill quality and to observe that the contractors work sequence is in compliance with this specification. Progress reports indicative of the quality of the fill should be made at regular intervals to the Owner. If improper placement procedures are observed during the placement of the fill the Geotechnical Engineer should inform the Contractor, and no additional fill should be permitted on the affected area until the condition causing the low densities has been corrected and the fill has been reworked to obtain sufficient density.

7.3 Compaction Requirements

Item	Description
Subgrade Scarification Depth	At least 8 inches
Fill Lift Thickness	8-inch (loose)
Compaction Requirements ¹	<ul style="list-style-type: none"> 70% Relative Density, or compacted by a minimum of three (3) passes of a self-propelled smooth drum vibratory compactor; or 95% Standard Proctor Density (ASTM D-698).
Moisture Content	<ul style="list-style-type: none"> ± 2% optimum moisture for CL, SC, or GC soil types.
Recommended Testing Frequency	<ul style="list-style-type: none"> One (1) Field Density (compaction) test for each 2,500 sq. ft. of fill within the footprint of the Self-Support Tower; One (1) Field Density (compaction) test for each 5,000 sq. ft. of fill within non-structure areas; A minimum of three (3) tests per lift; and Visual observation of the compaction process should be documented with no testing required <u>if</u> a performance compaction specification (i.e. number of passes) is utilized.
<p>1. We recommend that engineered fill (including scarified compacted subgrade) be tested for moisture content and compaction during placement. Should the results of the in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and retested as required until the specified moisture and compaction requirements are achieved.</p>	

7.4 Excavations

Based upon the subsurface conditions encountered during this investigation, the on-site soils typically classify as Type C in accordance with OSHA regulations. Temporary excavations in soils classifying as Type C with a total height of less than 20 feet should be cut no steeper than 1.5H:1V in accordance with OSHA guidelines. Confirmation of

soil classification during construction, as well as construction safety (including shoring, if required), is the responsibility of the contractor.

8.0 TOWER FOUNDATION RECOMMENDATIONS

The proposed Self-Support Tower is anticipated to either be supported on a shallow mat foundation or on drilled pier foundations. It is understood that micropiles may be utilized in addition to a mat foundation to help resist overturning and lateral loads. Based upon the conditions encountered in the boring performed at the project site, the site subsurface materials are suitable for either a mat foundation or drilled pier foundations. Recommendations for mat foundations and drilled piers are included in the following sections.

8.1 Shallow Mat Foundations

Based upon the subsurface conditions encountered near the proposed Self-Support Tower and anticipated site grading, footings for the proposed Self-Support Tower are anticipated to bear in loose natural soils with additional support from micropiles. Alternatively, the mat foundation excavation may be extended to a minimum depth of 8 feet to bear on the medium dense sand in this location. Design bearing capacities for both options have been included in the shallow foundation design recommendation table below. Please refer to the section below for recommendations regarding shallow foundations.

8.2 Shallow Foundation Design Recommendations

Description	Mat Foundation Parameters on Loose Sands (Bearing Above 8 ft.)	Mat Foundation Parameters on Medium Dense Sands (Bearing at 8 ft. or Below)
Net allowable bearing pressure ¹	Loose Sand: 2,300 psf	Dense Sand: 5,000 psf
Ultimate bearing pressure ²	Loose Sand: 6,900 psf	Dense Sand: 15,000 psf
Transient (wind) loading <u>ONLY</u> – Allowable Bearing Pressure ³	Loose Sand: 3,450 psf	Dense Sand: 7,500 psf
Minimum embedment below finished grade for frost protection and variation in soil moisture ⁴	Loose Sand: 5 feet	A minimum of 8 feet to bear on the medium dense sand.
Estimated total settlement ⁵	1 inch or less	
Allowable passive pressure ⁶	600 psf	800 psf
Coefficient of sliding friction ⁷	0.5 (natural soils)	0.6 (natural soils)
<p>1. The recommended net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. The recommended pressure considers all unsuitable and/or soft or loose soils, if encountered, are undercut and replaced with tested and approved new engineered fill. Footing excavations should be free of loose and disturbed material, debris, and water when concrete is placed. A factor of safety value of 3 has been applied to these values.</p> <p>2. No factor of safety has been applied to this value.</p> <p>3. The allowable bearing capacity may be increased to this value <u>only</u> for transient or wind loading.</p> <p>4. For footings beneath unheated areas. It is anticipated that additional depth may be required for overturning and uplift design considerations.</p> <p>5. The foundation movement will depend upon the variations within the subsurface soil profile, the structural loading conditions, the embedment depth of the footings, the thickness of compacted fill, and the quality of the earthwork operations.</p> <p>6. Allowable passive pressure value considers a factor of safety of about 2. Passive pressure value applies to undisturbed native clay or properly compacted fill. If formed footings are constructed, the space between the formed side of a footing and excavation sidewall should be cleaned of all loose material, debris, and water and backfilled with tested and approved fill compacted to at least 95% of the material's Standard Proctor dry density. Passive resistance should be neglected for the upper 5 feet of the soil below the final adjacent grade due to strength loss from freeze/thaw and shrink/swell.</p> <p>7. Coefficient of friction value is an ultimate value and does not contain a factor of safety.</p>		

8.3 Uplift

Resistance of shallow spread footings to uplift (U_p) may be based upon the dead weight of the concrete footing structure (W_c) and the weight of soil backfill contained in an inverted cone or pyramid directly above the footings (W_s). The following parameters may be used in design:

Description	Weights
Weight of Concrete (W_c)	150 pcf
Weight of Soil Resistance (W_s)	100 pcf
Weight for on-site soils placed in accordance with <u>Section 7</u>	

The base of the cone or pyramid should be the top of the footing and the pyramid or cone sides should form an angle of 30 degrees with the vertical. Allowable uplift capacity (U_P) should be computed as the lesser of the two (2) equations listed below:

$$U_P = (W_s/2.0) + (W_c/1.25) \text{ or } U_P = (W_s + W_c)/1.5$$

If additional uplift and/or overturning load resistance is required for the project site consideration may be given to the use of rock anchors. Rock anchor design values are included in Section 8.4.

8.4 Anchor Design Values

It is understood that a combination of mat foundations and micropiles, of Case 1 type (directly loaded piles), may be utilized for the proposed Self-Support Tower. The following tables contain passive pressures and preliminary grout to ground bond strengths needed for use in the design of micropiles. These values, at their corresponding depths, should be used in conjunction with the following micropile design values.

It is understood that a total of three (3) possible installation methods may be utilized for micropile installation at the subject sites. Due to the variable installation procedures, grout to ground bond strengths are variable between these installation methods and have been included as separate bond strengths accordingly. The installation methods are noted below:

- Micropile Type "A" – Grout is gravity installed by tremie methods after drilling. This method is generally used for rock sockets;
- Micropile Type "B" – After drilling, grout is pressure grouted through casing or hollow stem auger during casing or auger removal; and
- Micropile Type "E" – High water content grout is utilized in drilling through a continuously threaded, hollow-core steel bar then replaced with pressurized structural grout near the completion of drilling.

Stratum	Applicable Depth (ft.)	Unit Weight (pcf)	Friction Angle, ϕ (Degrees)	Coefficient of Passive Pressure	Preliminary Grout-to-Ground Ultimate Bond Strength ² (psi)		
					A	B	E
Surface Material and Sand	0 to 5	Moist: 120	Ignore	Ignore	-	-	-
Sand	5 to 10	Moist: 120	30	3.0	10	10	10
Sand	10 to 30	Moist: 125	32	3.3	14	18	18
Sand	30 to 50	Moist: 125	32	3.3	22	30	30
Sand ¹	Over 50	Moist: 125	32	3.3	22	30	30

1. Assumes soils are equal to or better than those at depths greater than the boring termination depth. This should be confirmed in the field during installation of micropiles.
 2. Bond Values are based upon subsurface data obtain in 1 Boring and assume full time observation by a qualified Geotechnical Inspector experienced with micropiles during installation.

8.5 Drilled Pier Foundation Recommendations

Based upon the conditions encountered in the boring and subsequent laboratory testing, the proposed Self-Support Tower may be supported on a system of drilled piers bearing within the poorly-graded sand material. The drilled shaft should be plumb (no more than 2 percent of the shaft length off vertical), and the drilled shaft should have a relatively flat bottom. Essentially all groundwater, if encountered, should be removed from the drilled pier shaft prior to concrete placement. If it is not possible to remove nearly all (2 to 3 inches max) of the groundwater from the drilled shaft excavation, concrete should be placed via tremie methods.

The method of concrete placement and vibration should be selected by the Structural Engineer. Required strength and mix design characteristics should also be specified by the Structural Engineer or other members of the Design Team.

The sand layers were excavatable with air rotary methods; however, casing may be required at the subject site due to possible collapsible sandy material.

8.6 Bearing Capacity and Uplift Resistance for a Drilled Shaft

The design parameters summarized in the table below may be utilized for bearing capacity and uplift capacity design for drilled shafts as described above. Allowable end bearing pressures and side friction values are summarized in the table below.

Stratum¹	Applicable Depth (ft.)	Allowable End Bearing Pressure (ksf)²	Allowable Side Friction (ksf)³
Surface Material and Sand	Ground surface to 1 shaft diameter or a minimum of 5 feet	Ignore	Ignore
Sand	5 feet to 10 feet	Not Recommended	0.6
Sand	10 feet to 20 feet	6.0	1.1
Sand	20 feet to 30 feet	8.0	1.3
Sand	30 feet to 40 feet	10.0	1.5
Sand	40 feet to 50 feet	14.0	1.5

1. If soft soils are encountered in plan bottom of shaft during drilling, the shaft should be deepened until an acceptable bearing stratum is encountered.
2. End bearing pressure values assume a Factor of Safety of 3.0 or greater.
3. Side friction values include a Factor of Safety of ~1.5. These values should be used with **Factored Loads** during structural design. Side Friction may be used for computation of Uplift and Compressive Capacity in soil.

8.7 Lateral Loadings

It is anticipated that designers will most likely utilize LPILE for completion of deep foundation lateral capacity design for the tower foundations. LPILE uses finite difference computer models based on the horizontal modulus of subgrade reaction (K_h).

The values listed in the table below may be utilized for Drilled Pier Analysis in LPILE. Please also notice that the table states to “ignore” lateral support for the depth from 0 to 1 pier diameter or a minimum of 5 feet. This notation is intended to account for the fact that near-surface soils are significantly disturbed during drilled shaft excavation, which greatly reduces the lateral support provided. Designers should use their judgment and make an appropriate reduction of soil strength parameters in this zone.

Values summarized in the table below are based upon published correlations, and field and laboratory data collected during this subsurface investigation. Values shown below are ultimate values representative of in-situ soil properties, and do not include

a Factor of Safety. These values may be used to compute resistance to lateral loading of the overburden soils. **The appropriate Factor of Safety should be chosen by the designer.**

Stratum (Model)	Applicable Depth	Unit Weight ¹ (pcf)	Friction Angle, ϕ (Degrees)	Submerged Modulus, k (pci)	Above Water Table Modulus, k (pci)
Surface Material and Sand (Sand)	Ground surface to 1 shaft diameter or a minimum of 5 feet	Moist: 120	Ignore	Ignore	Ignore
Sand (Sand)	1 shaft diameter or a minimum of 5 feet to 10 feet	Moist: 120	30	20	25
Sand (Sand)	10 feet to 40 feet	Moist: 125	32	60	90
Sand (Sand)	40 feet to 50 feet (and below)	Moist: 125	32	125	225

1. Buoyant unit weight should be utilized for soils that extend below the design groundwater level. Groundwater was not encountered at the project site.

9.0 SEISMIC CONSIDERATIONS

Code Used	Site Classification
2012 International Building Code (IBC) ¹	D
1. In general accordance with the 2012 International Building Code, Section 1613	

10.0 CONSTRUCTION OBSERVATION & TESTING

The construction process is an integral design component with respect to the geotechnical aspects of a project. Since geotechnical engineering is influenced by variable depositional and weathering processes and because we sample only a small portion of the soils affecting the performance of the proposed Self-Support Tower, unanticipated or changed conditions can be disclosed during grading. Proper geotechnical observation and testing during construction is imperative to allow the Geotechnical Engineer the opportunity to evaluate assumptions made during the design process. Therefore, we recommend that PPI be kept apprised of design modifications and construction schedule of the proposed project to observe compliance with the design concepts and geotechnical recommendations, and to allow design changes in the event

that subsurface conditions or methods of construction differ from those assumed while completing this study. We recommend that during construction all earthwork be monitored by a representative of PPI, including site preparation, placement of all engineered fill and trench backfill, and all foundation excavations as outlined below.

- An experienced Geotechnical Engineer should observe the subgrade throughout the proposed project site immediately following stripping to evaluate the native soils, identify areas requiring undercutting, and evaluate the suitability of the exposed surface for fill placement;
- An experienced Engineer or Engineering Technician should monitor and test all fill placed within the Self-Support Tower area to determine whether the type of material, moisture content, and degree of compaction are within recommended limits; and
- An experienced Technician or Engineer should observe drilled pier excavations. Where unsuitable bearing conditions are observed, PPI should be contacted to provide remedial procedures.

11.0 REPORT LIMITATIONS

This report has been prepared in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area. Palmerton & Parrish, Inc. observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. Palmerton & Parrish's findings and conclusions must be considered not as scientific certainties, but as opinions based on our professional judgment concerning the significance of the data gathered during the course of this investigation. Other than this, no warranty is implied or intended.



SCALE: 1" = 25'

LEGEND

Boring Location

NOTES

- Aerial image from Google Earth Pro.
- Site drawing provided by the Client.
- Not intended for use in design.

Project: Posion Creek - Site # 12063 - Self Support Tower - Casper, Wyoming
 Client: Hemphill, LLC

Boring Location Plan

DATE: April 24, 2020

Project Number: 261436

PPI PALMERTON & PARRISH, INC.
 GEOTECHNICAL AND MATERIALS ENGINEERS/MATERIALS TESTING LABORATORIES/ENVIRONMENTAL SERVICES

FIGURE 1



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GEOTECHNICAL BORING LOG

BORING NUMBER

1

PAGE 1 OF 1

CLIENT Hemphill, LLC PROJECT NAME Poison Creek Self-Support Tower
 PROJECT NO. 261436 PROJECT LOCATION Casper, Wyoming
 DATE STARTED 4/25/20 COMPLETED 4/25/20 SURFACE ELEVATION _____ BENCHMARK EL. _____
 DRILLER CW DRILL RIG CME-550x GROUND WATER LEVELS _____
 HAMMER TYPE Auto AT TIME OF DRILLING None
 LOGGED BY CJ CHECKED BY RTH AT END OF DRILLING _____
 NOTES _____

BORING LOG - PPI - PPI STD TEMPLATE.GDT - 5/14/20 08:50 - S:_MASTER PROJECT FILE\2019\WY\HEMPHILL-261436-WY_CO & UT REGISTRATIONS-SUBDRILLED2020\POISON CREEK\LOGS\POISON CREEK - GINT.GPJ

DEPTH (ft)	DRILLING METHOD	STRATA SYMBOL	MATERIAL DESCRIPTION Unified Soil Classification System	SAMPLE TYPE NUMBER	RECOVERY % (RQD %)	CORRECTED BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT (pcf)				ELEVATION (ft)	
								20	40	60	80		
0	AIR ROTARY - 4" O.D. Tricone		POORLY-GRADED SAND, w/Silt, Fine to Medium Grained, Brown to Tannish Brown, Slight Reaction to HCL, Slightly Moist, Loose to Dense (SP-SM)	SPT 1		4-4-5 (9)							
				SPT 2		4-4-5 (9)							
				SPT 3		5-3-4 (7)							
				SPT 4		5-7-8 (15)							
10				SPT 5		7-12-9 (21)							
				SPT 6		4-7-8 (15)							
20				SPT 7		8-3-12 (15)							
				SPT 8		9-12-13 (25)							
30				SPT 9		7-13-16 (29)							
				SPT 10		9-13-13 (26)							
40				SPT 11		8-14-18 (32)							
50				SPT 12		10-24-21 (45)							

50.0 ft

Bottom of borehole at 50.0 feet.



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KEY TO SYMBOLS

CLIENT Hemphill, LLC

PROJECT NAME Poison Creek Self-Support Tower

PROJECT NO. 261436

PROJECT LOCATION Casper, Wyoming

LITHOLOGIC SYMBOLS (Unified Soil Classification System)



SP-SM: USCS Poorly-graded Sand with Silt

SAMPLER SYMBOLS



Standard Penetration Test

WELL CONSTRUCTION SYMBOLS

ABBREVIATIONS

LL - LIQUID LIMIT (%)
 PI - PLASTIC INDEX (%)
 W - MOISTURE CONTENT (%)
 DD - DRY DENSITY (PCF)
 NP - NON PLASTIC
 -200 - PERCENT PASSING NO. 200 SIEVE
 PP - POCKET PENETROMETER (TSF)

TV - TORVANE
 PID - PHOTOIONIZATION DETECTOR
 UC - UNCONFINED COMPRESSION
 ppm - PARTS PER MILLION
 Water Level at Time
 Drilling, or as Shown
 Water Level at End of
 Drilling, or as Shown
 Water Level After 24
 Hours, or as Shown

KEY TO SYMBOLS - PPI STD TEMPLATE.GDT - 5/14/20 08:50 - S:_MASTER PROJECT FILE\2019\WY\HEMPHILL-261436-WY_CO & UT REGISTRATIONS-SUBDRILLED\2020\POISON CREEK\LOGS\POISON CREEK - GINT.GPJ

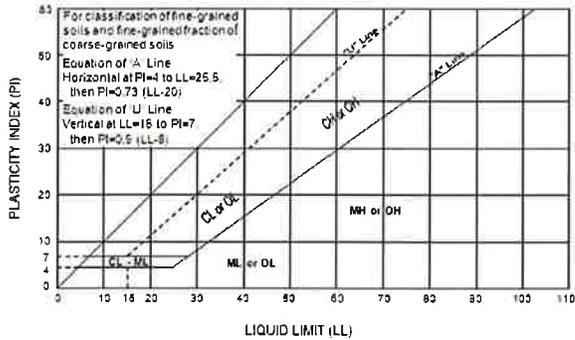


GENERAL NOTES

SOIL PROPERTIES & DESCRIPTIONS

COHESIVE SOILS

Consistency	Unconfined Compressive Strength (Qu)	Pocket Penetrometer Strength	N-Value
	(psf)	(tsf)	(blows/ft)
Very Soft	<500	<0.25	0-1
Soft	500-1000	0.25-0.50	2-4
Medium Stiff	1001-2000	0.50-1.00	5-8
Stiff	2001-4000	1.00-2.00	9-15
Very Stiff	4001-8000	2.00-4.00	16-30
Hard	>8000	>4.00	31-60
Very Hard			>60



Group Symbol	Group Name
CL	Lean Clay
ML	Silt
OL	Organic Clay or Silt
CH	Fat Clay
MH	Elastic Silt
OH	Organic Clay or Silt
PT	Peat
CL-CH	Lean to Fat Clay

Plasticity		Moisture	
Description	Liquid Limit (LL)	Descriptive Term	Guide
Lean	<45%	Dry	No indication of water
Lean to Fat	45-49%	Moist	Indication of water
Fat	≥50%	Wet	Visible water

Fine Grained Soil Sub Classification	Percent (by weight) of Total Sample
Terms: SILT, LEAN CLAY, FAT CLAY, ELASTIC SILT	PRIMARY CONSTITUENT
Sandy, gravelly, abundant cobbles, abundant boulders with sand, with gravel, with cobbles, with boulders	>30-50]
scattered sand, scattered gravel, scattered cobbles, scattered boulders	>15-30] – secondary coarse grained constituents
a trace sand, a trace gravel, a few cobbles, a few boulders	5-15]
	<5]
The relationship of clay and silt constituents is based on plasticity and normally determined by performing index tests. Refined classifications are based on Atterberg Limits tests and the Plasticity Chart.	

NON-COHESIVE (GRANULAR) SOILS

RELATIVE DENSITY	N-VALUE	MOISTURE CONDITION	
		Descriptive Term	Guide
Very Loose	0-4	Dry	No indication of water
Loose	5-10	Moist	Damp but no visible water
Medium Dense	11-24	Wet	Visible free water, usually soil is below water table.
Dense	25-50		
Very Dense	≥51		

**GRAIN SIZE IDENTIFICATION		
Name	Size Limits	Familiar Example
Boulder	12 in. or more	Larger than basketball
Cobbles	3 in. to 12 in.	Grapefruit
Coarse Gravel	¾-in. to 3 in.	Orange or lemon
Fine Gravel	No. 4 sieve to ¾-in.	Grape or pea
Coarse Sand	No. 10 sieve to No. 4 sieve	Rock salt
Medium Sand	No. 40 sieve to No. 10 sieve	Sugar, table salt
Fine Sand*	No. 200 sieve to No. 40 sieve	Powdered sugar
Fines	Less than No. 200 sieve	

*Particles finer than fine sand cannot be discerned with the naked eye at a distance of 8 inches.

Coarse Grained Soil Sub Classification	Percent (by weight) of Total Sample
Terms: GRAVEL, SAND, COBBLES, BOULDERS	PRIMARY CONSTITUENT
Sandy, gravelly, abundant cobbles, abundant boulders with gravel, with sand, with cobbles, with boulders	>30-50]
scattered gravel, scattered sand, scattered cobbles, scattered boulders	>15-30] – secondary coarse grained constituents
a trace gravel, a trace sand, a few cobbles, a few boulders	5-15]
Silty (MH & ML)*, clayey (CL & CH)*	<15]
(with silt, with clay)*	5-15] – secondary fine grained constituents
(trace silt, trace clay)*	<5]
*Index tests and/or plasticity tests are performed to determine whether the term "silt" or "clay" is used.	

*Modified after Ref. ASTM D2487-93 & D2488-93

**Modified after Ref. Oregon DOT 1987 & FHWA 1997

***Modified after Ref. AASHTO 1988, DM 7.1 1982, and Oregon DOT 1987



GENERAL NOTES

BEDROCK PROPERTIES & DESCRIPTIONS

ROCK QUALITY DESIGNATION (RQD)	
Description of Rock Quality	*RQD (%)
Very Poor	< 25
Poor	25-50
Fair	50-75
Good	75-90
Excellent	90-100

*RQD is defined as the total length of sound core pieces 4 in. or greater in length, expressed as a percentage of the total length cored. RQD provides an indication of the integrity of the rock mass and relative extent of seams and bedding planes.

