



TOWN OF JACKSON PLANNING & BUILDING DEPARTMENT

TRANSMITTAL MEMO

Town of Jackson

- ☒ Public Works/Engineering
- ☐ Building
- ☐ Title Company
- ☒ Town Attorney
- ☐ Police

Joint Town/County

- ☐ Parks and Recreation
- ☐ Pathways
- ☐ Housing Department

Teton County

- ☐ Planning Division

- ☐ Engineer
- ☐ Surveyor- *Nelson*
- ☐ Assessor
- ☐ Clerk and Recorder
- ☐ Road and Levee

State of Wyoming

- ☐ Teton Conservation
- ☐ WYDOT
- ☐ TC School District #1
- ☐ Game and Fish
- ☐ DEQ

Federal Agencies

- ☐ Army Corp of Engineers

Utility Providers

- ☐ Qwest
- ☐ Lower Valley Energy
- ☐ Bresnan Communications

Special Districts

- ☐ START
- ☐ Jackson Hole Fire/EMS
- ☐ Irrigation Company

Date: June 21, 2021	REQUESTS: The applicant is submitting a request for a Sewer Connect located in the Indian Springs Subdivision for lots: 18,19,20,21,22,23,24,25,26,27,28,29,30,31,33,34,58,62,63,64,65,66,69 For questions, please call Brian Lenz 733-0440 x1410 or email to the address shown below. Thank you.
Item #: P21-156	
Planner: Tyler Valentine Phone: 733-0440 ext. 1305 Email: tvalentine@jacksonwy.gov	
Owner: Indian Springs HOA, Inc. PO Box 1599 Jackson, WY 83001 Applicant: Nelson Engineering PO Box 1599 Jackson, WY 83001	
Please respond by: July 12, 2021 (with Comments)	

RESPONSE: For Departments not using Trak-it, please send responses via email to:
btlenz@jacksonwy.gov



PLANNING PERMIT APPLICATION
Planning & Building Department

150 E Pearl Ave. | ph: (307) 733-0440
P.O. Box 1687 | www.townofjackson.com
Jackson, WY 83001

For Office Use Only

Fees Paid _____ Date & Time Received _____
Application #s _____

Please note: Applications received after 3 PM will be processed the next business day.

PROJECT.

Name/Description: Indian Springs HOA, Inc. Wilson Sewer Connection
Physical Address: Indian Springs Ranch
Lot, Subdivision: ISR Lots 18-31, 33, 34, 58, 62-66, 69 PIDN: Multiple

PROPERTY OWNER. Please see attached letter for list of individual real property owners and PIDNs.

Name: Indian Springs HOA, Inc. (ISHOAI)* Phone: (307) 733-0205
Mailing Address: P.O. Box 2282, Jackson, WY ZIP: 83001
E-mail: cmw@cmwatkins.com, afloyd@wyom.net

APPLICANT/AGENT. *c/o Grand Teton Property Management

Name: _____ Phone: _____
Mailing Address: _____ ZIP: _____
E-mail: _____

DESIGNATED PRIMARY CONTACT.

☒ Property Owner ☐ Applicant/Agent

TYPE OF APPLICATION. Please check all that apply; review the type of application at www.townofjackson/200/Planning

Use Permit

☐ Basic Use
☐ Conditional Use
☐ Special Use

Relief from the LDRs

☐ Administrative Adjustment
☐ Variance
☐ Beneficial Use Determination
☐ Appeal of an Admin. Decision

Physical Development

☐ Sketch Plan
☐ Development Plan
☐ Design Review

Subdivision/Development Option

☐ Subdivision Plat
☐ Boundary Adjustment (replat)
☐ Boundary Adjustment (no plat)
☐ Development Option Plan

Interpretations

☐ Formal Interpretation
☐ Zoning Compliance Verification

Amendments to the LDRs

☐ LDR Text Amendment
☐ Map Amendment

Miscellaneous

☒ Other: Sewer Connection
☐ Environmental Analysis

PRE-SUBMITTAL STEPS. To see if pre-submittal steps apply to you, go to www.townofjackson.com/200/Planning and select the relevant application type for requirements. Please submit all required pre-submittal steps with application.

Pre-application Conference #: _____ Environmental Analysis #: _____

Original Permit #: _____ Date of Neighborhood Meeting: _____

SUBMITTAL REQUIREMENTS. Please ensure all submittal requirements are included. The Planning Department will not hold or process incomplete applications. Partial or incomplete applications will be returned to the applicant. Go to www.townofjackson.com/200/Planning and select the relevant application type for submittal requirements.

Have you attached the following?

 X **Application Fee.** Fees are cumulative. Go to www.townofjackson.com/200/Planning and select the relevant application type for the fees.

 Notarized Letter of Authorization. A notarized letter of consent from the landowner is required if the applicant is not the owner, or if an agent is applying on behalf of the landowner. Please see the Letter of Authorization template at www.townofjackson.com/DocumentCenter/View/102/Town-Fee-Schedule-PDF.

 X **Response to Submittal Requirements.** The submittal requirements can be found on the TOJ website for the specific application. If a pre-application conference is required, the submittal requirements will be provided to applicant at the conference. The submittal requirements are at www.townofjackson.com/200/Planning under the relevant application type.

Note: Information provided by the applicant or other review agencies during the planning process may identify other requirements that were not evident at the time of application submittal or a Pre-Application Conference, if held. Staff may request additional materials during review as needed to determine compliance with the LDRs.

Under penalty of perjury, I hereby certify that I have read this application and associated checklists and state that, to the best of my knowledge, all information submitted in this request is true and correct. I agree to comply with all county and state laws relating to the subject matter of this application, and hereby authorize representatives of Teton County to enter upon the above-mentioned property during normal business hours, after making a reasonable effort to contact the owner/applicant prior to entering.

Signature of Property Owner or Authorized Applicant/Agent
Christine Watkins

Name Printed

Date
President, ISHOAI

Title

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Signature of Property Owner or Authorized Applicant/Agent

Christine Watkins

Name Printed

Date

6-9-21
President, ISHOAI

Title

**Indian Springs HOA, Inc.
PO Box 533
Jackson WY 83001**

March 9, 2021

Town of Jackson
PO Box 1687
Jackson WY 83001

RE: Planning Permit Application, Wilson Sewer Connection, Portion of Indian Springs Ranch Subdivision, Jackson, Wyoming

Dear Mayor and Town Council Members:

I am writing on behalf of the Indian Springs Homeowners Association, Inc. (ISHOAI), to request that the Town of Jackson (TOJ) allow connection to its wastewater treatment facility (Publicly Owned Treatment Works, or POTW) by a portion of the Indian Springs Ranch Subdivision (ISR) via the sewer main owned by the Wilson Sewer District (WSD). The existing, community leachfield system currently serving these affected properties may be nearing the end of its useful life. Additionally, the available absorption areas are drastically undersized, considering modern design methodology.

The proposed service area would include up to 23 lots situated within ISR. The lots are currently served by two leachfields operating under DEQ UIC Facility No. WYS-039-065. The properties proposed to be connected include the following:

<u>PIDN</u>	<u>Legal Description</u>	<u>Owner</u>
22-41-17-36-1-04-003	Lot 18, Indian Springs Ranch	Teton Mountainview LLC c/o Alberto Pierdra
22-41-17-36-1-04-002	Lot 19, Indian Springs Ranch	Three Beasts LLC
22-41-17-36-1-04-001	Lot 20, Indian Springs Ranch	Stonehollow LLC
22-41-17-36-1-01-004	Lot 21, Indian Springs Ranch	Brown, WL Lyons III Trust
22-41-17-36-1-01-003	Lot 22, Indian Springs Ranch	Cosgrove, Terrence J Revocable Living Trust
22-41-17-36-1-05-011	Lot 23, Indian Springs Ranch	Engel, Peter E & Alison F Family Living Trust
22-41-17-36-1-05-010	Lot 24, Indian Springs Ranch	Fite, David M & Lowes, Danita R
22-41-17-36-1-05-009	Lot 25, Indian Springs Ranch	YS Holdings Limited Partnership
22-41-17-36-1-05-008	Lot 26, Indian Springs Ranch	Caldwell, William Royce Family 2011 Trust One Et Al
22-41-17-36-1-05-007	Lot 27, Indian Springs Ranch	JAABC Jackson Home LLC
22-41-17-36-1-05-005	Lot 28, Indian Springs Ranch	Aurelio, Richard & Linda Trustees
22-41-17-36-1-05-004	Lot 29, Indian Springs Ranch	Caldwell, Royce S & Patricia A Trustee
22-41-17-36-1-05-003	Lot 30, Indian Springs Ranch	Carey, Matthew A & Amber D Trust
22-41-17-36-1-05-002	Lot 31, Indian Springs Ranch	JH Refuge LLC
22-41-16-31-2-06-002	Lot 33, Indian Springs Ranch	MacKay, Jamie
22-41-16-31-2-06-001	Lot 34, Indian Springs Ranch	Vandewater, David T & Phyllis B
22-41-16-31-2-06-003	Lot 58, Indian Springs Ranch	Nixon, John D Revocable Trust
22-41-17-36-4-07-001	Lot 62, Indian Springs Ranch 2 nd filing	Harslem, Eric F & Clasquin, Lorraine A. Trustees
22-41-17-36-4-07-002	Lot 63, Indian Springs Ranch 2 nd filing	Stevenson, Charles P Jr
22-41-17-36-4-07-003	Lot 64, Indian Springs Ranch 2 nd filing	Haberfeld, Ralph H & Louise R Trustees
22-41-17-36-4-07-004	Lot 65, Indian Springs Ranch 2 nd filing	Aspen Trail Holdings LLC
22-41-17-36-4-07-005	Lot 66, Indian Springs Ranch 2 nd filing	ISJH Property LLC Attn Mark Farina
22-41-17-36-1-06-001	Lot 69, Indian Springs Ranch 3 rd filing	Beddow, Edward G Living Trust

All properties noted are designated residential in use. Attached is a table that provides a breakdown of the existing composition and use(s) associated with each respective lot, including current Equivalent Residential Unit

(ERU) projections. At present, the 23 properties comprise a total of 25 ERUs. At complete build-out, a total of 34.5 ERUs could potentially materialize.

The ISHOAI has already submitted a request for annexation to the WSD, and it was approved at their Board's regularly-scheduled meeting on February 16, 2021. Attached for your reference is a letter from the WSD to the Town documenting that approval.

ISHOAI is aware that, in addition to the WSD approval, a wastewater agreement with the TOJ will need to be sought, and that the fee structure is under imminent modification, that will become effective in July of this year. It is the hope of ISHOAI that an agreement can be struck under the current fee platform, prior to July 1, 2021. ISHOAI anticipates that any forthcoming agreement with the TOJ would be structured as multiple, individual contracts, for each separate property owner, as opposed to a blanket agreement involving only the ISHOAI.

Connection of the ISHOAI's wastewater infrastructure to the Town's system is not a new consideration, although this fact may be unfamiliar to the current Town Council members, as well as the engineering department staff. Attached for the Town's reference is a memo documenting a phone call between Sandy Buckstaff, former Town Engineer, and Robert Lucht, former DEQ UIC Program Supervisor, dated July 28, 1994. During the drafting of Permit to Construct 94-059, Mr. Lucht contacted Mr. Buckstaff to ensure that Condition 18 of the proposed permit would be a legally viable option for the developer of ISR, in the event that the leachfield system became compromised or failed. Mr. Buckstaff confirmed that the Town would serve not only these 23 lots but the entire subdivision. Consequently, the permit to construct was issued with the following stipulation (please also see attachments, and note that Condition 18 of 19 became Condition 13 of 14 at the time of final permit issuance):

Condition 18 (of 19) / 13 (of 14): *"In the event that either of the drainfields covered by this permit should fail to perform as designed, or in the event that permitted groundwater quality upper control limits contained in this permit be exceeded, the permittee shall take the following action:*

- a. Within 60 days of being notified by certified letter by the Administrator that the drainfield disposal system has failed under this provision, the permittee shall submit a set of approvable plans and specifications for the construction of an interceptor sewer to connect the system to the City of Jackson wastewater treatment facility (POTW).*
- b. Within six months of receiving an approved permit to construct under section 17(a) of this permit, construct the interceptor sewer line required.*
- c. Within 30 days of beginning operation of the interceptor sewer, remove all lift stations, sewer lines and surface facilities associated with the operation of the drainfields and not required for the operation of the interceptor sewer."*

Per the conditions imposed under Permit 94-059, connection to the Town's POTW via the WSD infrastructure is a subsidiary, albeit convenient, circumstance. Had the WSD not installed its sewer conveyance system, ISR would necessarily have designed and constructed its own interceptor sewer to connect to the TOJ POTW, in the event the ISR leachfield became compromised. It is the opinion of the ISHOAI that the TOJ's obligations established under Permit 94-059 should continue to be honored, regardless of whether the connection is accomplished via the WSD, or construction of a new interceptor sewer.

Fortunately, in 2003, ISHOAI was approached by the WSD with a request to route portions of its wastewater infrastructure through ISR properties. That request eventually resulted in an agreement between the two entities that, among other things, afforded ISHOAI the prerogative to connect to the WSD. The agreement further contemplated connection fees of \$19,414.00, commensurate with 17 ERUs, with provisions to connect additional

ERUs, if need be. As noted prior, the WSD has agreed to allow connection to their system by ISR, under the premise that 25 ERUs exist presently.

Aside from the condition of ISR's community leachfields, related UIC conditions, and the 2003 agreement between ISHOAI and WSD, it is ISHOAI's opinion that completing a connection with the TOJ POTW may alleviate groundwater contamination concerns associated with the community septic systems. Not only are ISR public water supply (PWS) wells situated downgradient from one of the absorption areas, but so, too, are a couple PWS wells that serve the TOJ. Removing potential contamination sources when the opportunity presents itself seems a prudent measure for any PWS.

On behalf of the ISHOAI, I am requesting your support and approval of this planning application. I look forward to hearing back from you with a scheduled meeting date for the presentation of this item. Please feel free to contact me directly if more information is required in advance of the meeting. Thank you for your time and consideration.

Sincerely,

Christine Watkins
Director & President, Indian Springs HOA, Inc.

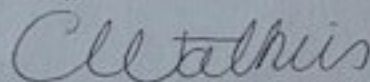
Enclosures

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Sincerely,



Christine Watkins
Director & President, Indian Springs HOA, Inc.

Enclosures

Indian Springs HOA
Wilson Sewer Connection, TOJ Planning Permit
Existing Service Area Composition and ERU Projection

Lot No.	Primary SFD	Primary (No. Bdrms) ¹	Guest Qtrs	Guest Qtrs (No. Bdrms) ¹	ERU ²
18	Yes	4	Yes	2	1.5
19	Yes	5	Yes	2	1.5
20	Yes	5	No	0	1.0
21	Yes	4	No	0	1.0
22	Yes	6	No	0	1.0
23	Yes	5	No	0	1.0
24	Yes	5	Yes	1	1.5
25	No	0	No	0	0.0
26	No	0	No	0	0.0
27	Yes	7	No	0	1.0
28	Yes	4	Yes	2	1.5
29	Yes	5	No	0	1.0
30	Yes	6	Yes	1	1.5
31	Yes	6	Yes	2	1.5
33	No ³	0	Yes	1	0.5
34	Yes	3	Yes	2	1.5
58	Yes	5	No	0	1.0
62	Yes	5	No	0	1.0
63	Yes	4	Yes	1	1.5
64	Yes	6	No	0	1.0
65	Yes	5	Yes	0	1.0
66	Yes	5	Yes	1	1.5
69	Yes	3	No	0	1.0

25.0

Notes:

1. Highlighted values provided by current property owner(s). Remaining values estimated through correlation of existing building permit data and other available information.
2. Estimated based on WSD definitions for ARU and ERU.
3. Lot 33 permitted as 1-bedroom guest house (ARU) and future, 5-bedroom primary residence under SWF 2017-0056. At present, only 1-bedroom ARU has been constructed.

WILSON SEWER DISTRICT

P.O. Box 1587
AFTON, WY 83110

March 4, 2021

Town of Jackson
P.O. Box 1687
Jackson, WY 83001

RE: **Wilson Sewer District/Town of Jackson Agreement**

Dear Mayor and Town Council Members:

This letter is written on behalf of owners of properties that do not currently lie within the boundaries of the Wilson Sewer District. The owners have petitioned the Wilson Sewer District Board of Directors for annexation and sewer service. The Wilson Sewer District approved the annexation requests on February 16, 2021 and would like permission to execute the enclosed Connection and Use Agreement patterned after the agreement executed on June 19, 2003, between the Wilson Sewer District and the Town of Jackson. The aforementioned District/Town agreement requires Town approval for any service connection outside of the district boundaries. The Wilson Sewer District would like to allow properties outside of the District to connect to the sewer system, as it meets the District's primary objective of eliminating as many septic tank systems as possible which, in turn, protects the ground water.

The parcels are described as:

<u>PIDN</u>	<u>Legal Description</u>	<u>Owner</u>
22-41-17-22-3-04-009	Lot 9, R-G 2 nd filing	Brigham, Andrew & Margaret Trust
22-41-17-36-1-04-003	Lot 18, Indian Springs Ranch	Teton Mountainview LLC c/o Alberto Pierdra
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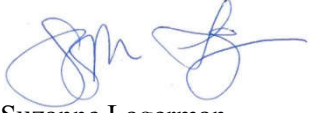
Enclosed for your reference is a District Boundary Map indicating the location of the parcels and the current version of the Outside User Connection and Use Agreement (as mentioned above).

Amending the District boundaries is a time consuming and costly process requiring petitions, a vote of all registered voters in the District, and, of course, a revision to the District/Town Connection and Use Agreement. Therefore, we

have, in the past, submitted a list of each property owner's connection request in writing to Town staff prior to issuing a connection license, on the condition that the District will amend the boundaries to include the property receiving service at such a time as the District determines that there are sufficient properties ready for annexation to justify the cost and expense of the annexation process. The last time we submitted such a request was in January of 2021 on behalf of one property owner.

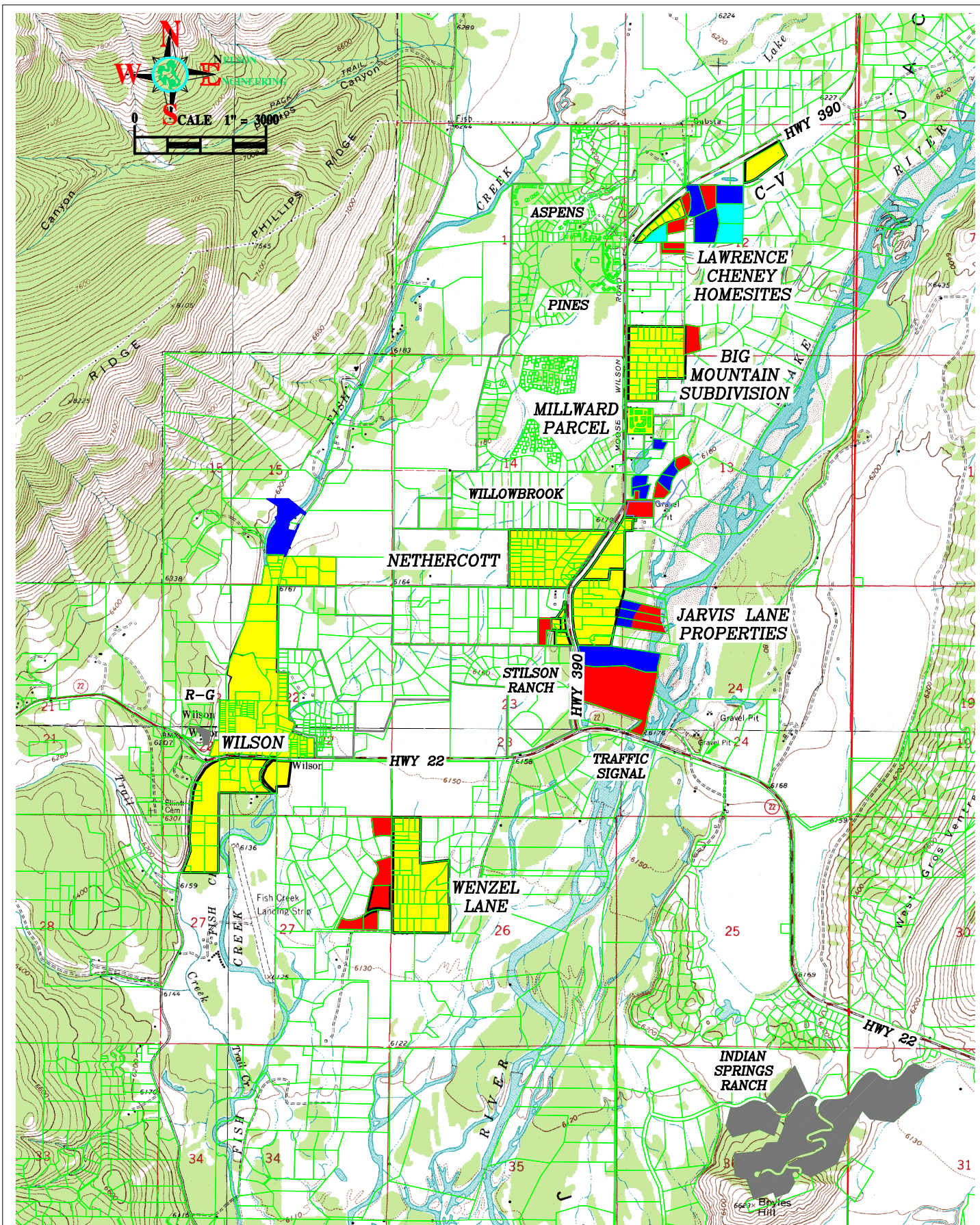
The members of the Wilson Sewer District Board of Directors thank you in advance for your time and consideration.

Sincerely,



Suzanne Lagerman
Assistant District Engineer

cc: Brian Lenz, Town Engineer



DRAWING NO
EXHIBIT
JOB NO

TITLE

NELSON ENGINEERING
P.O. BOX 1599, JACKSON WYOMING (307) 733-2087

DATE 3/4/21 REV.

SURVEYED -

DRAWN SLL

CHECKED SLL

APPROVED RRN

TELEPHONE MESSAGE FORM
UNDERGROUND INJECTION CONTROL PROGRAM
WATER QUALITY DIVISION
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

CALLER: Sandy - The City Engineer for Jackson, Wyoming
WQD PERSON: Robert Lucht, P.E. & P.G., UIC Program Supervisor
TELEPHONE: (307) 733-3932
CASE NAME: Indian Springs Ranch Subdivision
DATE: July 28, 1994
SUBJECT: City Sewer Availablity

1. I called the City of Jackson on this date to verify if condition 18 of permit to construct 94-059 is a legally viable option for the developer in the event that the system fails. Sandy assured me that it is and the City would be happy to take the sanitary waste from the entire subdivision.

MEMORANDUM
UNDERGROUND INJECTION CONTROL PROGRAM
WATER QUALITY DIVISION
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

MEMO TO: Jeff Hermanski

FROM: Robert Lucht

DATE: July 28, 1994

SUBJECT: Permit conditions 94-059; Indian Springs Ranch

1. The following conditions should be included in any permit that is drafted. These conditions are standard language for UIC permits and will insure that the department has every advantage in the event that a permit is issued and is later violated. No decision has been made by Garland as to whether the permit will be issued or not. Keith Burron assured me that we can insert these conditions. I am sending a copy of this memo to Jake and Keith at the same time. I will be out of the office tomorrow.

CONDITIONS FOR PERMIT TO CONSTRUCT 94-059

1 of 19. The groundwater in the Alluvial Aquifer along the Snake River and Spring Creek is classified as class I under Chapter VIII of Wyoming Water Quality Rules and Regulations (April 9, 1980). This classification was made because:

a. The groundwater in this formation meets all of the quality standards set forth in Chapter VIII for class I water;

and

b. The groundwater in this formation is presently being used as a source of water which meets the definition of class I.

Groundwater of class I shall not be degraded so as to make it unusable as a source of water for this purpose. Any parameters which do not meet the class of use standard shall not be degraded whatsoever.

2 of 19. Proper Operation and Maintenance. The permittee is required to conduct the operation in accordance with statements, representations and procedures presented in the complete permit application and supporting documents, as accepted and approved by the administrator.

The permittee is required at all times to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve permit compliance. Proper operation and maintenance

includes effective performance, adequate funding, adequate operator staffing and training and adequate laboratory and process controls, including appropriate quality assurance procedures.

The subsurface discharge authorized by this permit shall be consistent with the conditions and content of the permit; any modifications which will result in a violation of permit conditions shall be reported by submission of a new or amended permit application and shall not be implemented until a new or modified permit has been issued.

3 of 19. Hazardous Waste. This permit does not allow for the injection of any hazardous waste as defined by 40 CFR 261. Injection of any substance defined as hazardous waste, whether hazardous by listing or by characteristic is a violation of this permit.

4 of 19. Entry and Inspection. The permittee shall allow the administrator, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), and practice, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate rules and regulations of the Department, any substances or parameters at any location.

5 of 19. Records and Reports.

- a. The permittee shall retain copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the report or application.
- b. The permittee shall give notice to the administrator as soon as possible of any planned physical alterations or additions to the permitted facility.
- c. The permittee shall give advance notice to the administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

d. The permittee shall report any noncompliance which may endanger health or the environment, orally within 24 hours from the time the permittee becomes aware of the circumstances. The report should include:

1. Any monitoring or other information which indicates that any contaminant may cause an endangerment to a usable groundwater of the state.
2. Any noncompliance with a permit condition or malfunction of the discharge (injection) system which may cause fluid migration into or between usable groundwaters of the state.

A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. This written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

- or surfacing of the discharge above ground*
- e. The permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted; such reports shall contain the information listed in 5d. above.
 - f. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the administrator, it shall promptly submit such facts or information.
 - g. The permittee shall retain all records concerning the nature and composition of injected fluids until 5 years after completion of any specified plugging and abandoned procedures. The administrator may require the owner/operator to deliver the records to the administrator at the conclusion of the retention period.
 - h. Within 30 days of the end of each calendar quarter, a report shall be filled with the Cheyenne Office, Wyoming Department of Environmental Quality, Water Quality Division, 122 West 25th Street, Cheyenne, Wyoming 82002, ATTN: UIC Program Supervisor. This report shall include:
 1. The dates when readings were taken showing the presence or absence of water in each monitor well;
 2. The static water level for all wells which contained water for any date measured;

3. The results of all chemical analyses conducted for the quarter. The permittee should take samples a minimum of 4 weeks before the end of each calendar quarter to insure sufficient turnaround time at the laboratory;

- i. A comprehensive report for an aborted or curtailed operation authorized by this permit shall be submitted to the administrator within 30 days of complete termination of the injection (discharge) or associated activity, in lieu of an annual report.

6 of 19. Permit Actions

- a. After notice and opportunity for a hearing, a permit may be modified, suspended or revoked in whole or part during its term for cause which includes, but is not limited to, any of the following:
 - 1. Violation of the permit;
 - 2. Obtaining a permit by misrepresentation or failure of the discharge well or system.
- b. Each permit is reviewed at least once every 5 years, and may be reviewed more frequently.
- c. A permit may be modified at any time as may be required, including for conformity with changes in regulations or standards which occur after the permit is issued.
- d. A permit may be modified in whole or part in order to apply more, or less, stringent standards; or prohibitions for a toxic or other substance present in the permittee's discharge, as may be ordered by the council.
- e. This operation (permit) can be terminated by authority of the administrator for one or more permit violations.

