



TOWN OF JACKSON PLANNING & BUILDING DEPARTMENT

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- Jackson Hole Fire/EMS
- Irrigation Company

<p>Date: January 30, 2024</p> <p>Item #: P23-204, P23-206 & P24-007</p> <hr/> <p>Planner: Tyler Valentine</p> <p>Phone: 733-0440 ext. 1305</p> <p>Email: tvalentine@jacksonwy.gov</p> <hr/> <p>Owner & Applicant: Presbyterian Church of Jackson Hole PO Box 7530 Jackson, WY 83002</p>	<p style="text-align: center;">REQUESTS:</p> <p>The applicant is submitting a request for a Planned Unit Development (PUD) Amendment, Development Plan, and Conditional Use Permit for 21 deed restricted workforce units located on Parcel 1 – (PT. NE1/4NW1/4 SEC. 6, TWP. 40, RNG. 116 PARCEL 1)</p> <p>PIDNs: 22-41-16-31-4-14-114</p> <p>For questions, please call Tyler Valentine at 733-0440 x 1305 or email the address shown to the left. Thank you.</p>
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Please respond by: February 20, 2024 (with Comments)

RESPONSE: For Departments not using SmartGov, please send responses via email to: planning@jacksonwy.gov



PO Box 9550 | 1315 HWY 89 S., Ste. 201
Jackson, WY 83002
PH: 307.733.5150
www.jorgeng.com

January 12, 2024

Tyler Valentine
Town of Jackson Planning Department
PO Box 1687
Jackson WY 83001

RE: P23-204 and P23-206 Presbyterian Church of Jackson Hole Workforce Housing Development

Tyler,

We are including a revised narrative and site plan for the applications previously submitted on behalf of the Presbyterian Church of Jackson Hole requesting Master Plan Amendment and Development Plan approvals. We are adding a Conditional Use Permit request to this proposal, contained herein. The site plan has been updated with a few changes, and the sheets attached to this e-mail should replace the previous submittal.

Please also see attached for our responses to the insufficiencies in regards to the original two applications. We are always available for further questions or discussion.

Thank you for your consideration.

Sincerely,

JORGENSEN ASSOCIATES

Mila Dunbar-Irwin
Deputy Planning Manager

January 11, 2024
Response to Insufficiency

1. ***This PUD Amendment seeks to add new uses, densities, and development processes. The application needs to clearly provide a new development table and allowed uses table showing existing and proposed. For example, a use table needs to be proposed that shows “Detached Single Family” as an allowed use along with “Apartment” or “Attached Single Family” as proposed uses. Staff recommends taking the entire NL-3 zone and redlining it specific to this property so that it is clear what can and cannot be built.***

See revised narrative Section 2.L. Redlining of the entire NL-3 zone was determined not to be required in conversation with Town staff.

2. ***More details on the use and management of the fellowship building are needed. Currently, the property is residentially zoned and any church-related uses or gatherings are considered “Institutional” which requires a Conditional Use Permit (CUP). The application provides very little information on this building which leaves the question open as to who uses it on a daily, weekly, monthly, or yearly basis. Town Staff, neighbors, and the Council will want to know its full potential and use. Please provide details on this building, how it is managed, who approves when it can be used, hours of its operation, etc. Staff recommends that the applicant provide these details before re-submitting so that staff can determine whether a CUP is required or not.***

See Section 2.A, footnote 1 of the revised narrative.

3. ***Please provide dimensions for all drive aisles, parking spaces, back-out distances, etc. Also, both South Park Loop Rd and Montana Rd are considered primary streets which require a 20’ building setback for primary structures and 30’ for accessory structures. Please show this change in the application and on the site plans.***

See revised site plan included with this letter.

4. ***During the preapplication conference it was presented, and understood, that the 1-unit of density on Parcel 2 would be transferred to Parcel 1. The idea was to shift and cluster all density onto the flatter development site (Parcel 1) to reduce disturbance near the hillside (Parcel 2). Transferring the unit was also part of the trade-off of staff supporting additional density being transferred to Parcel 1 from the overall unused Master Plan units. The application needs to address this density transfer as it was, and still is, part of staff’s consideration of this request.***

“Parcel 2” is not contemplated in this application and the density transfer is not listed as a requirement for development on the PreApp Checklists from 8/17/22 and updated 11/10/22.