SCALE OF RELATIVE ROCK HARDNESS		
Term	Field Identification	Approx. Unconfined Compressive Strength (tsf)
Extremely Soft	Can be indented by thumbnail	2.6-10
Very Soft	Can be peeled by pocket knife	10-50
Soft	Can be peeled with difficulty by pocket knife	50-260
Medium Hard	Can be grooved 2 mm deep by firm pressure of knife	260-520
Moderately Hard	Requires one hammer blow to fracture	520-1040
Hard	Can be scratched with knife or pick only with difficulty	1040-2610
Very Hard	Cannot be scratched by knife or sharp pick	>2610

DEGREE OF WEATHERING	
Slightly Weathered	Rock generally fresh, joints stained and discoloration extends into rock up to 25mm (1 in), open joints may contain clay, core rings under hammer impact.
Weathered	Rock mass is decomposed 50% or less, significant portions of rock show discoloration and weathering effects, cores cannot be broken by hand or scraped by knife.
Highly Weathered	Rock mass is more than 50% decomposed, complete discoloration of rock fabric, core may be extremely broken and gives clunk sound when struck by hammer, may be shaved with a knife.

GRAIN SIZE (TYPICALLY FOR SEDIMENTARY ROCKS)		
Description	Diameter (mm)	Field Identification
Very Coarse Grained	>4.76	Individual grains can easily be distinguished by eye.
Coarse Grained	2.0-4.76	
Medium Grained	0.42-2.0	Individual grains can be distinguished by eye.
Fine Grained	0.074-0.42	Individual grains can be distinguished by eye with difficulty.
Very Fine Grained	<0.074	Individual grains cannot be distinguished by unaided eye.

VOIDS	
Pit	Voids barely seen with the naked eye to 6mm *1/4-inch)
Vug	Voids 6 to 50mm (1/4 to 2 inches) in diameter
Cavity	50 to 6000mm (2 to 24 inches) in diameter
Cave	> 600mm

BEDDING THICKNESS	
Very Thick Bedded	> 3' Thick
Thick Bedded	1' to 3' Thick
Medium Bedded	4" to 1' Thick
Thin Bedded	1-1/4" to 4" Thick
Very Thin Bedded	1/2" to 1-1/4" Thick
Thickly Laminated	1/8" to 1/2" Thick
Thinly Laminated	1/8" or less (paper thin)

DRILLING NOTES

Drilling & Sampling Symbols		
NQ – Rock Core (2-inch diameter)	CFA- Continuous Flight (Solid Stem) Auger	WB – Wash Bore or Mud Rotary
HQ – Rock Core (3-inch diameter)	SS – Split Spoon Sampler	TP – Test Pit
HSA – Hollow Stem Auger	ST – Shelby Tube	HA – Hand Auger

Soil Sample Types

Shelby Tube Samples: Relatively undisturbed soil samples were obtained from the borings using thin wall (Shelby) tube samplers pushed hydraulically into the soil in advance of drilling. This sampling, which is considered to be undisturbed, was performed in accordance with the requirements of ASTM D 1587. This type of sample is considered best for the testing of "in-situ" soil properties such as natural density and strength characteristics. The use of this sampling method is basically restricted to soil containing little to no chert fragments and to softer shale deposits.

Split Spoon Samples: The Standard Penetration Test is conducted in conjunction with the split-barrel sampling procedure. The "N" value corresponds to the number of blows required to drive the last 1 foot of an 18-inch long, 2-inch O.D. split-barrel sampler with a 140 lb. hammer falling a distance of 30 inches. The Standard Penetration Test is carried out according to ASTM D-1586.

Water Level Measurements

Water levels indicated on the boring logs are levels measured in the borings at the times indicated. In permeable materials, the indicated levels may reflect the location of groundwater. In low permeability soils, shallow groundwater may indicate a perched condition. Caution is merited when interpreting short-term water level readings from open bore holes. Accurate water levels are best determined from piezometers.

Automatic Hammer

Palmerton and Parrish, Inc.'s CME's are equipped with automatic hammers. The conventional method used to obtain disturbed soil samples used a safety hammer operated by company personnel with a cat head and rope. However, use of an automatic hammer allows a greater mechanical efficiency to be achieved in the field while performing a Standard Penetration resistance test based upon automatic hammer efficiencies calibrated using dynamic testing techniques.

*Modified after Ref. ASTM D2487-93 & D2488-93

**Modified after Ref. Oregon DOT 1987 & FHWA 1997

***Modified after Ref. AASHTO 1988, DM 7.1 1982, and Oregon DOT 1987



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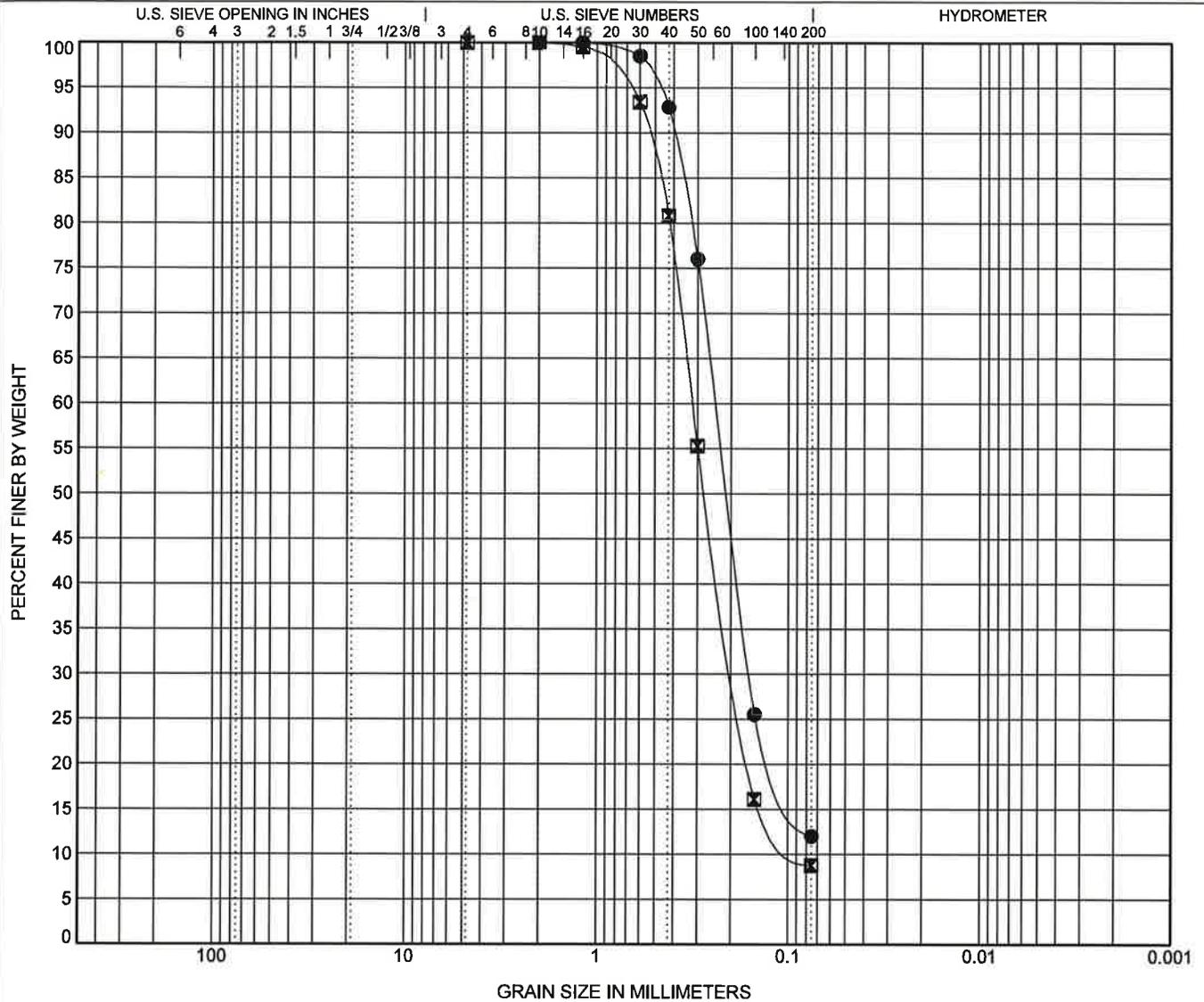
GRAIN SIZE DISTRIBUTION

CLIENT Hemphill, LLC

PROJECT NAME Poison Creek Self-Support Tower

PROJECT NO. 261436

PROJECT LOCATION Casper, Wyoming



Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, clients can benefit from a lowered exposure to the subsurface problems that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed below, contact your GBA-member geotechnical engineer. Active involvement in the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Geotechnical-Engineering Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. *Those who rely on a geotechnical engineering report prepared for a different client can be seriously misled. No one except authorized client representatives should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. And no one – not even you – should apply this report for any purpose or project except the one originally contemplated.*

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical engineering report did not read it *in its entirety*. Do not rely on an executive summary. Do not read selected elements only. *Read this report in full.*

You Need to Inform Your Geotechnical Engineer about Change

Your geotechnical engineer considered unique, project-specific factors when designing the study behind this report and developing the confirmation-dependent recommendations the report conveys. A few typical factors include:

- the client's goals, objectives, budget, schedule, and risk management preferences;
- the general nature of the structure involved, its size, configuration, and performance criteria;
- the structure's location and orientation on the site; and
- other planned or existing site improvements, such as retaining walls, access roads, parking lots, and underground utilities.

Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.*

This Report May Not Be Reliable

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it, e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, that it could be unwise to rely on a geotechnical-engineering report whose reliability may have been affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If your geotechnical engineer has not indicated an "apply-by" date on the report, ask what it should be, and, in general, if you are the least bit uncertain about the continued reliability of this report, contact your geotechnical engineer before applying it. A minor amount of additional testing or analysis – if any is required at all – could prevent major problems.*

Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface through various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing were performed. The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgment to form opinions about subsurface conditions throughout the site. Actual site-wide subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team from project start to project finish, so the individual can provide informed guidance quickly, whenever needed.*

This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, *they are not final*, because the geotechnical engineer who developed them relied heavily on judgment and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* revealed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to return that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a full-time member of the design team, to:

- confer with other design team members,
- help develop specifications,
- review pertinent elements of other design professionals' plans and specifications, and
- be on hand quickly whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction observation.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated subsurface conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for informational purposes only.* To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report, but they may rely on the factual data relative to the specific times, locations, and depths/elevations referenced. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may

perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase one" or "phase two" environmental site assessment – differ significantly from those used to perform a geotechnical engineering study. For that reason, a geotechnical engineering report does not usually relate any environmental findings, conclusions, or recommendations, e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk management guidance. As a general rule, *do not rely on an environmental report prepared for a different client, site, or project, or that is more than six months old.*

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, none of the engineer's services were designed, conducted, or intended to prevent uncontrolled migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration.* Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. *Geotechnical engineers are not building-envelope or mold specialists.*



Telephone: 301/565-2733

e-mail: info@geoprofessional.org www.geoprofessional.org

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CONDITIONAL USE PERMIT REQUEST
FOR A
TELECOMMUNICATION SITE

CUP20-3

Staff Report: Trish Chavis
June 10, 2020

For

July 14, 2020
Planning and Zoning Commission

And

August 4, 2020
Board of County Commissioner Meeting

Applicant: Declan Murphy, Union Wireless/Hemphill

Request: Construct an 84-foot self-supporting communication tower to allow for the expansion of an existing Union Wireless site. The applicant is requesting 100-feet total height to include all appurtenances.

Location and Zoning

The parcel is located approximately 4 miles west of Hiland on W. US Highway 20-26.

The subject parcel and all surrounding parcels are zoned Ranching, Agricultural and Mining (RAM).

Proposal

Union has applied for a CUP to construct an 84-foot communication tower to replace their existing 45' tower. The applicant is request the CUP to have a total height of 100-feet. This will include the additional antennas and lightening rod.

The proposed upgrades are necessary to allow Union Wireless to continue providing service to the adjacent community, in addition to enhancing emergency service capabilities through FirstNet.

FirstNet is the First Responder Network Authority, and is an independent authority authorized by Congress in 2012, to develop, build and operate the nationwide, broadband network that equips first responders.

General Standards
For
Conditional Use Permits

Criteria for Approval

1. Will granting the Conditional Use Permit contribute to an overburdening of county services?

Proposed Finding of Fact. Granting the Conditional Use permit will not contribute to an overburdening of county services. County services and infrastructure will not be necessary for this permit. The tower would provide needed cell service to the area, which will add E-911 capabilities through the carrier's networks, and promote greater coverage and reach for local law enforcement and emergency services.

2. Will granting the Conditional Use Permit cause undue traffic, parking, population density or environmental problems?

Proposed Finding of Fact. The facility is unmanned and will not cause undue traffic or parking. Routine maintenance for the tower and antennas will be limited. There will be no affects to population density.

3. Will granting the Conditional Use Permit impair the use of adjacent property or alter the character of the neighborhood?

Proposed Finding of Fact. The surrounding ranch consists of approximately 1,260 acres. The addition of a taller communication tower will not impair the use of adjacent properties.

4. Will granting the Conditional Use Permit detrimentally affect the public health, safety and welfare, or nullify the intent of the Development Plan or Zoning Resolution?

The addition of the proposed tower would not be damaging or inconsistent with the surrounding area. The proposed tower is consistent with the intent of both the Development Plan and the Zoning Resolution.

Proposed Finding of Fact. The proposed tower will be constructed in accordance with all applicable building, electrical and plumbing codes. With an approved CUP, the tower will comply with the Zoning Resolution and the Development Plan. This site will provide wireless coverage to residents and travelers as well as provides for valuable E911 services and FirstNet capabilities.

Key Communication Tower Regulations

Artificially Lighted: There is no requirement for lighting until the tower reaches 200 feet. The proposed tower does not meet the requirement for FAA review.

Setbacks: Setbacks from roads and structures is 110% of the tower height. The nearest road is ¼ mile away and does meet setbacks.

Documentation demonstrating need: The proposed site is situated to provide effective coverage to the area. The existing tower's current loading and height is insufficient to provide adequate service so a taller tower would be needed.

Public Comment

As of the date of this staff report there have been no comment received.

Staff sent the public notice to 6 neighbors within 3 miles.

Recommendation

Staff proposes a motion and vote by the Planning and Zoning Commission to recommend approval of the requested Conditional Use Permit, by the Board of County Commissioners and incorporate by reference all findings of fact set forth herein and make them a part thereof.



NATRONA COUNTY

Development Department

200 North Center Street, Room 205
Casper, WY 82601

Jason Gutierrez, PE, Director
County web: www.natronacounty-wy.gov

Phone: 307-235-9435
Fax: 307-235-9436
Email: jgutierrez@natronacounty-wy.gov

"The purpose of the Natrona County Development Department is to provide necessary services to implement sound land use planning and economic development policies to protect and enhance the quality of life for present and future inhabitants of Natrona County."

MEMORANDUM

To: Board of County Commissioners

From: Jason Gutierrez, P.E., Director

Date: July 15, 2020

RE: CUP20-4 Construct an 84-foot self-supporting communication tower to allow for the expansion of an existing Union Wireless site. The applicant is requesting 100-foot total height to include all appurtenances.

cc: Applicant, County Attorney, File

Planning and Zoning Commission Recommendation:

Approve

At its July 14, 2020 meeting, the Planning Commission, acted to recommend approval of the requested Conditional Use Permit to the Board of County Commissioners.

(Motion passed unanimously).

Board of County Commissioners Review and Procedure: The following options are available to the Board of County Commissioners when acting on an item:

- Approve the application as recommended by the Planning Commission;
- Approve the application as submitted;
- Approve the application on its own conditions;
- Deny the application;
- Remand the application to the Planning Commission for reconsideration;
- Table to a date specific; or with the express consent of the applicant, the Board may table indefinitely or dismiss the application.



Site Name: Waltman
Site Address: 15303 Arminto Road, Waltman WY 82604
GEOCODE: 36861910000700 **Lat/Long:** 43 4 14.94325 -107 11 26.25296

Purpose of Request

Union Wireless is committed to improving coverage and expanding network capacity to meet customer demand throughout the State of Wyoming. The existing Wireless Communication Facility (WCF) provides residents, visitors and businesses with high quality reliable wireless service for both personal & business, in addition to enhancing emergency services.

Union Wireless is proposing the following at the existing WCF located at 15303 Arminto Road, Waltman.

Details of Request

Union Wireless is proposing a new 80' self-support tower at the existing WCF, but **requesting approval for a 100' self-support tower**. The existing site footprint will be expanded to accommodate the upgrades as detailed on the attached site plan/elevation (see sheet C2-1). The existing 45' Union self-support tower will remain for a period to accommodate the transfer of equipment to the new tower.

The proposed upgrades are necessary to allow Union Wireless to continue providing the best possible service to the adjacent community, in addition to enhancing emergency service capabilities through FIRSTNET.

Technical Information

Steel four leg 80' self-support tower designed to accommodate multiple carriers, please see Exhibit A for tower structural/technical details.

Valmont self-support tower, proposed antennas are COMMSCOPE NNH4-65C-R6-V3, please see Exhibit A for tower structural/technical details and Exhibit B for antenna spec's.

Union/Hemphill is proposing an 80' Self-Support Tower with 3 sectors of antennas, please see Exhibit A for tower details. No lighting is required at the proposed location/height per FAA TowAir.

The proposed frequency range is 698-896 MHz to 1695-2360 MHz

Please see Exhibit B - Antenna Spec's for the actual intended transmission, effective radiated power etc.

Please see Exhibit B - Antenna Spec's for direction of maximum lobes and associated radiation of the antennas etc.

Please see Exhibit C - NIER Report.

Union Wireless is an FCC licensed carrier, therefore all transmissions will be within the allocated frequencies and will not cause interference with any other licensed transmission.

Please see the Exhibit D – Union FCC License Info.

Please see Exhibit F for information on proposed tower foundation, soils etc.

FAA does not require lighting for the proposed height, which is typical for sites under 200' unless the site is very close to an Airport.

The proposed 80' Self-Support tower will replace the existing 40' Union Self-support at the existing cell-site, and is structurally designed to accommodate multiple carriers.

Please see Exhibit A with information on the tower/foundation engineering compliant with local, County, State and Federal structural requirements.

Grounding and Bonding, please sheets E4-1, G1-1 and G1-2 for details.

The existing cell-site is far removed from the nearest residential. The site is visible from US HWY 20, however setback far enough to not be in the peripheral view of passing traffic.

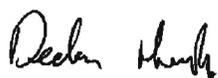
Please see the attached photo simulations of the before and after views.

The subject location is an existing cell-site. The proposed changes mainly in tower height will be noticeable but should have little visual impact or public concern give the setback of the existing sites.

The existing cell-site currently has screening in place, so Union Wireless will continue to maintain the current screening to maintain consistency with the existing screening.

Please let me know if you need any additional information.

Sincerely,

A handwritten signature in black ink that reads "Declan Murphy". The signature is written in a cursive style with a large initial "D".

Declan Murphy
Coal Creek Consulting for Union Wireless/Hemphill
2166 E. University Dr. #201, Tempe, AZ 85281
Tel: (602) 326-0111
Email: dmurphy@coal-creek.com

and Zoning Commission and Board of County Commissioners shall require showings concerning all of the following:

1. The owner of record or contract purchaser has signed the application.
2. Granting the conditional use permit will not contribute to an overburdening of County Services.
3. Granting the conditional use will not cause undue traffic, parking, population density, or environmental problems.
4. Granting the conditional use permit will not impair the use of adjacent property or alter the character of the neighborhood.
5. Granting the conditional use permit will not detrimentally affect the public health, safety, and welfare, or nullify the intent of the Development Plan or the Zoning Resolution.

APPLICATION INSTRUCTIONS

This is an application for a conditional use permit for wireless telecommunication facilities on the parcel described hereon. By completing the application form and providing the other requested information, your application will be acted upon in the fastest, fairest manner prescribed by law.