7 of 19. It is a duty of the permittee to:

- a. Comply with all permit conditions;
- b. Halt or reduce activity -- it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permittee activity in order to maintain compliance with the permit conditions;
- c. Take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit; and
- d. Furnish to the administrator within a reasonable time, any information which the administrator may request to

determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit; and furnish to the administrator, upon request, copies of records required to be kept by this permit.

8 of 19. Pollution or waste which migrates into an aquifer containing a usable groundwater of the state is a violation of the permit.

9 of 19. All reports required by this permit and other requested information shall be signed as follows:

For a corporation -- by a principal executive officer of at least the level of vice-president;

For a partnership or sole proprietorship -- by a general partner or the proprietor, respectively;

For a municipality, state, federal or other public agency -- by either a principal executive officer or ranking elected official; or

By a duly authorized representative for any of the above. A person is a duly authorized representative only if:

- a. The authorization is made in writing by one of the described principals;
- b. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and
- c. The written authorization is submitted to the administrator.

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the administrator prior to or together with any reports or information, to be signed by an authorized representative.

Any person signing a report or other requested information shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and

imprisonment."

10 of 19. Permit Transfer

The owner/operator of record (permittee) is always responsible for permit compliance. A permit holder cannot transfer his permit without approval of the department director.

11 of 19. Severability

The provisions of this permit are severable, and if any provision of the permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

12 of 19. Noncompliance

Any permit noncompliance constitutes a violation of the permit.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification or planned changes or anticipated noncompliance, does not stay any permit condition.

13 of 19. Within 30 days of the issuance of this permit to construct, the applicant shall install monitor wells as required:

WELL NUMBER	LOCATION OF THE WELL
ISR B-5	On the north lot line to Lot 14, 200 feet from the northwest corner of Lot 14
ISR B-6	At the northeast corner of the building envelope on Lot 14
ISR B-7	At the southeast corner of the building envelope on Lot 13
ISR B-8	At the southwest corner of the building envelope on Lot 13
ISR A-5	500 feet due east of the southeast corner of Lot 58
ISR A-6	500 feet S30°E of the southeast corner of Lot 58
ISR A-7	450 feet due east of the northeast corner of Lot 35
ISR A-8	300 feet due east of the southeast corner of Lot 35

Hand to the owner
from volume - these wells
are located properly marked
gradients are
established.

WELL NUMBER	LOCATION OF THE WELL
ISR A-9	400 feet southwest of the southeast corner of Lot 35 along the same bearing as the southeast lot line of Lot 35
ISR A-10	200 feet due north of the northeast corner of Lot 35

Within one week of the construction of the above wells, the permittee shall sample for all constituents required under condition 14 of this permit. This sample shall constitute a baseline sample for the purposes of this permit.

14 of 19. Environmental Monitoring Program for Groundwaters of the State

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. The permittee shall prepare records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation to be retained for a period of at least 3 years after closure of the facility.
- c. Records of monitoring information shall include:
 1. The date, exact place, and time of sampling or measurements;
 2. The name(s) of individual(s) who performed the sampling or measurements;
 3. The date(s) analyses were performed;
 4. Names of individuals who performed the analyses;
 5. The analytical techniques or methods used; and
 6. The results of such analyses.
- d. Test procedures for the determination of water quality parameters and constituents shall be in accord with provisions of Water Quality Rules and Regulations Chapter VIII, Section 7.
- e. Monitor wells ISR A-1, ISR A-4, ISR A-5, ISR A-6, ISR A-7, ISR A-8, ISR A-9, ISR A-10, ISR B-1, ISR B-2, ISR B-3,

ISR B-4, ISR B-5, ISR B-6, ISR B-7, and ISR B-8 shall be measured quarterly for static water level;

- f. Monitor wells shall be sampled and the groundwater analyzed on the following schedule for the following listed parameters:

WELL NAME OR NUMBER	SAMPLING SCHEDULE	ANALYTICAL METHOD	PARAMETER ANALYZED	PERMIT LIMIT (UCL) *
ISR B-5 ISR B-7 ISR B-8 ISR A-5 ISR A-6 ISR A-7 ISR A-8 ISR A-9	Quarterly	EPA Method 420.1	Total Phenolic Hydrocarbon	.001
		EPA 200 series methods	Cadmium	.026
			Chromium	.100
			Lead	.050
		EPA Method 350.3	Ammonia as N	.500
		EPA Method 353.2	Nitrate as N	10.0
	Annually	EPA Method 624	Purgeable Aromatic and Halogenated Hydrocarbon	Federal MCL's
ISR A-10 ISR B-6	Quarterly	EPA Method 420.1	Total Phenolic Hydrocarbon	No Permit Limit, Well is within the mixing zone
		EPA 200 series methods	Cadmium	
			Chromium	
			Lead	
	<i>Monthly</i>	EPA Method 350.3	Ammonia as N	
		EPA Method 353.2	Nitrate as N	
	Annually	EPA Method 624	Purgeable Aromatic and Halogenated Hydrocarbon	Federal MCL's

*All chemical concentrations in this permit are expressed

in mg/l unless otherwise noted. pH is always expressed in standard units and conductivity is expressed in mmhos/meter or umhos/cm.

g. The above Upper Control Limit (UCL) is not to be exceeded in any sample. Exceedance of this value is a violation of this permit and shall require corrective action. In the event that the baseline sample required in condition 13 of this permit is higher than the upper control limits established above, then the upper control limit shall be the baseline value for that individual well.

h. After the first four monitoring events, the WQD may substitute a shorter list for the above parameters, depending on the results reported. WQD may substitute less expensive methods for the above listed methods depending on the results of the first monitoring; and

i. The results of these analyses shall be submitted to the Cheyenne office by the last day of the month following the end of each quarter. The first set of results are due by the last day of October, 1994.

j. Proper well evacuation shall include removal of a minimum of 1 casing volume prior to sampling or pumping the well dry once, whichever occurs first. If possible, 3 casing volumes should be removed. Sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD and EPA standard procedures.

15 of 19. After the monitoring wells have fulfilled their useful purpose, they shall be abandoned according to procedures specified in Chapter XI, Part G, Section 70 of Wyoming Water Quality Rules and Regulations. Within 15 days after a well has been plugged and abandoned, the owner shall file a plugging record with WQD;

16 of 19. Monitoring well caps shall be kept locked at all times other than for monitoring purposes. Any tampering with the monitoring wells shall be reported immediately to the division. The wells shall be clearly numbered using either a stamp to permanently engrave the number into the steel top or by writing the number in the wet concrete of the base;

17 of 19. The permittee shall monitor the quality of the injected fluid (effluent at the last lift station before discharge to the drainfield) on an approved schedule. The following parameters shall be analyzed by the listed methods and reported quarterly:

— space

SAMPLING SCHEDULE	ANALYTICAL METHOD	PARAMETER ANALYZED	PERMIT LIMIT (UCL) *
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Quarterly	EPA Method 420.1	Total Phenolic Hydrocarbon	.05
	EPA 200 series methods	Cadmium	.026
		Chromium	.100
		Lead	.050
	EPA Method 350.3	Ammonia as N	50.0
Annually	EPA Method 624	Purgeable Aromatic and Halogenated Hydrocarbon	Federal MCL's

*All chemical concentrations in this permit are expressed in mg/l unless otherwise noted. pH is always expressed in standard units and conductivity is expressed in mmhos/meter or umhos/cm.

a. The above Upper Control Limit (UCL) is not to be exceeded in any sample. Exceedance of this value is a violation of this permit and shall require corrective action.

b. After the first four monitoring events, the WQD may substitute a shorter list for the above parameters, depending on the results reported. WQD may substitute less expensive methods for the above listed methods depending on the results of the first monitoring; and

c. The results of these analyses shall be submitted to the Cheyenne office by the last day of the month following the end of each quarter. The first set of results are due by the last day of October, 1994.

18 of 19. In the event that either of the drainfields covered by this permit should fail to perform as designed, or in the event that permitted groundwater quality upper control limits contained in this permit be exceeded, the permittee shall take action ^{as required:} *disposal system the following*

a. Within 60 days of being notified by certified letter by the Administrator that the drainfield has failed under this provision, the permittee shall submit a set of approvable plans and specifications for the construction of an interceptor sewer to connect the system to the City of Jackson wastewater treatment facility (POTW).

b. Within six months of receiving an approved permit to

construct under section 17(a) of this permit, construct the interceptor sewer line required.

c. Within 30 days of beginning operation of the interceptor sewer, remove all lift stations, sewer lines and surface facilities associated with the operation of the drainfields and not required for the operation of the interceptor sewer.

19 of 19. Except when prevented by snow or winter weather, the permittee shall cause the hillsides around both leachfield A and leachfield B to be inspected monthly for one year after beginning operations. The inspection shall note any change in the location or amounts of water surfacing on the hillsides. Any seeps found which have changed from their baseline conditions shall be sampled for the parameters required by condition 14 of this permit.

and Biochemical
Oxygen demand,
suspended
solids
and
fecal
coliform.

THE STATE



OF WYOMING

MIKE SULLIVAN
GOVERNOR

*Bob Neff
1st Week Nov*



Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

ADMINISTRATION (307) 777-7758 FAX 777-7682	ABANDONED MINES (307) 777-6145 FAX 634-0799	AIR QUALITY (307) 777-7391 FAX 777-7682	INDUSTRIAL SITING (307) 777-7368 FAX 777-6937	LAND QUALITY (307) 777-7756 FAX 634-0799	SOLID & HAZARDOUS WASTE (307) 777-7752 FAX 777-5973	WATER QUALITY (307) 777-7781 FAX 777-5973
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August 26, 1994

Indian Springs Ranch Limited partnership
Mike T. Halpin
P.O. Box 291
Jackson, WY 83001

RE: As-Built Permit To Construct, WQD Reference Number 94-059R

Dear Mr. Halpin:

The Department of Environmental Quality/Water Quality Division (DEQ/WQD) has reviewed the referenced As-Built Application submitted by your engineer, Jorgensen Engineering and Land Surveying, P.C. Our review indicates that the application appears to meet DEQ/WQD regulations and the enclosed As-Built Permit To Construct is hereby issued. The enclosed permit covers the leachfields which have already been constructed as well as the groundwater monitoring wells which are to be constructed.

Please be advised that the system must be constructed, installed and operated in accordance with the statements, representations and procedures presented in the application and all supporting documentation as well as the terms and conditions of the permit. You are urged to be familiar with all aspects of the permit application, permit and permit conditions. Any person objecting to an action of the DEQ/WQD and desiring affirmative relief may request a hearing before the Environmental Quality Council in accordance with the procedures in the enclosed Rules of Practice and Procedure and the Wyoming Administrative Procedures Act.

Sincerely,


Dennis Hemmer
Director
Department of Environmental quality

DH/mad 43545.LTR
Enclosure

cc: Dick Worl, Teton County Sanitarian, P.O. Box 1727, Jackson, WY.83001

AS - BUILT
PERMIT TO CONSTRUCT

☒ New

Permit No. 94-059R
* **CONDITIONED** *

☐ Renewal

☐ Modified

Indian Springs Ranch, Community On-Site
Wastewater Disposal System - Leach Fields
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Indian Springs Ranch Limited Partnership

P.O. Box 291

Jackson, WY 83001

to have constructed two community leach fields and to install a series of groundwater monitor wells according to the procedures and conditions of the application No. 94-059R. The facility is located in Section 36, T41N, R117W in the County of Teton, in the State of Wyoming.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.


The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

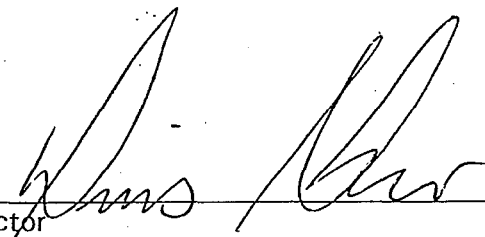
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

9-1-94

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JH/jyi - 43545.ltr

SPECIAL CONDITIONS

1. of 14 The applicant will provide immediate oral and/or written notice to Water Quality Division, 250 Lincoln, Lander, WY 82520, (307) 332-3144, in accordance with the provisions of Section 9, Chapter III, Wyoming Water Quality Rules and Regulations of any changes or modifications which are not consistent with the terms and conditions of this permit.
2. of 14 Within sixty days of completion of construction of the authorized facility, the applicant will submit to Water Quality Division, 250 Lincoln, Lander, WY 82520, on the form provided (CERTIFICATION OF COMPLETION), the following information.
 - a. Date that construction of the monitor wells was completed; and
 - b. Date that the monitor wells and leachfields were placed in operation; and
 - c. Certification the monitor wells were constructed in accordance with the terms and conditions of the permit; or
 - d. Certification the monitor wells were completed with changes or modifications. Submittal of as-constructed plans and specifications for the system as it was constructed, certified by an engineer if appropriate.
3. of 14 The review and approval of this permit is based upon the items identified in the attached "Statement of Basis".

4. of 14 The groundwater in the Alluvial Aquifer along the Snake River and Spring Creek is classified as class I under Chapter VIII of Wyoming Water Quality Rules and Regulations (April 9, 1980). This classification was made because:

a. The groundwater in this formation meets all of the quality standards set forth in Chapter VIII for class I water;

and

b. The groundwater in this formation is presently being used as a source of water which meets the definition of class I.

Groundwater of class I shall not be degraded so as to make it unusable as a source of water for this purpose. Any parameters which do not meet the class of use standard shall not be degraded whatsoever.

5. of 14 A septic tank shall be installed at each source of sewage to the collection system. The tanks must be permitted by the Teton County Sanitarian and meet all sizing and construction requirements of the WQD and Teton County. All tanks must be pumped at a frequency in compliance with Teton County Standards but not less than once every ten (10) years.

6. of 14 It is a violation of this permit to discharge any parameter covered under EPA Method 624 in any concentration above the respective standard of Chapter VIII, Wyoming Water Quality Rules and Regulations.

7. of 14. Records and Reports.

a. The permittee shall retain copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the report or application.

b. The permittee shall give notice to the administrator as soon as possible of any planned physical alterations or additions to the permitted facility. All proposed modifications to the treatment facility must be permitted by the DEQ/WQD prior to the start of construction.

c. The permittee shall give advance notice to the administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

d. The permittee shall report any noncompliance which may endanger health or the environment, orally within 24 hours from the time the permittee becomes aware of the circumstances. The report should include:

1. Any monitoring or other information which indicates that any contaminant may cause an endangerment to a usable groundwater of the state.

2. Any noncompliance with a permit condition or malfunction of the discharge (injection)

system which may cause fluid migration into or between usable groundwaters of the state.

3. Any noncompliance caused by surfacing of sewage caused by this facility.

A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. This written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

- e. The permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted; such reports shall contain the information listed in 7d. above.
- f. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the administrator, it shall promptly submit such facts or information.
- g. The permittee shall retain all records concerning the nature and composition of injected fluids until 5 years after completion of any specified plugging and abandoned procedures. The administrator may require the owner/operator to deliver the records to the administrator at the conclusion of the retention period.
- h. Within 30 days of the end of each calendar quarter, a report shall be filled with the Cheyenne Office, Wyoming Department of Environmental Quality, Water Quality Division, 122 West 25th Street, Cheyenne, Wyoming 82002, ATTN: UIC Program Supervisor. This report shall include:
 - 1. The dates when readings were taken showing the presence or absence of water in each monitor well;
 - 2. The static water level for all wells which contained water for any date measured;
 - 3. The results of all chemical analyses conducted for the quarter. The permittee should take samples a minimum of 4 weeks before the end of each calendar quarter to insure sufficient turnaround time at the laboratory;
- i. A comprehensive report for an aborted or curtailed operation authorized by this permit shall be submitted to the administrator within 30 days of complete termination of the injection (discharge) or associated activity, in lieu of an annual report.

8. of 14 Permit Transfer

The owner/operator of record (permittee) is always responsible for permit compliance. A permit holder cannot transfer his permit without approval of the department director.

9. of 14 Severability

The provisions of this permit are severable, and if any provision of the permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. of 14 Within 30 days of the issuance of this as-built permit, the applicant shall install monitor wells as required:

WELL NUMBER	LOCATION OF THE WELL
ISR B-5	On the north lot line to Lot 14, 200 feet from the northwest corner of Lot 14
ISR B-6	At the northeast corner of the building envelope on Lot 14
ISR B-7	At the southeast corner of the building envelope on Lot 13
ISR B-8	At the southwest corner of the building envelope on Lot 13
ISR A-5	500 feet due east of the southeast corner of Lot 58
ISR A-6	500 feet S30°E of the southeast corner of Lot 58
ISR A-7	450 feet due east of the northeast corner of Lot 35
ISR A-8	300 feet due east of the southeast corner of Lot 35
ISR A-9	400 feet southwest of the southeast corner of Lot 35 along the same bearing as the southeast lot line of Lot 35
ISR A-10	200 feet due north of the northeast corner of Lot 35

In the event that access cannot be obtained to install wells ISR B-7 and ISR B-8 on Lot 13, then an alternate acceptable location for these wells is: ISR B-7 at the northeast corner of the building envelope on Lot 12; and ISR B-8 at the midpoint of the north line of the building envelope on Lot 15.

Within one week of the construction of the above wells, the permittee shall sample for all constituents required under condition 11 of this permit. This sample shall constitute a baseline sample for the purposes of this permit.

In the event that gradients are such that the above monitor well locations are inappropriate, the permittee shall immediately propose alternative locations and install new wells in those locations after receiving WQD approval.

The monitor wells shall be constructed and installed to meet the application content. In addition, all wells shall be screened to a depth of ten (10) feet minimum below the groundwater surface.

11. of 14 Environmental Monitoring Program for Groundwaters of the State

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. The permittee shall prepare records of all monitoring information to be retained for a period of at least 3 years after closure of the facility.
- c. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
 2. The name(s) of individual(s) who performed the sampling or measurements;
 3. The date(s) analyses were performed;
 4. Names of individuals who performed the analyses;
 5. The analytical techniques or methods used; and
 6. The results of such analyses.
- d. Test procedures for the determination of water quality parameters and constituents shall be in accord with provisions of Water Quality Rules and Regulations Chapter VIII, Section 7.
- e. Monitor wells ISR A-1, ISR A-4, ISR A-5, ISR A-6, ISR A-7, ISR A-8, ISR A-9, ISR A-10, ISR B-1, ISR B-2, ISR B-3, ISR B-4, ISR B-5, ISR B-6, ISR B-7, and ISR B-8 shall be measured quarterly for static water level;
- f. Monitor wells shall be sampled and the groundwater analyzed on the following schedule for the following listed parameters:

WELL NAME OR NUMBER	SAMPLING SCHEDULE	ANALYTICAL METHOD	PARAMETER ANALYZED	PERMIT LIMIT (UCL)*
ISR B-5 ISR B-7 ISR B-8 ISR A-5 ISR A-6 ISR A-7 ISR A-8 ISR A-9	Quarterly	EPA Method 420.1	Total Phenolic Hydrocarbon	.001
		EPA 200 series methods	Cadmium	.010
			Chromium	.050
			Lead	.050
		EPA Method 350.3	Ammonia as N	.500
		EPA Method 353.2	Nitrate as N	10.0
ISR A-10 ISR B-6	Quarterly	EPA Method 420.1	Total Phenolic Hydrocarbon	No Permit Limit, Well is within the mixing zone
		EPA 200 series methods	Cadmium	
			Chromium	
			Lead	
	Monthly	EPA Method 350.3	Ammonia as N	
		EPA Method 353.2	Nitrate as N	

* All chemical concentrations in this permit are expressed in mg/l unless otherwise noted. pH is always expressed in standard units and conductivity is expressed in mmhos/meter or umhos/cm.

- g. The above Upper Control Limit (UCL) shall not be exceeded in any sample. Exceedance of this value is a violation of this permit and shall require corrective action. In the event that the baseline sample required in condition 10 of this permit is higher than the upper control limits established above, then the upper control limit shall be the baseline value for that individual well. Should the UCL be exceeded for any parameters, that well must be resampled within seven (7) days of receipt of test results. The results of the resampling must be provided to the WQD within 30 days of resample.
- h. After the first four monitoring events, the WQD may substitute a shorter list for the above parameters, depending on the results reported. WQD may substitute less expensive methods for the above listed methods depending on the results of the first monitoring; and the WQD may adjust the interval between sampling events.
- i. The results of these analyses shall be submitted to the Cheyenne office by the last day of the month following the end of each quarter. The first set of results are due by the last day of October, 1994.
- j. Proper well evacuation shall include removal of a minimum of 1 casing volume prior to sampling or pumping the well dry once, whichever occurs first. If possible, 3 casing volumes should be removed. Sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD and EPA standard procedures.

12. of 14 The permittee shall monitor the quality of the injected fluid (effluent at the last lift station before discharge to the drainfield) on an approved schedule. The following parameters shall be analyzed by the listed methods and reported quarterly:

SAMPLING SCHEDULE	ANALYTICAL METHOD	PARAMETER ANALYZED
Quarterly	EPA Method 420.1	Total Phenolic Hydrocarbons
	EPA 200 series methods	Cadmium
		Chromium
		Lead
	EPA Method 350.3	Ammonia as N
Annually	EPA Method 624	Purgeable Aromatic and Halo-genated Hydrocarbons

- a. After the first four monitoring events, the WQD may substitute a shorter list for the above parameters, depending on the results reported. WQD may substitute less expensive methods for the above listed methods depending on the results of the first monitoring; and the WQD may adjust the interval between sampling events.
- b. The results of these analyses shall be submitted to the UIC Program Supervisor, Water Quality Division, 122 West 25th Street, Cheyenne, WY 82002 by the last day of the month following the end of each quarter. The first set of results are due by the last day of October, 1994.

13. of 14

In the event that either of the drainfields covered by this permit should fail to perform as designed, or in the event that permitted groundwater quality upper control limits contained in this permit be exceeded, the permittee shall take the following action:

- a. Within 60 days of being notified by certified letter by the Administrator that the drainfield disposal system has failed under this provision, the permittee shall submit a set of approvable plans and specifications for the construction of an interceptor sewer to connect the system to the City of Jackson wastewater treatment facility (POTW).
- b. Within six months of receiving an approved permit to construct under section 17(a) of this permit, construct the interceptor sewer line required.
- c. Within 30 days of beginning operation of the interceptor sewer, remove all lift stations, sewer lines and surface facilities associated with the operation of the drainfields and not required for the operation of the interceptor sewer.

14. of 14

Except when prevented by snow or winter weather, the permittee shall cause the hillsides around both leachfield A and leachfield B to be inspected monthly for one year after beginning operations. The inspection shall note any change in the location or amounts of water surfacing on the hillsides. Any seeps found which have changed from their baseline conditions shall be sampled for the parameters required by condition 14 of this permit an Biochemical Oxygen Demand, Total Suspended Solids, and Fecal Coliform Bacteria. The analytical results of any sampling required under this condition shall be submitted within ten (10) days of the receipt to the UIC Program Supervisor, Water Quality Division, Herschler Building, 122 West 25th Street, Cheyenne, Wyoming 82002.

STATEMENT OF BASIS

I. General information.

A. Permit Number: 94-059R

II. Application reviewed for compliance with the following regulations.

A. Chapter XI. YES

B. Chapter XII. NO

III. Basis for issuing permit.

A. Review of application package indicates proposed facility will be in compliance with applicable regulations identified in Section II.

YES

B. Permit includes deviation from applicable regulations in accordance with Section 5, Chapter XI, or XII.

NO

C. Permit based on deviation from applicable regulations in accordance with approved policy statement.

NO

IV. Facilities not specifically covered by regulations.

A. Identify specific sections of the regulations for which a deviation is approved and briefly summarize the regulation.

N/A

B. Briefly state the basis for the deviation.

N/A

C. Permit based on general or statewide deviation contained in approved policy statement.

N/A

D. Application requires review to determine groundwater impacts in accordance with Section 15, Chapter III.

APPLICABLE

Statement of Basis

94-059R

August 22, 1994

V. If Section 15 of Chapter III is applicable, indicate the basis of determining groundwater will be protected.

A. Facility will not allow a discharge to groundwater. Briefly describe:

N/A

B. Quality of wastewater is such that it will not cause a violation of groundwater standards. Briefly describe:

N/A

C. Existing soils or geology will not allow a discharge to groundwater. Briefly describe:

N/A

D. Basis of facility design is that it will be operated so as not to violate groundwater standards. Briefly describe:

N/A

E. Discharge may result in groundwater concentrations in excess of standards but post discharge water quality can be returned to standards in accordance with Section 4 (d)(vi), Chapter VIII. Briefly describe:

Upon abandonment of the disposal fields, groundwater quality will return to background through natural attenuation.

F. If water quality exceedances are allowed, briefly describe the parameter limits, property boundaries, places of withdrawal and any other information documenting that any users of affected aquifer will not be impacted.

See conditions attached to as-built permit.

G. Briefly describe monitoring system. Clearly state the parameters to be utilized for determining compliance, what constitutes a violation and steps to be followed by the permittee in the event of a violation.

See conditions attached to as-built permit.

VI. Documentation of Statement of Basis.

A. The archives file for this permit will include adequate documentation of all sections of this Statement of Basis.

N.W.

CERTIFICATION OF COMPLETION

In accordance with the condition of "Permit to Construct" No. 94-059R, requiring submittal of this Certification of Completion within sixty (60) days of completion of the facility, I hereby certify the following to be an accurate and correct statement of the current status of the project authorized by the above referenced permit:

1. Construction of the permitted facility was completed on _____ (DATE) and the facility was placed in operation on _____ (DATE).
2. Construction was completed in accordance with the following: (Check the appropriate option)
 - ☐ The facility was constructed in compliance with all terms and conditions of the permit including the design report, plans and specifications, design data or other information submitted in support of the application.
 - ☐ The facility was constructed with changes or modifications in accordance with the provisions of Section 9, Chapter III, Wyoming Water Quality Rules and Regulations. As-built plans and specifications, certified by a registered professional engineer (certification by an engineer is not required if the original application was not certified by an engineer) are enclosed.

Facility Owner (print or type)

Owners Signature

Date

Engineer (print or type)

Engineers Signature

Date

93-215R Tank

93-286 Water Tower

94-059-septic

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Town of Jackson Planning Department
150 E. Pearl Avenue
Jackson, WY 83001

Date: 06/18/21 Project No: 19-013-02

ATTENTION: Paul Anthony, Planning Director

RE: Indian Springs HOA, Inc.

TOJ Sewer Connection Request

LADIES/GENTLEMEN: ☒ Attached ☐ Under separate cover via _____ the following items:
WE ARE SENDING
YOU

☐ Shop Drawings ☐ Prints ☒ Plans ☐ Samples ☐ Specifications
☒ Copy of Letter ☐ Change Order ☒ Other

COPIES	DATE	NO.	DESCRIPTION
1	06/09/21	3	Planning Permit App. for Sewer Connection (incl. separate signature pg)
1	06/18/21	76	Engineer's Design Report titled "ISR TOJ Sewer Connection"
1	03/09/21	32	Letter from ISHOAI RE: Planning Permit App., Sewer Connection, etc.
1	06/18/21	1	Check No. in the amount of \$601.00 for Planning Permit App.