5. ***The Housing Mitigation section needs more details and at minimum needs to show what the base housing requirement is (i.e. the calculator). This development may already be 100% mitigated since these units were approved well before the housing program was created in 1994. However, the applicant needs to provide more details on what their required housing is and how they intend to comply. Also, if the idea is to propose an exemption to the standard workforce restriction, now is the time to provide some of the details on who will be living in these units, the demand for year-round / seasonal workers, etc.***

See Section 2.G in the revised narrative.

- 6. 2D elevation of all buildings are required. Please include callouts of the proposed materials on the elevations.**

Requested elevations are included with this submittal.

- 7. The application mentions an Administrative Adjustment or shared parking agreement to comply with the parking requirement. Which one is it? If an administrative adjustment is requested, that needs to be checked on the planning application and requires a separate fee. If a shared parking agreement is proposed, which makes the most sense since the church has plenty of extra parking, the application needs to state how it plans to manage it, sign it, and ensure in perpetuity that the necessary parking remains on Parcel 1 in the event Parcel 1 is sold or subdivided into townhomes or condominiums.**

See Section 2.M in the revised narrative for parking discussion. A draft shared parking agreement is in process and will be provided as soon as possible.



January 18, 2023

Tyler Valentine
Town of Jackson Planning
150 E Pearl Ave
PO Box 1687
Jackson, Wyoming 83001

RE: Presbyterian Church of Jackson Hole Workforce Housing Development Fee Waiver Request

Dear Tyler,

On behalf of our clients, the Presbyterian Church of Jackson Hole (PCJH), we are requesting a partial or full fee waiver for the fees associated with the Development Plan and Master Plan Amendment (submitted concurrently with this letter). The project proposed is for a voluntary deed-restricted workforce housing development to house employees of PCJH and other qualified individuals. PCJH is a registered 501c(3) non-profit and provides many community programs including preschool, summer programs, and hosting covid vaccination clinics. The workforce housing development is essential to maintaining staff for their programs and will provide much-needed housing to other qualified Teton County residents. This is not a for-profit housing development.

This application is subject to the following fees:

Application	Fee
DEV	\$3,198
Master Plan Amendment	\$1,919
Conditional Use Permit	\$640
TOTAL	\$5,757

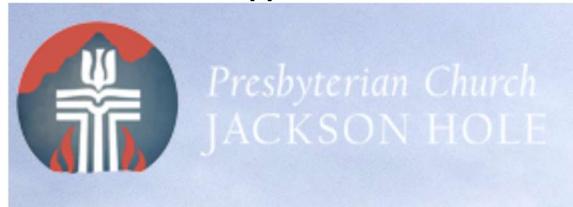
Should you have any questions or require additional information, please do not hesitate to contact me at our office. Thank you for your assistance.

Sincerely,
JORGENSEN ASSOCIATES, INC.

Mila Dunbar-Irwin
Deputy Planning Manager

**MASTER PLAN AMENDMENT,
DEVELOPMENT PLAN
and CONDITIONAL USE PERMIT
for
PRESBYTERIAN CHURCH of JACKSON HOLE
WORKFORCE HOUSING DEVELOPMENT**

Applicant:



Presbyterian Church of Jackson Hole
1251 South Park Loop Rd
Jackson WY 83001

Prepared by:



Jorgensen Associates, Inc.
Engineering, Surveying, and
Planning
1315 Highway 89 South,
Suites 201 & 203
P.O. Box 9550
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GreenSpur
Architects and
Designers
929 West Broad Street
Suite 200
Falls Church VA 22046
202.483.3794

Town of Jackson
Initial Submittal Date: November 10, 2023
Re-submittal Date: January 18th, 2023
Jorgensen Associates, Inc.
Project No. 22072

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SECTION 1 - PROJECT PROPOSALS, BACKGROUND, AND HISTORY

A. REQUESTED ACTIONS

The Presbyterian Church of Jackson Hole submits this application to build 21 workforce housing units and it triggers the need for three approvals by the Town of Jackson.