Person preparing report:

Name: Declan Murphy for Union Wireless/Hemphill

Address: 2166 E University Drive, Suite 201, Tempe AZ 85281

Phone Number: 602 326 0111

Property Owner:

Name: DEM Ranch Trust

Mailing Address: PO Box 24, Powder River, WY 82648

Phone Number: 307 258 5243

Physical Address: 15303 Arminto Road, Waltman WY 82604

Tax map parcel no: 36861910000700

Applicant:

Name: Declan Murphy for Union Wireless/Hemphill

Address: 2166 E University Drive, Suite 201, Tempe AZ 85281

Phone Number: 602 326 0111

Legal form (Corporation, LLC, etc.) Union Telephone Company

If purchased tower, date of purchase: Original Lease date 9/17/2008

GPS coordinates of tower: Lat/Long: 43 4 14.94325 -107 11 26.25296

Original Conditional Use Permit resolution number:

Dated of original Conditional Use Permit:

Operator:

Name: Union Wireless

Address: PO Box 160, Mountain View WY 82939

Phone Number: 602 326 0111

Signatures

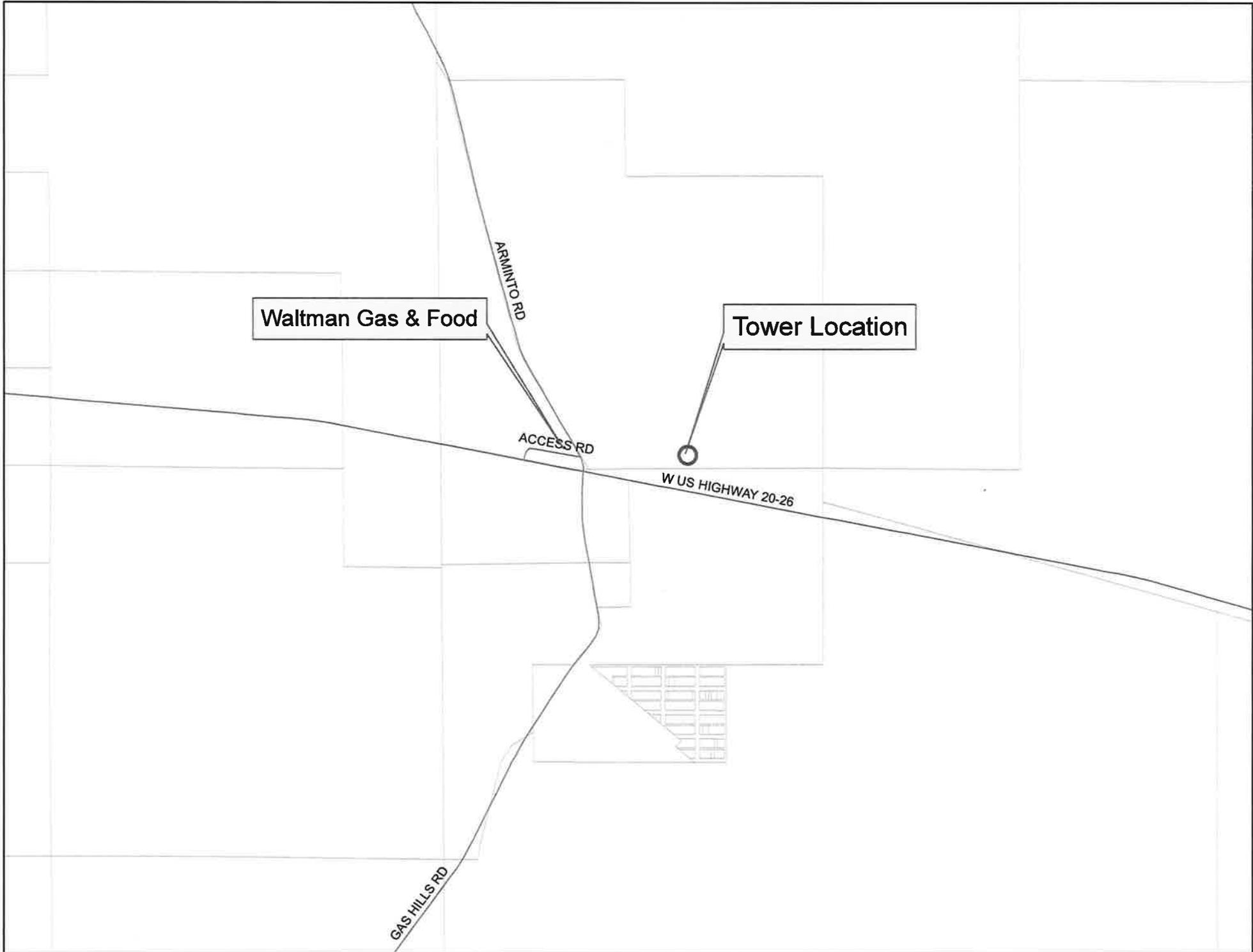
I (We) hereby certify that I (We) have read and examined this application and know the same to be true and correct to the best of my (our) knowledge. Granting this request does not presume to give authority to violate or cancel the provisions of any other State or local laws. Falsification or misrepresentation is grounds for voiding this request, if granted. All information within, attached to or submitted with this application shall become part of the public record, except as modified by applicable regulations. **I (We) further understand that all application fees are non-refundable.** By signing the application I am (We are) granting the Development Department access to our property for inspections.

Applicant: Declan Murphy Date: 3/3/20
(Signature)

Print Applicant Name: Declan Murphy

Owner: D.C. Miller Date: 5-20-20
(Signature)

Print Owner Name: D.C. Miller, Trustee



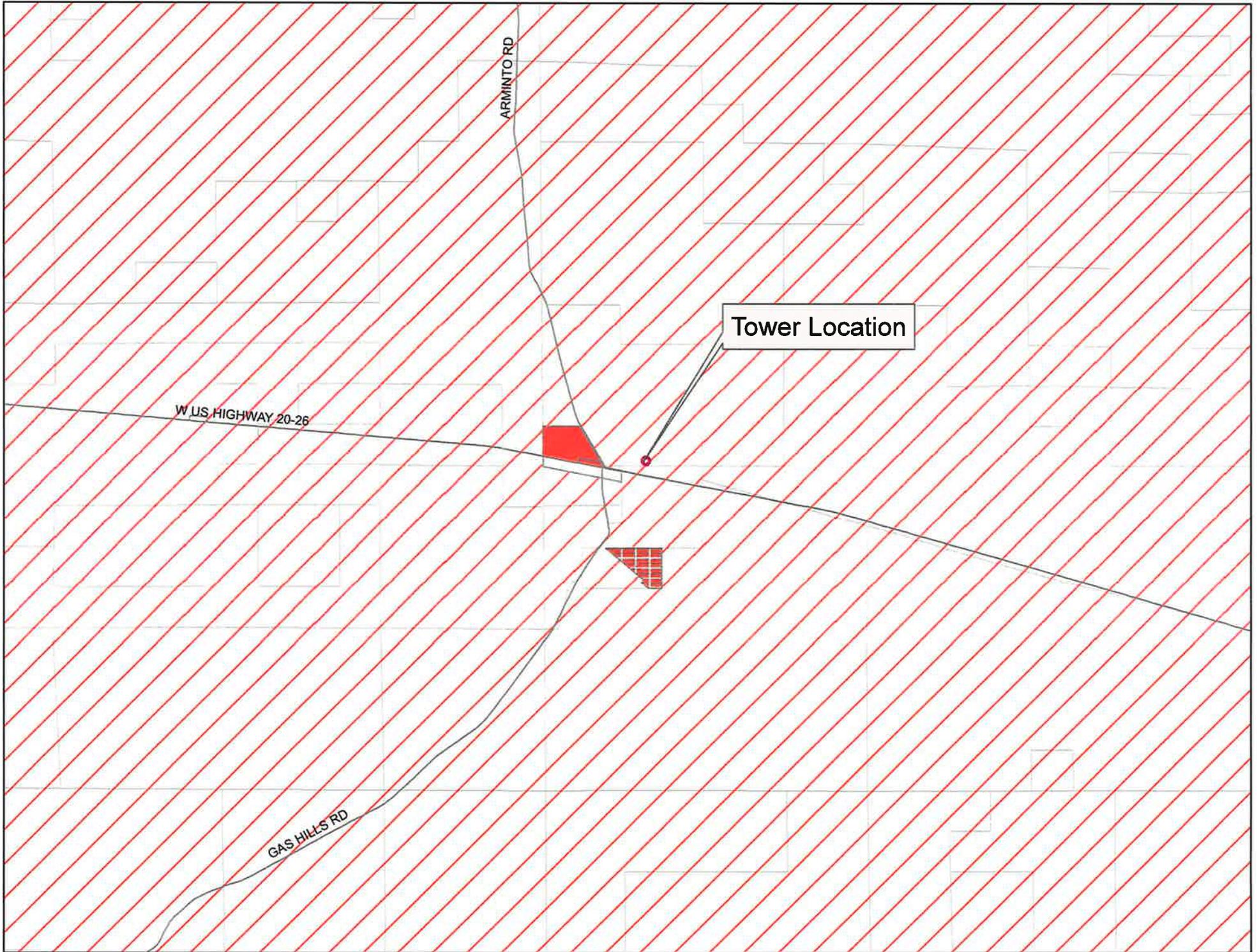


PHOTO SIMULATIONS

12037 - Waltman

LAT 43° 4' 14.94325"

LONG -107° 11' 26.25296"



Note: Simulations are an artistic illustration created to represent how the proposed project may look once constructed. Simulations are create to match the current design as accurately as possible, but are not guaranteed to match the final build.



Before:



PHOTO SIMULATIONS

12037 - Waltman

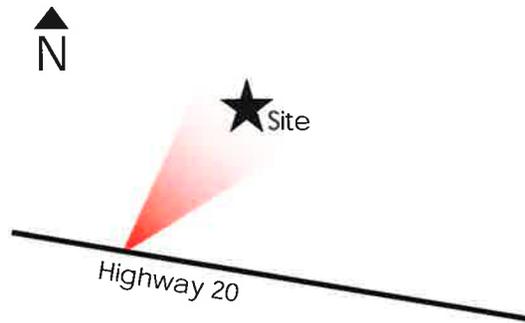
LAT 43° 4' 14.94325"

LONG -107° 11' 26.25296"

After:



View 1
Looking Northeast



Before:

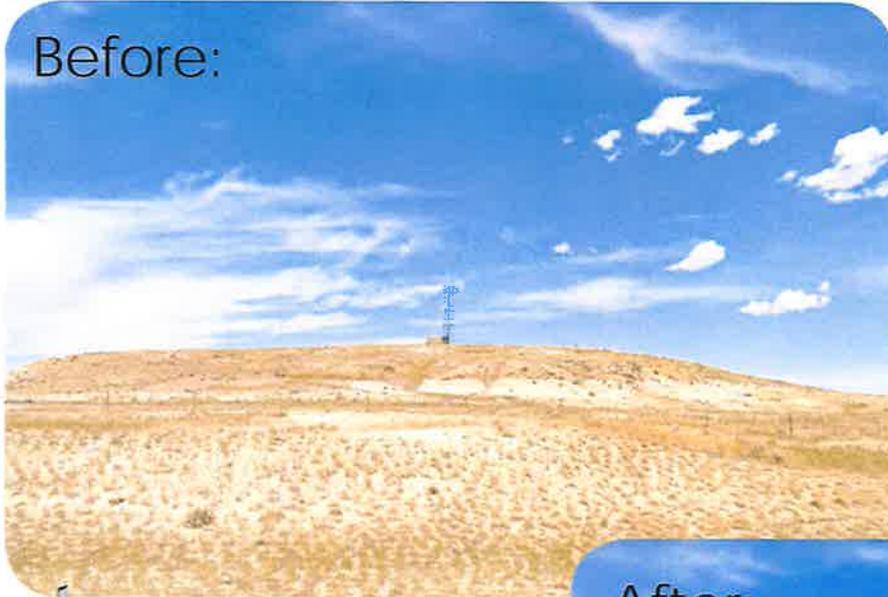


PHOTO SIMULATIONS

12037 - Waltman

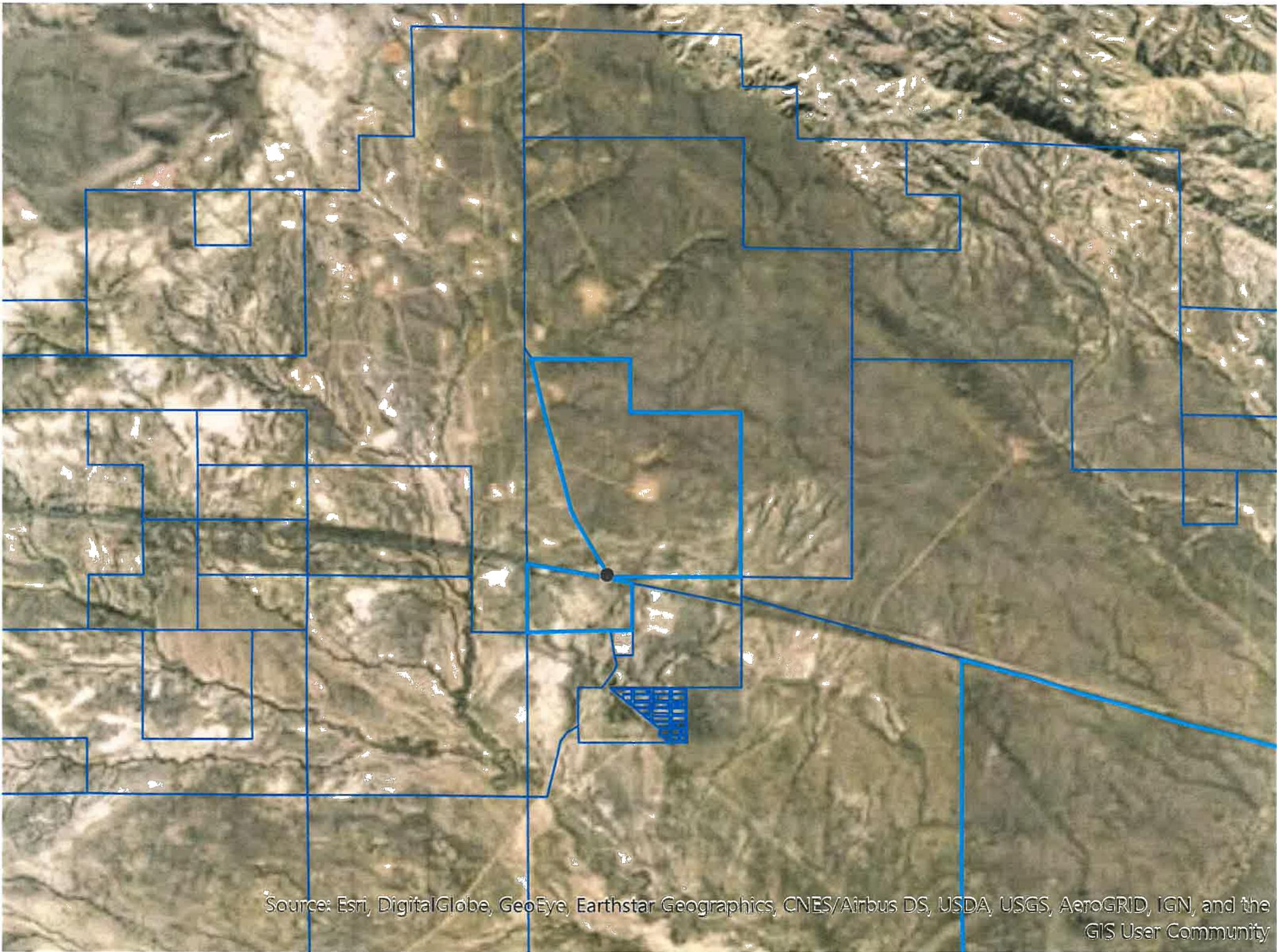
LAT 43° 4' 14.94325"

LONG -107° 11' 26.25296"

View 2
Looking North

After:





GEOTECHNICAL ENGINEERING REPORT
NEW HEMPHILL 4-LEG SELF-SUPPORT TOWER
WALTMAN
1 ARMINTO ROAD
NATRONA COUNTY, WYOMING

Prepared for:

Hemphill, LLC
1350 North Louisville Avenue
Tulsa, Oklahoma 74115

Prepared by:



Springfield, MO
4168 W. Kearney Springfield, MO 65803
Call 417.864.6000 Fax 417.864.6004
www.ppimo.com

PROJECT NUMBER: 261436

December 6, 2019

December 6, 2019

Hemphill, LLC
1350 North Louisville Avenue
Tulsa, Oklahoma 74115

Attn: Mr. Scot Tinker, Director of Tower Operations
Email: scot.tinker@hemphill.com

RE: Geotechnical Engineering Report
New Hemphill 4-Leg Self-Support Tower - Waltman
1 Arminto Road
Natrona County, Wyoming
PPI Project Number: 261436

Dear Mr. Tinker:

Attached, please find the report summarizing the results of the geotechnical investigation conducted for the proposed New Hemphill 4-Leg Self-Support Tower in Natrona County, Wyoming. We appreciate this opportunity to be of service. If you have any questions, please don't hesitate to contact this office.

PALMERTON & PARRISH, INC.
By:



R. Todd Hercules, P.E.
Geotechnical Engineer

PALMERTON & PARRISH, INC.
By:



Brandon R. Parrish, P.E.
Vice-President



Submitted: One (1) Electronic .pdf Copy

BRP/BRP/RTH

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APPENDICES

- Appendix I - Figures
- Appendix II - Boring Logs & Key To Symbols
- Appendix III - General Notes
- Appendix IV – Grain Size Test
- Appendix V - Important Information Regarding Your Geotechnical Report

EXECUTIVE SUMMARY

A Geotechnical Investigation was performed for the proposed New Hemphill 4-Leg Self-Support Tower located at 1 Arminto Road in Natrona County, Wyoming. It is understood that a new 80-foot Self-Support Tower will be constructed at the project site. Cut and fill depths are anticipated to be less than 2 feet across the subject site to provide finished subgrade elevations.

Based upon the information obtained from the borings drilled and subsequent laboratory testing, the site is suitable for the proposed Self-Support Tower. Important geotechnical considerations for the project are summarized below. However, users of the information contained in the report must review the entire report for specific details pertinent to geotechnical design considerations.

- Surface soils consisted of clayey sand to approximately 5.5 feet below the ground surface. Below the clayey sand layer was a sandstone layer that transitioned into a claystone/siltstone layer extending to the boring termination depth;
 - Sandstone bedrock and claystone bedrock was generally excavatable without rock excavation equipment; however, hard layers within the bedrock may be encountered requiring rock excavation equipment. It is recommended that rock excavation equipment be available during excavations or drilled piers;
 - Mat foundations bearing on sandstone for the proposed new Self-Support Tower can be designed for an allowable bearing capacity of 6,000 psf. Alternatively, the proposed Self-Support Tower can be supported by a drilled pier foundation;
 - Drilled pier design parameters have been included in Section 8. Rock coring or rock bits may be required to advance the drilled piers through possible boulder and cobble zones. Additionally, some collapsible materials may be encountered in the drilled pier excavations. Accordingly, it is recommended that the drilled pier contractor have casing available in case these conditions are encountered;
-

EXECUTIVE SUMMARY - CONTINUED

- The project site classifies as a Site Class C in accordance with Section 1613 of the 2012 International Building Code (IBC); and
 - Palmerton & Parrish, Inc. should be retained for construction observation and construction materials testing. Close monitoring of subgrade preparation work is considered critical to achieve adequate pavement and subgrade performance.
-

GEOTECHNICAL ENGINEERING REPORT
NEW HEMPHILL 4-LEG SELF-SUPPORT TOWER
WALTMAN
1 ARMINTO ROAD
NATRONA COUNTY, WYOMING

1.0 INTRODUCTION

This is the report of the Geotechnical Investigation performed for the proposed New Hemphill 4-Leg Self-Support Tower located at 1 Arminto Road in Natrona County, Wyoming. This investigation was in accordance with a letter proposal dated October 8, 2019, and authorized by Mr. Scot Tinker with Hemphill. The approximate site location is shown below:



2.0 PROJECT PURPOSE

The purpose of this Geotechnical Investigation was to provide information for foundation design and construction planning for the proposed Self-Support Tower. PPI's scope of services includes field and laboratory testing, investigation of the subsurface conditions in the vicinity of the tower base, engineering analysis of collected data and development of recommendations for foundation design and construction planning, and preparation of this Engineering Report.

3.0 PROJECT DESCRIPTION

It is understood that a new 80-foot Self-Support Tower supported upon either a mat foundation or drilled piers is proposed at the project site. Foundation loadings, both compressive and overturning are anticipated to be moderate. Cut and fill depths are anticipated to be less than 2 feet across the subject site to provide finished subgrade elevations.

4.0 SUBSURFACE INVESTIGATION

Subsurface conditions were investigated through completion of a subsurface boring and subsequent laboratory testing. Below is a picture of the existing tower site.



4.1 Subsurface Boring

The boring location was selected and staked in the field by the Client. The approximate boring location is shown on [Figure 1, Boring Location Plan](#). The Missouri One-Call System was notified prior to the investigation to assist in locating buried public utilities.

A log of the boring showing descriptions of soil and rock units encountered, as well as results of field tests, laboratory tests and a “Key to Symbols” are presented in [Appendix II](#).

The boring was drilled on November 4, 2019 using 4.5-inch O.D. continuous flight augers powered by an ATV-mounted drill-rig. Soil samples were generally collected at 2.5 to 5-foot centers during drilling using a split spoon sampler while performing the Standard Penetration Test (SPT) in general accordance with ASTM D1586. Please refer to [Appendix III](#) for general notes regarding boring logs and additional soil sampling information.

4.2 Laboratory Testing

Collected samples were sealed and transported to the laboratory for further evaluation and visual examination. Laboratory soil testing included the following:

- Unconfined Compressive strength of Rock Core (ASTM D7012);
- Moisture Content (ASTM D2216);
- Grain Size Analysis (ASTM D6913); and
- Pocket Penetrometers.

Laboratory test results are shown on each boring log in [Appendix II](#) and are summarized in the following table.

Depth (ft.)	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)	Moisture Content (%)	USCS Symbol	Percent Passing No. 200 Sieve (%)
3.5	30	20	10	11.7	SC	41

5.0 SITE GEOLOGY

Based on information available from the Wyoming Geological Survey, the subject site is located over the Wind River Formation. This formation consists of variegated red and white claystone and siltstone with a thinly bedded conglomerate. Some volcanic tuff is noted near the upper portion of this formation.

The subject site is located near known wind deposits according to the Wyoming Geological Survey. Though the subject site was not indicated to be within the included windblown deposit area, the site is within ½ mile of a windblown deposit area based on information provided by the Wyoming Geological Survey. Accordingly, windblown deposits and/or the hazards of windblown material may impact the subject site in the future. Hazards include drift of dunes and soils which may partially bury structures or temporarily close roadways.

6.0 GENERAL SITE SUBSURFACE CONDITIONS

Based upon subsurface conditions encountered within the borings drilled at the project site, generalized subsurface conditions are summarized in the table below. Soil stratification lines on the boring log indicate approximate boundary lines between different types of soil units based upon observations made during drilling. In-situ transitions between soil types are typically gradual.