THESE ARE TRANSMITTED as checked below:

☒ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☐ For review & comment
☐ FOR BIDS DUE _____, 20____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS: **Please contact Ty S. Ross at Nelson Engineering with any questions.**

Thanks,

COPY TO: Via Email: Brian Lenz, WSD,
Client, GTPM

SIGNED: _____



ENGINEER'S DESIGN REPORT

INDIAN SPRINGS RANCH

TOWN OF JACKSON SEWER CONNECTION

TETON COUNTY, WYOMING

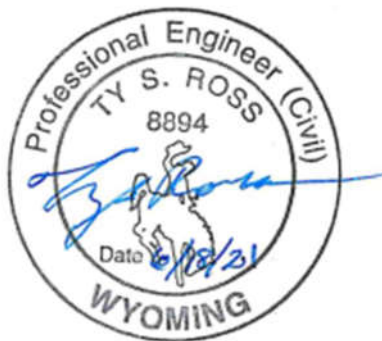
PREPARED BY:

NELSON ENGINEERING

PO BOX 1599

430 S CACHE STREET

JACKSON, WY 83001



TY S. ROSS, WY PE 8894

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Appendices

- APPENDIX A SELECT WDEQ PERMITS**
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- APPENDIX F MAP OF PROPOSED SERVICE AREA**
- APPENDIX G ENGINEERING DESIGN DRAWINGS**

1.0 Indian Springs Ranch – Project Background

1.1 System History and Permitting

Development of the Indian Springs Ranch Subdivision (“ISR”) began in the early 1990s, as primarily residential property, but including common amenities and substantial open space. The development has ultimately culminated in a subdivision wherein 23 residential lots (Lots 18 – 31, 33, 34, 58, 62 – 66, and 69, the “Community” lots) are presently served via central water and sewer systems, owned and administered by the Indian Springs Homeowners Association, Inc. (“ISHOAI” or “HOA”), while 17 other residential lots (Lots 1 – 17, the “Individual” lots) employ individual well and septic systems. Additionally, a common amenities complex (formerly Lot 60, now comprised of Lot 70 and 71, the “Amenities” complex) currently derives water and sewer services from the Town of Jackson (“TOJ”). In the service agreement between ISR and the TOJ for the Amenities complex (discussed further below), TOJ services are also contemplated for 7 additional residential lots (Lots 35 – 41, the “Mixed” lots). Three of these lots remain undeveloped, and those that are developed utilize a combination of individual well and septic (Lots 37 and 38), and TOJ water and sewer services (Lots 39 and 40).

The water and sewer systems serving the Community lots were necessarily permitted through the Wyoming Department of Environmental Quality (“WDEQ”) through multiple facets. The potable water storage tank was permitted and installed via WDEQ Permit to Construct (“PTC”) No. 93-215, and the primary water distribution and wastewater collection systems were permitted under WDEQ PTC No. 93-286. Central septic systems were proposed for wastewater disposal, and two leachfields (Leaching Area A, “LAA”, and Leaching Area B “LAB”, or collectively, the Community Wastewater System, “CWS”) were eventually permitted, albeit circuitously, through issuance of As-Built PTC No. 94-059, contained in Appendix A. Two lots within ISR, Lots 45 and 46, were created specifically as properties designated for construction of the CWS. With the advent of the Underground Injection Control (“UIC”) permitting division at WDEQ, permit coverage for the leachfields was eventually converted to the UIC 5E3-98-1 General Permit, and is presently operating under assigned UIC Facility No. WYS-0369-065.

The sewer collection system and lift station serving the Amenities complex was permitted via WDEQ PTC No. 94-109, while the associated water distribution system was installed under WDEQ PTC No. 94-149. PTC No. 94-109 is also found in Appendix A.

1.2 Connection Agreements and Will Serve Assurance

Issuance of PTC No. 94-059 was predicated, in part, on assurances from the TOJ that, in the event the subsurface disposal systems failed, the TOJ would accept and treat wastewater from the Community lots, following construction of an interceptor sewer. In the UIC permit file, a telephone conversation with then Town Engineer, Sandy Buckstaff, is documented, in which Mr. Buckstaff provides assurance to the WDEQ UIC Program Supervisor, that the TOJ “would be happy to take the sanitary waste from the entire subdivision”. Documentation of this telephone conversation, as it pertains to Special Condition 13 of 14 in final WDEQ PTC No. 94-059, is found in Appendix B.

In the permit applications for Lot 60 (now 70 and 71), Mr. Buckstaff likewise provided assurance that the TOJ was capable of serving full build-out development contemplated for the Amenities complex. A copy of the associated letter is also contained in Appendix B, noting “...the Town of Jackson has, or will have at

the point in time when the Lot 60 development comes fully on line, sufficient...wastewater treatment capacity to accommodate the additional demand which would be imposed upon our systems by the project.”

Subsequent to the “Will Serve” letter penned by Mr. Buckstaff, the TOJ and ISR executed a document titled “Agreement for Wastewater Treatment System Connection” (the “Lot 60 Agreement”), also found in Appendix B. Among other things, the Lot 60 Agreement memorializes that wastewater treatment is sought by ISR to serve various use buildings, and that the TOJ agreed to provide that service for the mixed-use buildings proposed. Additionally, in the Lot 60 Agreement, the TOJ acknowledges the potential future wastewater connection of the Mixed lots, two of which have since connected.

1.3 Design and Permit Discussion – CWS

LAA was intended to eventually accommodate a guest lodge facility initially planned during the ISR subdivision process, the construction of which was ultimately abandoned. The leachfield design included phased construction of three separate, simultaneously active trench systems, each accommodating approximately 5,000 gallons per day (“gpd”) based on the then effective design criteria, allowing substantial sidewall area (8-feet, as opposed to the presently allowed 1-foot) to count toward absorptive surface area. Only the first phase of the overall LAA design, with a targeted design flow rate of 4,950 gpd, has been constructed. This design flow rate coincides with wastewater projections, at the time, equivalent to 11 single-family homes, each constructed with 3 bedrooms, and considering a prescribed flow rate of 150 gpd/bedroom. Similarly, LAB was designed to accommodate 6, three-bedroom homes, with a design Maximum Daily Flow (“MDF”) of 2,700 gpd. Sidewall area in LAB was limited to 4-feet, less than the 8-feet sidewall considered for LAA, but still far exceeding the current limitation on allowable sidewall height of 1-foot for consideration as effective absorptive area.

The actual number of Equivalent Residential Units (“ERUs”) presently served by LAA and LAB totals 18.0 and 7.0, respectively, including multiple guest houses (AKA Accessory Residential Units, “ARUs”) accounted for as 0.5 ERU. Considering the MDF employed for the original design of 450 gpd/ERU, associated MDF for existing conditions translates to 8100 gpd routed to LAA and 3150 gpd to LAB. MDF values have therefore been exceeded at both locations, even considering the original design parameters and allowance of sidewall heights greater than 1-foot. Evaluating the basal areas based on present-day design constraints indicates both locations are drastically undersized, with effective MDF rates back-calculated equivalent to 1490 gpd± for LAA and 1358 gpd± for LAB. The age of the leachfields and fact that both appear to be significantly undersized have resulted in varying degrees of failure over the last several years.

1.4 Design and Permit Discussion – Amenities Complex

The sewer system serving the Amenities complex was also designed to accommodate significantly higher wastewater flows than are presently conveyed. Excerpts from the engineering design report that accompanied the PTC application, as prepared by Cardinal Design Group (the “CDG” report), are contained in Appendix C. The variety of uses described in the CDG report, including those of larger scale wastewater generation, such as significant employee housing elements and horse stables, equates to 10,605 gpd (although the total is mistakenly noted in the report to sum to 10,555 gpd). The Will Serve letter from the TOJ previously discussed was predicated on this MDF.

Actual wastewater generation from the Amenities complex is believed to be a fraction of the total discussed in the CDG report. Many of the mixed uses contemplated in the CDG report, and subsequently alluded to in the Lot 60 agreement, did not come to fruition. Additionally, the mixed-use buildings that have been constructed appear to discharge only a small portion of the MDF estimated in the CDG report. Average and maximum daily wastewater flow projections for the Amenities complex have not been revisited for this report. However, it is the understanding of Nelson Engineering (“NE” or “Nelson”) that the billing mechanism employed by the TOJ for the Amenities complex has recently been modified to facilitate a direct measurement of actual wastewater flow. It should also be noted that the actual wastewater capacity purchased, and related fees paid, from the time the Lot 60 agreement became effective to the present, remains ambiguous and difficult to discern.

2.0 TOJ Specific Checklist Responses

2.1 Reason for Connecting

Due to the leachfield failures previously mentioned, and associated investigations of the CWS, ISR has been coordinating over the past year with Nelson and the UIC division of the WDEQ, regarding the assessed state of the existing subsurface disposal systems, and opinions concerning failure. Related correspondences involving both entities are found in Appendix D. As stated above, the construction of LAA was performed with the intention of installing additional leachfield beds as the subdivision was developed, although the original installation of a single bed remains. Additionally, both central leachfields have been demonstrated to be dramatically undersized, considering presently accepted design methodologies. As ultimately indicated in WDEQ correspondence dated April 2, 2021, the Water Quality Division (“WQD”) has mandated corrective measures be implemented to rectify pollution concerns associated with the ISR CWS by October 2nd, 2021 (6 months subsequent to the enforcement letter).

Alternatives for the ISR CWS, including 1) replacement of the existing leachfields and 2) a possible connection to the TOJ via the Wilson Sewer District (“WSD”) have both been contemplated in previous asset management analysis and capital improvements planning. NE has prepared engineering plans and cost estimates for both options, and presented them to the HOA for their consideration of future project budgetary needs and overall management of the water and sewer infrastructure owned and maintained by the HOA.

Life cycle cost analysis performed under previous capital planning projects compared replacing and rehabilitating existing wastewater infrastructure with the WSD/TOJ connection. Although the capital costs for leachfield replacement appeared to be significantly lower, primarily due to anticipated connection fees, the life cycle costs for each alternative were demonstrated to be similar. Additionally, it is expected that existing connection agreements and will serve assurances may possibly defray a portion of incurred connection fees. Lastly, connection to the WSD and the TOJ central wastewater treatment plant is viewed as a more environmentally conscious alternative than continued subsurface effluent disposal. Contamination at various locales throughout Teton County has been identified for both groundwater and surface water, suspected to result from long term implementation of traditional septic systems.

2.2 Alternatives to Connecting

As indicated in Appendix D, the WQD correspondence from April 2021 outlines three options that the ISHOAI may potentially pursue to mitigate the apparent failure of the CWS:

1. Reduce, control, and limit MDF of existing development to the design capacities of the constructed leachfields (presumably based on current design methodologies).
2. Replace the existing CWS with a new system, designed with sufficient capacity to accommodate existing and potential, future wastewater flows.
3. Connect to the Wilson Sewer District/Town of Jackson wastewater system.

Since Indian Springs Ranch is largely developed, and residences are currently occupied, reducing or limiting wastewater volumes at the existing CWS sites is considered impractical. Reducing volumes for existing leachfields would likely necessitate installation of additional subsurface disposal areas and additional infrastructure to divert a portion of current wastewater flows. The installation of new, properly sized leachfields is contemplated by alternative 2, suggesting the first option for corrective measures to be non-viable.

Design of adequately sized leachfields based on WSD design flow criteria has been contemplated as a potential corrective measure. As indicated above, life cycle costs for this alternative are similar to a WSD connection. New leachfields and retrofitted lift stations would require a new application to the WDEQ UIC program, but it appears sufficient area exists within Lots 45 and 46 to situate replacement absorption areas.

Connection to the WSD/TOJ on the northern portion of the subdivision has been identified as the preferred alternative, both by the WDEQ and the ISHOAI. New sewer infrastructure terminating at a Publicly Owned Treatment Works ("POTW"), as opposed to a subsurface leachfield, can be expected to have a long service life and incur little annual maintenance and operating costs. Additionally, a level of comfort and reliability is offered by this alternative, unavailable with the absorption system replacement option.

2.3 Project Schedule

As noted previously, WDEQ has mandated corrective measures be implemented to mitigate insufficient effluent treatment by October 2, 2021. Otherwise, it is the intention of the WDEQ Administrator to terminate permit coverage of the existing CWS at that time. Based on the available time frame contemplated for corrective action, it is anticipated that new CWS infrastructure will not be constructed prior to the October deadline, regardless of the alternative chosen.

Considering anticipated timeframes required to assemble construction plans and bidding documents, submit to WDEQ for PTC review, and solicit construction bids, it is NE's opinion that the October deadline is not feasible. A more realistic timeline would likely consider a spring 2022 construction start and summer 2022 completion. It may be possible for this work to be completed late in the fall of 2021; however, it is NE's understanding that contractor availability may be challenging for the remainder of this construction season.

For these reasons, NE anticipates preparation of a formal response to the WQD April 2021 correspondence, requesting an extension of the deadline mandated. Preliminary discussions with the UIC Division to this effect have proven optimistic. However, expeditious decisions by the TOJ concerning approval of the connection request, and determination of related connection fees, will be imperative to meet even the proposed 2022 completion deadline. It should be noted that the WSD already approved of the proposed connection to their infrastructure, in February of this year. Related documentation accompanies this report under separate cover letter from the ISHOAI.

2.4 Design, Construction, and Maintenance Costs

Costs and fees associated with the construction of new or renovated infrastructure will be paid for by the ISHOAI. Historically, the HOA budgets funding a minimum of one year in advance of anticipated capital improvement projects. Nelson has previously prepared a comprehensive asset inventory and replacement projection analysis for the ISHOAI, to be utilized as a guideline in budgeting future capital improvement projects. This work has assisted in forecasting upcoming infrastructure needs within the subdivision. Over the past few years, the ISHOAI has assessed dues to its membership, via the HOA's vested authority, based on these estimated budgets. Funds raised for capital improvements include approximately \$385,000 in 2020 and \$1.5M in 2021.

The funds raised were employed to undertake multiple capital improvement projects over the last few years. Recent projects include maintenance, repairs, and upgrades to various portions of the existing water distribution system, administered under an approximate budget of \$200,000. Another project, currently underway, includes extensive roadway repairs and related improvements. This project includes roadside drainage maintenance, an asphalt overlay of the entire roadway system, isolated pavement maintenance, and a bridge deck overlay. The budget for this project, including construction and design, exceeded \$900,000, and HOA remains poised to assess dues as need be, to ensure long-term integrity of the ISR CWS.

3.0 SYSTEM USERS AND OPERATION

3.1 General

Community water and wastewater systems are owned and operated by the ISHOAI. The subdivision was platted so that roadway and utility corridors could be planned within property owned by the HOA, namely Lots 47 and 67. It is anticipated that the ISHOAI will continue to own primary infrastructure within these lots for the foreseeable future. However, it is surmised that each affected, individual property owner connecting to HOA infrastructure will execute a separate Connection and Use Agreement with the TOJ.

3.2 System Owners

ISR water and sewer infrastructure is installed within property owned by the HOA, aside from those facets situated on properties that were conveyed to the Teton Science School (TSS). The leaching area lots and lots upon which the water storage tank and supply line are positioned, as well as ISR open space lots, were all deeded to TSS in 2002, although associated water and sewer infrastructure was excluded from the transaction. A perpetual easement for access, operation, and maintenance was subsequently granted to ISHOAI.

Lots 47 and 67 are held fee simple by the HOA and are operated and maintained accordingly. Individual lot owners are generally responsible for service lines on their respective properties. The ISHOAI is responsible for the operation and maintenance of water transmission and distribution mains, including service lines to a curb stop installed near the property line for each lot. All curb stops have recently been located and are operable. The HOA also owns and operates the sewer mains routed through the properties owned by the HOA, and the CWS leachfields located on open space parcels held by TSS. Additionally, the HOA is responsible for sewer services between the mains and property lines.

For connection to WSD and TOJ infrastructure, Indian Springs HOA will be the entity that owns and is responsible for the system and would be the party that enters and executes a general Connection and Use

Agreement with the Town. The HOA anticipates that, in addition to the general agreement, each individual property owner will be permitted through, and/or enter into separate agreements with, the TOJ to facilitate the Town's billing practices.

3.3 Delinquent Customers

Each Community lot within Indian Springs Ranch is served by a water service line that includes a curb stop accessible to the ISR maintenance staff. Customers who are delinquent in payment of service fees can have their curb stops closed at the request of the TOJ. It is anticipated that a situation of extended billing delinquency is highly unlikely.

3.4 New TOJ Meters to be Retrofitted

It is NE's understanding that a majority of homes built within the subdivision included a water meter as part of the residential plumbing. These meters, if installed, have not historically been utilized to totalize flows to individual lots, and some may be inoperable. If/when a successful connection agreement is achieved between ISHOAI and the TOJ, each existing, Community lot water service will be retrofitted with a new remote-read meter that is consistent with TOJ standards. If necessary, individual property owners will complete a water meter purchase agreement through the Town and install a new TOJ furnished meter at a location along the service line prior to any point of use. It is anticipated that a 1½-inch meter will suffice for most affected properties within ISR.

3.5 Existing Water Demands – Individual System

The existing water system is owned and operated by ISHOAI, and includes two public water supply wells, a 4-inch diameter raw transmission line, a 150,000-gallon elevated water storage tank, and an 8-inch diameter distribution system. Water service from the TOJ under this application is not being sought by the HOA. Meters are intended to be installed, as noted above, in order to accurately quantify wastewater discharges in accordance with TOJ protocols. It is therefore believed that efforts to summarize existing or potential water demands would likely be superfluous. Average water demand for each property, excluding irrigation, is proposed to be approximated by the Wilson Sewer District methodology for wastewater flow generation. This method (discussed below) prescribes a residential MDF estimate of 440 gpd/ERU.

4.0 SEWER VOLUME ESTIMATES

4.1 WSD Memo

During initial investigations into the feasibility of connecting the Community lots of ISR to WSD facilities, Nelson Engineering, on behalf of the WSD, prepared a memorandum in January of 2020 contemplating existing and potential future wastewater design flow data and projected connection fees. NE conducted a survey of all affected homeowners in order to understand the number and type of residential structures at each lot, including ARUs. The memorandum summarizing the findings, issued by the WSD on January 28, 2020, is contained in Appendix E. The memo also explains the differences between varying definitions of Accessory Residential Unit employed by the WSD and Teton County, and the significance in defining projected wastewater demands. It should be noted that some information contained in the WSD memo has continually been refined since January of 2020, and that the ERU projections conveyed in this report are accurate (i.e. - 25.0 total ERUs presently exist within the proposed service area, dispersed amongst the 23 Community lots).

4.2 WSD Volume per Lot – Existing MDF

The most recent, refined tabulation of existing structures for each of the Community lots returned an ERU count of 25.0 presently served by the CWS. WSD design flow criteria for residential development suggests a MDF of 440 gpd/ERU, and since the proposed connection will be accomplished via the WSD system, the District's criteria is requisite. Considering the original designs, discussed previously, utilized WDEQ criteria mandating 150 gpd/bedroom with an estimated 3 bedrooms/home, resulting in a MDF estimate of essentially 450 gpd/ERU, it would appear the two methodologies return similar results. The resulting design MDF for the Community lots is therefore 11,000 gpd. Table 1 below reflects the most up to date Community lots composition and associated ERU projection.

Table 1 – Community Lots Composition and ERU Projection

Lot No.	Primary SFD	Primary (No. Bdrms) ¹	Guest Qtrs	Guest Qtrs (No. Bdrms) ¹	ERU ²
18	Yes	4	Yes	2	1.5
19	Yes	5	Yes	2	1.5
20	Yes	5	No	0	1.0
21	Yes	4	No	0	1.0
22	Yes	6	No	0	1.0
23	Yes	5	No	0	1.0
24	Yes	5	Yes	1	1.5
25	No	0	No	0	0.0
26	No	0	No	0	0.0
27	Yes	7	No	0	1.0
28	Yes	4	Yes	2	1.5
29	Yes	5	No	0	1.0
30	Yes	6	Yes	1	1.5
31	Yes	6	Yes	2	1.5
33	No ³	0	Yes	1	0.5
34	Yes	3	Yes	2	1.5
58	Yes	5	No	0	1.0
62	Yes	5	No	0	1.0
63	Yes	4	Yes	1	1.5
64	Yes	6	No	0	1.0
65	Yes	5	Yes	0	1.0
66	Yes	5	Yes	1	1.5
69	Yes	3	No	0	1.0

25.0

Notes:

1. Highlighted values provided by current property owner(s). Remaining values estimated through correlation of existing building permit data and other available information.
2. Estimated based on WSD definitions for ARU and ERU.
3. Lot 33 permitted as 1-bedroom guest house (ARU) and future, 5-bedroom primary residence under SWF 2017-0056. At present, only 1-bedroom ARU has been constructed.

Considering the previous Amenities complex design and permit discussion, the total additional wastewater load attributable to the Community lots may be somewhat mitigated via prior agreements with the TOJ. NE recommends that actual wastewater flows from the Amenities complex (presently under scrutiny) be correlated with historic connection agreements and associated fee payments, to discern the Community lots MDF quantity eligible for payment of new connection fees.

4.3 Full Buildout MDF

The same wastewater generation methodology is applied for calculating MDF rates at a future full buildout scenario within the Community lots. Each Community lot within ISR has the potential, as prescribed within the Teton County Land Development Regulations and the Indian Springs Ranch HOA covenants, to construct both a single-family residence and an ARU, resulting in an assignment of 1.5 ERU/Community lot, based on WSD MDF generation criteria. Assuming a maximum of 1.5 ERU for each Community lot (23 properties) yields a total of 34.5 ERUs. Utilizing the 440 gpd/ERU assigned by the WSD to calculate MDF suggests a “Full Buildout” design MDF of 15,180 gpd. It was conveyed during distribution and circulation of the ERU surveys, that most affected property owners do not anticipate building additional residential structures.

4.4 Sewer Characteristics

Wastewater generation for ISR is strictly residential in nature. It is expected that all wastewater generated within the subdivision will be categorized in the TOJ Class 1 designation for both biochemical oxygen demand (BOD) and total suspended solids (TSS). BOD and TSS levels for domestic wastewater both typically lie below 250 mg/l.

5.0 PLANS AND MAPS

5.1 Service Area Exhibit

An exhibit illustrating the Community lots within ISR under consideration for connection to the WSD and TOJ facilities with this application, is found in Appendix F. To reiterate, ISR lots served by the CWS (LAA and LAB) comprise the Community lots.

5.2 Sewer Plans

Engineered sewer design plans that contemplate the connection of the LAA service area to the WSD mains near Highway 22, and interconnection of the LAB service area to the existing LAA gravity sewer mains, are included with this application. Associated, sealed drawings are contained in Appendix G. It should be noted that portions of the construction depicted will require future easement acquisition from TSS by ISHOAI. Tentative inquiries with TSS have indicated granting of the easements necessary was amenable. Reference additional discussion below.

6.0 PRIVATE PROPERTY IMPACTS

Impacts to adjacent properties are expected to be minimal throughout the construction and operation of a new gravity sewer connection to existing WSD infrastructure. Since the existing water and sewer systems for Indian Springs Ranch are largely located within lots owned by the HOA, disturbances to individual properties are minimized. In locations where gravity sewer conveyance is not practically achievable within Lot 47, an easement from TSS will be required. Lot 56 of the Indian Springs Ranch Subdivision is located along the north side of Indian Springs Drive and, as previously noted, is owned by

TSS. Preliminary plans were shared with TSS, who then verbally committed to allowing an easement within Lot 56 for construction and operation of the sewer infrastructure depicted. Lot 56 was an original open space lot within ISR deeded to TSS as part of the 2002 transfer. No impacts to adjacent property owners outside of ISR are anticipated, either during construction, or as a result of the connection to the WSD and TOJ.

Appendix A

Select WDEQ Permits

THE STATE



OF WYOMING

MIKE SULLIVAN
GOVERNOR

*Bob Neff
1st Week Nov*



Department of Environmental Quality

Herschler Building • 122 West 25th Street • Cheyenne, Wyoming 82002

ADMINISTRATION (307) 777-7758 FAX 777-7682	ABANDONED MINES (307) 777-6145 FAX 634-0799	AIR QUALITY (307) 777-7391 FAX 777-7682	INDUSTRIAL SITING (307) 777-7368 FAX 777-6937	LAND QUALITY (307) 777-7756 FAX 634-0799	SOLID & HAZARDOUS WASTE (307) 777-7752 FAX 777-5973	WATER QUALITY (307) 777-7781 FAX 777-5973
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August 26, 1994

Indian Springs Ranch Limited partnership
Mike T. Halpin
P.O. Box 291
Jackson, WY 83001

RE: As-Built Permit To Construct, WQD Reference Number 94-059R

Dear Mr. Halpin:

The Department of Environmental Quality/Water Quality Division (DEQ/WQD) has reviewed the referenced As-Built Application submitted by your engineer, Jorgensen Engineering and Land Surveying, P.C. Our review indicates that the application appears to meet DEQ/WQD regulations and the enclosed As-Built Permit To Construct is hereby issued. The enclosed permit covers the leachfields which have already been constructed as well as the groundwater monitoring wells which are to be constructed.

Please be advised that the system must be constructed, installed and operated in accordance with the statements, representations and procedures presented in the application and all supporting documentation as well as the terms and conditions of the permit. You are urged to be familiar with all aspects of the permit application, permit and permit conditions. Any person objecting to an action of the DEQ/WQD and desiring affirmative relief may request a hearing before the Environmental Quality Council in accordance with the procedures in the enclosed Rules of Practice and Procedure and the Wyoming Administrative Procedures Act.

Sincerely,


Dennis Hemmer
Director
Department of Environmental quality

DH/mad 43545.LTR
Enclosure

cc: Dick Worl, Teton County Sanitarian, P.O. Box 1727, Jackson, WY.83001

AS - BUILT
PERMIT TO CONSTRUCT

☒ New

Permit No. 94-059R
* **CONDITIONED** *

☐ Renewal

☐ Modified

Indian Springs Ranch, Community On-Site
Wastewater Disposal System - Leach Fields
(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Indian Springs Ranch Limited Partnership

P.O. Box 291

Jackson, WY 83001

to have constructed two community leach fields and to install a series of groundwater monitor wells according to the procedures and conditions of the application No. 94-059R. The facility is located in Section 36, T41N, R117W in the County of Teton, in the State of Wyoming.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.