- One approval amends the Cottonwood Park Complete Neighborhood Master Plan (CNMP).
- The second approval entitles a development plan to build 21 deed restricted townhouses in two phases.
- The third approval grants a Conditional Use Permit (CUP) to allow an Institutional use of a small accessory building.

The property is zoned PUD NL-3. When the NL-3 is a stand-alone zoning district, it allows detached single family residential units. However, PUD zoning is applied because the property is in the Cottonwood Park CNMP and the master plan overrides the NL-3 standards.

This CNMP was approved in 1983 to allow 785 dwelling units in various types of housing. All but 59 of these units have been built and this requested amendment assigns 18 of the unbuilt units to the Church property, to be combined with three units already assigned to the property for a total of 21 residential units. This amendment also allows townhouse units on the Church property when the underlying NL-3 zone ordinarily only allows detached single family units. Finally, this application further amends the CNMP to allow an Institutional use on the housing parcel to allow Church related activities in the accessory building. The file on the master plan does not contain evidence that Institutional uses are allowed but another church (not PCJH) was approved, constructed, and currently operates in the CNMP. The CNMP and the amendments are discussed in greater detail below.

The second decision approves a development plan for 21 dwelling units, all of which will be deed restricted as workforce housing. These 21 units can be developed as unrestricted free-market houses, and because the CNMP was approved before any affordable housing requirements were adopted, they would not trigger a housing mitigation requirement. However, the Church proposes to voluntarily deed restrict all 21 units. This housing proposal is discussed in greater detail below.

Thirdly, this application requests a CUP for the Institutional use of the accessory building on the housing parcel. It is uncertain if this approval is necessary given the authority and status of the CNMP. But in the interest of clarity, a CUP is included in this request. The accessory building and its intended use are discussed in detail below.

B. OWNER & PROJECT TEAM INFORMATION

APPLICANT & PROPERTY OWNER:
Presbyterian Church of Jackson Hole
1251 South Park Loop Rd
Jackson WY 83001

LAND USE PLANNING, SURVEYING & ENGINEERING
Jorgensen Associates, Inc.
1315 Highway 89 South, Suites 201 & 203
P.O. Box 9550
Jackson, Wyoming 83002
307-733-5150

LAND USE PLANNING
Collins Planning Associates
740 East Pearl Ave
Jackson WY 83002
307.690.4436

DESIGN
GreenSpur
Architects and Designers
929 West Broad Street Suite 200
Falls Church VA 22046
202.483.3794

LANDSCAPE DESIGN
Teton Heritage Landscaping
PO Box 1748
Wilson WY 83014

C. PROPERTY DESCRIPTION and PRIOR APPROVALS

I. Location

The subject property is part of the Presbyterian Church campus and is located on the north side of South Park Loop Road, immediately west of the intersection with Hi-Country Drive. It is bordered on the north by Montana Drive, and by 295 Blair Place apartments immediately south of the property, on the opposite side of South Park Loop Road. The property generally is triangular in shape. Two driveways to the Church and about two dozen parking spaces in the Church parking lot occupy the western extremity of the property, which is the narrow part of the triangular shape.

The subject property is a 2.93-acre metes and bounds parcel that was created when South Park Loop Road was relocated. It is not in a platted subdivision. The County Commissioners and Four Lazy F Ranch executed a land exchange in 1993 that shifted the road to its present alignment. This 2.93-acre parcel, and another 3.74-acre parcel that is east of Hi-Country Drive, were created by the land exchange. In the land records, the subject parcel is depicted on map T-312C.

II. Ownership

Presbyterian Church of Jackson Hole purchased both the subject 2.93-acre parcel and the 3.74-acre parcel from the Four Lazy F Ranch in 1999. The Church also owns the adjoining 5.15 acres where the Church building and parking lot are located.