6.1 Subsurface Stratums

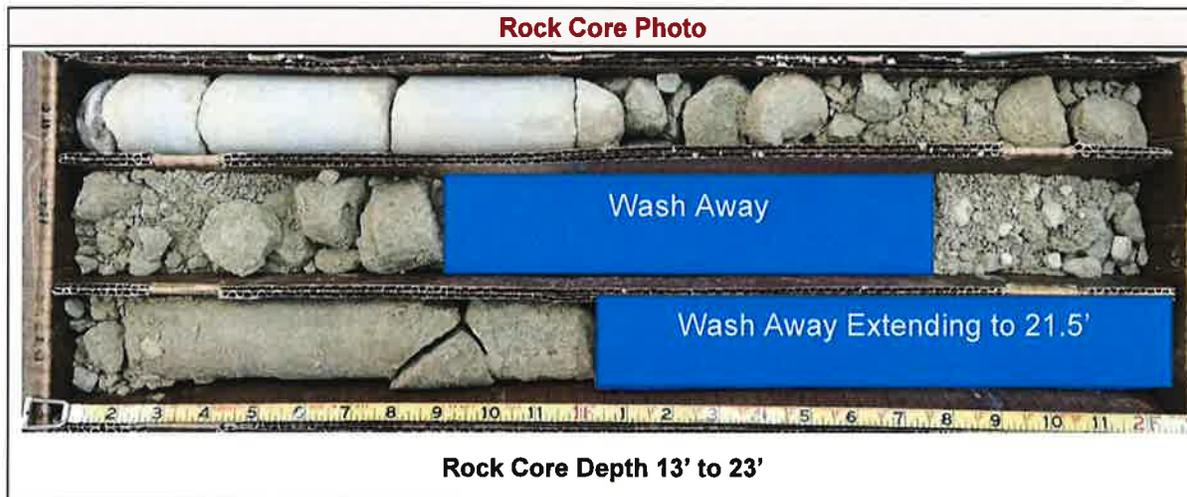
Generalized subsurface conditions are summarized in the table below:

Depth	Stratum	Subsurface Material	Density
0 to 5.5 foot	Overburden	Clayey Sand	Loose to Medium Dense
5.5 to 24.7 feet	Sandstone	Silty Sandstone, Weakly Cemented	Soft to Medium Hard Rock
24.7 to 34.3 feet	Claystone	Claystone/Siltstone	Soft Rock

6.1.1 Rock Core

Rock coring was attempted using an NQ₂ sized core barrel with a diamond embedded core bit in the Silty Sandstone unit at the subject site. Rock coring was

advanced from 11.5 to 21.5 feet below the ground surface and was discontinued at 21.5 feet due to poor recovery. The resulting rock core was boxed and transported to PPI's office for further inspection. Based on the rock core obtained, the bedrock at the subject site consists of a claystone/siltstone unit. A uniaxial rock core test was performed on the silty sandstone at approximately 11.7' below the ground surface indicating a strength of 4,223 psi. Based on measurements performed in the laboratory, the silty sandstone rock core had a unit weight of approximately 157 pcf. A photo of the rock core obtained is included below:



6.2 Groundwater

Shallow groundwater was not observed within the boring on the date drilled. Groundwater levels should be expected to fluctuate with changes in site grading, precipitation, and regional groundwater levels. Groundwater may be encountered during wetter periods.

7.0 EARTHWORK

Grading plans for the proposed Self-Support Tower were not provided. Grading for the project site is anticipated to have less than 2 feet of cut and/or fill to establish final grades. The initial phase of site preparation should include the steps listed below;

- Clearing and grubbing of any vegetation within the tower footprint; and

- Areas scheduled to receive controlled fill should be proof-rolled and approved in accordance with the following section of this report.

7.1 Site Preparation

Proof-rolling consists essentially of rolling the ground surface with a loaded tandem axle dump truck or similar heavy rubber-tired construction equipment and noting any areas which rut or deflect during rolling. All soft subgrade areas identified during proof-rolling should be undercut and replaced with compacted fill as outlined below. Proof-rolling, undercutting and replacement should be monitored by a qualified representative of the Geotechnical Engineer.

7.2 Fill Material Types

Fill Type ¹	USCS Classification	Acceptable Location for Placement
Low Volume Change (LVC) Engineered Fill ²	CL, GC, or SC (LL < 45%)	All locations and elevations
On-Site Natural Soils	SC	All locations and elevations
Rock Fill ³	GW	All locations and elevations
<p>1. Controlled, compacted fill should consist of approved materials that are free of organic matter and debris and contain maximum rock size of 4 to 6 in. Frozen material should not be used and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to the Geotechnical Engineer for evaluation prior to its use.</p> <p>2. Low plasticity cohesive soil or granular soil having at least 15% low plasticity fines.</p> <p>3. See Section 7.2.1 if rock fill will be utilized at the project site.</p>		

7.2.1 Rock Fill

If rock is to be used as the primary filling medium, embankments should be constructed using rock having maximum dimensions in excess of 4 inches, but no greater than 8 inches. Rock material should be placed in horizontal layers having a thickness of approximately the maximum size of the larger rock comprising the lift, but not greater than 12 inches. Rocks or boulders too large to permit placing in a 12-inch thick lift should be reduced in size as necessary to permit placement or be bladed over the edge of the fill and not used in the compacted fill. Rock fill should not be dumped into place but should be distributed in horizontal lifts by blading and dozing in such a manner as to ensure proper placement into final position in the embankment. Finer material including rock fines and limited soil

finer should be worked into the rock voids during this blading operation. Excessive soil and rock fine particles preventing interlock of cobble and boulder sized rock should be prohibited. Rock fill should be consolidated by a minimum of three (3) passes of a large diameter self-propelled vibratory compactor. Terminal fill slopes using rock may be constructed 1.5 horizontal to 1 vertical for fill height of 15 feet or less. The testing of rock fill quality should include the requirements that a representative of the Geotechnical Engineer be present daily, but not necessarily continuously during the placement of the fill to observe the placement of rock fill in order to determine fill quality and to observe that the contractors work sequence is in compliance with this specification. Progress reports indicative of the quality of the fill should be made at regular intervals to the Owner. If improper placement procedures are observed during the placement of the fill the Geotechnical Engineer should inform the Contractor, and no additional fill should be permitted on the affected area until the condition causing the low densities has been corrected and the fill has been reworked to obtain sufficient density.

7.3 Compaction Requirements

Item	Description
Subgrade Scarification Depth	At least 8 inches
Fill Lift Thickness	8-inch (loose)
Compaction Requirements ¹	<ul style="list-style-type: none"> • 95% Standard Proctor Density (ASTM D-698)
Moisture Content	<ul style="list-style-type: none"> • \pm 2% optimum moisture for CL, SC, or GC soil types; or • 0 to 4% above optimum for CH soil types
Recommended Testing Frequency	<ul style="list-style-type: none"> • One (1) Field Density (compaction) test for each 2,500 sq. ft. of fill within the footprint of the Self-Support Tower; • One (1) Field Density (compaction) test for each 5,000 sq. ft. of fill within non-structure areas; • A minimum of three (3) tests per lift; and • Visual observation of the compaction process should be documented with no testing required if a performance compaction specification (i.e. number of passes) is utilized.
<p>1. We recommend that engineered fill (including scarified compacted subgrade) be tested for moisture content and compaction during placement. Should the results of the in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and retested as required until the specified moisture and compaction requirements are achieved.</p>	

7.4 Excavations

Based upon the subsurface conditions encountered during this investigation, the on-site soils typically classify as Type B in accordance with OSHA regulations. Temporary excavations in soils classifying as Type B with a total height of less than 20 feet should be cut no steeper than 1H:1V in accordance with OSHA guidelines. Confirmation of soil classification during construction, as well as construction safety (including shoring, if required), is the responsibility of the contractor.

Generally, excavations are anticipated to be capable of being performed with traditional excavation equipment in the clayey sand layer; however, excavations into the sandstone layer may require rock excavation equipment. It is recommended that rock excavation equipment be available during excavations if excavations extend to the sandstone unit.

8.0 TOWER FOUNDATION RECOMMENDATIONS

The proposed Self-Support Tower is anticipated to either be supported on a shallow mat foundation or on drilled pier foundations. Based upon the conditions encountered in the boring performed at the project site, the site subsurface materials are suitable for either a mat foundation or drilled pier foundations. Recommendations for mat foundations and drilled piers are included in the following sections.

8.1 Shallow Mat Foundations

Based upon the subsurface conditions encountered near the proposed Self-Support Tower and anticipated site grading, footings for the proposed Self-Support Tower are anticipated to bear on competent sandstone. Please refer to the section below for recommendations regarding shallow foundations.

8.2 Shallow Foundation Design Recommendations

Description	Mat Foundation Parameters
Net allowable bearing pressure ¹	Sandstone: 6,000 psf
Ultimate bearing pressure ²	Sandstone: 18,000 psf
Transient (wind) loading <u>ONLY</u> – Allowable Bearing Pressure ³	Sandstone: 7,500 psf
Minimum embedment below finished grade for frost protection and variation in soil moisture ⁴	5 feet
Estimated total settlement ⁵	1 inch or less
Allowable passive pressure ⁶	600 psf
Coefficient of sliding friction ⁷	0.5 (natural soils/controlled fill)
<p>1. The recommended net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. The recommended pressure considers all unsuitable and/or soft or loose soils, if encountered, are undercut and replaced with tested and approved new engineered fill. Footing excavations should be free of loose and disturbed material, debris, and water when concrete is placed. A factor of safety value of 3 has been applied to these values.</p> <p>2. No factor of safety has been applied to this value.</p> <p>3. The allowable bearing capacity may be increased to this value <u>only</u> for transient or wind loading.</p> <p>4. For footings beneath unheated areas. It is anticipated that additional depth may be required for overturning and uplift design considerations.</p> <p>5. The foundation movement will depend upon the variations within the subsurface soil profile, the structural loading conditions, the embedment depth of the footings, the thickness of compacted fill, and the quality of the earthwork operations.</p> <p>6. Allowable passive pressure value considers a factor of safety of about 2. Passive pressure value applies to undisturbed native clay or properly compacted fill. If formed footings are constructed, the space between the formed side of a footing and excavation sidewall should be cleaned of all loose material, debris, and water and backfilled with tested and approved fill compacted to at least 95% of the material's Standard Proctor dry density. Passive resistance should be neglected for the upper 5 feet of the soil below the final adjacent grade due to strength loss from freeze/thaw and shrink/swell.</p> <p>7. Coefficient of friction value is an ultimate value and does not contain a factor of safety.</p>	

8.3 Uplift

Resistance of shallow spread footings to uplift (U_p) may be based upon the dead weight of the concrete footing structure (W_c) and the weight of soil backfill contained in an inverted cone or pyramid directly above the footings (W_s). The following parameters may be used in design:

Description	Weights
Weight of Concrete (W_c)	150 pcf
Weight of Soil Resistance (W_s)	100 pcf
Weight for on-site soils placed in accordance with <u>Section 7</u>	

The base of the cone or pyramid should be the top of the footing and the pyramid or cone sides should form an angle of 30 degrees with the vertical. Allowable uplift capacity (U_p) should be computed as the lesser of the two (2) equations listed below:

$$U_P = (W_s/2.0) + (W_c/1.25) \text{ or } U_P = (W_s + W_c)/1.5$$

8.4 Drilled Pier Foundation Recommendations

Based upon the conditions encountered in the boring and subsequent laboratory testing, the proposed Self-Support Tower may be supported on a system of drilled piers bearing within the sandstone or claystone bedrock. The drilled shaft should be plumb (no more than 2 percent of the shaft length off vertical), and the drilled shaft should have a relatively flat bottom. Essentially all groundwater, if encountered, should be removed from the drilled pier shaft prior to concrete placement. If it is not possible to remove nearly all (2 to 3 inches max) of the groundwater from the drilled shaft excavation, concrete should be placed via tremie methods.

The method of concrete placement and vibration should be selected by the Structural Engineer. Required strength and mix design characteristics should also be specified by the Structural Engineer or other members of the Design Team.

Drilled pier installation may require core barrels or rock bits to penetrate the medium hard sandstone bedrock stratum. Casing may be required at the subject site due to dry clayey sand material.

8.5 Bearing Capacity and Uplift Resistance for a Drilled Shaft

The design parameters summarized in the table below may be utilized for bearing capacity and uplift capacity design for drilled shafts as described above. Allowable end bearing pressures and side friction values are summarized in the table below.

Stratum¹	Applicable Depth (ft.)	Allowable End Bearing Pressure (ksf)²	Allowable Side Friction (ksf)³
Overburden	Ground surface to 1 shaft diameter or a minimum of 5.5 feet	Ignore	Ignore
Sandstone	5.5 feet to 12 feet	6.0	0.8
Sandstone ⁴	12 to 20 feet	15	2.0
Claystone ⁴	20 feet to 34.3 feet	10	1.0
1. If soft soils are encountered in plan bottom of shaft during drilling, the shaft should be deepened until an acceptable bearing stratum is encountered. 2. End bearing pressure values assume a Factor of Safety of 3.0 or greater. 3. Side friction values include a Factor of Safety of ~1.5. These values should be used with Factored Loads during structural design. Side Friction may be used for computation of Uplift and Compressive Capacity in soil. 4. Applicable depths of these layers are based on a drilled pier parameter less than 4.5 feet, if larger drilled piers are utilized, applicable depths of these layers may need to be adjusted.			

8.6 Lateral Loadings

It is anticipated that designers will most likely utilize LPILE for completion of deep foundation lateral capacity design for the tower foundations. LPILE uses finite difference computer models based on the horizontal modulus of subgrade reaction (K_h).

The values listed in the table below may be utilized for Drilled Pier Analysis in LPILE. Please also notice that the table states to “ignore” lateral support for the depth from 0 to 1 pier diameter or a minimum of 5 feet. This notation is intended to account for the fact that near-surface soils are significantly disturbed during drilled shaft excavation, which greatly reduces the lateral support provided. Designers should use their judgment and make an appropriate reduction of soil strength parameters in this zone.

Values summarized in the table below are based upon published correlations, and field and laboratory data collected during this subsurface investigation. Values shown below are ultimate values representative of in-situ soil properties, and do not include a Factor of Safety. These values may be used to compute resistance to lateral loading of the overburden soils. **The appropriate Factor of Safety should be chosen by the designer.**

Stratum (Model)	Applicable Depth	Unit Weight ¹ (pcf)	Undrained Cohesion, c (psf)	Static Modulus, k (pci)	Cyclic Modulus, k (pci)	Strain Factor ϵ_{50}
Overburden	Ground surface to 1 shaft diameter or a minimum of 5.5 feet	Moist: 125	Ignore	Ignore	Ignore	Ignore
Sandstone (Stiff Clay Without Water)	5.5 feet to 12 feet	Moist: 135	2,000	680	280	0.006
Sandstone (Strong Rock)	12 feet to 20 feet	Moist: 150	Uniaxial Compressive Strength (psi)			
			4,200			
Claystone (Strong Rock)	20 feet to bottom of shaft	Moist: 140	1,500			

1. Buoyant unit weight should be utilized for soils that extend below the design groundwater level. Groundwater was not encountered at the project site.

9.0 SEISMIC CONSIDERATIONS

Code Used	Site Classification
2012 International Building Code (IBC) ¹	C
1. In general accordance with the 2012 International Building Code, Section 1613	

10.0 CONSTRUCTION OBSERVATION & TESTING

The construction process is an integral design component with respect to the geotechnical aspects of a project. Since geotechnical engineering is influenced by variable depositional and weathering processes and because we sample only a small portion of the soils affecting the performance of the proposed Self-Support Tower, unanticipated or changed conditions can be disclosed during grading. Proper geotechnical observation and testing during construction is imperative to allow the Geotechnical Engineer the opportunity to evaluate assumptions made during the design process. Therefore, we recommend that PPI be kept apprised of design modifications and construction schedule of the proposed project to observe compliance with the design concepts and geotechnical recommendations, and to allow design changes in the event that subsurface conditions or methods of construction differ from those assumed while completing this study. We recommend that during construction all earthwork be monitored by a representative of PPI, including site preparation, placement of all engineered fill and trench backfill, and all foundation excavations as outlined below.

- An experienced Geotechnical Engineer or Engineering Technician of PPI should observe the subgrade throughout the proposed project site immediately following stripping to evaluate the native soils, identify areas requiring undercutting, and evaluate the suitability of the exposed surface for fill placement;
- An experienced Engineering Technician of PPI should monitor and test all fill placed within the Self-Support Tower area to determine whether the type of material, moisture content, and degree of compaction are within recommended limits; and
- An experienced Technician or Engineer should observe drilled pier excavations. Where unsuitable bearing conditions are observed, PPI should be contacted to provide remedial procedures.

11.0 REPORT LIMITATIONS

This report has been prepared in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area. Palmerton & Parrish, Inc. observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. Palmerton & Parrish's findings and conclusions must be considered not as scientific certainties, but as opinions based on our professional judgment concerning the significance of the data gathered during the course of this investigation. Other than this, no warranty is implied or intended.



SCALE: 1" = 30'

Image From Google Earth Pro

Project: New Hemphill 4-Leg Self-Support Tower - Waltman
Client: Hemphill, LLC

LEGEND



 Boring Location

Boring Location Plan

DATE: December 6, 2019

Project Number: 261436

PPI PALMERTON & PARRISH, INC.
GEOTECHNICAL AND MATERIALS ENGINEERS/MATERIALS TESTING LABORATORIES/ENVIRONMENTAL SERVICES

FIGURE 1



4168 W. Kearney
Springfield, Missouri 65803
Telephone: (417) 864-6000
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GEOTECHNICAL BORING LOG

BORING NUMBER

1

PAGE 1 OF 1

CLIENT Hemphill, LLC PROJECT NAME Waltman - New 80' Tower
 PROJECT NO. 261436 PROJECT LOCATION Natrona County, Wyoming
 DATE STARTED 11/17/19 COMPLETED 11/17/19 SURFACE ELEVATION _____ BENCHMARK EL. _____
 DRILLER MR DRILL RIG 2019 CME-55 GROUND WATER LEVELS _____
 HAMMER TYPE Auto AT TIME OF DRILLING None
 LOGGED BY EV CHECKED BY RTH AT END OF DRILLING _____
 NOTES _____

BORING LOG - PPI - PPI STD TEMPLATE.GDT - 12/4/19 15:25 - S:_MASTER PROJECT FILE\2019\WY\HEMPHILL-261436-WY_CO & UT REGISTRATIONS-SUBDRILLED\WALTMAN\LOGS\WALTMAN - GINT.GPJ

DEPTH (ft)	DRILLING METHOD	STRATA SYMBOL	MATERIAL DESCRIPTION Unified Soil Classification System	SAMPLE TYPE NUMBER	RECOVERY % (RQD %)	CORRECTED BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT (pcf)				ELEVATION (ft)
								20	40	60	80	
0	HSA - 3.5" I.D.		CLAYEY SAND, Brown, Slightly Moist, Loose to Medium Dense (SC)	SPT 1		4-3-4 (7)						
5.5 ft				SPT 2		8-9-8 (17)	4.5					
5	ROTARY - 3 5/8" O.D.		SILTY SANDSTONE, Grayish Brown, Fine Grained, Weakly Cemented, Soft to Medium Hard	SPT 3		21-46-56 (102)						
10				SPT 4		21-34-60 (94)						
15				NQ 1	80 (23)							
20				NQ 2	0 (0)							
24.7 ft	SPT 5		43-65/5"									
25	ROTARY - 3 5/8" O.D.		CLAYSTONE/SILTSTONE, Brownish Tan, Soft	SPT 6		51-62-65/3"	4.5					
30												
34.3 ft				SPT 7		49-65/4"	4.5					

Bottom of borehole at 34.3 feet.



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KEY TO SYMBOLS

CLIENT Hemphill, LLC

PROJECT NAME Waltman - New 80' Tower

PROJECT NO. 261436

PROJECT LOCATION Natrona County, Wyoming

LITHOLOGIC SYMBOLS (Unified Soil Classification System)



CLAYSTONE: Claystone



SANDSTONE: Sandstone



SC: USCS Clayey Sand

SAMPLER SYMBOLS



NQ



Standard Penetration Test

WELL CONSTRUCTION SYMBOLS

ABBREVIATIONS

LL - LIQUID LIMIT (%)
 PI - PLASTIC INDEX (%)
 W - MOISTURE CONTENT (%)
 DD - DRY DENSITY (PCF)
 NP - NON PLASTIC
 -200 - PERCENT PASSING NO. 200 SIEVE
 PP - POCKET PENETROMETER (TSF)

TV - TORVANE
 PID - PHOTOIONIZATION DETECTOR
 UC - UNCONFINED COMPRESSION
 ppm - PARTS PER MILLION
 Water Level at Time
 Drilling, or as Shown
 Water Level at End of
 Drilling, or as Shown
 Water Level After 24
 Hours, or as Shown

KEY TO SYMBOLS - PPI STD TEMPLATE.GDT - 12/4/19 15:25 - S:\ MASTER PROJECT FILE\2018\WY\HEMPHILL-261436-WY - CO & UT REGISTRATIONS-SUBDRILLED\WALTMANLOGS\WALTMAN - GINT.GPJ

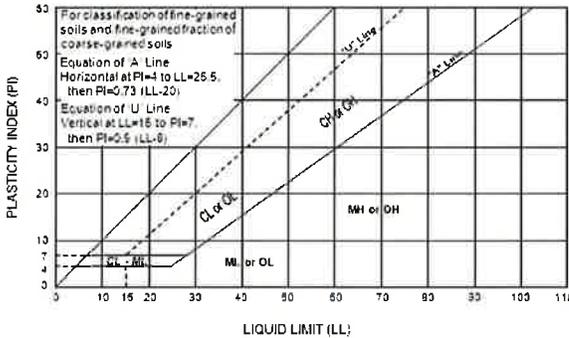


GENERAL NOTES

SOIL PROPERTIES & DESCRIPTIONS

COHESIVE SOILS

Consistency	Unconfined Compressive Strength (Qu)	Pocket Penetrometer Strength	N-Value
	(psf)	(tsf)	(blows/ft)
Very Soft	<500	<0.25	0-1
Soft	500-1000	0.25-0.50	2-4
Medium Stiff	1001-2000	0.50-1.00	5-8
Stiff	2001-4000	1.00-2.00	9-15
Very Stiff	4001-8000	2.00-4.00	16-30
Hard	>8000	>4.00	31-60
Very Hard			>60



Group Symbol	Group Name
CL	Lean Clay
ML	Silt
OL	Organic Clay or Silt
CH	Fat Clay
MH	Elastic Silt
OH	Organic Clay or Silt
PT	Peat
CL-CH	Lean to Fat Clay

Plasticity		Moisture	
Description	Liquid Limit (LL)	Descriptive Term	Guide
Lean	<45%	Dry	No indication of water
Lean to Fat	45-49%	Moist	Indication of water
Fat	≥50%	Wet	Visible water

Fine Grained Soil Sub Classification	Percent (by weight) of Total Sample
Terms: SILT, LEAN CLAY, FAT CLAY, ELASTIC SILT Sandy, gravelly, abundant cobbles, abundant boulders with sand, with gravel, with cobbles, with boulders scattered sand, scattered gravel, scattered cobbles, scattered boulders a trace sand, a trace gravel, a few cobbles, a few boulders	PRIMARY CONSTITUENT
	>30-50]
	>15-30] – secondary coarse grained constituents
	5-15]
	<5]
The relationship of clay and silt constituents is based on plasticity and normally determined by performing index tests. Refined classifications are based on Atterberg Limits tests and the Plasticity Chart.	