The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

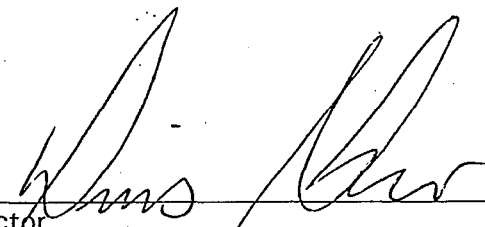
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

9-1-94

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

JH/jyi - 43545.ltr

SPECIAL CONDITIONS

1. of 14 The applicant will provide immediate oral and/or written notice to Water Quality Division, 250 Lincoln, Lander, WY 82520, (307) 332-3144, in accordance with the provisions of Section 9, Chapter III, Wyoming Water Quality Rules and Regulations of any changes or modifications which are not consistent with the terms and conditions of this permit.
2. of 14 Within sixty days of completion of construction of the authorized facility, the applicant will submit to Water Quality Division, 250 Lincoln, Lander, WY 82520, on the form provided (CERTIFICATION OF COMPLETION), the following information.
 - a. Date that construction of the monitor wells was completed; and
 - b. Date that the monitor wells and leachfields were placed in operation; and
 - c. Certification the monitor wells were constructed in accordance with the terms and conditions of the permit; or
 - d. Certification the monitor wells were completed with changes or modifications. Submittal of as-constructed plans and specifications for the system as it was constructed, certified by an engineer if appropriate.
3. of 14 The review and approval of this permit is based upon the items identified in the attached "Statement of Basis".

4. of 14 The groundwater in the Alluvial Aquifer along the Snake River and Spring Creek is classified as class I under Chapter VIII of Wyoming Water Quality Rules and Regulations (April 9, 1980). This classification was made because:

a. The groundwater in this formation meets all of the quality standards set forth in Chapter VIII for class I water;

and

b. The groundwater in this formation is presently being used as a source of water which meets the definition of class I.

Groundwater of class I shall not be degraded so as to make it unusable as a source of water for this purpose. Any parameters which do not meet the class of use standard shall not be degraded whatsoever.

5. of 14 A septic tank shall be installed at each source of sewage to the collection system. The tanks must be permitted by the Teton County Sanitarian and meet all sizing and construction requirements of the WQD and Teton County. All tanks must be pumped at a frequency in compliance with Teton County Standards but not less than once every ten (10) years.

6. of 14 It is a violation of this permit to discharge any parameter covered under EPA Method 624 in any concentration above the respective standard of Chapter VIII, Wyoming Water Quality Rules and Regulations.

7. of 14. Records and Reports.

a. The permittee shall retain copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the report or application.

b. The permittee shall give notice to the administrator as soon as possible of any planned physical alterations or additions to the permitted facility. All proposed modifications to the treatment facility must be permitted by the DEQ/WQD prior to the start of construction.

c. The permittee shall give advance notice to the administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

d. The permittee shall report any noncompliance which may endanger health or the environment, orally within 24 hours from the time the permittee becomes aware of the circumstances. The report should include:

1. Any monitoring or other information which indicates that any contaminant may cause an endangerment to a usable groundwater of the state.

2. Any noncompliance with a permit condition or malfunction of the discharge (injection)

system which may cause fluid migration into or between usable groundwaters of the state.

3. Any noncompliance caused by surfacing of sewage caused by this facility.

A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. This written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

- e. The permittee shall report all instances of noncompliance not reported otherwise, at the time monitoring reports are submitted; such reports shall contain the information listed in 7d. above.
- f. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the administrator, it shall promptly submit such facts or information.
- g. The permittee shall retain all records concerning the nature and composition of injected fluids until 5 years after completion of any specified plugging and abandoned procedures. The administrator may require the owner/operator to deliver the records to the administrator at the conclusion of the retention period.
- h. Within 30 days of the end of each calendar quarter, a report shall be filled with the Cheyenne Office, Wyoming Department of Environmental Quality, Water Quality Division, 122 West 25th Street, Cheyenne, Wyoming 82002, ATTN: UIC Program Supervisor. This report shall include:
 - 1. The dates when readings were taken showing the presence or absence of water in each monitor well;
 - 2. The static water level for all wells which contained water for any date measured;
 - 3. The results of all chemical analyses conducted for the quarter. The permittee should take samples a minimum of 4 weeks before the end of each calendar quarter to insure sufficient turnaround time at the laboratory;
- i. A comprehensive report for an aborted or curtailed operation authorized by this permit shall be submitted to the administrator within 30 days of complete termination of the injection (discharge) or associated activity, in lieu of an annual report.

8. of 14 Permit Transfer

The owner/operator of record (permittee) is always responsible for permit compliance. A permit holder cannot transfer his permit without approval of the department director.

9. of 14 Severability

The provisions of this permit are severable, and if any provision of the permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. of 14 Within 30 days of the issuance of this as-built permit, the applicant shall install monitor wells as required:

WELL NUMBER	LOCATION OF THE WELL
ISR B-5	On the north lot line to Lot 14, 200 feet from the northwest corner of Lot 14
ISR B-6	At the northeast corner of the building envelope on Lot 14
ISR B-7	At the southeast corner of the building envelope on Lot 13
ISR B-8	At the southwest corner of the building envelope on Lot 13
ISR A-5	500 feet due east of the southeast corner of Lot 58
ISR A-6	500 feet S30°E of the southeast corner of Lot 58
ISR A-7	450 feet due east of the northeast corner of Lot 35
ISR A-8	300 feet due east of the southeast corner of Lot 35
ISR A-9	400 feet southwest of the southeast corner of Lot 35 along the same bearing as the southeast lot line of Lot 35
ISR A-10	200 feet due north of the northeast corner of Lot 35

In the event that access cannot be obtained to install wells ISR B-7 and ISR B-8 on Lot 13, then an alternate acceptable location for these wells is: ISR B-7 at the northeast corner of the building envelope on Lot 12; and ISR B-8 at the midpoint of the north line of the building envelope on Lot 15.

Within one week of the construction of the above wells, the permittee shall sample for all constituents required under condition 11 of this permit. This sample shall constitute a baseline sample for the purposes of this permit.

In the event that gradients are such that the above monitor well locations are inappropriate, the permittee shall immediately propose alternative locations and install new wells in those locations after receiving WQD approval.

The monitor wells shall be constructed and installed to meet the application content. In addition, all wells shall be screened to a depth of ten (10) feet minimum below the groundwater surface.

11. of 14 Environmental Monitoring Program for Groundwaters of the State

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. The permittee shall prepare records of all monitoring information to be retained for a period of at least 3 years after closure of the facility.
- c. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
 2. The name(s) of individual(s) who performed the sampling or measurements;
 3. The date(s) analyses were performed;
 4. Names of individuals who performed the analyses;
 5. The analytical techniques or methods used; and
 6. The results of such analyses.
- d. Test procedures for the determination of water quality parameters and constituents shall be in accord with provisions of Water Quality Rules and Regulations Chapter VIII, Section 7.
- e. Monitor wells ISR A-1, ISR A-4, ISR A-5, ISR A-6, ISR A-7, ISR A-8, ISR A-9, ISR A-10, ISR B-1, ISR B-2, ISR B-3, ISR B-4, ISR B-5, ISR B-6, ISR B-7, and ISR B-8 shall be measured quarterly for static water level;
- f. Monitor wells shall be sampled and the groundwater analyzed on the following schedule for the following listed parameters:

WELL NAME OR NUMBER	SAMPLING SCHEDULE	ANALYTICAL METHOD	PARAMETER ANALYZED	PERMIT LIMIT (UCL)*
ISR B-5 ISR B-7 ISR B-8 ISR A-5 ISR A-6 ISR A-7 ISR A-8 ISR A-9	Quarterly	EPA Method 420.1	Total Phenolic Hydrocarbon	.001
		EPA 200 series methods	Cadmium	.010
			Chromium	.050
			Lead	.050
		EPA Method 350.3	Ammonia as N	.500
		EPA Method 353.2	Nitrate as N	10.0
ISR A-10 ISR B-6	Quarterly	EPA Method 420.1	Total Phenolic Hydrocarbon	No Permit Limit, Well is within the mixing zone
		EPA 200 series methods	Cadmium	
			Chromium	
			Lead	
	Monthly	EPA Method 350.3	Ammonia as N	
		EPA Method 353.2	Nitrate as N	

* All chemical concentrations in this permit are expressed in mg/l unless otherwise noted. pH is always expressed in standard units and conductivity is expressed in mmhos/meter or umhos/cm.

- g. The above Upper Control Limit (UCL) shall not be exceeded in any sample. Exceedance of this value is a violation of this permit and shall require corrective action. In the event that the baseline sample required in condition 10 of this permit is higher than the upper control limits established above, then the upper control limit shall be the baseline value for that individual well. Should the UCL be exceeded for any parameters, that well must be resampled within seven (7) days of receipt of test results. The results of the resampling must be provided to the WQD within 30 days of resample.
- h. After the first four monitoring events, the WQD may substitute a shorter list for the above parameters, depending on the results reported. WQD may substitute less expensive methods for the above listed methods depending on the results of the first monitoring; and the WQD may adjust the interval between sampling events.
- i. The results of these analyses shall be submitted to the Cheyenne office by the last day of the month following the end of each quarter. The first set of results are due by the last day of October, 1994.
- j. Proper well evacuation shall include removal of a minimum of 1 casing volume prior to sampling or pumping the well dry once, whichever occurs first. If possible, 3 casing volumes should be removed. Sample collection, preservation, transportation and chemical analytical procedures shall be completed in accordance with WQD and EPA standard procedures.

12. of 14 The permittee shall monitor the quality of the injected fluid (effluent at the last lift station before discharge to the drainfield) on an approved schedule. The following parameters shall be analyzed by the listed methods and reported quarterly:

SAMPLING SCHEDULE	ANALYTICAL METHOD	PARAMETER ANALYZED
Quarterly	EPA Method 420.1	Total Phenolic Hydrocarbons
	EPA 200 series methods	Cadmium
		Chromium
		Lead
	EPA Method 350.3	Ammonia as N
Annually	EPA Method 624	Purgeable Aromatic and Halo-genated Hydrocarbons

- a. After the first four monitoring events, the WQD may substitute a shorter list for the above parameters, depending on the results reported. WQD may substitute less expensive methods for the above listed methods depending on the results of the first monitoring; and the WQD may adjust the interval between sampling events.
- b. The results of these analyses shall be submitted to the UIC Program Supervisor, Water Quality Division, 122 West 25th Street, Cheyenne, WY 82002 by the last day of the month following the end of each quarter. The first set of results are due by the last day of October, 1994.

13. of 14

In the event that either of the drainfields covered by this permit should fail to perform as designed, or in the event that permitted groundwater quality upper control limits contained in this permit be exceeded, the permittee shall take the following action:

- a. Within 60 days of being notified by certified letter by the Administrator that the drainfield disposal system has failed under this provision, the permittee shall submit a set of approvable plans and specifications for the construction of an interceptor sewer to connect the system to the City of Jackson wastewater treatment facility (POTW).
- b. Within six months of receiving an approved permit to construct under section 17(a) of this permit, construct the interceptor sewer line required.
- c. Within 30 days of beginning operation of the interceptor sewer, remove all lift stations, sewer lines and surface facilities associated with the operation of the drainfields and not required for the operation of the interceptor sewer.

14. of 14

Except when prevented by snow or winter weather, the permittee shall cause the hillsides around both leachfield A and leachfield B to be inspected monthly for one year after beginning operations. The inspection shall note any change in the location or amounts of water surfacing on the hillsides. Any seeps found which have changed from their baseline conditions shall be sampled for the parameters required by condition 14 of this permit an Biochemical Oxygen Demand, Total Suspended Solids, and Fecal Coliform Bacteria. The analytical results of any sampling required under this condition shall be submitted within ten (10) days of the receipt to the UIC Program Supervisor, Water Quality Division, Herschler Building, 122 West 25th Street, Cheyenne, Wyoming 82002.

STATEMENT OF BASIS

I. General information.

A. Permit Number: 94-059R

II. Application reviewed for compliance with the following regulations.

A. Chapter XI. YES

B. Chapter XII. NO

III. Basis for issuing permit.

A. Review of application package indicates proposed facility will be in compliance with applicable regulations identified in Section II.

YES

B. Permit includes deviation from applicable regulations in accordance with Section 5, Chapter XI, or XII.

NO

C. Permit based on deviation from applicable regulations in accordance with approved policy statement.

NO

IV. Facilities not specifically covered by regulations.

A. Identify specific sections of the regulations for which a deviation is approved and briefly summarize the regulation.

N/A

B. Briefly state the basis for the deviation.

N/A

C. Permit based on general or statewide deviation contained in approved policy statement.

N/A

D. Application requires review to determine groundwater impacts in accordance with Section 15, Chapter III.

APPLICABLE

Statement of Basis

94-059R

August 22, 1994

V. If Section 15 of Chapter III is applicable, indicate the basis of determining groundwater will be protected.

A. Facility will not allow a discharge to groundwater. Briefly describe:

N/A

B. Quality of wastewater is such that it will not cause a violation of groundwater standards. Briefly describe:

N/A

C. Existing soils or geology will not allow a discharge to groundwater. Briefly describe:

N/A

D. Basis of facility design is that it will be operated so as not to violate groundwater standards. Briefly describe:

N/A

E. Discharge may result in groundwater concentrations in excess of standards but post discharge water quality can be returned to standards in accordance with Section 4 (d)(vi), Chapter VIII. Briefly describe:

Upon abandonment of the disposal fields, groundwater quality will return to background through natural attenuation.

F. If water quality exceedances are allowed, briefly describe the parameter limits, property boundaries, places of withdrawal and any other information documenting that any users of affected aquifer will not be impacted.

See conditions attached to as-built permit.

G. Briefly describe monitoring system. Clearly state the parameters to be utilized for determining compliance, what constitutes a violation and steps to be followed by the permittee in the event of a violation.

See conditions attached to as-built permit.

VI. Documentation of Statement of Basis.

A. The archives file for this permit will include adequate documentation of all sections of this Statement of Basis.

N.W.

CERTIFICATION OF COMPLETION

In accordance with the condition of "Permit to Construct" No. 94-059R, requiring submittal of this Certification of Completion within sixty (60) days of completion of the facility, I hereby certify the following to be an accurate and correct statement of the current status of the project authorized by the above referenced permit:

1. Construction of the permitted facility was completed on _____ (DATE) and the facility was placed in operation on _____ (DATE).
2. Construction was completed in accordance with the following: (Check the appropriate option)
 - ☐ The facility was constructed in compliance with all terms and conditions of the permit including the design report, plans and specifications, design data or other information submitted in support of the application.
 - ☐ The facility was constructed with changes or modifications in accordance with the provisions of Section 9, Chapter III, Wyoming Water Quality Rules and Regulations. As-built plans and specifications, certified by a registered professional engineer (certification by an engineer is not required if the original application was not certified by an engineer) are enclosed.

Facility Owner (print or type)

Owners Signature

Date

Engineer (print or type)

Engineers Signature

Date

93-215R Tank

93-286 Water Tower

94-059-septic

PERMIT TO CONSTRUCT

☒ New

Permit No. 94-109R

*** CONDITIONED ***

☐ Renewal

☐ Modified

Lot 60, Indian Springs Ranch

(Name of Facility)

This permit hereby authorizes the applicant (name and address):

Indian Springs Ranch, LTD Partnership

P. O. Box 291

Jackson, WY 83001

to construct a gravity sewage collection system, lift station with grinder pumps, and forced main according to the procedures and conditions of the application No. 94-109R. The facility is located in SW ¼ Section 31, T40N, R116W and SE ¼ Section 36, T40N, R117W in the County of Teton, in the State of Wyoming. This permit shall be effective for a period of two (2) years from the date of issuance of this permit.

The issuance of this permit provides that the Department of Environmental Quality has evaluated and determined that the application meets minimum applicable construction and design standards. The compliance with construction standards and the operation and maintenance of the facility to meet the applicant's engineer's design are the responsibility of the applicant, owner, or operator.

The authority to construct granted by this permit does not mean or imply that the Wyoming Department of Environmental Quality guarantees or insures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements.

Nothing in this permit constitutes an endorsement of the construction or the design of the facility described herein. This permit indicates only that standards of design and construction required by the Environmental Quality Act have been met. The State assumes no liability for, and does not in any way guarantee the performance of, the permittee in the exercise of its activities

allowed under this permit. The permittee understands that it is solely responsible to any third parties for any liability arising from the construction or operation of the facility described herein. By the issuance of this permit, the State does not in any way waive its sovereign immunity.

The permittee shall allow authorized representatives from the Department of Environmental Quality, Water Quality Division, upon the presentation of credentials and during working hours, to have access to inspect the facilities, at the above location, for the purpose of compliance with the provisions of this construction permit.

The permittee shall notify representatives from the Department of Environmental Quality, Water Quality Division the day construction commences and give an estimate of completion of the project. The authorized representative in your area can be contacted at the following address: District Engineer, State of Wyoming, Department of Environmental Quality, Water Quality Division, 250 Lincoln, Lander, WY 82520; telephone, 332-3144.

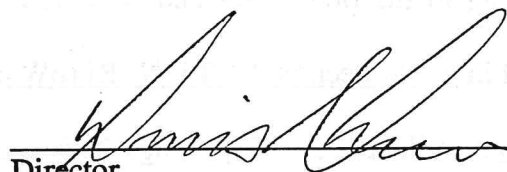
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation.

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

AUTHORIZED BY:



Administrator
Water Quality Division



Director
Department of Environmental Quality

6-13-94

Date of Issuance

This permit does not supersede the requirements for obtaining any permit from local agencies.

STANDARD CONDITIONS 1 through 4

1. of 4 The applicant will notify the appropriate district office of the Department of Environmental Quality, Water Quality Division, by the attached post card of the date construction will begin and the estimated completion date.

Permit to Construct 94-109R
Lot 60, Indian Springs Ranch

2. of 4 The applicant will provide immediate oral and/or written notice to Water Quality Division, 250 Lincoln, Lander, WY 82520, (307) 332-3144, in accordance with the provisions of Section 9, Chapter III, Wyoming Water Quality Rules and Regulations of any changes or modifications which are not consistent with the terms and conditions of this permit.

3. of 4 Within sixty days of completion of construction of the authorized facility, the applicant will submit to Water Quality Division, 250 Lincoln, Lander, WY 82520, on the form provided (CERTIFICATION OF COMPLETION), the following information.
 - a. Date that construction of the facility was completed; and
 - b. Date that the facility was placed in operation; and
 - c. Certification the facility was constructed in accordance with the terms and conditions of the permit; or
 - d. Certification the facility was completed with changes or modifications. Submittal of as-constructed plans and specifications for the system as it was constructed, certified by an engineer if appropriate.

4. of 4 The review and approval of this permit is based upon the items identified in the attached "Statement of Basis".

JH/jyi/nc 42438.LTR

STATEMENT OF BASIS

I. General information.

A. Permit Number: 94-109R

II. Application reviewed for compliance with the following regulations.

A. Chapter XI. YES

B. Chapter XII. NO

III. Basis for issuing permit.

A. Review of application package indicates proposed facility will be in compliance with applicable regulations identified in Section II.

YES

B. Permit includes deviation from applicable regulations in accordance with Section 5, Chapter XI, or XII.

NO

C. Permit based on deviation from applicable regulations in accordance with approved policy statement.

NO

IV. Facilities not specifically covered by regulations.

A. Identify specific sections of the regulations for which a deviation is approved and briefly summarize the regulation.

N/A

B. Briefly state the basis for the deviation.

N/A

C. Permit based on general or statewide deviation contained in approved policy statement.

N/A

Statement of Basis
94-109R
June 9, 1994

- V. Application requires review to determine groundwater impacts in accordance with Section 15, Chapter III.

NOT

JH/jyi/nc 42438.LTR

Appendix B

Existing Connection Agreement and Will Serve Assurance

TELEPHONE MESSAGE FORM
UNDERGROUND INJECTION CONTROL PROGRAM
WATER QUALITY DIVISION
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

CALLER: Sandy - The City Engineer for Jackson, Wyoming
WQD PERSON: Robert Lucht, P.E. & P.G., UIC Program Supervisor
TELEPHONE: (307) 733-3932
CASE NAME: Indian Springs Ranch Subdivision
DATE: July 28, 1994
SUBJECT: City Sewer Availablity

1. I called the City of Jackson on this date to verify if condition 18 of permit to construct 94-059 is a legally viable option for the developer in the event that the system fails. Sandy assured me that it is and the City would be happy to take the sanitary waste from the entire subdivision.

Town of Jackson WYOMING

June 10, 1994

Mr. Jeff Hermansky
Department of Environmental Quality
250 Lincoln Street
Lander, WY 82520

SUBJECT: Proposed Pressurized Force Main Sewer System and
Proposed Connection to Proposed Town Water Transmission
Main
Lot 60, Indian Springs Ranch
Jackson, WY

Dear Jeff:

I have reviewed the plans for the proposed water and sanitary sewer improvements referenced above, and the Town of Jackson has, or will have at the point in time when the Lot 60 development comes fully on line, sufficient water supply and wastewater treatment capacity to accommodate the additional demand which would be imposed upon our systems by the project. In addition to this fact you should also be apprised of the following:

1. The Town of Jackson has, through action of the Town Council on March 16, 1994, authorized exploration of the issue of connection of the Lot 60 development to the Town's sanitary sewer collection and treatment system. Formal approval of connection of the development will be considered at the regularly-scheduled Town Council meeting on June 20, 1994. In accordance with the tenets of the 1978 tri-party agreement between Teton County, the Town of Jackson, and the United States Environmental Protection Agency, such approval will be contingent upon similar approval by Teton County.
2. Speaking as the Town Engineer of Jackson, I do not object to the use of grinder pumps and a private force main system of delivery of the sewage generated by the Lot 60 development to the Town's public sanitary sewer

PAGE 8



collection and treatment system.

If you have any questions on this matter or require further information from me, please feel free to contact me at 733-0520.

Sincerely,

A. Buckstaff, Jr.
Sinclair Buckstaff, Jr.
Town Engineer

c. Mr. Jerald D. Crews
Cardinal Design Group

AGREEMENT FOR WASTE WATER TREATMENT SYSTEM CONNECTION

This agreement is made and entered into to be effective as of the 22nd day of August, 1996, by and between Indian Springs Ranch Limited Partnership, of P.O. Box 291, Jackson, Wyoming 83001 (hereinafter referred to as "Indian Springs"), and the Town of Jackson, a Municipal Corporation of the State of Wyoming, of P.O. Box 1687, Jackson, Wyoming 83001 (hereinafter referred to as "Town").

WITNESSETH:

WHEREAS, the Town has a municipal waste water treatment system, including collection lines and mains which are situated in the Town of Jackson adjacent to Indian Springs Ranch Subdivision; and

WHEREAS, Lot 60 of the Indian Springs Ranch Subdivision is connected to the Town of Jackson's Municipal waste water treatment system via a 3 inch force main known generally as the "Indian Spring Force Main"; and

WHEREAS, Indian Springs owns Lot 60 of the Indian Spring Ranch Subdivision, Teton County, Wyoming, and wishes to construct various use buildings on such lot and to connect the sewer system for said buildings to the Town of Jackson's waste water treatment plant and collection system; and

WHEREAS, Indian Springs and the Town have agreed to conditions pursuant to which the Town would extend its municipal services outside of its corporate boundaries to allow Indian Springs to connect Lot 60 to the Town's waste water collection and treatment system, and have agreed to the conditions upon which the said municipal services and permission to connect will be made and wish to memorialize their agreement;

NOW THEREFORE, it is hereby stipulated and agreed by and between the parties that:

1. The Town of Jackson shall allow access to its municipal waste water treatment system to a portion of the unincorporated area of Teton County more particularly described as Lot 60 of the Indian Springs Ranch Subdivision, for the purpose of allowing mixed use buildings to connect to the system.
2. Indian Springs shall pay to the Town the waste water capacity fee applicable to the existing buildings and prior to the commencement of construction of any additional buildings on Lot 60.
3. Indian Springs, for itself and its successors in interest in the property, shall and does hereby grant unto the Town of Jackson, for so long as improvements on the property are connected to the Town of Jackson waste water treatment system, the continuing right to come upon the property to read the flow meter and to inspect the force main and pump chamber for the purpose of detecting ground water infiltration. Ground water infiltration shall be defined as "a visual flow of water in the sewer service line detected after all water in the line has been shut off for a period of thirty minutes."
4. In the event ground water infiltration into the force main shall be detected at any time, Indian Springs, or its successors in interest in the property, shall take all necessary steps to eliminate the infiltration with all work to eliminate such infiltration to be completed within thirty (30) days of written notice by the Town that infiltration is occurring.
5. The continued service of waste water treatment facilities shall be subject to and conditioned upon compliance by Indian Springs, or its successors in interest, of all applicable statutes, ordinances, specifically including Section 13.08 of the Municipal Code of the Town of Jackson, and rules and regulations now in effect or hereinafter adopted or promulgated by the Town of Jackson for the operation of its waste water treatment facilities.



6. In further consideration for the extension of municipal services in the way of waste water treatment facilities connection to Indian Springs for said Lot 60 of Indian Springs Ranch Subdivision, Teton County, Wyoming, for it and its successors and assigns in interest, agree that it will consent to the annexation of the property into the corporate limits of the Town of Jackson, if at any time in the future the Town of Jackson shall determine that it is in the interest of the Town and the property owners in the vicinity to be and become a part of and to be included within the corporate boundaries of the Town of Jackson.

7. The Town acknowledges that in the future, lots 35,36,37,38,39,40 and 41 of the Indian Springs Ranch Subdivision may connect to the Indian Springs force main, and Indian Springs, for itself, its successors and assigns agrees that upon the construction of buildings on those lots, the then applicable waste water fee for such lot shall be then due and payable.

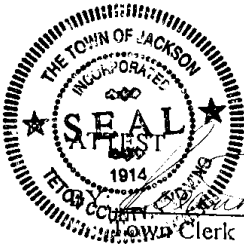
IN WITNESS WHEREOF, the parties have hereunto set their hands to be effective as of the day and year first above written.

INDIAN SPRINGS RANCH LIMITED PARTNERSHIP
By: ISR, Inc., General Partner

G. T. Halpin
Gerald T. Halpin, President

TOWN OF JACKSON

BY: Abi Garaman
Mayor



STATE OF VIRGINIA)
COUNTY OF FAIRFAX) ss.

The foregoing instrument was acknowledged before me by G. T. Halpin
this 18th day of July, 1996.

Witness my hand and official seal.

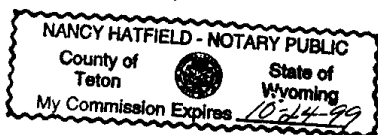
Elizabeth M. Sangon
Notary Public

My Commission Expires: March 31, 1998

STATE OF WYOMING)
COUNTY OF TETON) ss.

The foregoing instrument was acknowledged before me by Abi Garaman,
Mayor and Roxanne Vries, Town Clerk of the Town of Jackson, Wyoming, this
2nd day of August, 1996.

Witness my hand and official seal:



My Commission Expires:

Nancy Hatfield
Notary Public

Appendix C

Excerpts from CDG Report

Design Report
Wastewater Disposal System
for the
Ranch Headquarters & Equestrian Center
Indian Springs Ranch
Jackson, Wyoming

Prepared for the

The Meridian Group
Box 291
Jackson, Wyoming 83001

Cardinal Design Group
2334 Rose Lane
Riverton, Wyoming 82501

Revised May 1994

DEQ 94-109



DESIGN REPORT
INDIAN SPRINGS RANCH LOT 60
SEWERAGE SYSTEM

1. Introduction

This report presents the basic design concept for sewerage of a new recreation-service center for The Indian Springs Ranch. The system will be privately owned and operated, however, since it is commercial in nature and will have a daily flow in excess of 2,000 gallons per day, it falls under the jurisdiction of the Water Quality Division of the Department of Environmental Quality.