III. Zoning and Existing Assigned Density

The property is zoned PUD NL-3 and was assigned three density units by the County Commissioners as part of a land exchange with Four Lazy F Ranch. The land exchange provided Teton County land for the current alignment of South Park Loop Road and the County conveyed the subject parcel to Four Lazy F. A thorough review of the CNMP file did not reveal the basis for the choice of three units, but it is possible this number simply established a land value that allowed the exchange to go forward. In a letter describing the exchange, the Commissioners stated that the three density units would come from the 785 units approved in CNMP.

The NL-3, when standing alone and not coupled with a PUD zone, is a low density neighborhood zone intending to recognize existing residential neighborhoods. The NL-3 ordinarily permits detached single family dwelling units.

The PUD designation recognizes the long standing Cottonwood Park CNMP which has been developed over several decades and includes the subject property. The Land Development Regulations describe PUD zones as applying to large or complex developments that are planned as a single, continuous project. PUD zones allow greater design flexibility and variations from the strict application of underlying zoning district, when the variations achieve specific community goals that enhance implementation of the Jackson/Teton County Comprehensive Plan.

History of the Cottonwood Park CNMP is detailed below. It was approved in 1983 by both the County Commissioners and the Town of Jackson. Both jurisdictions approved numerous blanket variances (in the county) and PUD style variations (in the town). Among these variations were internal and external setbacks, thereby allowing alternative setbacks for the CNMP developments. Another variation allowed some buildings to be as tall as 38 feet in height. The Church's proposal uses one of the variations by proposing a 10 foot setback from South Park Loop Road when 20 feet is ordinarily required. There also is a potential need to take advantage of the building height variation to allow an historic building to be located on the site as the accessory community building. Both variations are described more fully below.

IV. Comprehensive Plan

The property is in Character District 5.5, West Jackson Residential, as defined in the Jackson/Teton County Comprehensive Plan. The workforce housing proposed by the Church exactly matches the “desired future character” for District 5.5 as described in the Comprehensive Plan. The Plan calls out the following elements of “desired future character” for the area that contains the Church property:

- “This subarea provides much of the community’s workforce housing in a wide variety of housing types, including single family, duplex, tri-plex and multifamily.”
- “In the future, effort should be made to ensure that this neighborhood retains its vitality, cohesiveness and accessibility for the local workforce.”
- “An important goal of the subarea will be to maintain a strong sense of ownership and community in the area.”

The Church proposal checks all these elements of the desired future character.

- ✓ The Church proposes 21 deed restricted workforce housing units in an area where the Comprehensive Plan prioritizes workforce housing.
- ✓ The Church plays a major role in building and maintaining a sense of community. It provides services, programs and activities for people of all ages. Church facilities are used for a wide variety of community purposes, including
 - hosting COVID vaccinations,
 - housing community residents during power outages,
 - hosting weekly community dinners,
 - conducting numerous programs for the community’s youth, and
 - accommodating community meetings.

The Church faces the difficult challenge of staffing the numerous community-serving programs, and has an immediate need for 10 workforce housing units. The remaining 11 units will be built in a future, and unscheduled, phase 2. The 10 phase 1 housing units address an essential need of the Church, and without the ability to house employees and program directors, the Church may not be able to continue its role in the community.

The Church will retain ownership of the housing and provide it to employees, program directors and others who work for the Church. If funding allows a faster development pace than anticipated and the phase 2 units can be built ahead of Church need, these units will be rented to other churches and non-profit organizations for an interim period, until the time when PCJH personnel will occupy them.

V. Cottonwood Park Complete Neighborhood Master Plan

The subject parcel is in the Cottonwood Park CNMP, a plan that was approved in 1983 and included 785 housing units and about 12 acres of commercial uses on approximately 158 acres. (Recent CNMP amendments have converted the commercial uses to residential uses.) The CNMP contains all phases of Cottonwood Park, Rangeview Park, Community Bible College, Ellenwood, Cottonwood Flats and Blair Place apartments. The CNMP was approved to include single-family houses, duplexes, attached clustered homes and townhouses, and a range of densities with highest density being 18.42 units per acre. The average density for the overall plan was approved at 8.93 units per acre. The current zoning applies the PUD designation to the entire CNMP area, including the Church property, to recognize the CNMP and enable its continued development.