NON-COHESIVE (GRANULAR) SOILS

**GRAIN SIZE IDENTIFICATION		
Name	Size Limits	Familiar Example
Boulder	12 in. or more	Larger than basketball
Cobbles	3 in. to 12 in.	Grapefruit
Coarse Gravel	¾-in. to 3 in.	Orange or lemon
Fine Gravel	No. 4 sieve to ¾-in.	Grape or pea
Coarse Sand	No. 10 sieve to No. 4 sieve	Rock salt
Medium Sand	No. 40 sieve to No. 10 sieve	Sugar, table salt
Fine Sand*	No. 200 sieve to No. 40 sieve	Powdered sugar
Fines	Less than No. 200 sieve	
*Particles finer than fine sand cannot be discerned with the naked eye at a distance of 8 inches.		

RELATIVE DENSITY	N-VALUE	MOISTURE CONDITION	
		Descriptive Term	Guide
Very Loose	0-4	Dry	No indication of water
Loose	5-10	Moist	Damp but no visible water
Medium Dense	11-24	Wet	Visible free water, usually soil is below water table.
Dense	25-50		
Very Dense	≥51		

Coarse Grained Soil Sub Classification	Percent (by weight) of Total Sample
Terms: GRAVEL, SAND, COBBLES, BOULDERS Sandy, gravelly, abundant cobbles, abundant boulders with gravel, with sand, with cobbles, with boulders scattered gravel, scattered sand, scattered cobbles, scattered boulders a trace gravel, a trace sand, a few cobbles, a few boulders Silty (MH & ML)*, clayey (CL & CH)* (with silt, with clay)* (trace silt, trace clay)*	PRIMARY CONSTITUENT
	>30-50]
	>15-30] – secondary coarse grained constituents
	5-15]
	<5]
	<15]
	5-15] – secondary fine grained constituents
	<5]
*Index tests and/or plasticity tests are performed to determine whether the term "silt" or "clay" is used.	

*Modified after Ref. ASTM D2487-93 & D2488-93

**Modified after Ref. Oregon DOT 1987 & FHWA 1997

***Modified after Ref. AASHTO 1988, DM 7.1 1982, and Oregon DOT 1987



GENERAL NOTES

BEDROCK PROPERTIES & DESCRIPTIONS

ROCK QUALITY DESIGNATION (RQD)	
Description of Rock Quality	*RQD (%)
Very Poor	< 25
Poor	25-50
Fair	50-75
Good	75-90
Excellent	90-100

*RQD is defined as the total length of sound core pieces 4 in. or greater in length, expressed as a percentage of the total length cored. RQD provides an indication of the integrity of the rock mass and relative extent of seams and bedding planes.

SCALE OF RELATIVE ROCK HARDNESS		
Term	Field Identification	Approx. Unconfined Compressive Strength (tsf)
Extremely Soft	Can be indented by thumbnail	2.6-10
Very Soft	Can be peeled by pocket knife	10-50
Soft	Can be peeled with difficulty by pocket knife	50-260
Medium Hard	Can be grooved 2 mm deep by firm pressure of knife	260-520
Moderately Hard	Requires one hammer blow to fracture	520-1040
Hard	Can be scratched with knife or pick only with difficulty	1040-2610
Very Hard	Cannot be scratched by knife or sharp pick	>2610

DEGREE OF WEATHERING	
Slightly Weathered	Rock generally fresh, joints stained and discoloration extends into rock up to 25mm (1 in), open joints may contain clay, core rings under hammer impact.
Weathered	Rock mass is decomposed 50% or less, significant portions of rock show discoloration and weathering effects, cores cannot be broken by hand or scraped by knife.
Highly Weathered	Rock mass is more than 50% decomposed, complete discoloration of rock fabric, core may be extremely broken and gives clunk sound when struck by hammer, may be shaved with a knife.

GRAIN SIZE (TYPICALLY FOR SEDIMENTARY ROCKS)		
Description	Diameter (mm)	Field Identification
Very Coarse Grained	>4.76	Individual grains can easily be distinguished by eye.
Coarse Grained	2.0-4.76	
Medium Grained	0.42-2.0	Individual grains can be distinguished by eye.
Fine Grained	0.074-0.42	Individual grains can be distinguished by eye with difficulty.
Very Fine Grained	<0.074	Individual grains cannot be distinguished by unaided eye.

VOIDS	
Pit	Voids barely seen with the naked eye to 6mm *1/4-inch)
Vug	Voids 6 to 50mm (1/4 to 2 inches) in diameter
Cavity	50 to 6000mm (2 to 24 inches) in diameter
Cave	> 600mm

BEDDING THICKNESS	
Very Thick Bedded	> 3' Thick
Thick Bedded	1' to 3' Thick
Medium Bedded	4" to 1' Thick
Thin Bedded	1-1/4" to 4" Thick
Very Thin Bedded	1/2" to 1-1/4" Thick
Thickly Laminated	1/8" to 1/2" Thick
Thinly Laminated	1/8" or less (paper thin)

DRILLING NOTES

Drilling & Sampling Symbols		
NQ – Rock Core (2-inch diameter)	CFA- Continuous Flight (Solid Stem) Auger	WB – Wash Bore or Mud Rotary
HQ – Rock Core (3-inch diameter)	SS – Split Spoon Sampler	TP – Test Pit
HSA – Hollow Stem Auger	ST – Shelby Tube	HA – Hand Auger

Soil Sample Types

Shelby Tube Samples: Relatively undisturbed soil samples were obtained from the borings using thin wall (Shelby) tube samplers pushed hydraulically into the soil in advance of drilling. This sampling, which is considered to be undisturbed, was performed in accordance with the requirements of ASTM D 1587. This type of sample is considered best for the testing of "in-situ" soil properties such as natural density and strength characteristics. The use of this sampling method is basically restricted to soil containing little to no chert fragments and to softer shale deposits.

Split Spoon Samples: The Standard Penetration Test is conducted in conjunction with the split-barrel sampling procedure. The "N" value corresponds to the number of blows required to drive the last 1 foot of an 18-inch long, 2-inch O.D. split-barrel sampler with a 140 lb. hammer falling a distance of 30 inches. The Standard Penetration Test is carried out according to ASTM D-1586.

Water Level Measurements

Water levels indicated on the boring logs are levels measured in the borings at the times indicated. In permeable materials, the indicated levels may reflect the location of groundwater. In low permeability soils, shallow groundwater may indicate a perched condition. Caution is merited when interpreting short-term water level readings from open bore holes. Accurate water levels are best determined from piezometers.

Automatic Hammer

Palmerton and Parrish, Inc.'s CME's are equipped with automatic hammers. The conventional method used to obtain disturbed soil samples used a safety hammer operated by company personnel with a cat head and rope. However, use of an automatic hammer allows a greater mechanical efficiency to be achieved in the field while performing a Standard Penetration resistance test based upon automatic hammer efficiencies calibrated using dynamic testing techniques.

*Modified after Ref. ASTM D2487-93 & D2488-93

**Modified after Ref. Oregon DOT 1987 & FHWA 1997

***Modified after Ref. AASHTO 1988, DM 7.1 1982, and Oregon DOT 1987



4168 W Kearney St.
Springfield, MO 65803
Telephone: 417-864-6000

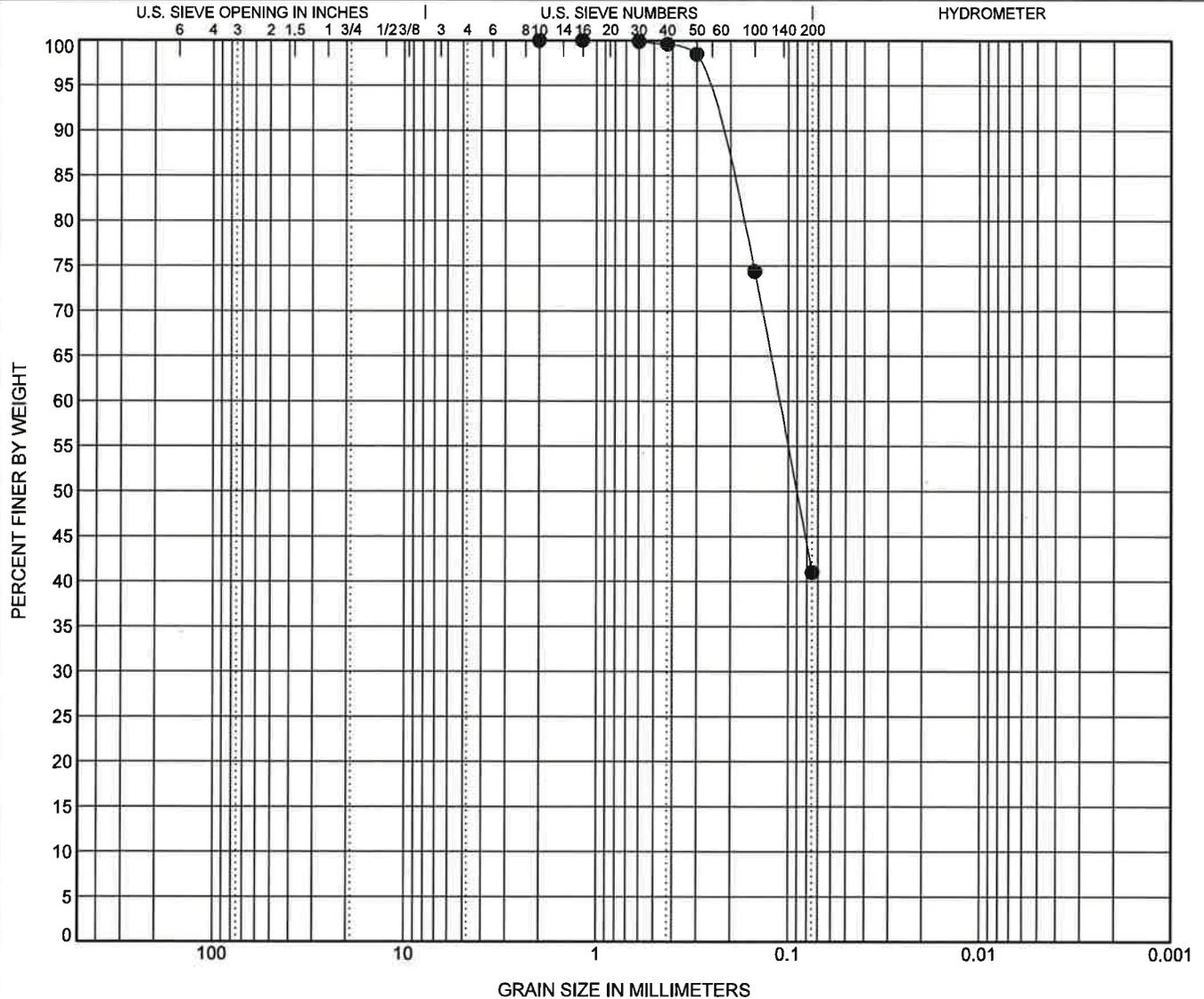
GRAIN SIZE DISTRIBUTION

CLIENT Hemphill, LLC

PROJECT NAME Waltman - New 80' Tower

PROJECT NO. 261436

PROJECT LOCATION Natrona County, Wyoming



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● 1	3.5	CLAYEY SAND(SC)	30	20	10		

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● 1	3.5	2	0.111			0.0	59.0	41.0	

GRAIN SIZE - PPI STD TEMPLATE.GDT - 12/3/19 13:36 - S:\MASTER PROJECT FILE\2019\WY\HEMPHILL-261436-WY_CO & UT REGISTRATIONS-SUBDRILLED\WALTMAN\LOGS\WALTMAN - GINT.GPJ

Important Information about This Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, clients can benefit from a lowered exposure to the subsurface problems that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed below, contact your GBA-member geotechnical engineer. Active involvement in the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Geotechnical-Engineering Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. *Those who rely on a geotechnical-engineering report prepared for a different client can be seriously misled. No one except authorized client representatives should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. And no one – not even you – should apply this report for any purpose or project except the one originally contemplated.*

Read this Report In Full

Costly problems have occurred because those relying on a geotechnical engineering report did not read it *in its entirety*. Do not rely on an executive summary. Do not read selected elements only. *Read this report in full.*

You Need to Inform Your Geotechnical Engineer about Change

Your geotechnical engineer considered unique, project-specific factors when designing the study behind this report and developing the confirmation-dependent recommendations the report conveys. A few typical factors include:

- the client's goals, objectives, budget, schedule, and risk-management preferences;
- the general nature of the structure involved, its size, configuration, and performance criteria;
- the structure's location and orientation on the site; and
- other planned or existing site improvements, such as retaining walls, access roads, parking lots, and underground utilities

Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.*

This Report May Not Be Reliable

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, that it could be unwise to rely on a geotechnical engineering report whose reliability may have been affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If your geotechnical engineer has not indicated an "apply-by" date on the report, ask what it should be, and, in general, if you are the least bit uncertain about the continued reliability of this report, contact your geotechnical engineer before applying it. A minor amount of additional testing or analysis – if any is required at all – could prevent major problems.*

Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface through various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing were performed. The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgment to form opinions about subsurface conditions throughout the site. Actual site-wide subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team from project start to project finish, so the individual can provide informed guidance quickly, whenever needed.*

This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, *they are not final*, because the geotechnical engineer who developed them relied heavily on judgment and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* revealed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a full-time member of the design team, to:

- confer with other design-team members,
- help develop specifications,
- review pertinent elements of other design professionals' plans and specifications, and
- be on hand quickly whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction observation.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for informational purposes only*. To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report, but they may rely on the factual data relative to the specific times, locations, and depths/elevations referenced. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only from the design drawings and specifications*. Remind constructors that they may

perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely*. Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase one" or "phase two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures*. If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. As a general rule, *do not rely on an environmental report prepared for a different client, site, or project, or that is more than six months old*.

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, none of the engineer's services were designed, conducted, or intended to prevent uncontrolled migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration*. Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. *Geotechnical engineers are not building-envelope or mold specialists*.



Telephone: 301/565-2733

e-mail: info@geoprofessional.org www.geoprofessional.org

CONDITIONAL USE PERMIT REQUEST
FOR A
TELECOMMUNICATION SITE

CUP20-4

Staff Report: Trish Chavis
June 9, 2020

For

July 14, 2020
Planning and Zoning Commission

And

August 4, 2020
Board of County Commissioner Meeting

Applicant: Declan Murphy, Union Wireless/Hemphill

Request: Construct an 84-foot self-supporting communication tower to allow for the expansion of an existing Union Wireless site. The applicant is requesting 100-feet total height to include all appurtenances.

Location and Zoning

The parcel is located just east of the Waltman Food & Gas on W. US Highway 20-26.

The subject parcel and all surrounding parcels are zoned Ranching, Agricultural and Mining (RAM).

Proposal

Union has applied for a CUP to construct an 84-foot communication tower to replace their existing 45' tower. The applicant is request the CUP to have a total height of 100-feet. This will include the additional antennas and lightening rod.

The proposed upgrades are necessary to allow Union Wireless to continue providing service to the adjacent community, in addition to enhancing emergency service capabilities through FirstNet.

FirstNet is the First Responder Network Authority, and is an independent authority authorized by Congress in 2012, to develop, build and operate the nationwide, broadband network that equips first responders.

General Standards
For
Conditional Use Permits

Criteria for Approval

1. Will granting the Conditional Use Permit contribute to an overburdening of county services?

Proposed Finding of Fact. Granting the Conditional Use permit will not contribute to an overburdening of county services. County services and infrastructure will not be necessary for this permit. The tower would provide needed cell service to the area, which will add E-911 capabilities through the carrier's networks, and promote greater coverage and reach for local law enforcement and emergency services.

2. Will granting the Conditional Use Permit cause undue traffic, parking, population density or environmental problems?

Proposed Finding of Fact. The facility is unmanned and will not cause undue traffic or parking. Routine maintenance for the tower and antennas will be limited. There will be no affects to population density.

3. Will granting the Conditional Use Permit impair the use of adjacent property or alter the character of the neighborhood?

Proposed Finding of Fact. The surrounding ranch consists of approximately 3,460 acres. The addition of a taller communication tower will not impair the use of adjacent properties.

4. Will granting the Conditional Use Permit detrimentally affect the public health, safety and welfare, or nullify the intent of the Development Plan or Zoning Resolution?

The addition of the proposed tower would not be damaging or inconsistent with the surrounding area. The proposed tower is consistent with the intent of both the Development Plan and the Zoning Resolution.

Proposed Finding of Fact. The proposed tower will be constructed in accordance with all applicable building, electrical and plumbing codes. With an approved CUP, the tower will comply with the Zoning Resolution and the Development Plan. This site will provide wireless coverage to residents and travelers as well as provides for valuable E911 services and FirstNet capabilities.

Key Communication Tower Regulations

Artificially Lighted: There is no requirement for lighting until the tower reaches 200 feet. The proposed tower does not meet the requirement for FAA review.

Setbacks: Setbacks from roads and structures is 110% of the tower height. The nearest road is 490-feet away and does meet setbacks.

Documentation demonstrating need: The proposed site is situated to provide effective coverage to the area. The existing tower's current loading and height is insufficient to provide adequate service so a taller tower would be needed.

Public Comment

As of the date of this staff report there have been no comment received.

Staff sent the public notice to 25 neighbors within 3 miles.

Recommendation

Staff proposes a motion and vote by the Planning and Zoning Commission to recommend approval of the requested Conditional Use Permit, by the Board of County Commissioners and incorporate by reference all findings of fact set forth herein and make them a part thereof.



NATRONA COUNTY

Development Department

200 North Center Street, Room 205
Casper, WY 82601

Jason Gutierrez, PE, Director
County web: www.natronacounty-wy.gov

Phone: 307-235-9435
Fax: 307-235-9436
Email: jgutierrez@natronacounty-wy.gov

"The purpose of the Natrona County Development Department is to provide necessary services to implement sound land use planning and economic development policies to protect and enhance the quality of life for present and future inhabitants of Natrona County."

MEMORANDUM

To: Board of County Commissioners

From: Jason Gutierrez, P.E., Director

Date: July 15, 2020

RE: CUP20-5 Construct an 84-foot self-supporting communication tower to allow for the expansion of an existing Union Wireless site. The applicant is requesting 100-foot total height to include all appurtenances.

cc: Applicant, County Attorney, File

Planning and Zoning Commission Recommendation:

Approve

At its July 14, 2020 meeting, the Planning Commission, acted to recommend approval of the requested Conditional Use Permit to the Board of County Commissioners with the following condition:

(Motion passed unanimously).

Board of County Commissioners Review and Procedure: The following options are available to the Board of County Commissioners when acting on an item:

- Approve the application as recommended by the Planning Commission;
- Approve the application as submitted;
- Approve the application on its own conditions;
- Deny the application;
- Remand the application to the Planning Commission for reconsideration;
- Table to a date specific; or with the express consent of the applicant, the Board may table indefinitely or dismiss the application.



Site Name: Grey Reef
Site Address: 21755 State Highway 220, Alcova WY 82620
GEOCODE: 30820740002300 **Lat/Long:** 42 34 04.1 -106 42 40.9

Purpose of Request

Union Wireless is committed to improving coverage and expanding network capacity to meet customer demand throughout the State of Wyoming. The existing Wireless Communication Facility (WCF) provides residents, visitors and businesses with high quality reliable wireless service for both personal & business, in addition to enhancing emergency services.

Union Wireless is proposing the following at the existing WCF located at 21755 State Highway 220, Alcova WY 82620.

Details of Request

Union Wireless is proposing a new 80' self-support tower at the existing WCF, but **requesting approval for a 100' self-support tower**. The existing site footprint will be expanded to accommodate the upgrades as detailed on the attached site plan/elevation (see sheet C2-1). The existing 45' Union self-support tower will remain for a period to accommodate the transfer of equipment to the new tower.

The proposed upgrades are necessary to allow Union Wireless to continue providing the best possible service to the adjacent community, in addition to enhancing emergency service capabilities through FIRSTNET.

Technical Information

Steel four leg 80' self-support tower designed to accommodate multiple carriers, please see Exhibit A for tower structural/technical details.

Valmont self-support tower, proposed antennas are COMMSCOPE NNH4-65C-R6-V3, please see Exhibit A for tower structural/technical details and Exhibit B for antenna spec's.

Union/Hemphill is proposing an 80' Self-Support Tower with 3 sectors of antennas, please see Exhibit A for tower details. No lighting is required at the proposed location/height per FAA TowAir.

The proposed frequency range is 698-896 MHz to 1695-2360 MHz

Please see Exhibit B - Antenna Spec's for the actual intended transmission, effective radiated power etc.

Please see Exhibit B - Antenna Spec's for direction of maximum lobes and associated radiation of the antennas etc.

Please see Exhibit C - NIER Report.

Union Wireless is an FCC licensed carrier, therefore all transmissions will be within the allocated frequencies and will not cause interference with any other licensed transmission.

Please see the Exhibit D – Union FCC License Info.

Please see Exhibit F for information on proposed tower foundation, soils etc.

FAA does not require lighting for the proposed height, which is typical for sites under 200' unless the site is very close to an Airport.

The proposed 80' Self-Support tower will replace the existing 40' Union Self-support at the existing cell-site, and is structurally designed to accommodate multiple carriers.

Please see Exhibit A with information on the tower/foundation engineering compliant with local, County, State and Federal structural requirements.

Grounding and Bonding, please sheets E4-1, G1-1 and G1-2 for details.

The existing cell-site is far removed from the nearest residential. The site is visible from US HWY 220 and Grey Reef Road, however setback far enough to not be in the peripheral view of passing traffic.

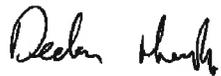
Please see the attached photo simulations of the before and after views.