The Indian Springs Ranch Headquarters and Equestrian Center is located entirely within the boundaries of Lot 60 of the Indian Springs Ranch Subdivision located just west of the Town of Jackson. It is located adjacent to Boyles Hill Road in the south central portion of the Indian Springs Plat, in Section 36, Township 41 North, Range 117 West. The ranch headquarters will have several facilities including:

- Employee Housing
- Maintenance Building
- Activities Center for Recreation and Meetings
- Horse Barn
- Employee Living Quarters
- Possibly in the future, an indoor riding arena

A portion of the site was formerly a gravel mining operation. This portion of the site will be converted into permanent ponds and native landscaping. The center will serve homeowners in the Indian Springs Ranch Development and occasional public events.

A separate design for a community water system will be submitted to DEQ and Teton County.

2. Overview of the Project

After reviewing the various options for on-site disposal using leaching beds, versus connecting to the Town of Jackson's Municipal Disposal System, it was decided that the latter is preferable. Even though the volume of sewage is relatively low, and that adequate land is available for a soil absorption system. the owner has opted to proceed on the basis of a pressurized sewer system. The proposed system will discharge into the Town of Jackson's Municipal Sewer System, located approximately one mile to the east.

The basic design disposal concept for this system is to use combination of conventional gravity sewer line and a grinder pump station to pump raw sewage. Sewage will flow by gravity from the various structures to a grinder pump station located on the west side of the facility. From that point sewage will be pumped about 5,200 feet to a new sewer line in a new development called Indian Springs Addition. This development is owned by a group affiliated with the owners of the Indian Springs Ranch.

3. Design Flows

The design flows for this facility were calculated on the basis of accumulated flows for each of the facilities.

3.1 Maintenance Building

This facility will be a warehouse vehicle storage, workshop, and office space. It is estimated that there

will be one full-time employee with unit flows rated at 30 gallons per day per employee. The total flow from this facility will be about 30 gallons per day.

3.2 Northwest Residence

This residence is designed for a caretaker. It will be either two or three bedrooms, we have allowed for three bedrooms in the design calculations of 150 gallons per day per bedroom for a total flow of 450 gallons per day.

3.3 Indoor Arena

At the present time there is consideration of constructing a large indoor riding arena with some seating for spectators. Even though the possibility of construction is somewhat remote, we have included in the design flows provision for 75 spectators participating in a 6 hour event. Total design flow out of this facility, should it be built, would be about 1,125 gallons per day.

3.4 Activities Center

One of the main items of this Ranch Headquarters facility will be a recreation center/activity center with a swimming pool. We estimate that on a peak day approximately 100 individuals could be using this facility with a design flow of 10 gallons per day per person. This amounts to about 1000 gallons per day.

3.5 Central Residence

This residence will be designated a manager's residence and we have allowed for a three bedroom single family

home, even though it may ultimately be a two bedroom home. Total flow from this facility was calculated at about 450 gallons per day.

3.6 Horse Stables

The only discharge into the sewer sewage system from the horse barn will be from the area where the horses will be washed. Urine from the horses will be handled in the individual stalls using absorption materials. We anticipate the total number of horse stalls at 32.

Stable cleaning will have no discharge to the sewerage system. Removal of straw, manure, and wood chip bedding will be by mechanical means.

Design flows were estimated based on observations and interviews with the manager of the Spring Creek Equestrian Center which serves the Spring Creek Development. The total flow from this facility is estimated at 5,750 gallons per day.

3.7 Employee Housing

On the extreme west side of Lot 60 is a proposed multi-unit employee housing. It is anticipated that there will be a total of 12 bedrooms for the 24 employees of the ranch. The estimated flow using 150 gallons per day per bedroom is 1,800 gallons per day.

3.8. Building Floor Drains and Sumps

In keeping with DEQ regulations there are no floor drains in non-residential buildings, except in horse washing

area, as noted in Section 3.6. Residential floor drains are in mechanical rooms for water heaters, furnaces, and washing machines. The maintenance building will have a non-discharging sump for liquids originating from vehicles and equipment.

3.9. Total Flow

The total flow for this facility is estimated at 10,555 gallons per day. The individual estimates above actually sum to 10,605 gpd.

4. Collection System

The collection system will be conventional gravity system with 6" lines and manholes designed in accordance to DEQ standards. The Northwest Residence and Maintenance Building will flow directly by gravity into the grinder pumping station. The remainder of the facilities will discharge into gravity collection system as shown in Figure 1. The first 850 lineal feet of the pressurized sewer line will be installed in the same trench as the gravity mainline.

5. Pumping Plant Details

This system will have a 5 HP duplex grinder pump station located on the west side of the lot. It will be designed to operate at a discharge of 51 gpm at a TDH of 115 feet. Discharge will reduce to about 45 gpm if any or all of the pumps serving lots 38-41 are running concurrently during a pumping cycle. The pumps will be mounted in a concrete pipe sump with reserve capacity and alarm signals. The pumps will be explosion proof. Class I, Group C/D and will have a moisture sensor in the oil chamber.

The pumps will be mounted on a factory constructed "Hydrorail" system for removal and servicing. All electrical work shall comply with national Electric Code.

6. Alarms and Emergency Standby Power

A 10 kW engine generator has been purchased to provide power at the grinder pump station. The 10kW engine generator will be located in the south easterly portion of the Maintenance Building and will be solely reserved for the sewage pumping station except for incidental lighting. The 5 HP grinder pump requires about 125 amps at starting. Since the engine-generator is used, its initial load starting amperage is unknown. A test will be run to insure that it can start the grinder pump, and if problems arise it will be upgraded to a unit which can start the pumps.

The alarm will be a red, 150 watt wall light mounted on the eve of the maintenance building. It should be noted that the Equestrian Center will have a full time maintenance man living in the caretakers residence just north of the lift station. The alarm light will activate when the water level in the grinder pump sump reaches the present alarm level.

7. Discharge Line

The proposed discharge line will be 1,100 lineal feet of 2 inch and 4,100 lineal feet of 3 inch nominal polyethylene line. The line will have a minimum cover of 6 feet and will traverse open pastures.

Maximum pressure on the line is about 60 psi. The pipe line will be rated for 160 psi, SDR 11.5 with butt fused joint

connections and will be placed with a detectable alert tape.

A detailed hydraulic analysis is included in the Appendix showing the results of trial and error iterations to determine the operating point of the line . Three separate flow regimes were studied:

- Four lot pumps operating at 5 gpm at the same time as the main pump
- Two lot pumps operating 20 gpm at the same time as the main pump
- The main pump operating only

A Hazen-Williams "C" coefficient of 150 was used based on published data by the Phillips Corporation, maker of polyethylene pipe. The results of this analysis show that the main pump discharge will range between 45 and 51 gpm.

The minimum velocity of the system was found to be 2.3 fps in Reach 2 when two residential units are operating at 20 gpm. In all other cases velocities exceed 2.5 fps.

8 Service to Adjacent Lots

The discharge line has been sized to accept either a grinder pump or settled effluent from four lots which are adjacent to the line. Each lot would have its own pump and would operate independently of the Lot 60 pumping plant. The system head curves for the pipeline have been checked to insure that the system will function correctly if all pumps happen to be running at the same time. The hydraulic analysis is included in the Appendix.

In regard to the details of serving Lots 38-41 the owners of ISR plan to sell these lots with recorded covenant which

reads as follows:

"Sewage shall be settled in a 1,500 gallon combination septic tank/ effluent pump chamber or be pumped direct by a grinder discharging pump into a sewage force main owned and operated by Indian Springs Ranch. The pump shall have a capacity of at least 10 gpm at 74 feet of head. There will be no charge for connecting to the ISR line nor will there be any maintenance charges.

All other costs including septic tank, pump, pipe, and Town of Jackson tap fees shall be paid by the Lot Owner."

9. Easements & Right-Of-Way

The force main will traverse lands dedicated on the Indian Springs Ranch Plat as "Open Space." An easement document is presently being prepared granting a 20 foot easement for utility purposes by the owners of the lots 48, 53, 49, and 38.

Lots 48 and 53 are common open space. Lot 49 is the Right-of-Way of the "Tribal Trail" connector road dedicated to Teton County for road utilities irrigation drainage proposed. The force main will not traverse the right-of-way of Boyles Hill Road.

10. Specifications

All work shall conform to the Wyoming Standard Specifications for Public Works, 1993.

11. Construction Schedule

The Indian Trails Addition is under final design at the present time. A copy of the utility improvements drawing which relates to the Lot 60 force main is included herein. Construction is expected in the summer of 1994 concurrent with the Lot 60 improvements.

Appendix D
CWS Correspondence
(Nelson – WDEQ)

December 22, 2020

VIA: Electronic Mail (taylor.spiegelberg@wyo.gov)

Taylor Spiegelberg
Wyoming Department of Environmental Quality
Underground Injection Control Division
510 Meadowview Drive
Lander, WY 82520

**RE: Indian Springs Ranch Community Wastewater System
UIC Permit No. 94-059R**

Dear Taylor:

Over the last few years, Nelson Engineering (NE) has evaluated and reported on multitudinous assets owned and operated by the Indian Springs Ranch (ISR) Homeowners Association (HOA). One such asset includes a community wastewater system (CWS), comprised of centralized collection infrastructure and two separate leachfields, identified as Leaching Areas "A" and "B". The CWS serves 23 lots on the north side of the ISR subdivision in accordance with the above referenced Underground Injection Control (UIC) permit. Another asset under evaluation, for which the HOA bears maintenance and replacement responsibility, is a paved road network, approximately three miles in length. Significant road improvements have been recommended by NE in the upcoming construction season, and are slated to be bid in the spring.

In its evaluation of the CWS, NE discovered the existing system has experienced operational issues over the last several years, potentially indicative of approaching system failure, particularly at Leaching Area A (LAA). Extended pump run times on numerous occasions at LAA, apparently attributable to leachfield receiving failure, precipitated flushing of approximately half of the lateral network by a local septage hauler. Flushing activities appeared to restore some receiving capability of LAA, although regular and ongoing flushing is necessary to maintain functionality. To further investigate the condition of LAA, a portion of the southwest lateral was excavated and inspected.

The excavation revealed the existing gravel bed immediately beneath the lateral to be relatively clean and apparently bio-mat free. A sufficient length of the lateral was exposed to facilitate inspection of three orifices, and two of the three were discovered to be essentially clogged. Once the clogs were removed, wastewater discharge through the orifices appeared to be restored. It was surmised during the investigation that placement of the laterals directly on the gravel media, coupled with bio-mat formation, was resulting in orifice plugging, and inefficient/ineffective pumping cycles. The gravel media was not inspected through its entire depth, supposedly an additional 8-feet below the lateral invert per the original design drawings. However, the monitoring ports on the east and west ends of LAA were inspected.

The west monitoring port appeared to be situated outside of the installed leaching trench, positioned nearer to the midpoint between two of the laterals, thereby limiting exposure of the port to the gravel media. The bottom of the west port was measured at 11.5-feet below the top of the casing, with no water presence discernible in the bottom. The east monitoring port, apparently situated nearer to the leaching trench, measured 10.5-feet in total depth, with approximately 12-inches of standing water measured in the bottom.

The residual water level measured in the east port was postulated to be either indicative of a clogged soil interface and possible leaching area failure, or the result of recent pumping activity and delayed infiltration. NE recommended continued observation of the water level in the east monitoring port, along with correlation of associated pump run times, in order to clarify the implications of residual, standing water. To date, no additional data has been gathered, to NE's knowledge.

Concurrent with the field investigation of LAA, NE also began comparing effective, leaching basal area of the 1994 design with present-day design methodologies, the primary difference being the sidewall allowance for trench systems. The original design of LAA contemplated 8-feet of trench sidewall height be counted toward native soil, absorption interface area, whereas current design methodology limits trench sidewall height to a maximum of 1-foot for consideration as viable absorptive area, regardless of total trench height. NE's comparison revealed that the infiltrative surface afforded under the original design for LAA could theoretically accommodate a maximum daily flow (MDF) of approximately 5,000 gallons per day (gpd), while the basal area calculation employing modern design criteria translates to a MDF acceptance capability on the order of only 1500 gpd.

Potential MDF for the current LAA service area, under full occupancy, was recently forecast by NE to equate to 7260 gpd, indicating LAA is technically, and drastically, undersized. However, property owner surveys circulated to residents within the service area indicate ISR seldom sees full occupancy, although the possibility does exist. Similar calculations for Leaching Area B concluded it, too, was undersized, although to a lesser extent. With the realization that both leaching areas within the CWS appear inadequately sized, based on current design methodologies, NE recommended that the HOA eventually entertain alternative wastewater treatment measures, regardless of the condition of LAA.

For a long-term wastewater disposal solution at ISR, NE has considered the prospect of eventual leachfield replacement, along with an option to connect the central ISR collection system with the Wilson Sewer District (WSD)/Town of Jackson (TOJ) wastewater system for conveyance of ISR wastewater to the treatment facility operated by the TOJ. In the event the WSD/TOJ connection is deemed viable and/or preferred, construction of portions of the eventual conveyance system may prove opportune, in advance of impending roadway improvements. However, in order to properly compare the CWS alternatives, NE would like to verify the viability of leachfield replacement as an option at the outset. As a first step in determining the efficacy of replacing the CWS leachfields, Permit No. 94-059R and its supporting documentation was reviewed by NE.

Condition number 13 of 14 within Permit No. 94-059R states that "In the event that either of the drainfields covered by this permit should fail..., the permittee shall...submit a set of approvable plans and specifications for the construction of an interceptor sewer to connect the system to the City of Jackson wastewater treatment facility..." It is further conditioned that the interceptor sewer be constructed within six months of receiving an approved permit, and that the existing leachfields and ancillary equipment be abandoned. No alternative to replace the leachfields is offered within the permit, despite the availability of significant area to do so, within existing ISR lots dedicated for operation of the CWS. It would therefore appear that the only alternative available to the HOA in the event the existing leachfields fail, is to connect the existing ISR collection system to the WSD/TOJ wastewater system.

Considering the information conveyed above, NE requests that the UIC Division of the Wyoming Department of Environmental Quality (WDEQ) review Permit No. 94-059R, as well as its supporting documentation, and issue formal opinions concerning; 1) future wastewater disposal methods available to the ISR HOA, and 2) assessment of the current CWS failure status, both from operational and sizing perspectives. Viability of the

leachfield replacement option, or lack thereof, may ultimately portend significant consequences on construction costs and logistics.

Lastly, NE would like to inform the WDEQ that, as an interim measure to enable continued operation of LAA, it has been proposed that the entire lateral network be exposed in the spring, and all orifices cleaned and retrofitted with orifice shields. Under current occupancy trends at ISR, it is believed restoration of LAA functionality will sufficiently serve the community until a long-term solution can be implemented. NE therefore, further requests the UIC Division offer an opinion on the viability of this interim measure, while the HOA deliberates available alternatives, and whether the work proposed would require a WDEQ permit application. If you would like to further discuss wastewater disposal techniques available to the ISR HOA, failure status of the existing CWS, or interim wastewater disposal at ISR, please do not hesitate to contact Ty Ross with Nelson Engineering,

Sincerely,

A handwritten signature in blue ink, appearing to read "Ty S. Ross", with a long horizontal flourish extending to the right.

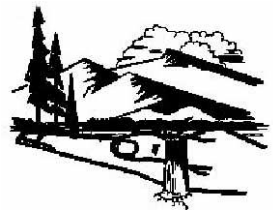
Ty S. Ross, P.E.
Nelson Engineering

Cc (via email): Tina Korpi/Amy Floyd (Grand Teton Property Management)
ISR HOA Board of Directors
James Brough (WDEQ)



Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Mark Gordon, Governor

Todd Parfitt, Director

January 11, 2021

Nelson Engineering
Attn: Ty S. Ross
P.O. Box 1599
Jackson, WY 83001

via email: tross@nelsonengineering.net

**RE: Indian Springs Ranch Community Wastewater System
UIC General Permit No. 5E3-98-1**

Dear Mr. Ross,

The Wyoming Department of Environmental Quality (WDEQ), Underground Injection Control (UIC) Program received your letter regarding the Indian Springs Ranch (ISR) Community Wastewater System on December 22, 2020. The letter requested that the UIC Program review the Indian Springs Ranch UIC Permit, and issue formal opinions concerning future wastewater disposal methods available to the ISR Homeowners Association (HOA), as well as an assessment of the current CWS failure status from an operational and sizing perspective. Additionally, the letter proposes that the entire leachfield lateral network be exposed in the spring of 2021 for cleaning and retrofitting.

Based on WDEQ/UIC's review of the December 22, 2020 correspondence, additional information is needed to determine the appropriate path forward for the Indian Springs Ranch Community Wastewater System.

WDEQ/UIC is requesting that monitoring wells present within the proximity of LAA and LAB be sampled for metals (total and dissolved), mercury (total and dissolved), pH, Nitrite as N, Nitrate + Nitrite as N, Ammonia as N, Total Dissolved Solids, Alkalinity, Sulfate, Chloride, Bromide, Fluoride, oil and grease, and total phenols. If these constituents have already been analyzed (specifically within the past year), please provide that information our office. Sampling or submittal of information should occur by January 31, 2021. Once this information is evaluated by the WDEQ/UIC Program, the appropriate path forward can then be discussed.

Should you have any questions or comments concerning this letter, please feel free to contact me at taylor.spiegelberg@wyo.gov, or by phone at (307) 335-6752.

Sincerely,

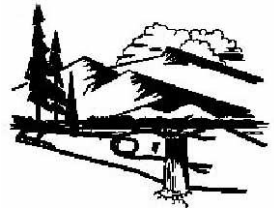
Taylor Spiegelberg
Project Manager
Underground Injection Control Program WDEQ

cc: Lily Barkau, WDEQ (PDF)
Stephen Savoie, WDEQ (PDF)
James Brough, WDEQ (PDF)
Tina Korpi, Grand Teton Property Management (via email) (PDF)
Amy Floyd, Grand Teton Property Management (via email) (PDF)
Indian Spring Ranch HOA Board of Directors (via email) (PDF)



Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Mark Gordon, Governor

Todd Parfitt, Director

April 2, 2021

Mr. Ty Ross, P.E.
Nelson Engineering
PO Box 1599
430 South Cache
Jackson, WY 83001
Via email: tross@nelsonengineering.net

RE: Indian Springs Ranch Community Wastewater System

Dear Mr. Ross,

The Wyoming Department of Environmental Quality (WDEQ), Underground Injection Control (UIC) Program received a letter regarding the Indian Springs Ranch (ISR) Community Wastewater System from you on December 22, 2020. The UIC Program responded on January 11, 2021 requesting monitoring wells within the proximity of Leaching Area A (LAA) and Leaching Area B (LAB) be sampled for a suite of constituents. The UIC Program coordinated with Nelson Engineering (NE) to ensure the monitor wells sampled were in relevant locations as it pertains to LAA and LAB. The results of three samples were received by the UIC Program on February 24, 2021. Upon review of the sample results for monitoring wells A4, A10, and B4, nitrate values of 4.88 mg/l in A4 and 6.05 mg/l in B4 indicate nitrate values have increased since LAA and LAB were originally constructed.

In your December 22, 2020 correspondence you requested that the Department review Permit #94-059R and its supporting documentation and offer formal opinions concerning 1) future wastewater disposal options available to Indian Springs Ranch Home Owners Association (HOA), and 2) assessment of the current Community Wastewater System (CWS) failure status from the operational and sizing perspectives.

As noted in that correspondence, both leaching areas appear undersized, with lateral orifices subject to periodic clogging leading to a reduction in subsurface effluent distribution and subsequent treatment. Our review of the system design noted that the deep depths of leachfield laterals, absence of clean outs and effluent filters, and calculated flow volumes in excess of design flow volumes likely result in insufficient effluent treatment, not to mention persistent and continuing operational challenges. Based upon NE's observations and our review of the system design we believe that insufficient treatment resulting from system size, design and operation is likely the cause of increasing nitrate levels in groundwater. This is a concern.

The ISR HOA has the option to either 1) reduce, control and limit discharges to the design capacities of the leachfields, 2) replace the existing CWS, or 3) connect to the Wilson Sewer District/Town of Jackson wastewater system. However, I believe that time is of the essence in

implementing corrective measures and that one of the above-mentioned options should be in place and operational within six (6) months of the date of this letter, or approximately before October 2, 2021. It is my intent to terminate the current permit coverage at that time if none of the three options, or an otherwise approved option, have been implemented. In the interim, we agree that maintenance on the existing systems such as flushing, cleaning, and other adjustments should proceed as recommended in your December 20, 2020 letter. Please keep a record of the maintenance work undertaken and completed. I would also appreciate an update once the selected option has been determined.

Should you have any questions or comments concerning this letter, please feel free to contact Taylor Spiegelberg at taylor.spiegelberg@wyo.gov, or by phone at (307) 335-6752.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kevin Frederick".

Kevin Frederick
Administrator, Water Quality Division

cc: Ty Ross, Nelson Engineering (via email) (PDF)
Taylor Spiegelberg, WDEQ (PDF)
Lily Barkau, WDEQ (PDF)
Troy Sanders, WDEQ (PDF)
James Brough, WDEQ (PDF)
Tina Korpi, Grand Teton Property Management (via email) (PDF)
Amy Floyd, Grand Teton Property Management (via email) (PDF)

Appendix E

WSD Memorandum

SLL/19-013-02

January 28, 2020

ATTN: Ty Ross
CC: Grand Teton Property Management

RE: Indian Springs Ranch - Wilson Sewer Feasibility
Equivalent Residential Unit Projections, Estimated Connection and User Fees

Ty:

This memorandum is in response to your request for Wilson Sewer District and/or Town of Jackson equivalent residential unit projections and estimated connection and user fees for 22 lots within the Indian Springs Ranch subdivision that could potentially connect to the District and Town's collection and wastewater treatment facilities. Attached is a summary table of findings, and below is an explanation of the methodology and assumptions required to arrive at the attached figures.

Equivalent Residential Unit (ERU) Projections:

A survey was distributed to the owners of the 22 lots to ascertain the level of development on each lot, specifically the number and type of residential structures per lot, Primary Single Family Dwelling (SFD) or Guest House/Accessory Residential Unit (ARU). Responses were received from the vast majority of lot owners. There are currently two vacant lots among the group. The Wilson Sewer District does not permit on speculation, so those lots were not included in the ERU projection. Where there were questions on existing development, the Teton County Engineering and Teton County Planning and Building Departments were consulted for clarification. The Wilson Sewer District has a slightly different definition of an ARU than Teton County, provided below. Two of the units in the group would not qualify as an ARU at the County level but do at the District level.

2.1 Accessory Residential Unit (ARU) shall mean one (1) or more rooms, including a den or unfinished room, that is marketed and designed for sleeping or otherwise has potential to function primarily as a residence/dwelling – with private bathroom and any two of the following features:

- separate entrance and/or lock off capability
- kitchen sink
- stove
- refrigerator
- dishwasher
- laundry facilities

The ARU need not contain actual appliances if the connections are "roughed in".

The total number of ERU was estimated at 23.5 ERU for the 22 lots. All lots identified in the survey as potentially containing an ARU were confirmed through discussions with Teton County officials, or other research, to meet the District ARU qualification.

Connection Fees:

The fees presented are FY 2019 numbers; the Town of Jackson is currently conducting a comprehensive water and sewer rate study, and fees are subject to change. The current Wilson Sewer District connection fee is \$6000 per residential structure, which includes payment to the Town of Jackson for capacity. The Town's capacity fee is \$2172 per residential unit that consists of two-bedrooms or more and \$1088 per one-bedroom unit (with laundry). Figures for both fees are presented in the table. These are one-time fees, to be paid when an existing building is connected or a building permit is applied for and granted.

Monthly/Annual User Fees:

The fees presented are FY 2019 numbers; the Town of Jackson is currently conducting a comprehensive water and sewer rate study, and fees are subject to change. Developing estimated monthly user fees required the application of several assumptions. The Town would prefer that each lot be considered an individual customer, requiring the installation of a water meter for the purpose of measuring/metering sewer flow. A two-inch diameter meter is assumed in the table, commensurate with the typical potable water service size throughout Indian Springs Ranch (ISR). The cost of purchasing a two-inch meter is currently \$911.72 to \$1,023.08, depending on the type of meter. An estimated installed cost of \$1,500 per lot for water meters is represented in the table. Depending on the internal water service configuration within each lot, it may be feasible to utilize smaller meters with an installed savings on the order of \$500/service.

The Town structures user fees based on the size of the meter, a volume rate for flow, and a wastewater class. The base charge for a two-inch meter is \$25.20 per month (whereas the base charge associated with typically smaller, residential meters presently ranges from \$7.05 to \$9.80 per month). Residential waste is considered Class 1, and the fee is \$2.27 per 1000 gallons. SFDs were assumed to generate 5000 gallons per month and ARUs were assumed to generate 3000 gallons per month. It should be noted that with seasonal, or intermittent occupancy, as is often the case for many of the ISR homes, the Town's monthly user fee may periodically revert to the base fee exclusively. Applying the assumed wastewater flows noted, an estimated Town of Jackson monthly user fee was generated for each lot.

The Wilson Sewer District's user fee calculation is a bit more complex. The District is considered one customer by the Town of Jackson and has a master meter at the Stilson Parking area at the intersection of Highways 22 and 390. Since Indian Springs Ranch is located past the master meter and would not utilize the District's lift stations, an annual user fee would be developed based on proportionate, projected, maximum daily flow and the estimated cost of affected sewer infrastructure maintenance and replacement. (The District has one other client who pays annual fees, calculated similarly.) The comprehensive annual sewer operation and maintenance costs, downstream of the ISR connection point, equate to the following:

Sewer Line Cleaning; 24 hrs/yr at \$160.71/hr =	\$ 3,857.10/yr
Sewer Line Replacement; 50-yr life \$9,308.47/yr =	<u>\$ 9,308.47/yr</u>
	\$13,165.57/yr

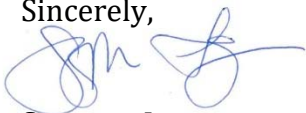
Wilson Sewer District's maximum day flow at build-out is estimated to be 185,134 gallons, and the maximum day flow at build-out for the 22 lots in question at Indian Springs Ranch is estimated as follows:

$$1.5 \text{ ERU/lot} \times 440 \text{ gpd/ERU} \times 22 \text{ lots} = 14,520 \text{ gpd max day}$$
$$14,520 \text{ gpd} / 185,134 \text{ gpd} = 7.84\%$$

Therefore, the ISR share of the annual operation and maintenance cost is 7.84%, or \$1,032.57 per year. The table reflects the assumption that the HOA would pay this fee annually, dividing it equally among all 22 lots, including the two vacant lots.

If you have any questions or require additional information, feel free to contact me directly.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Suzanne Lagerman', with a stylized flourish at the end.