The CNMP was proposed in 1983 for land in the unincorporated county that was zoned RPJ, a zoning district applied to land that was suitable for development and expected to be annexed into the town. (The subject property was annexed in 2006). This Master Plan was approved by the County Commissioners and, even though it was in the unincorporated county, there was broad expectation that the CNMP would be annexed and therefore the town approved it at the same time.

PUD and CNMP are master plans for large areas, and they may vary from county and town zoning standards to accomplish community goals. The Commissioners approved blanket variances for building heights, setbacks from exterior and interior property lines, separation between buildings, impervious surfaces, building lengths, parking requirements, street standards and rights-of-way width. The town approved the same list of variations using PUD type criteria that allow variations from the regularly applied zoning rules.

The CNMP has been developed over the last four decades, and now the only vacant parcels remaining in the Master Plan area are two parcels owned by the Church. (The two parcels created by the road relocation.) Of the 785 residential units that were approved in 1983, 59 remain unbuilt. Four of these units have been allocated to the Church's two parcels (three to the subject 2.93-acre parcel and one unit to the 3.74-acre parcel). The 3.74-acre parcel and its one density unit are not a part of this application. The CNMP has been amended at least a half dozen times over the years; this application proposes further amending the CNMP to allocate 18 of the unbuilt units to the subject property, to be added to three units already assigned to the parcel, for a total of 21 units. The CNMP amendment also permits townhouses on the subject property when the NL-3 zone, when standing alone and not coupled with a PUD zone, permits only single family dwellings. This application also amends the CNMP to permit the Institutional use of the accessory building on the housing parcel.

VI. Prior Approvals

This workforce housing site adjoins a separate parcel that contains the Church building and parking lot. A development plan approved in 1999 allowed the Church and parking lot to be built on 5.15 acres, land that originally was platted as six Indian Trails house lots and a street cul-de-

sac. A subsequent approval in 2006 authorized a 14,000-square-foot expansion to the Church. This 5.15-acre site is within the Indian Trails subdivision and is not in the CNMP.

The subject workforce housing parcel was not included in either the initial approval that allowed construction of the Church or in the second approval that permitted the expansion. However, the two driveways into the Church parking lot, and several parking spaces, occupy the western most part of the subject housing parcel.

VII. Natural Resources, Hazards

The property is essentially devoid of any significant natural resource. It is relatively flat, and the ground cover is labeled as introduced grasses, sagebrush and transitional ground cover. The most significant vegetation on the parcel are the blue spruce and aspen trees the Church planted between the two existing driveways to the Church parking lot. An irrigation ditch flows through the center of the property and will be protected by 15-foot setbacks on each side. No natural hazards exist on the site. Neither the Natural Resources Overlay nor the Scenic Resources Overlay apply to the property.

SECTION 2 – DEVELOPMENT PROPOSAL & FINDINGS

A. DEVELOPMENT PROGRAM

The Church proposes to develop 21 deed restricted townhomes on the 2.93-acre parcel in two phases as detailed below. All units will be deed restricted as workforce housing.

TABLE 1		
Phase One		
Unit Type	Number	Square Feet
One – Bedroom	2	695, 760
Two – Bedrooms	3	962
Two – Bedrooms	2	1,090
Four – Bedrooms	3	1,955
Community Building ¹	1	1,500
Total Res. Units, Sq. Footage	10	13,886
Covered Parking Spaces	10	
Phase Two		
Two – Bedrooms	5	962
Two – Bedrooms	4	1,090
Four – Bedrooms	2	1,955
Total Res. Units, Sq. Footage	11	13,080
Covered Parking Spaces	14	
Phase Three		
East end of site – reserved for future Church use		

1. Phase 1 will include a small community building located west of the housing units as an amenity for residents of the property. The Church also wishes to have the flexibility to use this building for Church related activities, and therefore a CUP for an Institutional use is included in this application.