The subject location is an existing cell-site. The proposed changes mainly in tower height will be noticeable but should have little visual impact or public concern give the setback of the existing sites.

The existing cell-site currently has screening in place, so Union Wireless will continue to maintain the current screening to maintain consistency with the existing screening.

Please let me know if you need any additional information.

Sincerely,

A handwritten signature in black ink that reads "Declan Murphy". The signature is written in a cursive, slightly slanted style.

Declan Murphy
Coal Creek Consulting for Union Wireless/Hemphill
2166 E. University Dr. #201, Tempe, AZ 85281
Tel: (602) 326-0111
Email: dmurphy@coal-creek.com

and Zoning Commission and Board of County Commissioners shall require showings concerning all of the following:

1. The owner of record or contract purchaser has signed the application.
2. Granting the conditional use permit will not contribute to an overburdening of County Services.
3. Granting the conditional use will not cause undue traffic, parking, population density, or environmental problems.
4. Granting the conditional use permit will not impair the use of adjacent property or alter the character of the neighborhood.
5. Granting the conditional use permit will not detrimentally affect the public health, safety, and welfare, or nullify the intent of the Development Plan or the Zoning Resolution.

APPLICATION INSTRUCTIONS

This is an application for a conditional use permit for wireless telecommunication facilities on the parcel described hereon. By completing the application form and providing the other requested information, your application will be acted upon in the fastest, fairest manner prescribed by law.

Person preparing report:

Name: Declan Murphy for Union Wireless/Hemphill

Address: 2166 E University Drive, #201, Tempe AZ 85281

Phone Number: 602 326 0111

Property Owner:

Name: Bret & Candy Van Rensselaer

Mailing Address: Casper WY

Phone Number: 307-237-1182

Physical Address: 21755 State Highway 220, Alcova WY 82620

Tax map parcel no: 30820740002300

Applicant:

Name: Declan Murphy for Union Wireless/Hemphill

Address: 2166 E University Drive, #201, Tempe AZ 85281

Phone Number: 602 326 0111

Legal form (Corporation, LLC, etc.) Union Telephone Company

If purchased tower, date of purchase: Lat/Long 42 34 04.1 -106 42 40.9

GPS coordinates of tower: Lat/Long 42 34 04.1 -106 42 40.9

Original Conditional Use Permit resolution number: CUP 10-0002

Dated of original Conditional Use Permit: 3/2/2010

Operator:

Name: Union Wireless

Address: PO Box 160, Mountain View WY 82939

Phone Number: 602 326 0111

Signatures

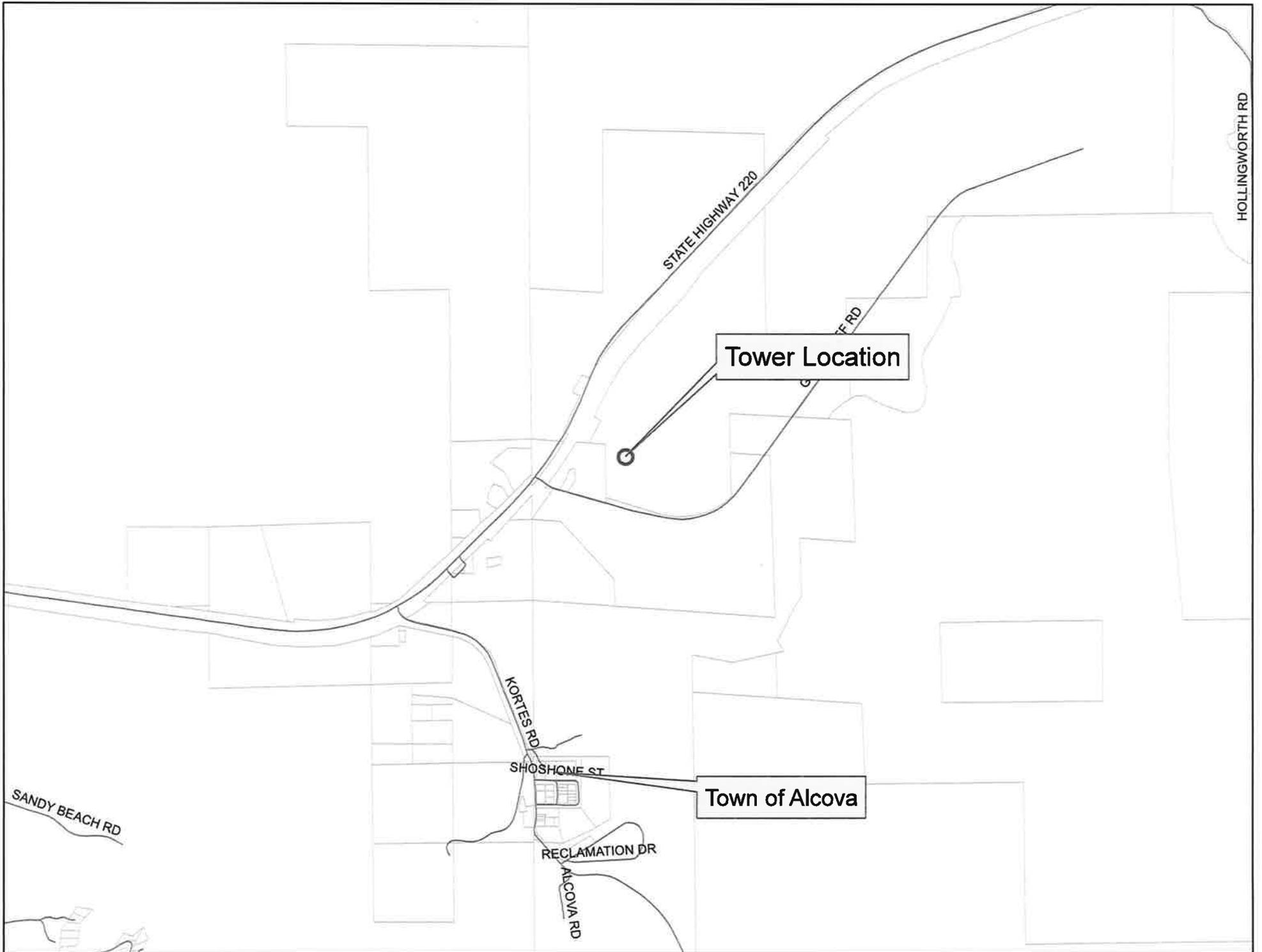
I (We) hereby certify that I (We) have read and examined this application and know the same to be true and correct to the best of my (our) knowledge. Granting this request does not presume to give authority to violate or cancel the provisions of any other State or local laws. Falsification or misrepresentation is grounds for voiding this request, if granted. All information within, attached to or submitted with this application shall become part of the public record, except as modified by applicable regulations. **I (We) further understand that all application fees are non-refundable.** By signing the application I am (We are) granting the Development Department access to our property for inspections.

Applicant: Declan Murphy Date: 4-20-20
(Signature)

Print Applicant Name: Declan Murphy

Owner: [Signature] Date: 5-20-20
(Signature)

Print Owner Name: BRET VAN ZEUSSELHEVE



STATE HIGHWAY 220

Tower Location

HOLLINGWORTH RD

F RD

KORTES RD

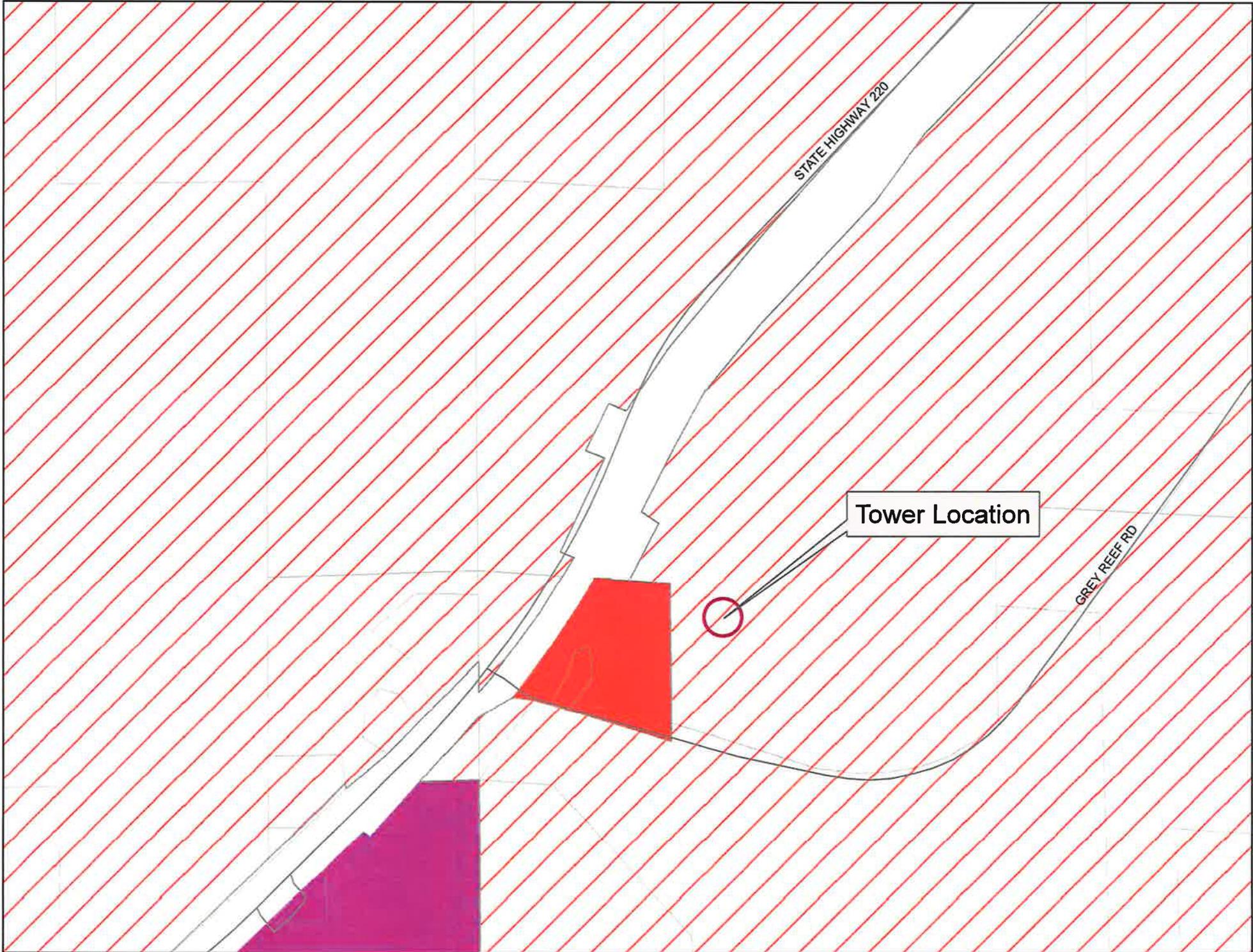
SHOSHONE ST

Town of Alcova

RECLAMATION DR

ALCOVA RD

SANDY BEACH RD



STATE HIGHWAY 220

Tower Location

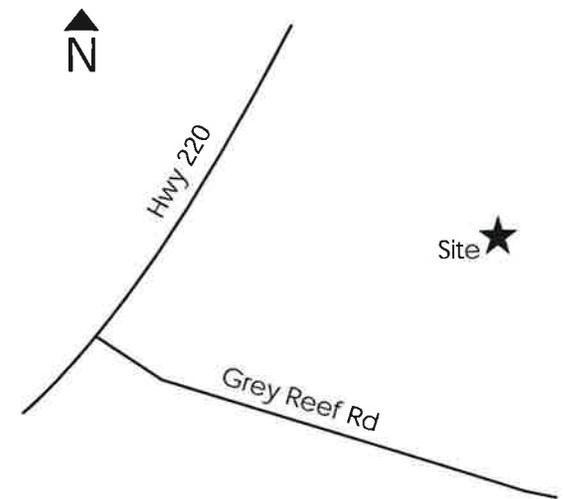
GREY REEF RD

PHOTO SIMULATIONS

12048 - Grey Reef

LAT 42° 34' 4.1"

LONG -106° 42' 40.9"



Note: Simulations are an artistic illustration created to represent how the proposed project may look once constructed. Simulations are create to match the current design as accurately as possible, but are not guaranteed to match the final build.



Before:



PHOTO SIMULATIONS

12048 - Grey Reef

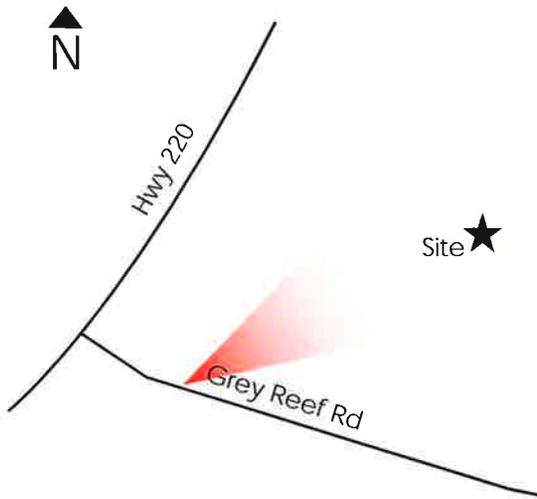
LAT 42° 34' 4.1"

LONG -106° 42' 40.9"

After:



View 1
Looking Northeast



Before:



PHOTO SIMULATIONS

12048 - Grey Reef

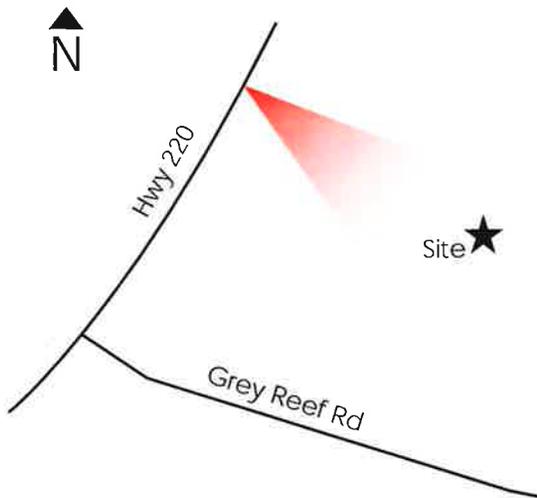
LAT 42° 34' 4.1"

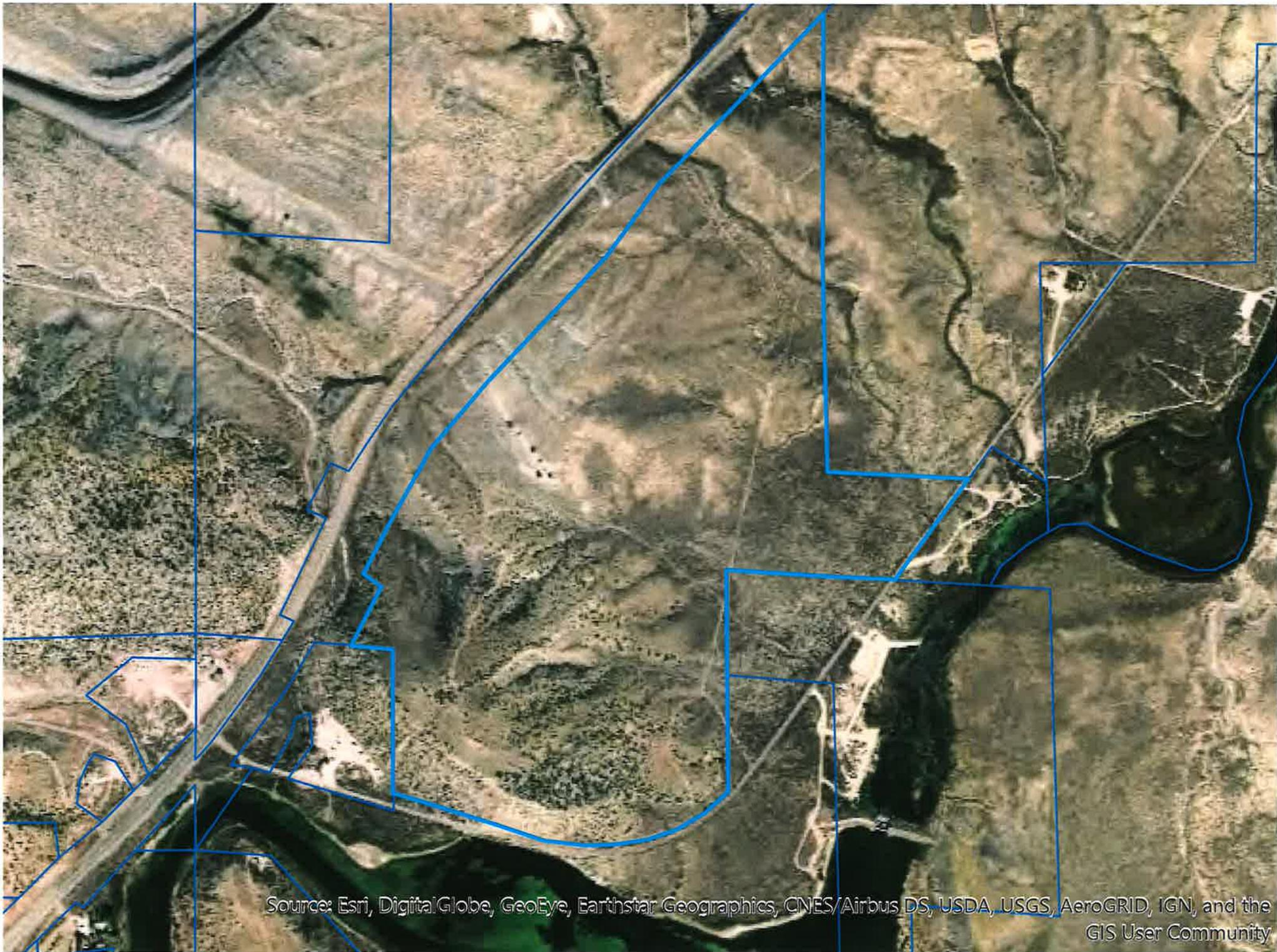
LONG -106° 42' 40.9"

After:



View 2
Looking Southeast





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

GEOTECHNICAL ENGINEERING REPORT
NEW HEMPHILL 4-LEG SELF-SUPPORT TOWER
GREY REEF
21755 WEST HIGHWAY 220
NATRONA COUNTY, ALCOVA, WYOMING

Prepared for:

Hemphill, LLC
1350 North Louisville Avenue
Tulsa, Oklahoma 74115

Prepared by:



Springfield, MO
4168 W. Kearney Springfield, MO 65803
Call 417.864.6000 Fax 417.864.6004
www.ppimo.com

PROJECT NUMBER: 261436

May 13, 2020

May 13, 2020

Hemphill, LLC
1350 North Louisville Avenue
Tulsa, Oklahoma 74115

Attn: Mr. Scot Tinker, Director of Tower Operations
Email: scot.tinker@hemphill.com

RE: Geotechnical Engineering Report
New Hemphill 4-Leg Self-Support Tower - Grey Reef
21755 West Highway 220
Natrona County, Alcova, Wyoming
PPI Project Number: 261436

Dear Mr. Tinker:

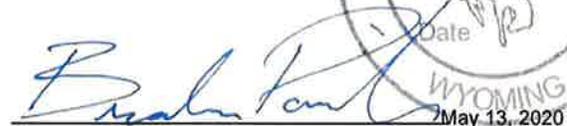
Attached, please find the report summarizing the results of the geotechnical investigation conducted for the proposed New Hemphill 4-Leg Self-Support Tower in Natrona County, Alcova, Wyoming. We appreciate this opportunity to be of service. If you have any questions, please don't hesitate to contact this office.

PALMERTON & PARRISH, INC.
By:



R. Todd Hercules, P.E.
Geotechnical Engineer

PALMERTON & PARRISH, INC.
By:



Brandon R. Parrish, P.E.
Vice-President

Submitted: One (1) Electronic .pdf Copy

BRP/BRP/RTH

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APPENDICES

Appendix I - Figure

Appendix II - Boring Log & Key To Symbols

Appendix III - General Notes

Appendix IV – Grain Size Test

Appendix V - Important Information Regarding Your Geotechnical Report

EXECUTIVE SUMMARY

A Geotechnical Investigation was performed for the proposed New Hemphill 4-Leg Self-Support Tower located at 21755 West Highway 220 in Natrona County, Alcova, Wyoming. It is understood that a new 80-foot Self-Support Tower will be constructed at the project site. Cut and fill depths are anticipated to be less than 2 feet across the subject site to provide finished subgrade elevations.

Based upon the information obtained from the boring drilled and subsequent laboratory testing, the site is suitable for the proposed Self-Support Tower. Important geotechnical considerations for the project are summarized below. However, users of the information contained in the report must review the entire report for specific details pertinent to geotechnical design considerations.

- The soils explored at the subject site consisted of well-graded gravel with clay and sand. Sparse vegetation was noted at the ground surface. The well-graded gravel layer transitioned into a clayey sand layer at approximately 18 feet below the ground surface. Varying amounts of granite gravels and limestone nodules were also noted within this material;
 - The subsurface soils were generally medium dense to very dense and excavatable without rock excavation equipment; however, intact, hard limestone sections or boulders may be encountered that may require rock excavation equipment. It is recommended that rock excavation equipment be available during excavations;
 - Mat foundations bearing on medium dense to very dense native soil for the new Self-Support Tower can be designed for an allowable bearing capacity of 5,000 psf. Micropiles may be used in conjunction with the mat foundation to resist overturning and lateral loads and provide additional bearing capacity. Alternatively, the proposed Self-Support Tower can be supported by a drilled pier foundation;
 - Drilled pier design parameters have been included in Section 8. Some collapsible materials may be encountered in the drilled pier excavations. Accordingly, it is
-

EXECUTIVE SUMMARY - CONTINUED

recommended that the drilled pier contractor have casing available in case these conditions are encountered;

- The project site classifies as a Site Class D in accordance with Section 1613 of the 2012 International Building Code (IBC); and
 - Construction materials testing should be performed on tower foundations by a qualified engineer and close monitoring of subgrade preparation work is considered critical to achieve adequate subgrade performance.
-

GEOTECHNICAL ENGINEERING REPORT
NEW HEMPHILL 4-LEG SELF-SUPPORT TOWER
GREY REEF
21755 WEST HIGHWAY 220
NATRONA COUNTY, ALCOVA, WYOMING

1.0 INTRODUCTION

This is the report of the Geotechnical Investigation performed for the proposed New Hemphill 4-Leg Self-Support Tower located at 21755 West Highway 220 in Natrona County, Alcova, Wyoming. This investigation was in accordance with a letter proposal dated October 8, 2019, and authorized by Mr. Scot Tinker with Hemphill. The approximate site location is shown below:



2.0 PROJECT PURPOSE

The purpose of this Geotechnical Investigation was to provide information for foundation design and construction planning for the proposed Self-Support Tower. PPI's scope of services includes field and laboratory testing, investigation of the subsurface conditions in the vicinity of the tower base, engineering analysis of collected data and development of recommendations for foundation design and construction planning, and preparation of this Engineering Report.