Suzanne Lagerman
Assistant District Engineer

Indian Springs Ranch - Wilson Sewer Feasibility
Equivalent Residential Unit Projections, Estimated Connection and User Fees

Lot No.	Primary SFD	Guest House	ERU	Wilson Sewer District Connection Fee	Town of Jackson Connection Fee (2019)	Potable Water Meter Installation	Total Connection Cost	WSD Monthly User Fee ¹	Estimated ToJ Monthly User Fee ²	Total Monthly User Fee
18	Yes	No	1	\$3,828	\$2,172	\$1,500	\$7,500	\$3.91	\$36.55	\$40.46
19	Yes	Yes	1.5	\$8,740	\$3,260	\$1,500	\$13,500	\$3.91	\$43.36	\$47.27
20	Yes	No	1	\$3,828	\$2,172	\$1,500	\$7,500	\$3.91	\$36.55	\$40.46
21	Yes	Yes	1.5	\$8,740	\$3,260	\$1,500	\$13,500	\$3.91	\$43.36	\$47.27
22	Yes	No	1	\$3,828	\$2,172	\$1,500	\$7,500	\$3.91	\$36.55	\$40.46
23	Yes	No	1	\$3,828	\$2,172	\$1,500	\$7,500	\$3.91	\$36.55	\$40.46
24	Yes	Yes	1.5	\$8,740	\$3,260	\$1,500	\$13,500	\$3.91	\$43.36	\$47.27
25	No	No	0	N/A	N/A	\$1,500	\$1,500	\$3.91	\$0	\$3.91
26	No	No	0	N/A	N/A	\$1,500	\$1,500	\$3.91	\$0	\$3.91
27	Yes	No	1	\$3,828	\$2,172	\$1,500	\$7,500	\$3.91	\$36.55	\$40.46
28	Yes	Yes	1.5	\$8,740	\$3,260	\$1,500	\$13,500	\$3.91	\$43.36	\$47.27
29	Yes	No	1	\$3,828	\$2,172	\$1,500	\$7,500	\$3.91	\$36.55	\$40.46
30	Yes	No	1	\$3,828	\$2,172	\$1,500	\$7,500	\$3.91	\$36.55	\$40.46
31	Yes	No	1	\$3,828	\$2,172	\$1,500	\$7,500	\$3.91	\$36.55	\$40.46
33	No	Yes	1	\$3,828	\$2,172	\$1,500	\$7,500	\$3.91	\$36.55	\$40.46
34	Yes	Yes	1.5	\$8,740	\$3,260	\$1,500	\$13,500	\$3.91	\$43.36	\$47.27
58	Yes	No	1	\$3,828	\$2,172	\$1,500	\$7,500	\$3.91	\$36.55	\$40.46
62	Yes	No	1	\$3,828	\$2,172	\$1,500	\$7,500	\$3.91	\$36.55	\$40.46
63	Yes	Yes	1.5	\$8,740	\$3,260	\$1,500	\$13,500	\$3.91	\$43.36	\$47.27
64	Yes	No	1	\$3,828	\$2,172	\$1,500	\$7,500	\$3.91	\$36.55	\$40.46
65	Yes	No	1	\$3,828	\$2,172	\$1,500	\$7,500	\$3.91	\$36.55	\$40.46
66	Yes	Yes	1.5	\$8,740	\$3,260	\$1,500	\$13,500	\$3.91	\$43.36	\$47.27
23.5				\$110,944.00	\$51,056.00	\$33,000.00	\$195,000.00	\$86.05	\$778.67	\$864.72

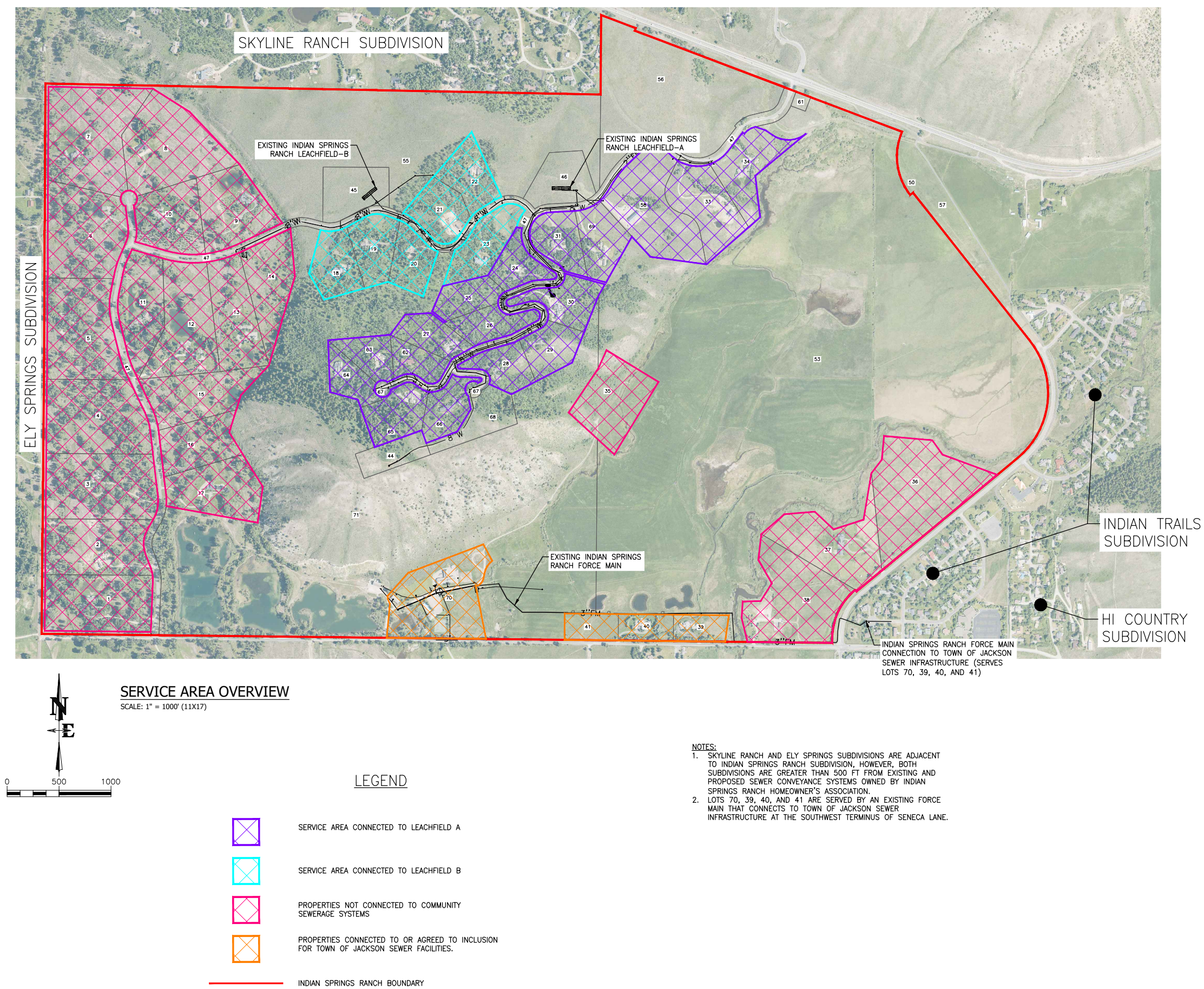
Notes:

- Build-out 1.5 ERU per lot * 440 gpd per ERU max day * 22 lots = 14,520 gpd max day
Sewer Line Cleaning; 24 hrs/yr @160.71/hr + Sewer Line Replacement; 50-yr life \$9,308.47/yr = \$13,165.57
Wilson Sewer District's max day flow at build-out is estimated to be 185,134 gal, ISR percentage is 14,520/185,134 or 7.84%
Therefore the ISR share of the annual operation and maintenance cost is 7.84% or \$1,032.57 per year
- ToJ fee based on 2019 fees, 2-inch diameter meter, \$25.20 base fee + \$2.27 per 1000 gallons metered use
Note that a 2-inch meter will need to be purchased, approx. \$911.72 to \$1,023.08
Assumption: 5000gal for SFD/main home and 3000gal for ARU

Appendix F

Map of Proposed Service Area

S:\Pro\BIB\013-02 Ordian Springs Ranch - Wilson Sewer Feasibility\4 Drawings\CON\SERVICE AREA EXHIBIT.dwg SERVICE AREA OVERVIEW - May 03 2021 09:00:00 PM PLOTTED BY: Lee DWG FORMAT: 220

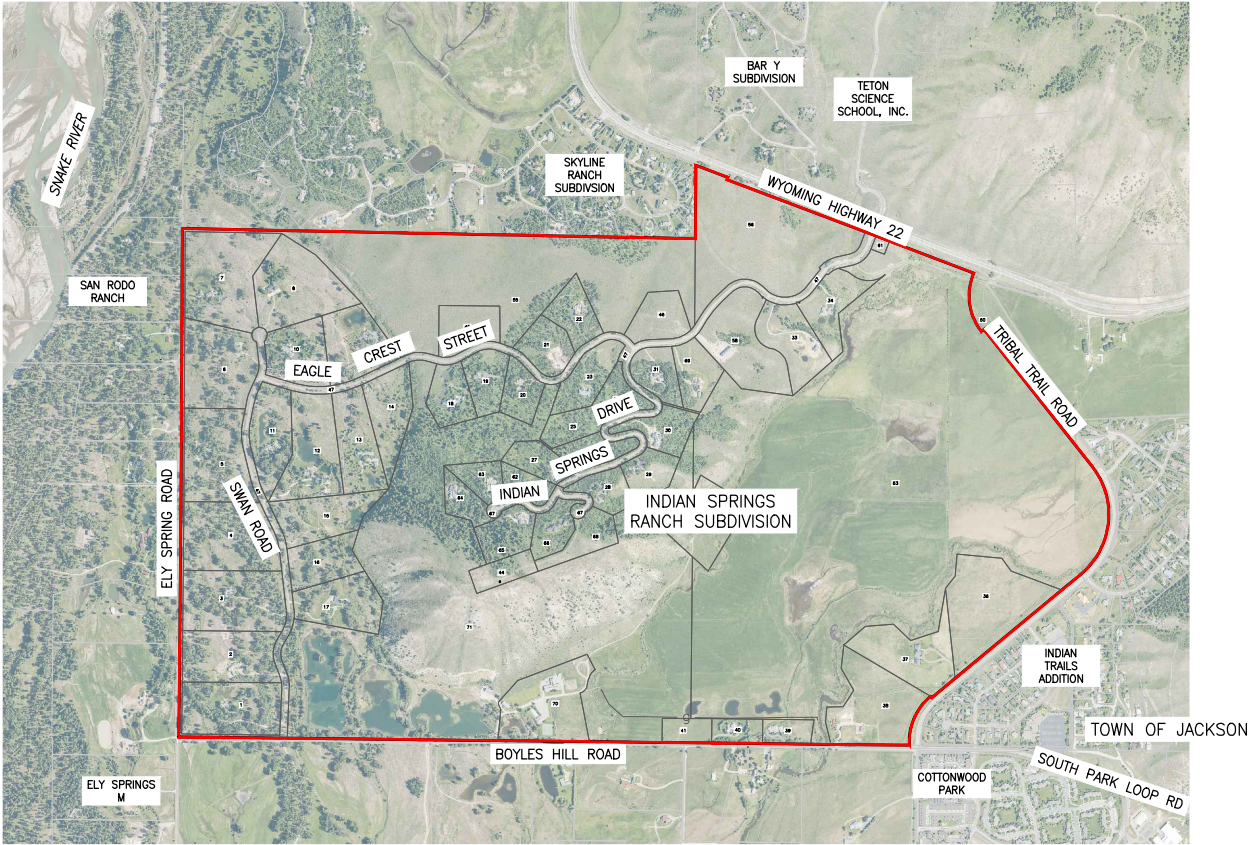


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		INDIAN SPRINGS RANCH	SERVICE AREA OVERVIEW		SURVEYED	NE	ENGINEERED	TSR
G1.0	WILSON SEWER CONNECTION STUDY				ENGINEERED	AL/TSR	DRAWN	AL
JOB NO	19-013-02	TETON COUNTY, WY			CHECKED	TSR	APPROVED	TSR

Appendix G

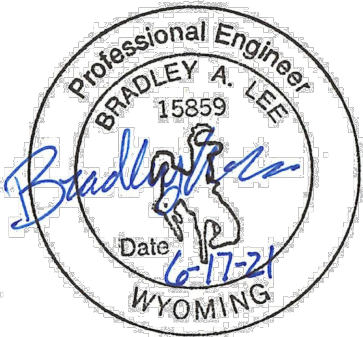
Engineering Design Drawings

WILSON SEWER & TOWN OF JACKSON CONNECTION APPLICATION
INDIAN SPRINGS RANCH HOA
Teton County, Wyoming



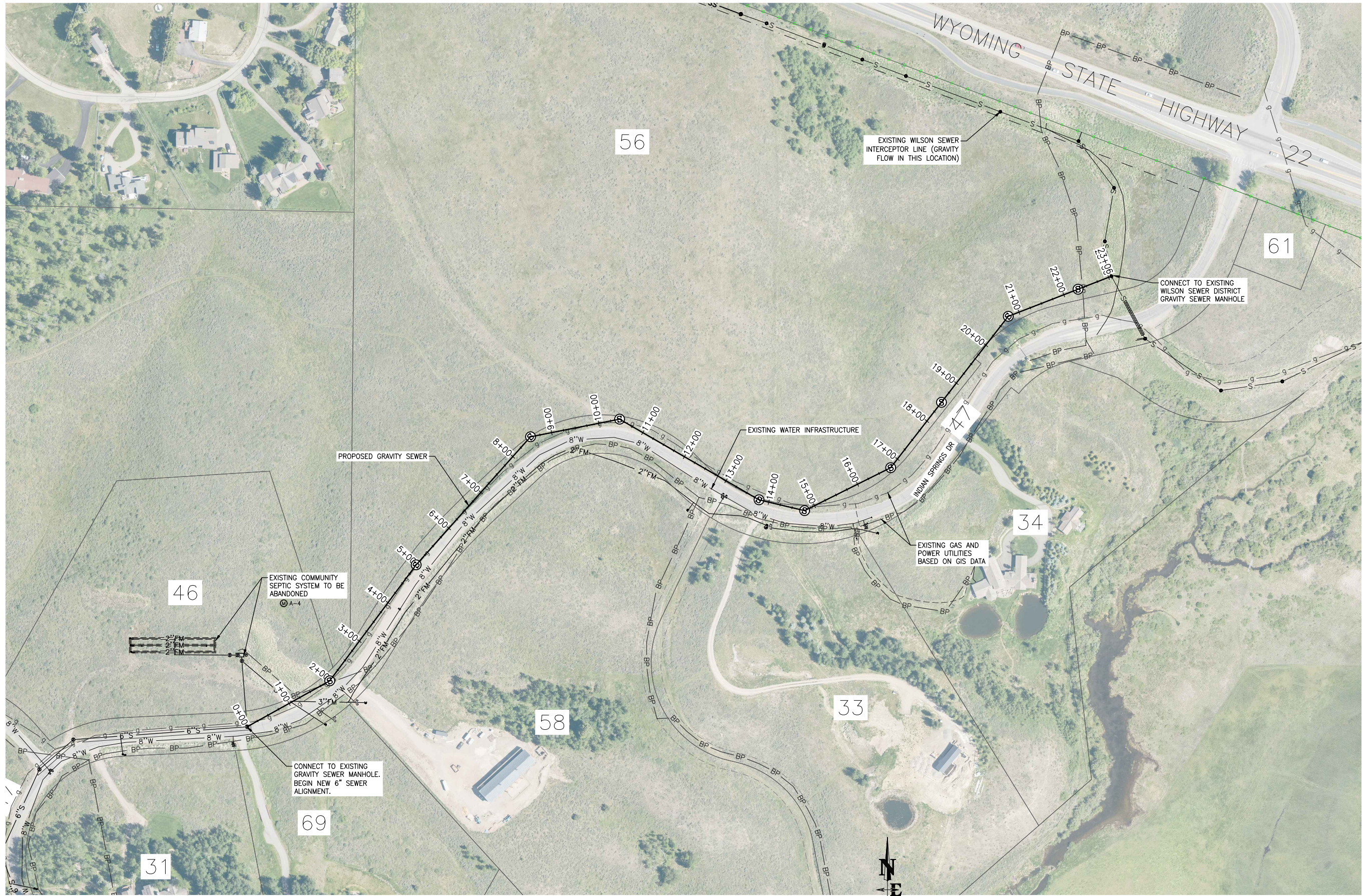
CIVIL DRAWING INDEX	
DRAWING NO.	DRAWING TITLE
T1.0	COVER SHEET
C1.0	GRAVITY SEWER OVERVIEW
C1.1	P&P0+00.00 - 5+20.00
C1.2	P&P5+20.00 - 10+80.00
C1.3	P&P10+80.00 - 16+40.00
C1.4	P&P16+40.00 - 22+00.00
C1.5	P&P22+00.00 - 23+98.37
C1.6	GRAVITY SEWER DETAILS
C2.0	FORCE MAIN OVERVIEW
C2.1	P&P0+00.00 - 5+20.00
C2.2	P&P5+20.00 - 10+00.00
C2.3	P&P10+00.00 - 15+20.00
C2.4	P&P15+20.00 - 20+00.00
C2.5	FORCE MAIN DETAILS

PROJECT DIRECTORY	
Owner:	Indian Springs Ranch HOA P.O. Box 533 Jackson, WY 83001
Property Manager:	Grand Teton Property Management 610 W. Broadway Jackson, WY 83001 Amy Floyd Telephone: 307-733-0205 Email: afloyd@wyom.net
Project Manager, Civil Engineer, & Surveyor:	Nelson Engineering Ty S. Ross, PE 430 S. Cache St. Jackson, WY 83001 Telephone: 307-733-2087 Email: tross@nelsonengineering.net

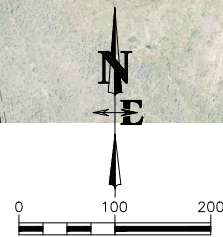


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				DATE	SURVEYED	ENGINEERED	DRAWN	CHECKED	TSR
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NELSON ENGINEERING				P.O. BOX 1599, JACKSON WYOMING (307) 733-2087					

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GRAVITY SEWER OVERVIEW
SCALE: 1" = 200' (11X17)

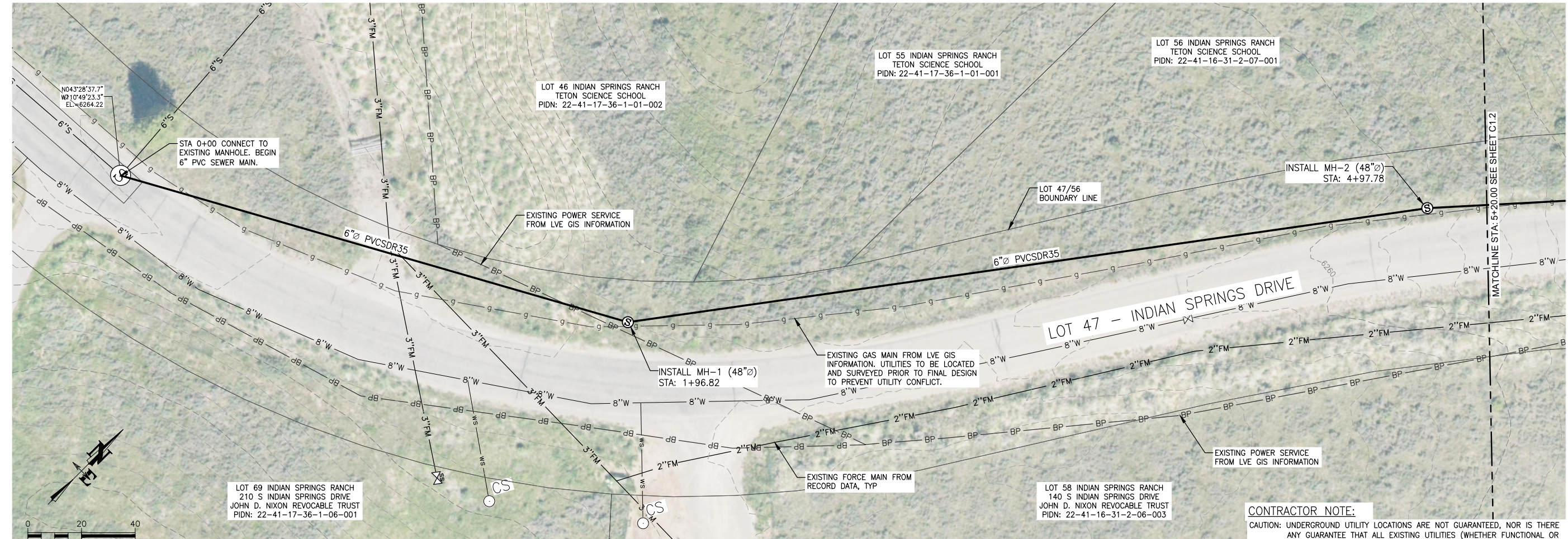


TOWN OF JACKSON - CONNECTION APPLICATION

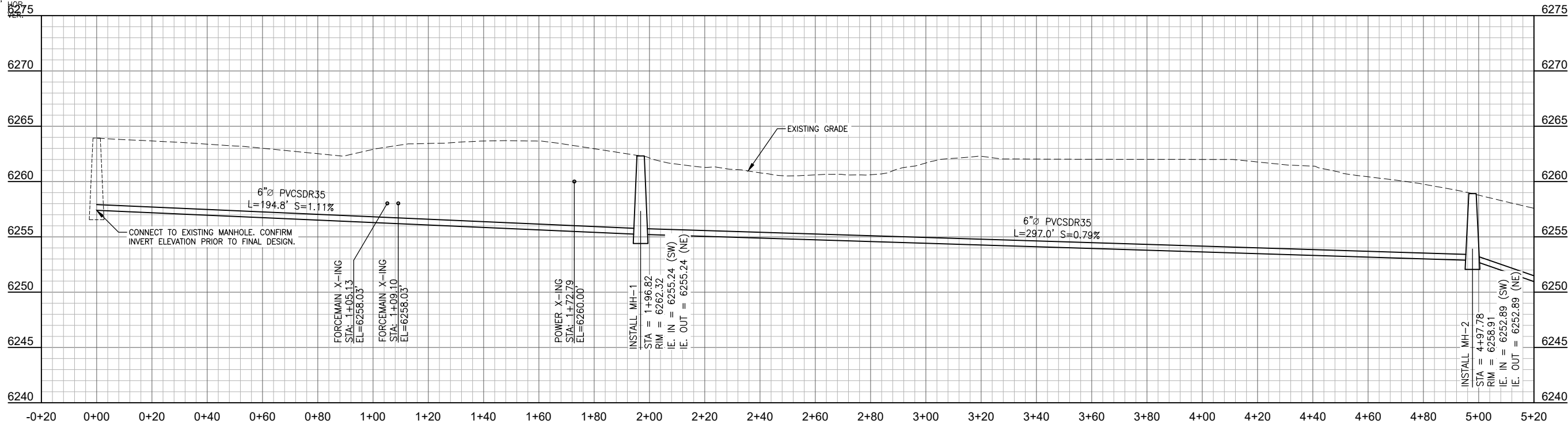
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			SURVEYED	ENGINEERED	DRAWN	CHECKED	APPROVED	
C1.0	INDIAN SPRINGS RANCH WILSON SEWER CONNECTION STUDY	GRAVITY SEWER OVERVIEW	NE	AL/TSR	AL	TSR	TSR	6/17/2021
19-013-02	TETON COUNTY, WY	NOT ISSUED FOR CONSTRUCTION	P.O. BOX 1599, JACKSON WYOMING (307) 733-2087					

**NELSON
ENGINEERING**

S:\P\2019\03-02 Indian Springs Ranch - Wilson Sewer Feasibility\4 Drawings\Civil\2 GRAV SWR P and P&P\03-02-00 - 5+20.00 - Jun 17 2021 08:54:43 pm PLOTTED BY: Lee DWG FORMAT: 230



SCALES: (22x34)
1"=20' HOR
1"=5' VERT

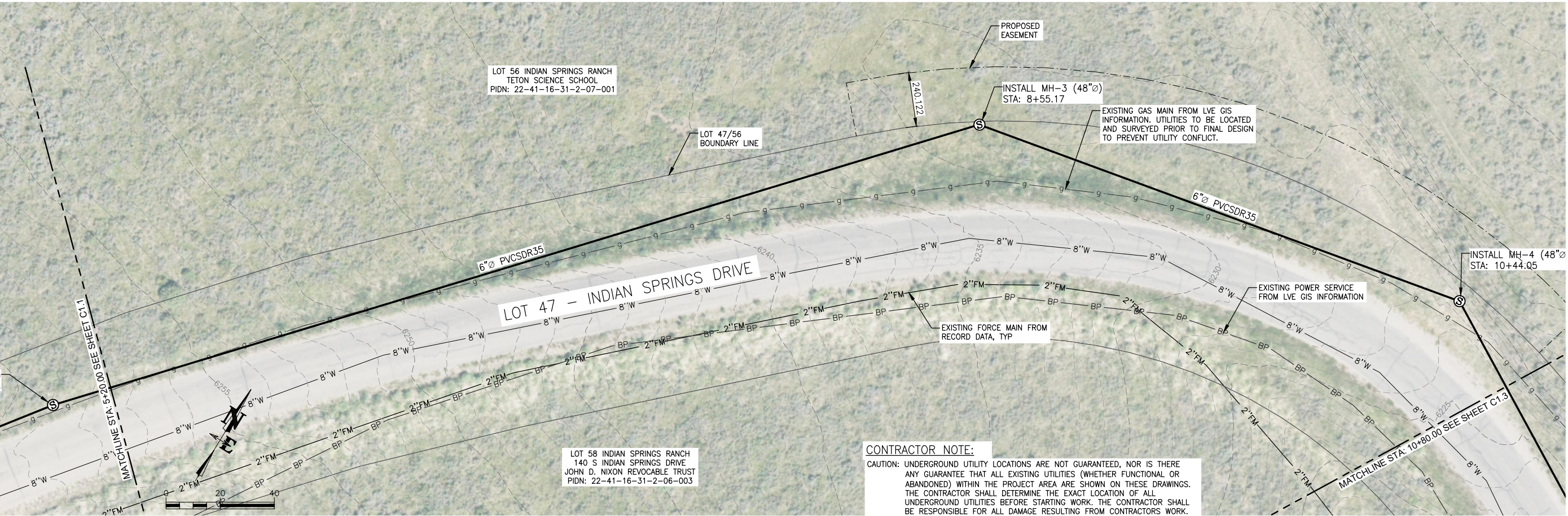
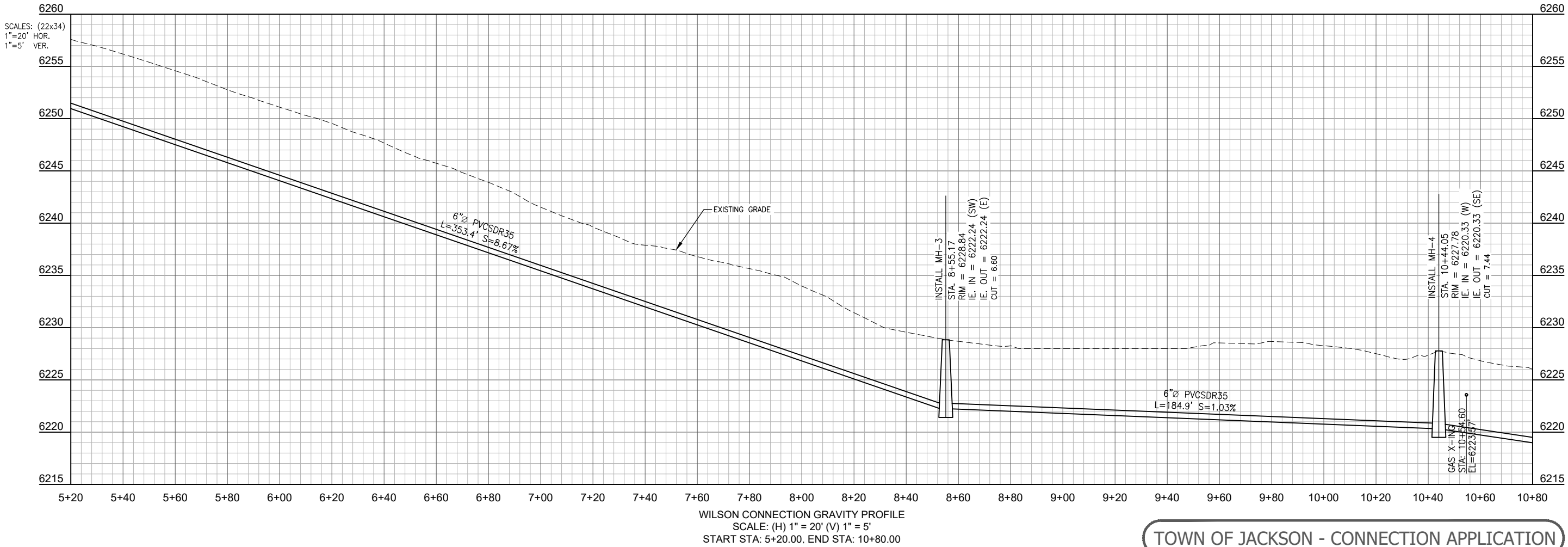