Foreseeable uses by the on-site residents include the following.

- Residents of the small units reserving the space to host friends and dinners,
- Recreational and social gatherings, and
- Neighborhood meetings.

Foreseeable uses by the Church include the following.

- Bible study classes and other classroom activities,
- A fellowship hall for youth to gather for social activities, and
- Meetings.

The main Church building will continue as the primary location for activities, community events and large functions. Opportunities to relocate an historic structure onto the property for the community building are being explored. Two such structures are possible candidates.

A vacant land area on the eastern end of the property will be reserved for future Church use. There is no known use for this ground at the present time and any use of it will be in the distant future. This reservation simply avoids precluding use of this land area in the future.

B. PHASING

Timing of development is dependent on a fundraising campaign, but projections foresee phase 1 construction commencing within two years of approval. The church requests added flexibility of two years to commence construction instead of 18 months as ordinarily required by the LDR.

The timing of phase 2 construction is unknown but there will be efforts to build as soon as possible after completion of phase 1. Any future use of the eastern end of the property is unscheduled and expected to be many years away.

C. WATER, SEWER AND UTILITIES

See Engineer's Report. Sanitary sewer will be connected at existing Town of Jackson infrastructure in Seneca Lane. Water will be connected through an existing distribution system in South Park Loop Road. Communication lines will enter the site from an existing pedestal on the SE corner of the Church lot, and power will be provided from a new electrical vault to be installed in a similar location.

D. ACCESS, CIRCULATION

Access to the units and their parking will be provided by a driveway that enters from Montana Drive on the northern side of the property. This access location complies with a condition of the 1993 land exchange between the County Commissioners and Four Lazy F Ranch that created the new South Park Loop Road alignment. (See written agreement in Section 4.) A public pathway currently wraps around the property passing along the northern boundary. It has been proposed to be relocated to run along the southern edge of the property before turning north and crossing the site and connecting with the existing path in Montana Drive, and the site plan accommodates this change, however, it is not planned as part of this application.

E. BIKE STORAGE

All bike storage will be accommodated in a shared basement space underneath the unit blocks. It will be accessible to guests and residents via a staircase and door at the east end of the Phase One units and the west end of Phase Two units. Both long term and short term bike parking is proposed, built in accordance with each Phase. Phase One proposes 12 spaces in 6 long-term bike lockers (dimensions 33"W x 77.5"L x 50.25"H – 2 bikes per locker), and 12 short-term spaces via 6 racks with space for two bikes each. Phase Two proposes an additional 23 spaces, 6 bike lockers with space for two bikes each, and 6 bike racks also with space for two bikes each.

F. LANDSCAPING

A landscaping plan has been provided (see appendix), prepared by a licensed Landscape Architect, to comply with the Town of Jackson regulations. It depicts and quantifies the significant landscaping currently on the site that will be retained (46 trees, 5 shrubs, 2 bike racks). The landscaping plan also illustrates the 21 plant units that are proposed.

G. HOUSING MITIGATION PLAN, DEED RESTRICTIONS

The proposed development is exempt from affordable housing requirements in two ways, but all 21 units will be deed restricted as workforce housing, nonetheless.

The Cottonwood Park CNMP was approved prior to any affordable housing regulations, and per the Section 1.8, Transitional Provisions, the CNMP is exempt from affordable housing requirements. The Church's proposed development also is exempt from affordable housing requirements per Section 6.3.2.C. 2, as a voluntarily deed restricted development.

The units will be occupied by a full time year round employees of the Church and by seasonal program directors and workers. Urgent housing needs are expected to fill the 10 units in phase 1. If fundraising successes allow an early construction of phase 2, ahead of the Church's ability to house additional employees, units will be leased to other churches or non-profit organizations for an interim period of time. Notably, these residential units will house employees who already occupy existing jobs, rather than housing employees in new jobs created by new development.