3.0 PROJECT DESCRIPTION

It is understood that a new 80-foot Self-Support Tower supported upon either a mat foundation or drilled piers is proposed at the project site. It is understood that micropiles may be utilized in combination with a mat foundation for additional overturning, lateral loading, and bearing capacity. Foundation loadings, both compressive and overturning are anticipated to be moderate. Cut and fill depths are anticipated to be less than 2 feet across the subject site to provide finished subgrade elevations.

4.0 SUBSURFACE INVESTIGATION

Subsurface conditions were investigated through completion of a subsurface boring and subsequent laboratory testing. Below is a picture of the boring location:



4.1 Subsurface Boring

The tower center was selected and staked in the field by the Client. The approximate boring location is shown on [Figure 1, Boring Location Plan](#). The Wyoming One-Call System was notified prior to the investigation to assist in locating buried public utilities.

A log of the boring showing descriptions of soil and rock units encountered, as well as results of field tests, laboratory tests and a “Key to Symbols” are presented in [Appendix II](#).

The boring was drilled on April 23, 2020 using 4.5-inch O.D. continuous flight augers to a depth of 30 feet and air rotary methods with a 2.9-inch tricone bit past a depth of 35 feet powered by an ATV-mounted drill-rig. Soil samples were generally collected at 2.5 to 5-foot centers during drilling using a split spoon sampler while performing the Standard Penetration Test (SPT) in general accordance with ASTM D1586. Please refer to [Appendix III](#) for general notes regarding boring logs and additional soil sampling information.

4.2 Laboratory Testing

Collected samples were sealed and transported to the laboratory for further evaluation and visual examination. Laboratory soil testing included the following:

- Moisture Content (ASTM D2216);
- Grain Size Analysis (ASTM D6913); and
- Pocket Penetrometers.

Laboratory test results are shown on each boring log in [Appendix II](#) and are summarized in the following table.

Depth (ft.)	Moisture Content (%)	USCS Symbol	Percent Passing No. 200 Sieve (%)
6	2.5	GW-GC	9
18.5	2.5	SC	20

5.0 SITE GEOLOGY

Based on information available from the Wyoming Geological Survey, the subject site is located over the Cloverly, Morrison, and Sundance Formation. These formations contain sandstone, bentonitic claystone, limestone, glauconitic sandstone and shale. Some amount of chert-pebble conglomerate is also noted at the subject site. The claystone in this area is noted to be locally bentonitic and may be expansive. Boulders encountered in the subsurface exploration are anticipated to be limestone nodules or areas of conglomerate.

6.0 GENERAL SITE SUBSURFACE CONDITIONS

Based upon subsurface conditions encountered within the boring drilled at the project site, generalized subsurface conditions are summarized in the table below. Soil stratification lines on the boring log indicate approximate boundary lines between different types of soil units based upon observations made during drilling. In-situ transitions between soil types are typically gradual.

6.1 Subsurface Stratum

Generalized subsurface conditions are summarized in the table below:

Depth	Stratum	Subsurface Material	Density/Consistency
0 to 18 feet	Gravel	Well-Graded Gravel, with clay and sand (GW-GC)	Medium Dense to Very Dense
18 to 35 feet	Sand	Clayey Sand, with gravel (SC)	Dense to Very Dense

6.2 Groundwater

Shallow groundwater was not observed within the boring on the date drilled. Groundwater levels should be expected to fluctuate with changes in site grading,

precipitation, and regional groundwater levels. Groundwater may be encountered during wetter periods.

7.0 EARTHWORK

Grading plans for the proposed Self-Support Tower were not provided. Grading for the project site is anticipated to have less than 2 feet of cut and/or fill to establish final grades. The initial phase of site preparation should include the steps listed below;

- Clearing and grubbing of any vegetation within the tower footprint; and
- Areas scheduled to receive controlled fill, if any, should be proof-rolled and approved in accordance with the following section of this report.

7.1 Site Preparation

Proof-rolling consists essentially of rolling the ground surface with a loaded tandem axle dump truck or similar heavy rubber-tired construction equipment and noting any areas which rut or deflect during rolling. All soft subgrade areas identified during proof-rolling should be undercut and replaced with compacted fill as outlined below. Proof-rolling, undercutting and replacement should be monitored by a qualified representative of the Geotechnical Engineer.

7.2 Fill Material Types

Fill Type ¹	USCS Classification	Acceptable Location for Placement
Low Volume Change (LVC) Engineered Fill ²	CL, GC, or SC (LL < 45%)	All locations and elevations
On-Site Natural Soils	GW-GC or SC	All locations and elevations
Rock Fill ³	GW	All locations and elevations

1. Controlled, compacted fill should consist of approved materials that are free of organic matter and debris and contain maximum rock size of 4 to 6 in. Frozen material should not be used and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to the Geotechnical Engineer for evaluation prior to its use.
2. Low plasticity cohesive soil or granular soil having at least 15% low plasticity fines.
3. See [Section 7.2.1](#) if rock fill will be utilized at the project site.

7.2.1 Rock Fill

If rock is to be used as the primary filling medium, embankments should be constructed using rock having maximum dimensions in excess of 4 inches, but no

greater than 8 inches. Rock material should be placed in horizontal layers having a thickness of approximately the maximum size of the larger rock comprising the lift, but not greater than 12 inches. Rocks or boulders too large to permit placing in a 12-inch thick lift should be reduced in size as necessary to permit placement or be bladed over the edge of the fill and not used in the compacted fill. Rock fill should not be dumped into place but should be distributed in horizontal lifts by blading and dozing in such a manner as to ensure proper placement into final position in the embankment. Finer material including rock fines and limited soil fines should be worked into the rock voids during this blading operation. Excessive soil and rock fine particles preventing interlock of cobble and boulder sized rock should be prohibited. Rock fill should be consolidated by a minimum of three (3) passes of a large diameter self-propelled vibratory compactor. Terminal fill slopes using rock may be constructed 1.5 horizontal to 1 vertical for fill height of 15 feet or less. The testing of rock fill quality should include the requirements that a representative of the Geotechnical Engineer be present daily, but not necessarily continuously during the placement of the fill to observe the placement of rock fill in order to determine fill quality and to observe that the contractors work sequence is in compliance with this specification. Progress reports indicative of the quality of the fill should be made at regular intervals to the Owner. If improper placement procedures are observed during the placement of the fill the Geotechnical Engineer should inform the Contractor, and no additional fill should be permitted on the affected area until the condition causing the low densities has been corrected and the fill has been reworked to obtain sufficient density.

7.3 Compaction Requirements

Item	Description
Subgrade Scarification Depth	At least 8 inches
Fill Lift Thickness	8-inch (loose)
Compaction Requirements ¹	<ul style="list-style-type: none"> 95% Standard Proctor Density (ASTM D-698)
Moisture Content	<ul style="list-style-type: none"> ± 2% optimum moisture for CL, SC, or GC soil types; or 0 to 4% above optimum for CH soil types.
Recommended Testing Frequency	<ul style="list-style-type: none"> One (1) Field Density (compaction) test for each 2,500 sq. ft. of fill within the footprint of the Self-Support Tower; One (1) Field Density (compaction) test for each 5,000 sq. ft. of fill within non-structure areas; A minimum of three (3) tests per lift; and Visual observation of the compaction process should be documented with no testing required <u>if</u> a performance compaction specification (i.e. number of passes) is utilized.
<p>1. We recommend that engineered fill (including scarified compacted subgrade) be tested for moisture content and compaction during placement. Should the results of the in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and retested as required until the specified moisture and compaction requirements are achieved.</p>	

7.4 Excavations

Based upon the subsurface conditions encountered during this investigation, the on-site soils typically classify as Type B in accordance with OSHA regulations. Temporary excavations in soils classifying as Type B with a total height of less than 20 feet should be cut no steeper than 1H:1V in accordance with OSHA guidelines. Confirmation of soil classification during construction, as well as construction safety (including shoring, if required), is the responsibility of the contractor.

8.0 TOWER FOUNDATION RECOMMENDATIONS

The proposed Self-Support Tower is anticipated to either be supported on a shallow mat foundation or on drilled pier foundations. It is understood that micropiles may be utilized in addition to a mat foundation to help resist overturning and lateral loads. Based upon the conditions encountered in the boring performed at the project site, the site subsurface materials are suitable for either a mat foundation or drilled pier foundations. Recommendations for mat foundations and drilled piers are included in the following sections.

8.1 Shallow Mat Foundations

Based upon the subsurface conditions encountered near the proposed Self-Support Tower and anticipated site grading, footings for the proposed Self-Support Tower are anticipated to bear in medium dense to very dense natural soils. Please refer to the section below for recommendations regarding shallow foundations.

8.2 Shallow Foundation Design Recommendations

Description	Mat Foundation Parameters
Net allowable bearing pressure ¹	Native Soil: 5,000 psf
Ultimate bearing pressure ²	Native Soil: 15,000 psf
Transient (wind) loading <u>ONLY</u> – Allowable Bearing Pressure ³	Native Soil: 7,500 psf
Minimum embedment below finished grade for frost protection and variation in soil moisture ⁴	5 feet
Estimated total settlement ⁵	1 inch or less
Allowable passive pressure ⁶	800 psf
Coefficient of sliding friction ⁷	0.6 (natural soils)

1. The recommended net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. The recommended pressure considers all unsuitable and/or soft or loose soils, if encountered, are undercut and replaced with tested and approved new engineered fill. Footing excavations should be free of loose and disturbed material, debris, and water when concrete is placed. A factor of safety value of 3 has been applied to these values.
2. No factor of safety has been applied to this value.
3. The allowable bearing capacity may be increased to this value only for transient or wind loading.
4. For footings beneath unheated areas. It is anticipated that additional depth may be required for overturning and uplift design considerations.
5. The foundation movement will depend upon the variations within the subsurface soil profile, the structural loading conditions, the embedment depth of the footings, the thickness of compacted fill, and the quality of the earthwork operations.
6. Allowable passive pressure value considers a factor of safety of about 2. Passive pressure value applies to undisturbed native clay or properly compacted fill. If formed footings are constructed, the space between the formed side of a footing and excavation sidewall should be cleaned of all loose material, debris, and water and backfilled with tested and approved fill compacted to at least 95% of the material's Standard Proctor dry density. Passive resistance should be neglected for the upper 5 feet of the soil below the final adjacent grade due to strength loss from freeze/thaw and shrink/swell.
7. Coefficient of friction value is an ultimate value and does not contain a factor of safety.

8.3 Uplift

Resistance of shallow spread footings to uplift (U_p) may be based upon the dead weight of the concrete footing structure (W_c) and the weight of soil backfill contained

in an inverted cone or pyramid directly above the footings (W_s). The following parameters may be used in design:

Description	Weights
Weight of Concrete (W_c)	150 pcf
Weight of Soil Resistance (W_s)	100 pcf
Weight for on-site soils placed in accordance with <u>Section 7</u>	

The base of the cone or pyramid should be the top of the footing and the pyramid or cone sides should form an angle of 30 degrees with the vertical. Allowable uplift capacity (U_p) should be computed as the lesser of the two (2) equations listed below:

$$U_p = (W_s/2.0) + (W_c/1.25) \text{ or } U_p = (W_s + W_c)/1.5$$

If additional uplift and/or overturning load resistance is required for the project site consideration may be given to the use of rock anchors. Rock anchor design values are included in Section 8.4.

8.4 Rock Anchor Design Values

It is understood that a combination of mat foundations and micropiles, of Case 1 type (directly loaded piles), may be utilized for the proposed Self-Support Tower. The following tables contain passive pressures and preliminary grout to ground bond strengths needed for use in the design of micropiles. These values, at their corresponding depths, should be used in conjunction with the following micropile design values.

It is understood that a total of three (3) possible installation methods may be utilized for micropile installation at the subject sites. Due to the variable installation procedures, grout to ground bond strengths are variable between these installation methods and have been included as separate bond strengths accordingly. The installation methods are noted below:

- Micropile Type "A" – Grout is gravity installed by tremie methods after drilling. This method is generally used for rock sockets;

- Micropile Type “B” – After drilling, grout is pressure grouted through casing or hollow stem auger during casing or auger removal. Due to the pressure applied to the grout, greater bond strength is achieved over Type “A” (in soils only); and
- Micropile Type “E” – High water content grout is utilized in drilling through a continuously threaded, hollow-core steel bar then replaced with pressurized structural grout near the completion of drilling. Due to the pressure applied to the grout, greater bond strength is achieved over Type “A” (in soils only).

Stratum	Applicable Depth (ft.)	Unit Weight (pcf)	Friction Angle, ϕ (Degrees)	Coefficient of Passive Pressure	Preliminary Grout-to-Ground Ultimate Bond Strength ² (psi)		
					A	B	E
Gravel	0 to 5	Moist: 125	Ignore	Ignore	-	-	-
Gravel	5 to 10	Moist: 125	32	3.3	20	30	30
Gravel	10 to 18	Moist: 125	32	3.3	25	35	35
Sand	18 to 35	Moist: 125	30	3.0	20	28	28
Sand ¹	Over 35 feet ¹	Moist: 125	30	3.0	25	32	32

1. Assumes soils are equal to or better than those at depths greater than the boring termination depth. This should be confirmed in the field during installation of micropiles.
2. Bond Values are based upon subsurface data obtain in 1 Boring and assume full time observation by a qualified Geotechnical Inspector experienced with micropiles during installation.

8.5 Drilled Pier Foundation Recommendations

Based upon the conditions encountered in the boring and subsequent laboratory testing, the proposed Self-Support Tower may be supported on a system of drilled piers bearing within the clayey sand. The drilled shaft should be plumb (no more than 2 percent of the shaft length off vertical), and the drilled shaft should have a relatively flat bottom. Essentially all groundwater, if encountered, should be removed from the drilled pier shaft prior to concrete placement. If it is not possible to remove nearly all (2 to 3 inches max) of the groundwater from the drilled shaft excavation, concrete should be placed via tremie methods.

The method of concrete placement and vibration should be selected by the Structural Engineer. Required strength and mix design characteristics should also be specified by the Structural Engineer or other members of the Design Team.

Generally, the well-graded gravel and clayey sand layers were excavatable with solid flight augers with increased effort. Casing may be required at the subject site due to possible collapsible gravel or sand material

8.6 Bearing Capacity and Uplift Resistance for a Drilled Shaft

The design parameters summarized in the table below may be utilized for bearing capacity and uplift capacity design for drilled shafts as described above. Allowable end bearing pressures and side friction values are summarized in the table below.

Stratum ¹	Applicable Depth (ft.)	Allowable End Bearing Pressure (ksf) ²	Allowable Side Friction (ksf) ³
Gravel	Ground surface to 1 shaft diameter or a minimum of 5 feet	Ignore	Ignore
Gravel	1 shaft diameter or a minimum of 5 feet to 10 feet	Not Recommended	0.4
Gravel	10 feet to 18 feet	12.0	0.7
Sand	18 feet to 30 feet	16.0	1.2
Sand	30 feet to 35 feet	20.0	1.2

1. If soft or loose soils are encountered in plan bottom of shaft during drilling, the shaft should be deepened until an acceptable bearing stratum is encountered.
 2. End bearing pressure values assume a Factor of Safety of 3.0 or greater.
 3. Side friction values include a Factor of Safety of ~1.5. These values should be used with **Factored Loads** during structural design. Side Friction may be used for computation of Uplift and Compressive Capacity in soil.

8.7 Lateral Loadings

It is anticipated that designers will most likely utilize LPILE for completion of deep foundation lateral capacity design for the tower foundations. LPILE uses finite difference computer models based on the horizontal modulus of subgrade reaction (K_h).

The values listed in the table below may be utilized for Drilled Pier Analysis in LPILE. Please also notice that the table states to “ignore” lateral support for the depth from 0 to 1 pier diameter or a minimum of 5 feet. This notation is intended to account for the fact that near-surface soils are significantly disturbed during drilled shaft excavation, which greatly reduces the lateral support provided. Designers should use their judgment and make an appropriate reduction of soil strength parameters in this zone.

Values summarized in the table below are based upon published correlations, and field and laboratory data collected during this subsurface investigation. Values shown below are ultimate values representative of in-situ soil properties, and do not include a Factor of Safety. These values may be used to compute resistance to lateral loading of the overburden soils. **The appropriate Factor of Safety should be chosen by the designer.**

Stratum (Model)	Applicable Depth	Unit Weight ¹ (pcf)	Friction Angle, ϕ (Degrees)	Submerged Modulus, k (pci)	Above Water Table Modulus, k (pci)
Gravel (Sand)	Ground surface to 1 shaft diameter or a minimum of 5 feet	Moist: 125	Ignore	Ignore	Ignore
Gravel (Sand)	1 shaft diameter or a minimum of 5 feet to 10 feet	Moist: 125	32	60	90
Gravel (Sand)	10 feet to 18 feet	Moist: 135	32	125	225
Clayey Sand (Sand)	18 feet to 30 feet	Moist: 135	30	125	225
Clayey Sand (Sand)	30 feet to 35 feet	Moist: 135	30	125	225

1. Buoyant unit weight should be utilized for soils that extend below the design groundwater level. Groundwater was not encountered within the 35 feet explored at the project site.

9.0 SEISMIC CONSIDERATIONS

Code Used	Site Classification
2012 International Building Code (IBC) ¹	D
1. In general accordance with the 2012 International Building Code, Section 1613	

10.0 CONSTRUCTION OBSERVATION & TESTING

The construction process is an integral design component with respect to the geotechnical aspects of a project. Since geotechnical engineering is influenced by variable depositional and weathering processes and because we sample only a small portion of the soils affecting the performance of the proposed Self-Support Tower, unanticipated or changed conditions can be disclosed during grading. Proper geotechnical observation and testing during construction is imperative to allow the Geotechnical Engineer the opportunity to evaluate assumptions made during the design

process. Therefore, we recommend that PPI be kept apprised of design modifications and construction schedule of the proposed project to observe compliance with the design concepts and geotechnical recommendations, and to allow design changes in the event that subsurface conditions or methods of construction differ from those assumed while completing this study. We recommend that during construction all earthwork be monitored by a representative of PPI, including site preparation, placement of all engineered fill and trench backfill, and all foundation excavations as outlined below.

- An experienced Geotechnical Engineer should observe the subgrade throughout the proposed project site immediately following stripping to evaluate the native soils, identify areas requiring undercutting, and evaluate the suitability of the exposed surface for fill placement;
- An experienced Engineer or Engineering Technician should monitor and test all fill placed within the Self-Support Tower area to determine whether the type of material, moisture content, and degree of compaction are within recommended limits; and
- An experienced Technician or Engineer should observe drilled pier excavations. Where unsuitable bearing conditions are observed, PPI should be contacted to provide remedial procedures.

11.0 REPORT LIMITATIONS

This report has been prepared in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area. Palmerton & Parrish, Inc. observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. Palmerton & Parrish's findings and conclusions must be considered not as scientific certainties, but as opinions based on our professional judgment concerning the significance of the data gathered during the course of this investigation. Other than this, no warranty is implied or intended.



SCALE: 1" = 25'

LEGEND

 Boring Location

NOTES

- Aerial image from Google Earth Pro.
- Not intended for use in design.

Project: Grey Reef- Self Support Tower - Alcova, Wyoming
Client: Hemphill, LLC

Boring Location Plan

DATE: April 24, 2020

Project Number: 261436

PP PALMERTON & PARRISH, INC.
GEOTECHNICAL AND MATERIALS ENGINEERS/MATERIALS TESTING LABORATORIES/ENVIRONMENTAL SERVICES

FIGURE 1



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GEOTECHNICAL BORING LOG

BORING NUMBER

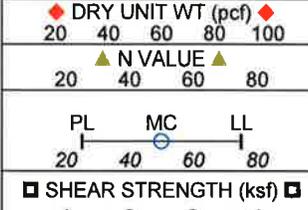
1

PAGE 1 OF 1

CLIENT Hemphill, LLC PROJECT NAME Grey Reef Self-Support Tower
 PROJECT NO. 261436 PROJECT LOCATION Natrona County, Alcova, Wyoming
 DATE STARTED 4/23/20 COMPLETED 4/25/20 SURFACE ELEVATION _____ BENCHMARK EL _____
 DRILLER CW DRILL RIG CME-550x GROUND WATER LEVELS _____
 HAMMER TYPE Auto AT TIME OF DRILLING None
 LOGGED BY CJ CHECKED BY RTH AT END OF DRILLING _____
 NOTES _____

BORING LOG - PPI - PPI STD TEMPLATE.GDT - 5/11/20 15:14 - S:_MASTER PROJECT FILE\2019\WYHEMPHILL-261436-WY_CO & UT REGISTRATIONS-SUB\DRILLED\2020\GREY REEF LOGS\GRAY REEF - GINT.GPJ

DEPTH (ft)	DRILLING METHOD	STRATA SYMBOL	MATERIAL DESCRIPTION Unified Soil Classification System	SAMPLE TYPE NUMBER	RECOVERY % (RQD %)	CORRECTED BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT (pcf)				ELEVATION (ft)
								20	40	60	80	
0	CFA - 4.5" O.D.		WELL-GRADED GRAVEL, w/ Clay and Sand, Granite Gravel, Brown, Moist to Slightly Moist, Medium Dense to Very Dense (GW-GC)	SPT 1		5-10-13 (23)	2.5					
5				SPT 2		13-14-8 (22)						
10				SPT 3		10-16-26 (42)						
15				SPT 4		9-9-21 (30)						
18.0				SPT 5		10-22-51 (73)						
20	AIR ROTARY - 2.9" O.D. Tricone		CLAYEY SAND, w/ Gravel Limestone Nodules, Brown, Moist to Slightly Moist, Very Dense (SC)	SPT 6		18-39-52 (91)						
25				SPT 7		21-39-66 (105)						
30				SPT 8		21-14-26 (40)						
35				SPT 9		47-66/4"						
			- Dense from 28.5' to 33.5'									
			Bottom of borehole at 35.0 feet.									