WILSON CONNECTION GRAVITY PROFILE
SCALE: (H) 1" = 20' (V) 1" = 5'
START STA: -0+20.00, END STA: 5+20.00

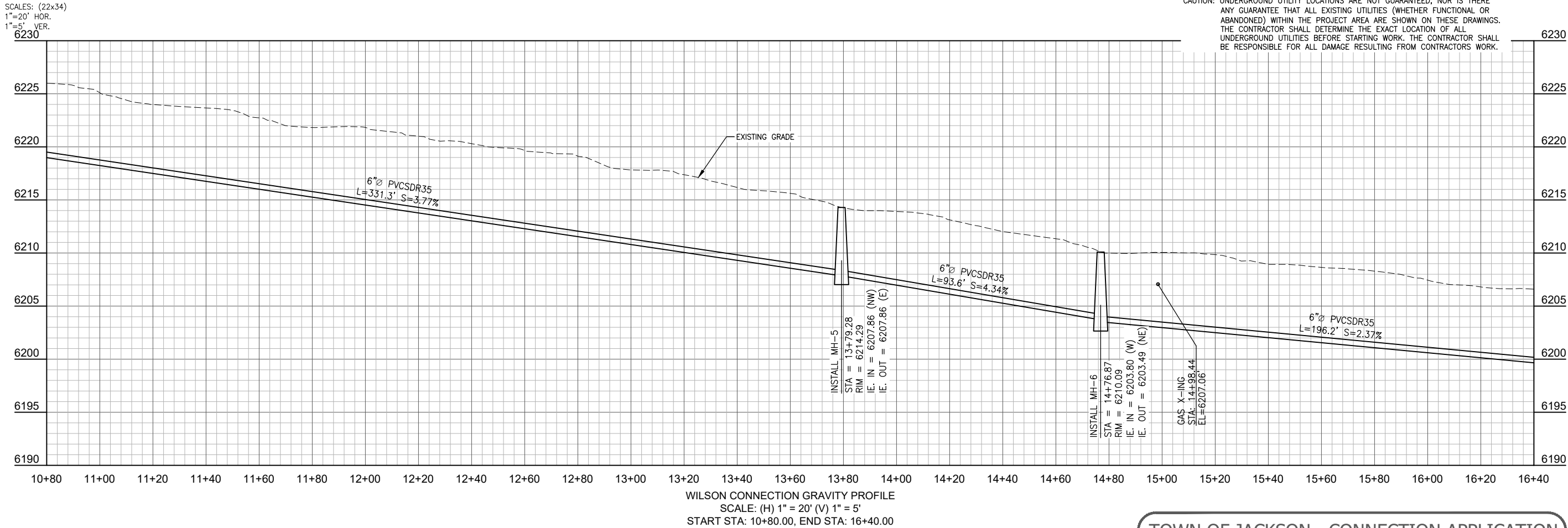
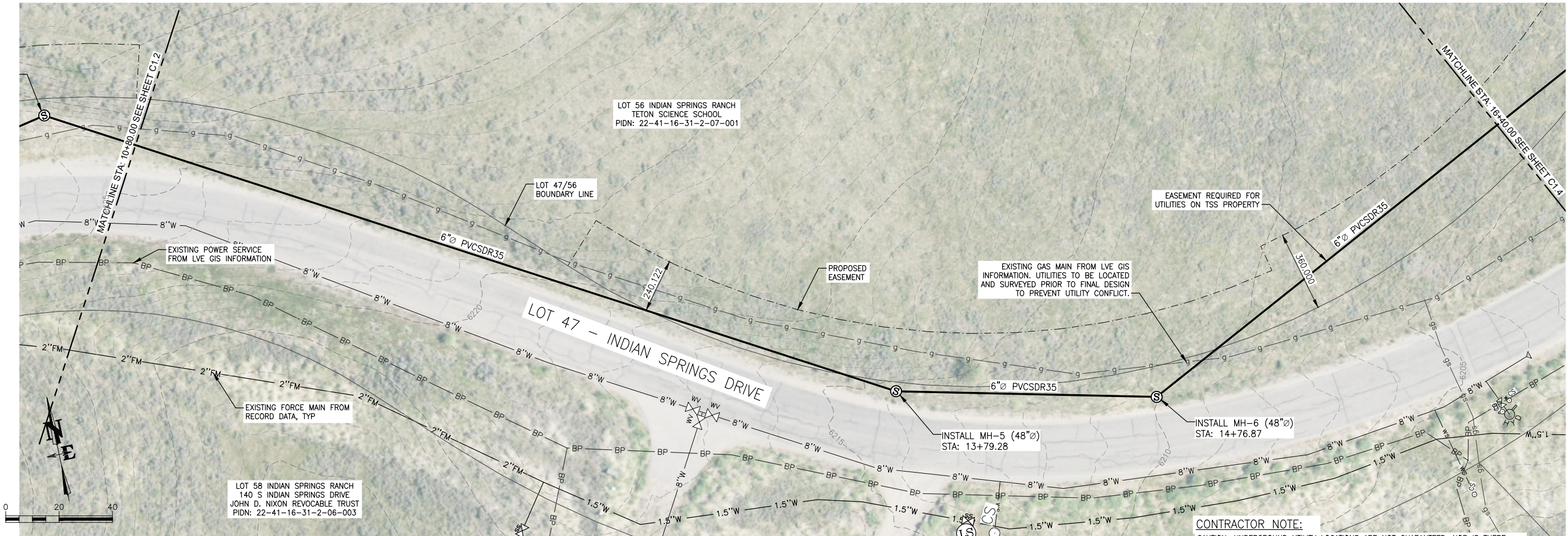
TOWN OF JACKSON - CONNECTION APPLICATION

DRAWING NO	JOB TITLE	DRAWING TITLE	REV.				
			DATE	SURVEYED	ENGINEERED	DRAWN	APPROVED
C1.1	INDIAN SPRINGS RANCH	GRAVITY SEWER PLAN & PROFILE	6/17/2021	NE	AL/TSR	AL	TSR
JOB NO	WILSON SEWER CONNECTION STUDY	P&P0+00.00 - 5+20.00					
19-013-02	TETON COUNTY, WY	NOT ISSUED FOR CONSTRUCTION					

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TOWN OF JACKSON - CONNECTION APPLICATION

**NELSON
ENGINEERING**
P.O. BOX 1599, JACKSON WYOMING (307) 733-2087

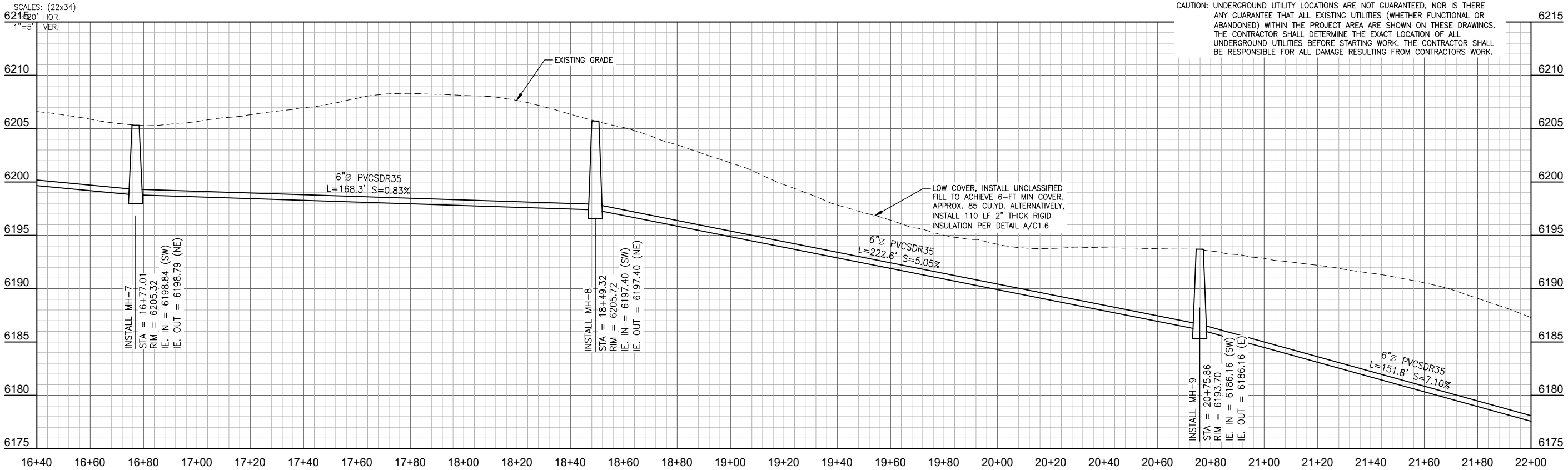
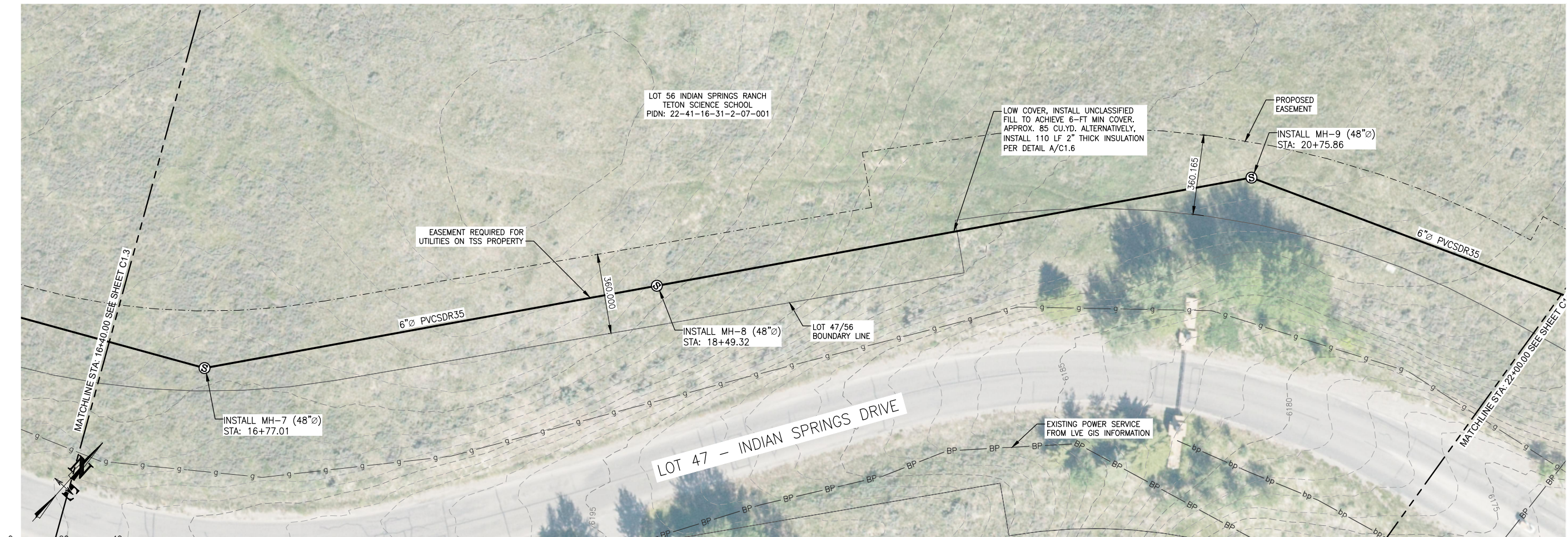
DRAWING TITLE
GRAVITY SEWER PLAN & PROFILE
P&P10+80.00 - 16+40.00

JOB TITLE
INDIAN SPRINGS RANCH
WILSON SEWER CONNECTION STUDY
TETON COUNTY, WY

DRAWING NO
C1.3
JOB NO
19-013-02

DATE	6/17/2021	REV.
SURVEYED	NE	
ENGINEERED	AL/TSR	
DRAWN	AL	
CHECKED	TSR	
APPROVED	TSR	

S:\P\2019\013-02 Indian Springs Ranch - Wilson Sewer Feasibility\4 Drawings\Civil\2 GRAV SWR P and P&P\16-40.00 - 22+00.00.dwg - Jun 17 2021 08:27:00 PM PLOTTED BY: Lee DWG FORMAT: 230

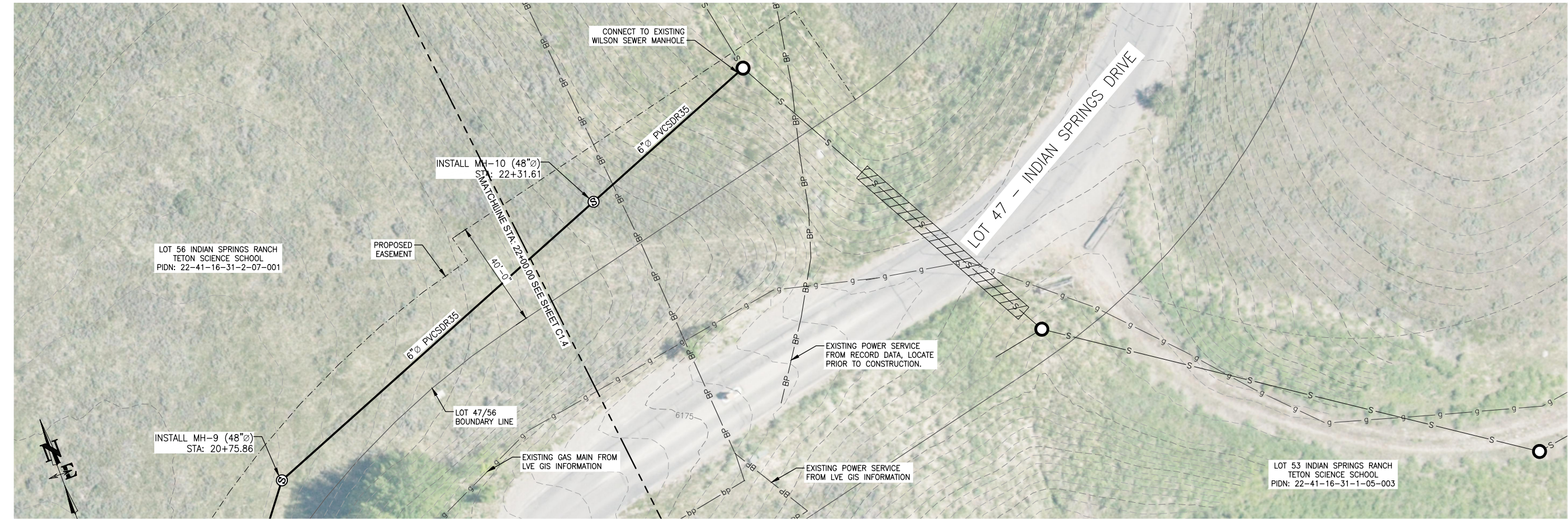


CONTRACTOR NOTE:
CAUTION: UNDERGROUND UTILITY LOCATIONS ARE NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES (WHETHER FUNCTIONAL OR ABANDONED) WITHIN THE PROJECT AREA ARE SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES BEFORE STARTING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE RESULTING FROM CONTRACTORS WORK.

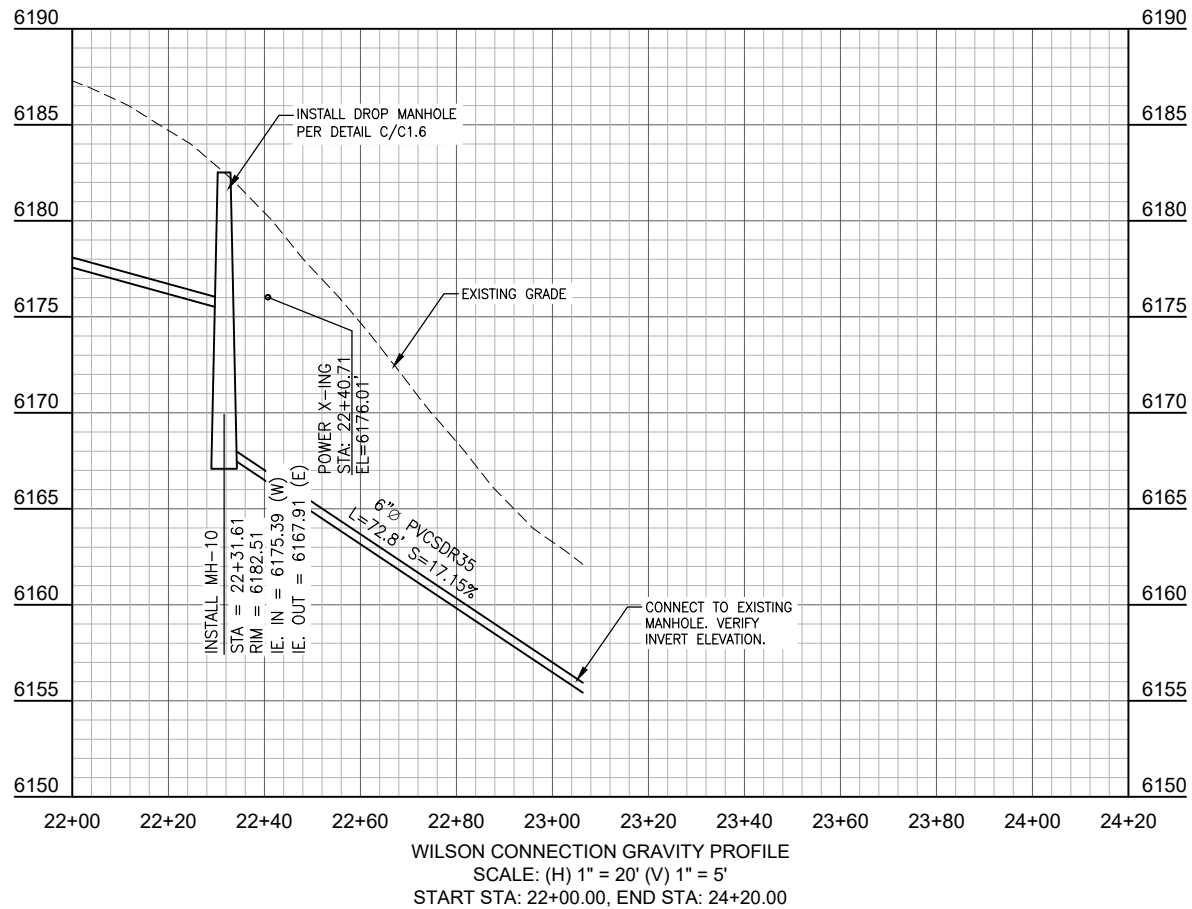
WILSON CONNECTION GRAVITY PROFILE
SCALE: (H) 1" = 20' (V) 1" = 5'
START STA: 16+40.00, END STA: 22+00.00

TOWN OF JACKSON - CONNECTION APPLICATION

S:\P\2019\03-02 Indian Springs Ranch - Wilson Sewer Feasibility\4 Drawings\Civil\2 GRAV P and P&P\22-00.00 - 23+98.37 - Jan 17 2021 02:27:09 pm PLOTTED BY: Lee DWG FORMAT: E30



SCALES: (22x34)
1"=20' HOR.
1"=5' VER.

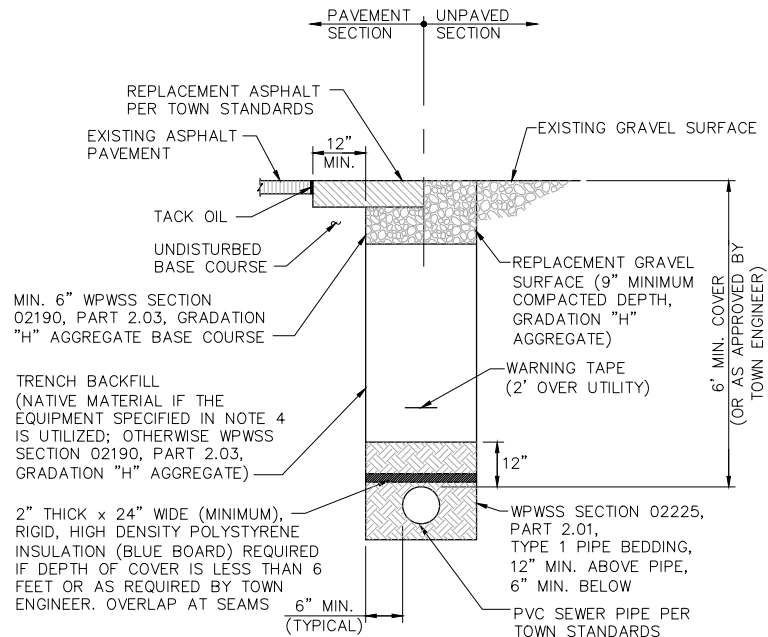


CONTRACTOR NOTE:
CAUTION: UNDERGROUND UTILITY LOCATIONS ARE NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES (WHETHER FUNCTIONAL OR ABANDONED) WITHIN THE PROJECT AREA ARE SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES BEFORE STARTING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE RESULTING FROM CONTRACTORS WORK.

TOWN OF JACKSON - CONNECTION APPLICATION

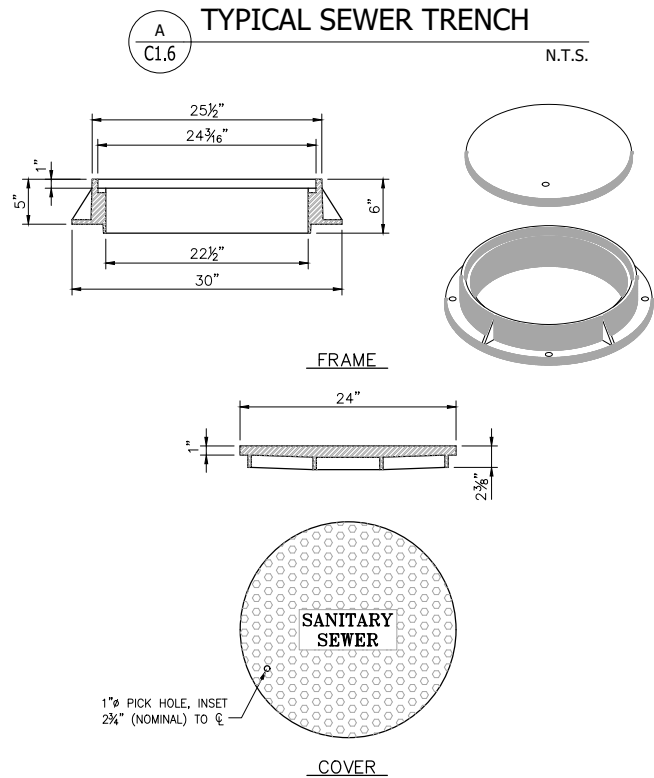
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19-013-02	TETON COUNTY, WY	NOT ISSUED FOR CONSTRUCTION					

S:\pro\2019\013-02 Indian Springs Ranch - Wilson Sewer Feasibility\N4 Drawings\CONVISE GRAVITY SEWER DESIGNING GRAVITY SEWER DETAILS - Jun 17 2021 08:27:39 pm PLOTTED BY: Lee DWG ID: 230



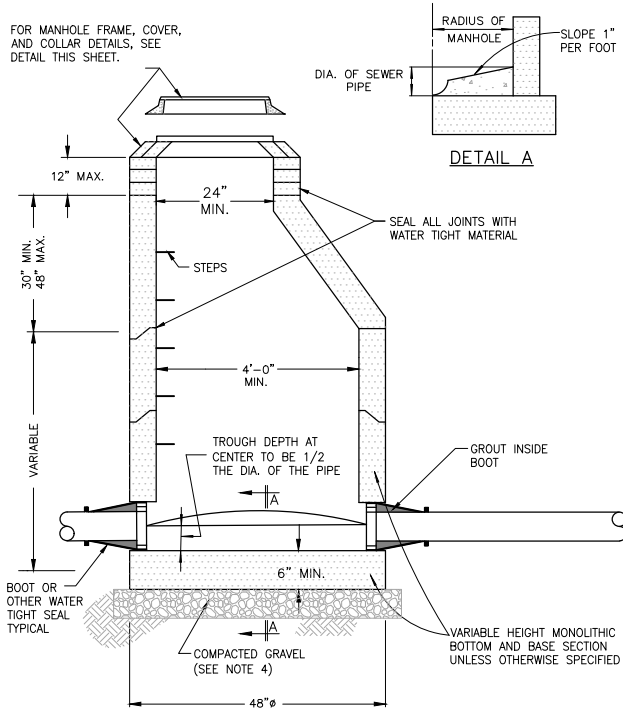
NOTES:

- TRENCH BACKFILL BELOW THE SURFACE SHALL MEET THE FOLLOWING CRITERIA:
 - 95% MODIFIED PROCTOR DENSITY WITHIN STREET AND ALLEY RIGHTS-OF-WAY.
 - 90% MODIFIED PROCTOR DENSITY OUTSIDE STREET AND ALLEY RIGHTS-OF-WAY.
- COMPACTION OF NATIVE TRENCH BACKFILL, WITH ALL ROCK LARGER THAN 6" REMOVED, SHALL BE CARRIED OUT IN 2' LIFTS WITH A HOE-PACK OR A VIBRATORY SHEEPS FOOT ROLLER (COMPACTION METHOD AND EQUIPMENT SHALL BE REVIEWED AND APPROVED BY TOWN ENGINEER PRIOR TO BACKFILLING).
- PIPE BEDDING SHALL BE PLACED IN 6" LIFTS AND THOROUGHLY COMPACTED WITH A JUMPING JACK TO PROVIDE UNIFORM PIPE SUPPORT.
- UNLESS OTHERWISE DIRECTED, ALL BASE COURSE AND GRAVEL SURFACE REPLACEMENT SHALL BE INSTALLED PER WPSS SECTION 02231, PART 3.03.
- ALL TRENCH EXCAVATION SHALL CONFORM TO WYOMING OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (WOSHA) REGULATIONS.