All year round Church employees, and any non-PCJH employees will fully meet the definition of "employee" and their occupancy will comply with the terms of the workforce rental deed restriction. Seasonal program directors and other seasonal workers may live in the housing rent free and may occupy units for less than six months, and therefore PCJH likely will pursue modifications to the minimum six month lease term that ordinarily is required in the deed restriction.

Housing Department Rules and Regulations provide a procedure to request exceptions from certain detailed terms of the deed restrictions. The Church most likely will seek exceptions to match the atypical employment needs of their seasonal program directors. It also is foreseeable

that some Church personnel will occupy units with no lease or rent payment. This may require an exception from the required six-month minimum lease period .

H. LIGHTING, FENCING, OPERATIONAL STANDARDS, SUBDIVISION, DEVELOPMENT OPTION

Lighting across the site and on the buildings is shown on sheet A07 of the Architectural Drawing Set. All lighting will be downcast and will comply with the dark sky regulations.

No fencing is proposed.

No outside storage is proposed. Both phases will have enclosed trash sheds and the residential use will not generate any violations of other operational standards in the LDR.

The property will not be subdivided or deploy any other development option. The Church will retain ownership of all units and the total property.

I. DESIGN GUIDELINES

The Architectural Drawing Set in the Appendix illustrates the floor plans of all buildings, including the Fellowship Hall, and the elevations for the residential units. The exterior siding will be vertical stained wood and corten. The roof will be corten and the residential units will have a 8/12 roof pitch. All residential buildings will comply with the height limits and the Fellowship Hall will be 14 feet tall, unless an existing historic building can be moved onto the site which may be taller than 14 feet.

J. GRADING, EROSION CONTROL, STORM WATER

See Engineer’s Report in Section 3.

K. USE AND DENSITY

The NL-3 zoning permits single family detached housing at a density of one unit per lot. The minimum lot size in the NL-3 zone is 7,500 square feet. However, the subject parcel is zoned PUD NL-3 to accommodate the CNMP and allow its continued development. This master plan allows additional types of housing, including townhouses as proposed by the Church, and much higher densities than the underlying NL-3 zone. See the discussion above on the Cottonwood Park CNMP for a more detailed discussion. The proposal also contains a 1,500 square foot structure to serve as a community building.

L. PUD NL-3 ZONING STANDARDS, OTHER LDR STANDARDS

TABLE 2						
LDR Standards and Compliance						
Gross Site 2.93 acre 127,631sf						
LDR Standard	Required Allowed	Proposed		LDR Standard	Required Allowed	Proposed
FAR	.40 51,052	37,220		LSR	0.45 57,434	66,020
				Plant Units	1 per lot	21
Bldg. Height	30 8/12 pitch	29' 5" to ridge 25' 1" to mid- point		Accessory Bldg. Height	14	14 ²
Structure Setbacks				Parking Setbacks		
Primary St.	20	20		Primary St.	20	20, 10 ¹
Secondary St.	10	10		Secondary St.	10	10
Side, Interior	10	10		Side, Interior, Rear	5	5
Rear	10	10		Parking Spaces	2.5 per unit (53)	25

1. Variation from Primary Street Setback

Numerous variations from town zoning standards were approved in 1983, which is customary for CNMP or PUD style of developments. Setbacks were among the blanket variations that were approved. This proposal includes a 10 foot setback from South Park Loop Road, when 20 feet is ordinarily required in the underlying NL-3 zone. The applicant believes this variation from required setbacks was approved in 1983, but submits the following justification in the event the Town Council wishes to reapprove it.

- The planning staff has determined that both Montana Drive (abutting to the north) and South Park Loop Road are primary streets, thereby creating 20 foot primary street setbacks on both the north and south sides of the property. The housing units face an internal courtyard and back up to both streets.
- A steep slope along the northern property line prevents moving the development further

north and thereby reducing the setback from Montana Drive rather than South Park Loop setback.