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 Springfield, Missouri 65803
 Telephone: (417) 864-6000
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KEY TO SYMBOLS

CLIENT Hemphill, LLC

PROJECT NAME Grey Reef Self-Support Tower

PROJECT NO. 261436

PROJECT LOCATION Natrona County, Alcova, Wyoming

LITHOLOGIC SYMBOLS (Unified Soil Classification System)



GW-GC: USCS Well-graded Gravel with Clay



SC: USCS Clayey Sand

SAMPLER SYMBOLS



Standard Penetration Test

WELL CONSTRUCTION SYMBOLS

ABBREVIATIONS

LL - LIQUID LIMIT (%)
 PI - PLASTIC INDEX (%)
 W - MOISTURE CONTENT (%)
 DD - DRY DENSITY (PCF)
 NP - NON PLASTIC
 -200 - PERCENT PASSING NO. 200 SIEVE
 PP - POCKET PENETROMETER (TSF)

TV - TORVANE
 PID - PHOTOIONIZATION DETECTOR
 UC - UNCONFINED COMPRESSION
 ppm - PARTS PER MILLION
 ∇ Water Level at Time
 Drilling, or as Shown
 ∇ Water Level at End of
 Drilling, or as Shown
 ∇ Water Level After 24
 Hours, or as Shown

KEY TO SYMBOLS - PPI STD TEMPLATE.GDT - 5/11/20 15:14 - S:_MASTER PROJECT FILE\2019\WY\HEMPHILL-261436-WY_CO & UT REGISTRATIONS-SUBDRILLED\2020\GREY REEF\LOGS\GRAY REEF - GINT.GPJ

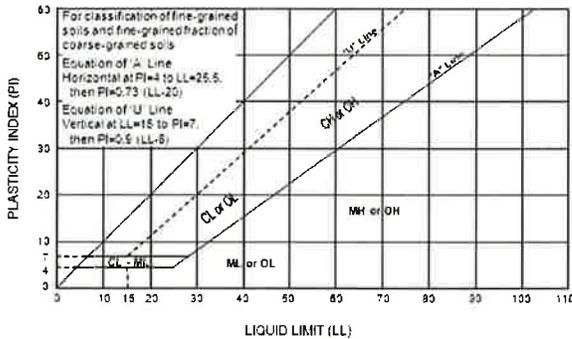


GENERAL NOTES

SOIL PROPERTIES & DESCRIPTIONS

COHESIVE SOILS

Consistency	Unconfined Compressive Strength (Qu)	Pocket Penetrometer Strength	N-Value
	(psf)	(tsf)	(blows/ft)
Very Soft	<500	<0.25	0-1
Soft	500-1000	0.25-0.50	2-4
Medium Stiff	1001-2000	0.50-1.00	5-8
Stiff	2001-4000	1.00-2.00	9-15
Very Stiff	4001-8000	2.00-4.00	16-30
Hard	>8000	>4.00	31-60
Very Hard			>60



Group Symbol	Group Name
CL	Lean Clay
ML	Silt
OL	Organic Clay or Silt
CH	Fat Clay
MH	Elastic Silt
OH	Organic Clay or Silt
PT	Peat
CL-CH	Lean to Fat Clay

Plasticity		Moisture	
Description	Liquid Limit (LL)	Descriptive Term	Guide
Lean	<45%	Dry	No indication of water
Lean to Fat	45-49%	Moist	Indication of water
Fat	≥50%	Wet	Visible water

Fine Grained Soil Sub Classification	Percent (by weight) of Total Sample
Terms: SILT, LEAN CLAY, FAT CLAY, ELASTIC SILT Sandy, gravelly, abundant cobbles, abundant boulders with sand, with gravel, with cobbles, with boulders scattered sand, scattered gravel, scattered cobbles, scattered boulders a trace sand, a trace gravel, a few cobbles, a few boulders	PRIMARY CONSTITUENT >30-50] >15-30] – secondary coarse grained constituents 5-15] <5]
The relationship of clay and silt constituents is based on plasticity and normally determined by performing index tests. Refined classifications are based on Atterberg Limits tests and the Plasticity Chart.	

NON-COHESIVE (GRANULAR) SOILS

RELATIVE DENSITY	N-VALUE	MOISTURE CONDITION	
		Descriptive Term	Guide
Very Loose	0-4	Dry	No indication of water
Loose	5-10	Moist	Damp but no visible water
Medium Dense	11-24	Wet	Visible free water, usually soil is below water table.
Dense	25-50		
Very Dense	≥51		

**GRAIN SIZE IDENTIFICATION		
Name	Size Limits	Familiar Example
Boulder	12 in. or more	Larger than basketball
Cobbles	3 in. to 12 in.	Grapefruit
Coarse Gravel	¾-in. to 3 in.	Orange or lemon
Fine Gravel	No. 4 sieve to ¾-in.	Grape or pea
Coarse Sand	No. 10 sieve to No. 4 sieve	Rock salt
Medium Sand	No. 40 sieve to No. 10 sieve	Sugar, table salt
Fine Sand*	No. 200 sieve to No. 40 sieve	Powdered sugar
Fines	Less than No. 200 sieve	

*Particles finer than fine sand cannot be discerned with the naked eye at a distance of 8 inches.

Coarse Grained Soil Sub Classification	Percent (by weight) of Total Sample
Terms: GRAVEL, SAND, COBBLES, BOULDERS Sandy, gravelly, abundant cobbles, abundant boulders with gravel, with sand, with cobbles, with boulders scattered gravel, scattered sand, scattered cobbles, scattered boulders a trace gravel, a trace sand, a few cobbles, a few boulders Silty (MH & ML)*, clayey (CL & CH)* (with silt, with clay)* (trace silt, trace clay)*	PRIMARY CONSTITUENT >30-50] >15-30] – secondary coarse grained constituents 5-15] <5] <15] 5-15] – secondary fine grained constituents <5]
*Index tests and/or plasticity tests are performed to determine whether the term "silt" or "clay" is used.	

*Modified after Ref. ASTM D2487-93 & D2488-93

**Modified after Ref. Oregon DOT 1987 & FHWA 1997

***Modified after Ref. AASHTO 1988, DM 7.1 1982, and Oregon DOT 1987



GENERAL NOTES

BEDROCK PROPERTIES & DESCRIPTIONS

ROCK QUALITY DESIGNATION (RQD)	
Description of Rock Quality	*RQD (%)
Very Poor	< 25
Poor	25-50
Fair	50-75
Good	75-90
Excellent	90-100

*RQD is defined as the total length of sound core pieces 4 in. or greater in length, expressed as a percentage of the total length cored. RQD provides an indication of the integrity of the rock mass and relative extent of seams and bedding planes.

SCALE OF RELATIVE ROCK HARDNESS		
Term	Field Identification	Approx. Unconfined Compressive Strength (tsf)
Extremely Soft	Can be indented by thumbnail	2.6-10
Very Soft	Can be peeled by pocket knife	10-50
Soft	Can be peeled with difficulty by pocket knife	50-260
Medium Hard	Can be grooved 2 mm deep by firm pressure of knife	260-520
Moderately Hard	Requires one hammer blow to fracture	520-1040
Hard	Can be scratched with knife or pick only with difficulty	1040-2610
Very Hard	Cannot be scratched by knife or sharp pick	>2610

DEGREE OF WEATHERING	
Slightly Weathered	Rock generally fresh, joints stained and discoloration extends into rock up to 25mm (1 in), open joints may contain clay, core rings under hammer impact.
Weathered	Rock mass is decomposed 50% or less, significant portions of rock show discoloration and weathering effects, cores cannot be broken by hand or scraped by knife.
Highly Weathered	Rock mass is more than 50% decomposed, complete discoloration of rock fabric, core may be extremely broken and gives clunk sound when struck by hammer, may be shaved with a knife.

GRAIN SIZE (TYPICALLY FOR SEDIMENTARY ROCKS)		
Description	Diameter (mm)	Field Identification
Very Coarse Grained	>4.76	Individual grains can easily be distinguished by eye.
Coarse Grained	2.0-4.76	
Medium Grained	0.42-2.0	Individual grains can be distinguished by eye.
Fine Grained	0.074-0.42	Individual grains can be distinguished by eye with difficulty.
Very Fine Grained	<0.074	Individual grains cannot be distinguished by unaided eye.

VOIDS	
Pit	Voids barely seen with the naked eye to 6mm *1/4-inch)
Vug	Voids 6 to 50mm (1/4 to 2 inches) in diameter
Cavity	50 to 6000mm (2 to 24 inches) in diameter
Cave	> 600mm

BEDDING THCKNESS	
Very Thick Bedded	> 3' Thick
Thick Bedded	1' to 3' Thick
Medium Bedded	4" to 1' Thick
Thin Bedded	1-1/4" to 4" Thick
Very Thin Bedded	1/2" to 1-1/4" Thick
Thickly Laminated	1/8" to 1/2" Thick
Thinly Laminated	1/8" or less (paper thin)

DRILLING NOTES

Drilling & Sampling Symbols		
NQ – Rock Core (2-inch diameter)	CFA- Continuous Flight (Solid Stem) Auger	WB – Wash Bore or Mud Rotary
HQ – Rock Core (3-inch diameter)	SS – Split Spoon Sampler	TP – Test Pit
HSA – Hollow Stem Auger	ST – Shelby Tube	HA – Hand Auger

Soil Sample Types

Shelby Tube Samples: Relatively undisturbed soil samples were obtained from the borings using thin wall (Shelby) tube samplers pushed hydraulically into the soil in advance of drilling. This sampling, which is considered to be undisturbed, was performed in accordance with the requirements of ASTM D 1587. This type of sample is considered best for the testing of "in-situ" soil properties such as natural density and strength characteristics. The use of this sampling method is basically restricted to soil containing little to no chert fragments and to softer shale deposits.

Split Spoon Samples: The Standard Penetration Test is conducted in conjunction with the split-barrel sampling procedure. The "N" value corresponds to the number of blows required to drive the last 1 foot of an 18-inch long, 2-inch O.D. split-barrel sampler with a 140 lb. hammer falling a distance of 30 inches. The Standard Penetration Test is carried out according to ASTM D-1586.

Water Level Measurements

Water levels indicated on the boring logs are levels measured in the borings at the times indicated. In permeable materials, the indicated levels may reflect the location of groundwater. In low permeability soils, shallow groundwater may indicate a perched condition. Caution is merited when interpreting short-term water level readings from open bore holes. Accurate water levels are best determined from piezometers.

Automatic Hammer

Palmerton and Parrish, Inc.'s CME's are equipped with automatic hammers. The conventional method used to obtain disturbed soil samples used a safety hammer operated by company personnel with a cat head and rope. However, use of an automatic hammer allows a greater mechanical efficiency to be achieved in the field while performing a Standard Penetration resistance test based upon automatic hammer efficiencies calibrated using dynamic testing techniques.

*Modified after Ref. ASTM D2487-93 & D2488-93

**Modified after Ref. Oregon DOT 1987 & FHWA 1997

***Modified after Ref. AASHTO 1988, DM 7.1 1982, and Oregon DOT 1987



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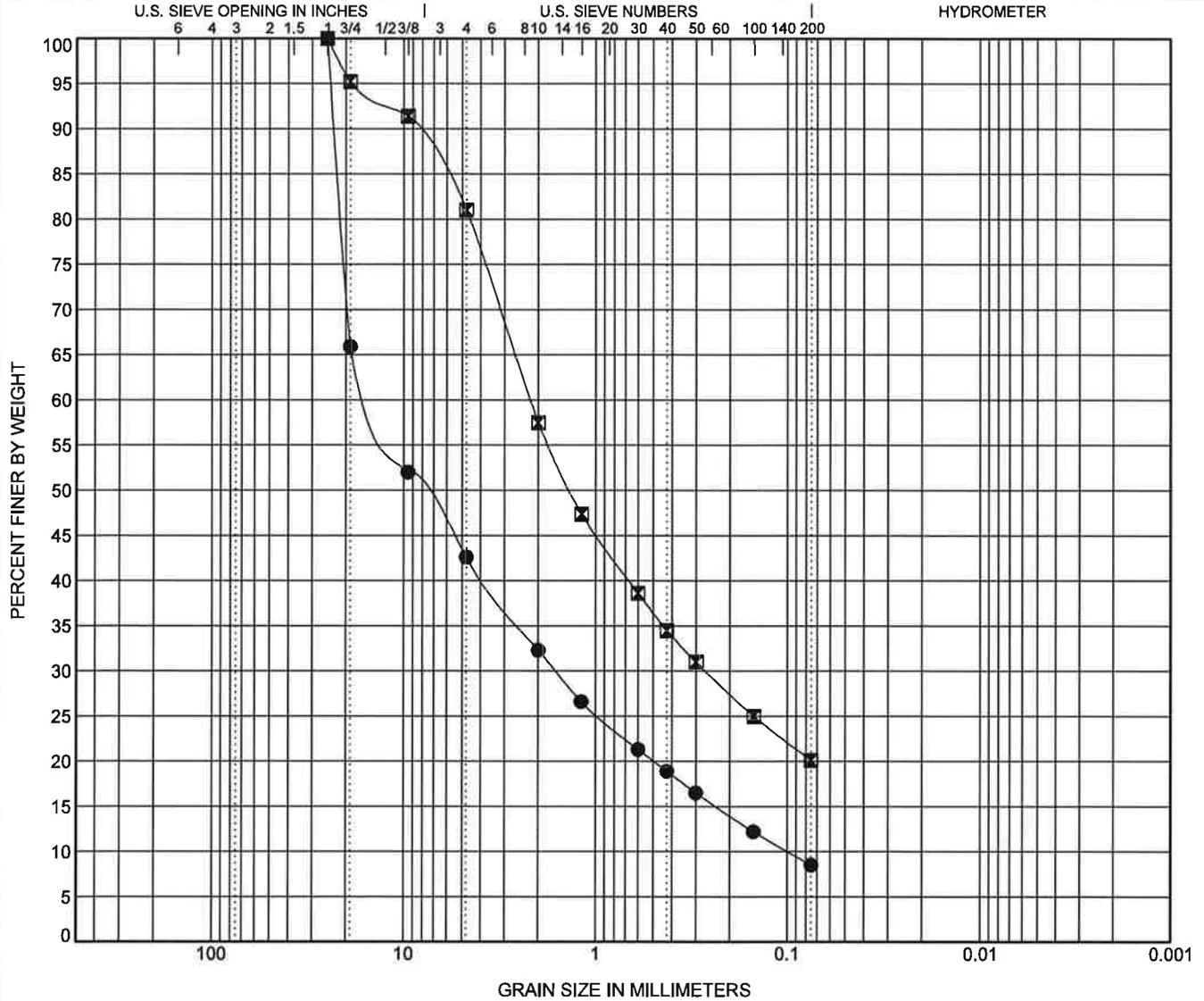
GRAIN SIZE DISTRIBUTION

CLIENT Hemphill, LLC

PROJECT NAME Grey Reef Self-Support Tower

PROJECT NO. 261436

PROJECT LOCATION Natrona County, Alcova, Wyoming



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification	LL	PL	PI	Cc	Cu
● 1	6.0	WELL-GRADED GRAVEL, with Clay and Sand				1.87	142.52
☒ 1	18.5	CLAYEY SAND, with Gravel					

BOREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● 1	6.0	25	14.157	1.621	0.099	57.4	34.1	8.5	
☒ 1	18.5	25	2.193	0.267		19.0	60.9	20.1	

GRAIN SIZE - PPI STD TEMPLATE.GDT - 5/12/20 11:00 - S:\MASTER PROJECT FILE\2019\WY\HEMPHILL-261436-WY_CO & UT REGISTRATIONS-SUBDRILLED\2020\GREY REEF\LOGS\GRAY REEF - GINT.GPJ

Important Information about This Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, clients can benefit from a lowered exposure to the subsurface problems that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed below, contact your GBA-member geotechnical engineer. Active involvement in the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Geotechnical-Engineering Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. *Those who rely on a geotechnical engineering report prepared for a different client can be seriously misled. No one except authorized client representatives should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. And no one – not even you – should apply this report for any purpose or project except the one originally contemplated.*

Read this Report In Full

Costly problems have occurred because those relying on a geotechnical engineering report did not read it *in its entirety*. Do not rely on an executive summary. Do not read selected elements only. *Read this report in full.*

You Need to Inform Your Geotechnical Engineer about Change

Your geotechnical engineer considered unique, project-specific factors when designing the study behind this report and developing the confirmation-dependent recommendations the report conveys. A few typical factors include:

- the client's goals, objectives, budget, schedule, and risk-management preferences;
- the general nature of the structure involved, its size, configuration, and performance criteria;
- the structure's location and orientation on the site; and
- other planned or existing site improvements, such as retaining walls, access roads, parking lots, and underground utilities.

Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.*

This Report May Not Be Reliable

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, that it could be unwise to rely on a geotechnical-engineering report whose reliability may have been affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If your geotechnical engineer has not indicated an "apply-by" date on the report, ask what it should be, and, in general, if you are the least bit uncertain about the continued reliability of this report, contact your geotechnical engineer before applying it. A minor amount of additional testing or analysis – if any is required at all – could prevent major problems.*

Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface through various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing were performed. The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgment to form opinions about subsurface conditions throughout the site. Actual site-wide subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team from project start to project finish, so the individual can provide informed guidance quickly, whenever needed.*

This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, *they are not final*, because the geotechnical engineer who developed them relied heavily on judgment and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* revealed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a full-time member of the design team, to:

- confer with other design-team members,
- help develop specifications,
- review pertinent elements of other design professionals' plans and specifications, and
- be on hand quickly whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction observation.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated subsurface conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for informational purposes only.* To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report, but they may rely on the factual data relative to the specific times, locations, and depths/elevations referenced. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may

perform their own studies if they want to, and *be sure to allow enough time to permit them to do so.* Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase one" or "phase two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. *As a general rule, do not rely on an environmental report prepared for a different client, site, or project, or that is more than six months old.*

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, none of the engineer's services were designed, conducted, or intended to prevent uncontrolled migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration.* Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. *Geotechnical engineers are not building-envelope or mold specialists.*



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CONDITIONAL USE PERMIT REQUEST

FOR A

TELECOMMUNICATION SITE

CUP20-5

Staff Report: Trish Chavis

June 9, 2020

For

July 14, 2020

Planning and Zoning Commission

And

August 4, 2020

Board of County Commissioner Meeting

Applicant: Declan Murphy, Union Wireless/Hemphill

Request: Construct an 84-foot self-supporting communication tower to allow for the expansion of an existing Union Wireless site. The applicant is requesting 100-foot total height to include all appurtenances.

Location and Zoning

The parcel is located east of the Highway 220 and north of Grey Reef Rd.

The subject parcel and all surrounding parcels are zoned Ranching, Agricultural and Mining (RAM).

Proposal

Union has applied for a CUP to construct an 84-foot communication tower to replace their existing 45' tower. The applicant is request the CUP to have a total height of 100-feet. This will include the additional antennas and lightening rod.

The proposed upgrades are necessary to allow Union Wireless to continue providing service to the adjacent community, in addition to enhancing emergency service capabilities through FirstNet.

FirstNet is the First Responder Network Authority, and is an independent authority authorized by Congress in 2012, to develop, build and operate the nationwide, broadband network that equips first responders.

General Standards
For
Conditional Use Permits

Criteria for Approval

1. Will granting the Conditional Use Permit contribute to an overburdening of county services?

Proposed Finding of Fact. Granting the Conditional Use permit will not contribute to an overburdening of county services. County services and infrastructure will not be necessary for this permit. The tower would provide needed cell service to the area, which will add E-911 capabilities through the carrier's networks, and promote greater coverage and reach for local law enforcement and emergency services.

2. Will granting the Conditional Use Permit cause undue traffic, parking, population density or environmental problems?

Proposed Finding of Fact. The facility is unmanned and will not cause undue traffic or parking. Routine maintenance for the tower and antennas will be limited. There will be no affects to population density.

3. Will granting the Conditional Use Permit impair the use of adjacent property or alter the character of the neighborhood?

Proposed Finding of Fact. The surrounding ranch consists of approximately 218 acres. The addition of a taller communication tower will not impair the use of adjacent properties.

4. Will granting the Conditional Use Permit detrimentally affect the public health, safety and welfare, or nullify the intent of the Development Plan or Zoning Resolution?

The addition of the proposed tower would not be damaging or inconsistent with the surrounding area. The proposed tower is consistent with the intent of both the Development Plan and the Zoning Resolution.

Proposed Finding of Fact. The proposed tower will be constructed in accordance with all applicable building, electrical and plumbing codes. With an approved CUP, the tower will comply with the Zoning Resolution and the Development Plan. This site will provide wireless coverage to residents and travelers as well as provides for valuable E911 services and FirstNet capabilities.

Key Communication Tower Regulations

Artificially Lighted: There is no requirement for lighting until the tower reaches 200 feet. The proposed tower does not meet the requirement for FAA review.

Setbacks: Setbacks from roads and structures is 110% of the tower height. The nearest road is approximately 900-feet away and does meet setbacks.

Documentation demonstrating need: The proposed site is situated to provide effective coverage to the area. The existing tower's current loading and height is insufficient to provide adequate service so a taller tower would be needed.

Public Comment

As of the date of this staff report there have been no comment received.

Staff sent the public notice to 34 neighbors within 3 miles.

Recommendation

Staff proposes a motion and vote by the Planning and Zoning Commission to recommend approval of the requested Conditional Use Permit, by the Board of County Commissioners with the following condition:

- 1) Union Wireless provide an updated lease with landowner within 6 months of BOCC approval.

Staff also recommends that the Planning Commission incorporate by reference all findings of fact set forth herein and make them a part thereof.