NOTES:

- FRAME AND COVER SHALL BE MODEL NO. A-1055, AS MANUFACTURED BY D&L SUPPLY OF LONDON, UTAH, MODIFIED AS SHOWN, OR EQUAL.

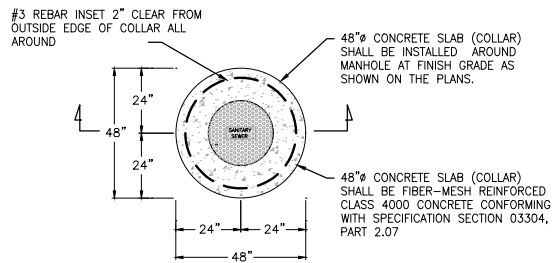


NOTES:

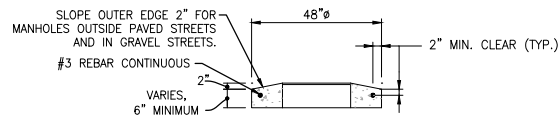
- DROP ACROSS INVERT SHALL BE AS SHOWN ON THE DRAWINGS.
- PRECAST MANHOLES SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C-478.
- BASE SHALL BE REINFORCED WHEN THE DISTANCE FROM INVERT TO TOP OF COVER EXCEEDS 15'. REINFORCEMENT TO BE APPROVED BY ENGINEER.
- GRAVEL SHALL BE EIGHT INCH MINIMUM THICKNESS, CONFORM TO WPSS SECTION 02190, PART 2.03, AND BE INSTALLED PER WPSS SECTION 02231, PART 3.03.

B
C1.6

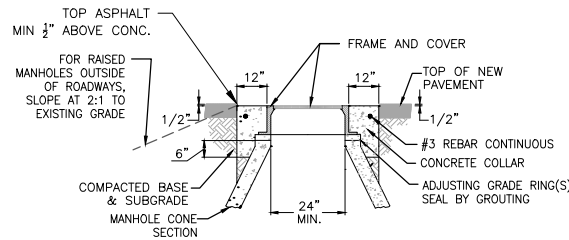
TYP. MANHOLE DETAIL
Scale: N.T.S.



COVER AND COLLAR PLAN



COVER AND COLLAR SECTION - GRAVEL STREETS AND OTHER

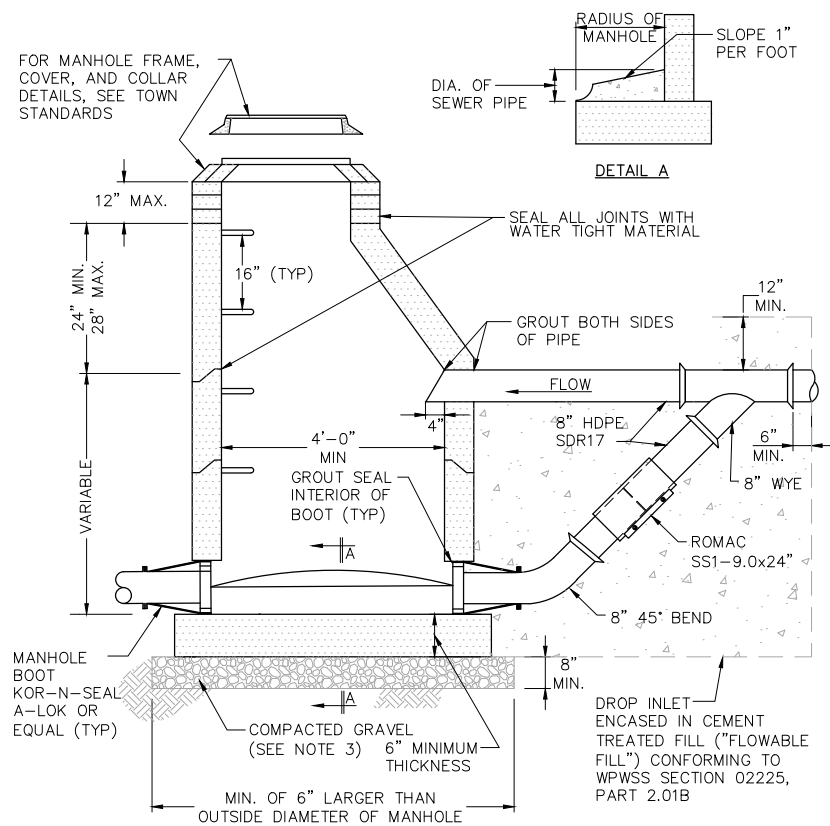


NOTE:

- ADJUST MANHOLE UPWARD WITH ADJUSTING RINGS UNDER FRAME. ADJUST MANHOLE DOWNWARD BY REMOVING A PORTION OF THE MANHOLE RISER AND REBUILDING TO PROPER HEIGHT. SLOPE MANHOLE RING AS REQUIRED TO MATCH STREET GRADE AND CROSS SLOPE. MAKE FINAL MANHOLE ADJUSTMENT AFTER PAVING AND BEFORE SEAL COATING.

E
C1.6

MANHOLE ADJUSTMENT AND COLLAR DETAIL
Scale: N.T.S.



NOTES:

- DROP ACROSS INVERT SHALL BE GREATER THAN OR EQUAL TO SLOPE OF ADJACENT SEWER PIPE.
- BASE SHALL BE REINFORCED WHEN THE DISTANCE FROM INVERT TO TOP OF COVER EXCEEDS 15'. REINFORCEMENT TO BE APPROVED BY ENGINEER.
- GRAVEL SHALL BE EIGHT INCH MINIMUM THICKNESS, CONFORM TO WPSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPSS SECTION 02231, PART 3.03.
- TROUGH DEPTH AT CENTER TO BE HALF THE DIAMETER OF THE PIPE.

C
C1.6

TYPICAL SEWER DROP MANHOLE
N.T.S.

DRAWING NO	C1.6	JOB NO	19-013-02	JOB TITLE	INDIAN SPRINGS RANCH WILSON SEWER CONNECTION STUDY TETON COUNTY, WY	DRAWING TITLE	GRAVITY SEWER DETAILS	DATE	SURVEYED	ENGINEERED	DRAWN	CHECKED	APPROVED	REV.	6/17/2021	NE	AL/TSR	AL	TSR	TSR

NELSON ENGINEERING
P.O. BOX 1599, JACKSON WYOMING (307) 733-2087

NOT ISSUED FOR CONSTRUCTION

S:\p\2019\013-02 Indian Springs Ranch - Wilson Sewer Feasibility\14 Drawings\CON\SR FORCE MAIN DESIGNING (FORCE MAIN OVERVIEW) - Jun 17 2021 01:27:49 pm PLOTTED BY: Lee DWG FIRMAT: 230

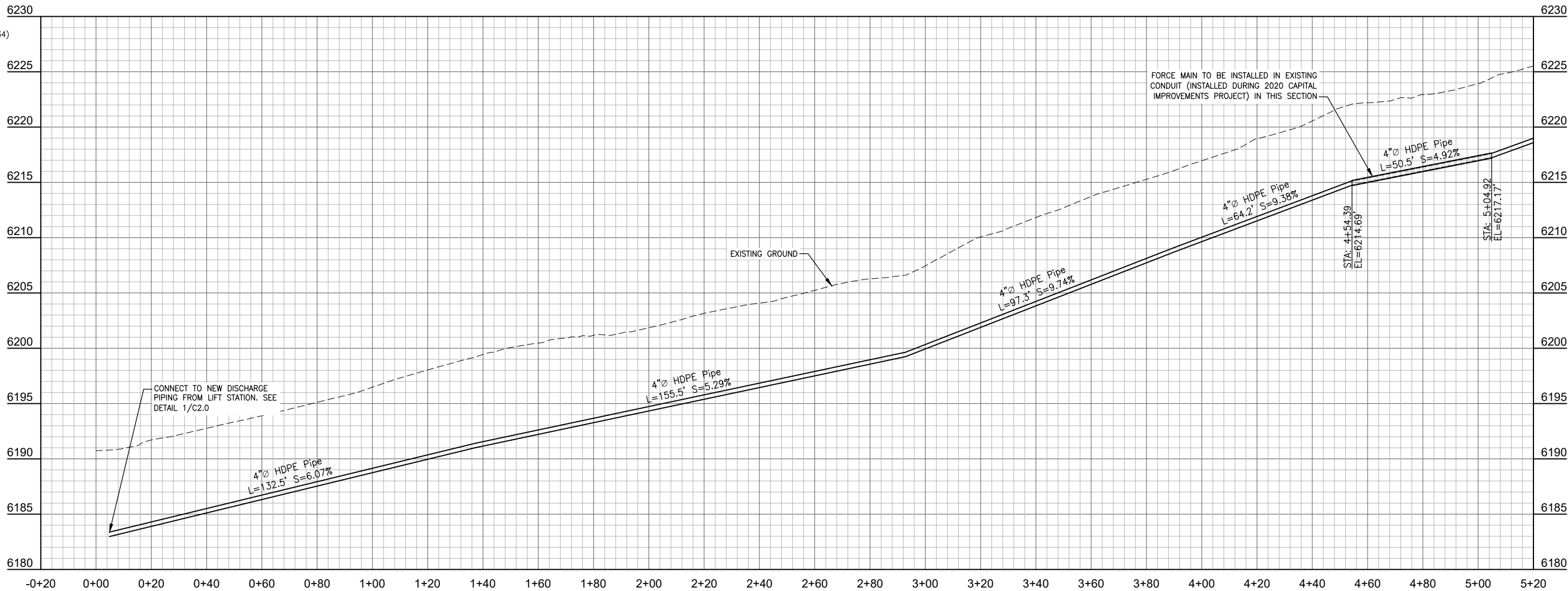


DRAWING NO	JOB TITLE	DRAWING TITLE	REV.				
			DATE	SURVEYED	ENGINEERED	DRAWN	CHECKED
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19-013-02	TETON COUNTY, WY	NOT ISSUED FOR CONSTRUCTION					

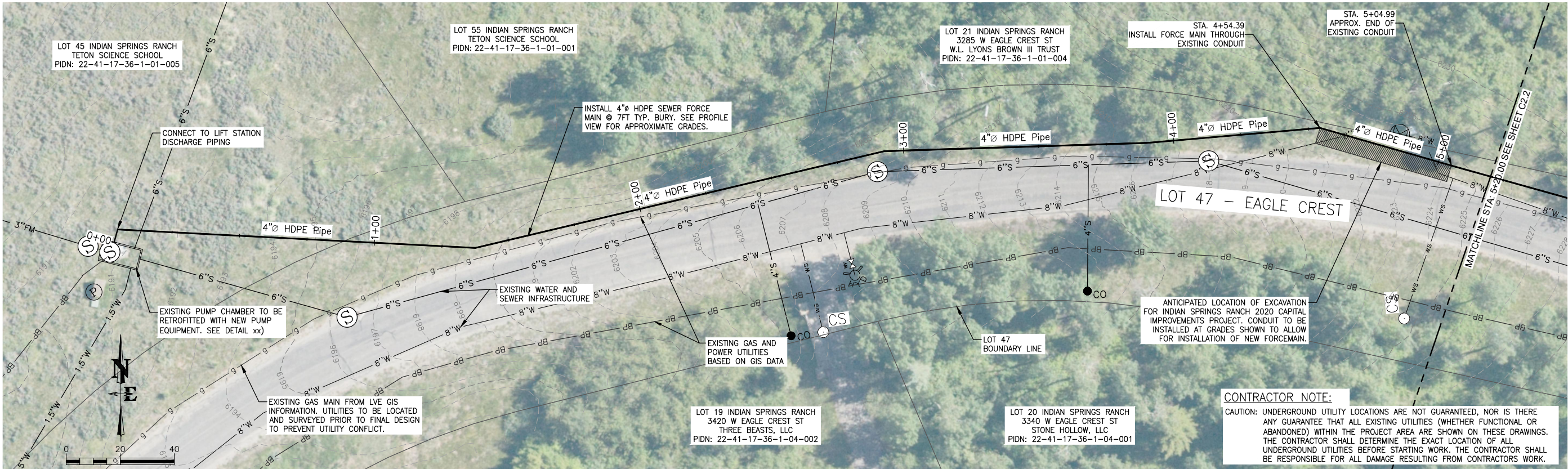
**NELSON
ENGINEERING**
P.O. BOX 1599, JACKSON WYOMING (307) 733-2087

S:\P\2019\013-02 Indian Springs Ranch - Wilson Sewer Feasibility\4 Drawings\Civil\4 FORCE MAIN Pumping (P&P)\000 - 5+20.00 - Jun 17 2021 01:28:11 pm PLOTTED BY: Lee DWG FORMAT: 230

SCALES: (22x34)
1"=20' HOR.
1"=5' VER.



TOWN OF JACKSON - CONNECTION APPLICATION



**NELSON
ENGINEERING**
P.O. BOX 1599, JACKSON WYOMING (307) 733-2087

DRAWING TITLE
FORCE MAIN PLAN & PROFILE
P&P-0+00.00 - 5+20.00

JOB TITLE
INDIAN SPRINGS RANCH
WILSON SEWER CONNECTION STUDY
TETON COUNTY, WY

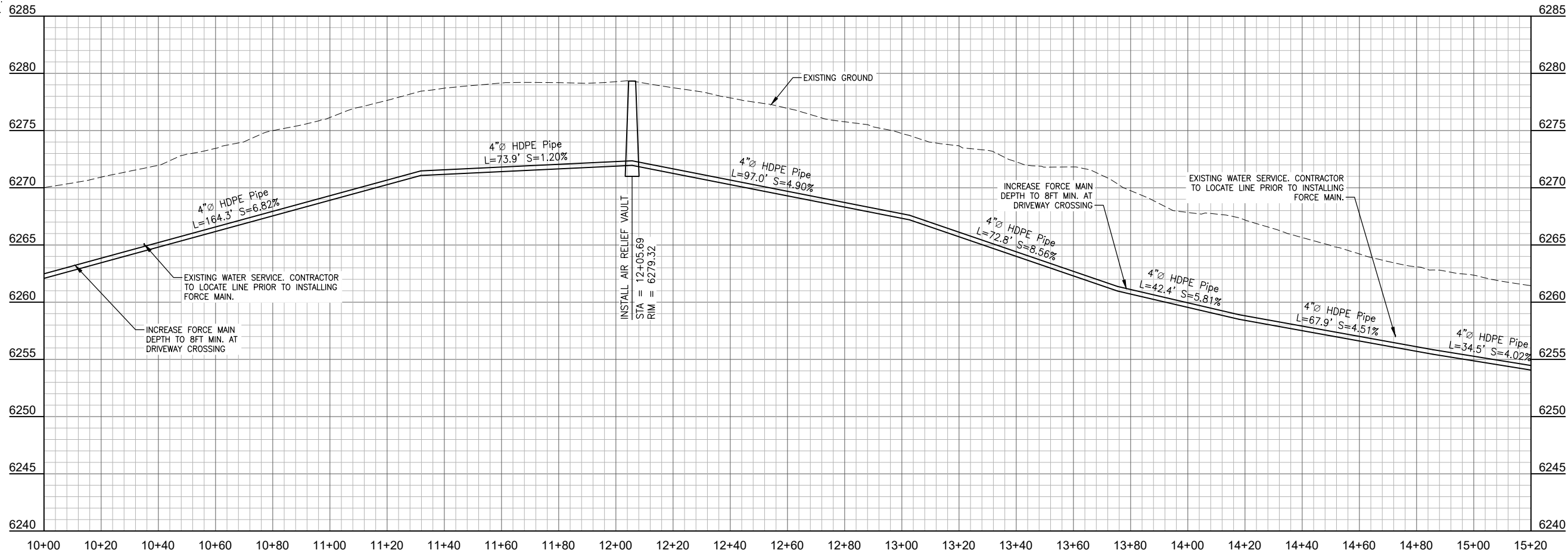
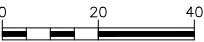
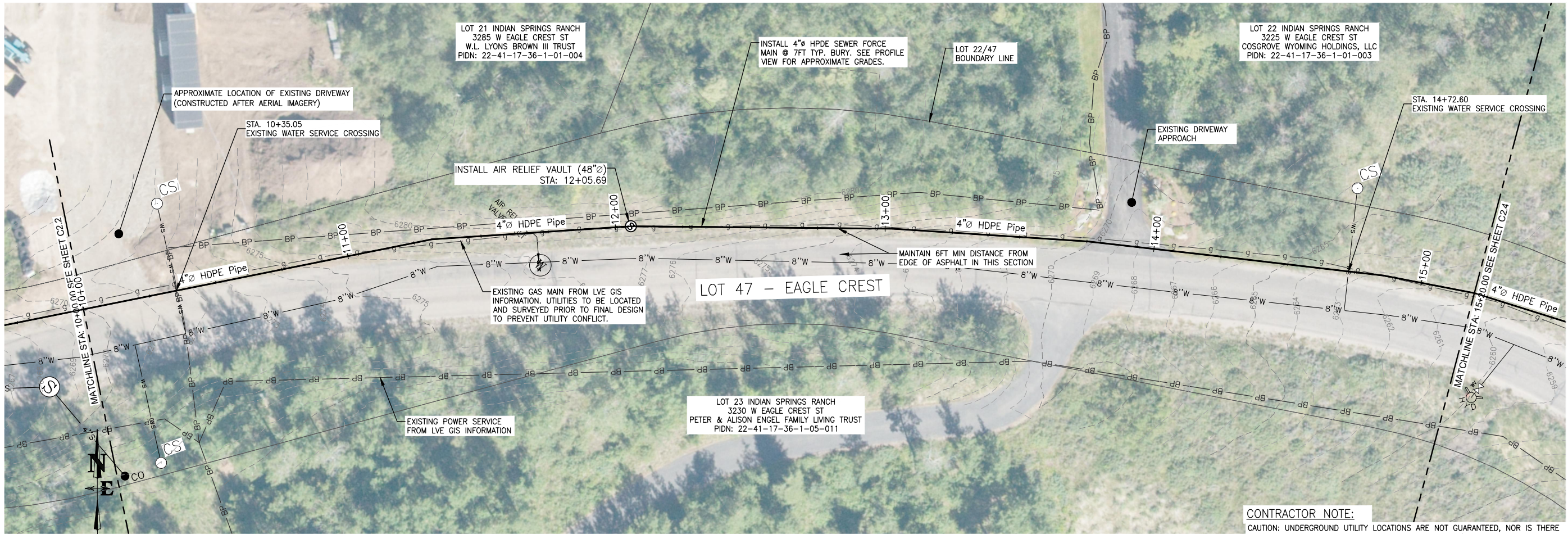
DRAWING NO
C2.1
JOB NO
19-013-02

NOT ISSUED FOR CONSTRUCTION

DATE	6/17/2021	REV.	NE
SURVEYED	AL/TSR	ENGINEERED	AL/TSR
DRAWN	AL	CHECKED	TSR
APPROVED	TSR		

S:\P\2019\003-02 Indian Springs Ranch - Wilson Sewer Feasibility\4 Drawings\Civil\4 FORCE MAIN Pumping - 15+20.00 - Jun 17 2021 00:08:24 pm PLOTTED BY: Lee DWG FERMAT 230

SCALES: (22x34)
1"=20' HOR.
1"=5' VER.



TOWN OF JACKSON - CONNECTION APPLICATION

DRAWING TITLE
FORCE MAIN PLAN & PROFILE
P&P10+00.00 - 15+20.00

JOB TITLE
INDIAN SPRINGS RANCH
WILSON SEWER CONNECTION STUDY
TETON COUNTY, WY

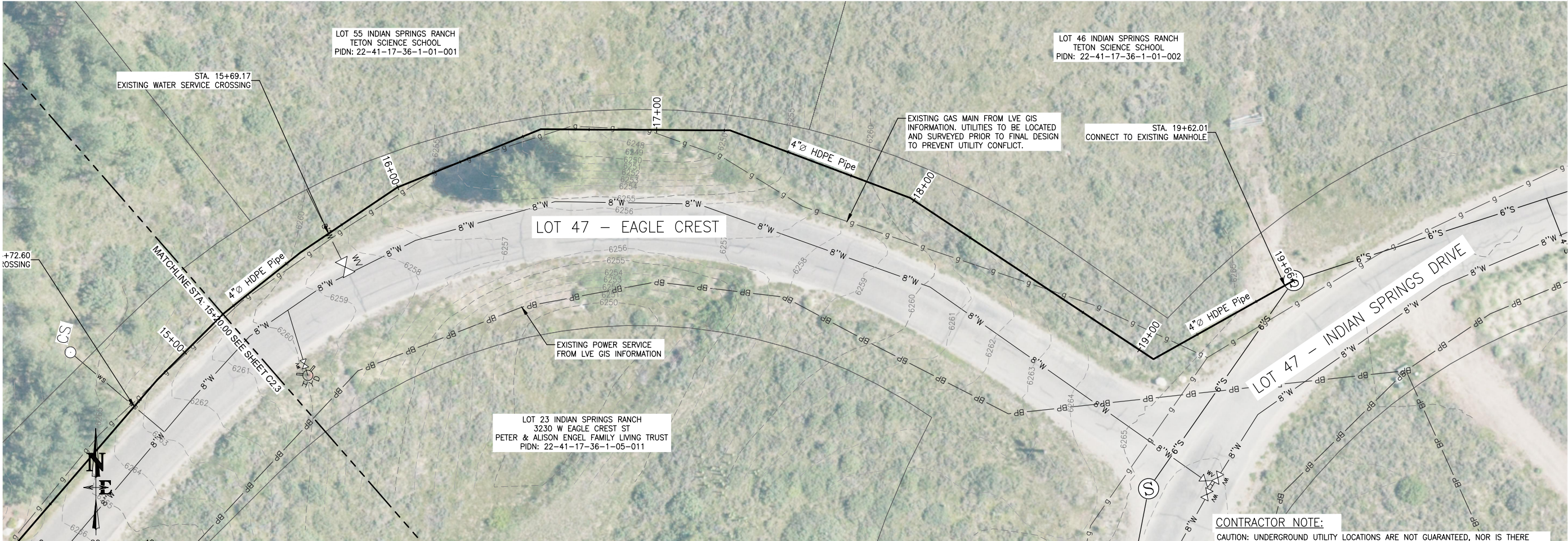
DRAWING NO
C2.3
JOB NO
19-013-02

**NELSON
ENGINEERING**
P.O. BOX 1599, JACKSON WYOMING (307) 733-2087

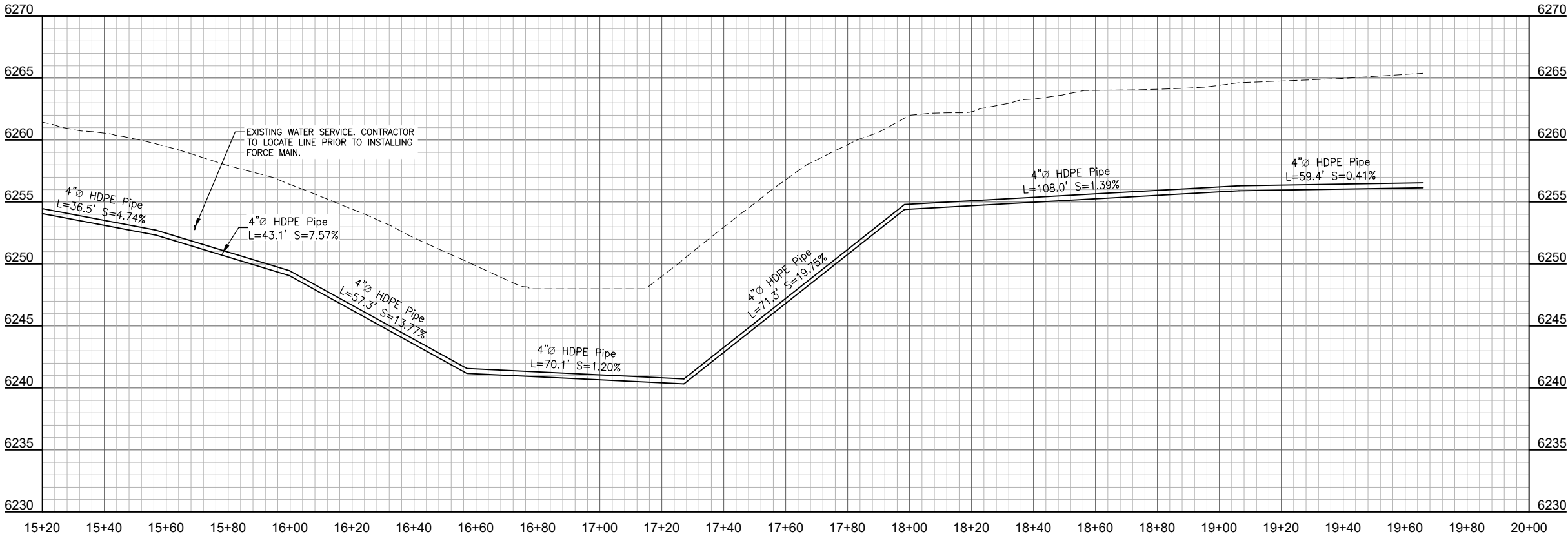
DATE	REV.
6/17/2021	NE
SURVEYED	AL/TSR
ENGINEERED	AL
DRAWN	AL
CHECKED	TSR
APPROVED	TSR

S:\P\2019\03-02 Indian Springs Ranch - Wilson Sewer Feasibility\4 Drawings\Civil\4 FORCE MAIN Pumping (P&P)15-20.00 - 20+00.00 - Jun 17 2021 10:28:34 pm PLOTTED BY: Lee DWG FORMAT: 23.0

SCALES: (22x34)
1"=20' HOR.
1"=5' VER.



CONTRACTOR NOTE:
CAUTION: UNDERGROUND UTILITY LOCATIONS ARE NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES (WHETHER FUNCTIONAL OR ABANDONED) WITHIN THE PROJECT AREA ARE SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES BEFORE STARTING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE RESULTING FROM CONTRACTORS WORK.



TOWN OF JACKSON - CONNECTION APPLICATION

**NELSON
ENGINEERING**
P.O. BOX 1599, JACKSON WYOMING (307) 733-2087

DRAWING TITLE
FORCE MAIN PLAN & PROFILE
P&P15+20.00 - 20+00.00

JOB TITLE
INDIAN SPRINGS RANCH
WILSON SEWER CONNECTION STUDY
TETON COUNTY, WY

DRAWING NO
C2.4
JOB NO
19-013-02

DATE	6/17/2021	REV.
SURVEYED	NE	
ENGINEERED	AL/TSR	
DRAWN	AL	
CHECKED	TSR	
APPROVED	TSR	