- South Park Loop is located within a parcel (as opposed to an ordinary easement) that is 90 feet wide, and the Church's property line is 30 feet from the edge of the road shoulder.
- A few other buildings in Cottonwood Flats and Mountain View Meadows, that also back up to South Park Loop, have 10 foot setbacks from the Road, indicating that either the same reduction has been previously approved or that South Park Loop has not consistently been designated as a primary street.
- The center courtyard between the housing units is a defining feature of the site plan and creates a desirable living environment. This courtyard maintains 20 feet between the front porches that face one another. A 20 foot street setback would reduce this separation by half.
- The LDR apply PUD standards to previously approved CNMP (Sec. 4.4.1.B.1).
- The LDR establish the purpose of PUD zones as permitting variation from the strict application of the zoning district to achieve community goals and implement the Comprehensive Plan (Sec. 4.4.1.A). The Church proposes workforce housing consistent with the Comprehensive Plan goal of housing 65% of the workforce.
- LDR also state that development standards for each PUD are established by the PUD Master Plan and all physical development shall comply with the master plan (Sec. 4.4.1.D.1). The 1983 approval of the CNMP included variations from the setbacks in the underlying zoning districts, and this amendment provides an opportunity to reapprove the variation if the Town Council finds it desirable to do so.

2. Potential Variation from Accessory Building Height

Two historic structures are being investigated as possible candidates for relocation onto the subject property to serve as the accessory community building. If either structure is relocated to serve as the community building, it will be taller than 14 feet, and the Church requests approval to deploy the variation from the height limitation. If neither of these two candidates is used, a new structure will be built, and it will comply with the 14 foot height limitation.

M. PARKING

A total of 23 parking spaces are proposed for 21 workforce housing units when the LDR ordinarily requires 53 spaces. Providing the fewest number of parking spaces to adequately serve the development is in everyone's best interest.

- It avoids the visual impact of a large parking lot adjacent to the Church's existing 251 space lot.
- It also allows for the maximum number of workforce housing units to fit onto the property when the community disparately needs such housing.
- And it reduces the cost of building the workforce housing, making the development more financially possible.

The LDR provides a mechanism to reduce parking requirements on a case-by-case basis. A “shared parking” plan with an adjoining land use may be approved that allows some percentage of the parking to meet the LDR requirements of both uses. This application proposes a shared parking plan between the 21 residential units and the Church. In addition, the town in 1983 approved several blanket variations from the regulations of the underlying zoning district, including a variation from parking standards.

The shared parking standard regulations allows the parking required for a non-residential use to be shared with a residential use. When the residential use is deed restricted workforce housing, then 100% of the parking for the non-residential use may be satisfied by the parking provided for the residential use.

This proposal is a slightly different twist on the shared parking standard. Rather than reducing parking for the non-residential use (the Church), this request reduces the required parking for the residential use. One parking space per dwelling unit will be provided on the housing site of phase 1. Thirteen spaces will be provided on site for the 11 residential units in phase 2, for a total of 23 spaces for 21 units. Many of the residents of the housing will work for the Church, which is located adjacent to their residence, allowing parking spaces to serve both the employee’s workplace and residence. Also, the adjoining Church parking lot has 251 parking spaces, certainly enough to accommodate any overflow parking demand the housing may create from time to time. This proposal requests that remaining required parking for the residential use, and any generated by the CUP Institutional Use, be satisfied by the existing Church parking lot. A shared parking plan for 30+ spaces will be developed with the Church and presented for approval.

M. FINDINGS FOR APPROVAL

Applicable LDR and Proposed Compliance

Two threshold provisions in the LDR create the path for these applications to proceed to approval. Section 1.8.2 establishes the legal standing of CNMP and Section 1.8.3 establishes the method for amending these plans. Both provisions are highlighted below followed by the applicant’s responses.

Section 1.8.2.C. Approved Permits & Approvals, PUDs and Other Special Projects

The following projects shall remain valid and shall not be considered nonconforming regardless of their compliance with these LDRs;

- 5. Complete Neighborhood Master Plans that have vested their rights.***

The Cottonwood Park CNMP was approved by the County Commissioners in 1983 under regulations then in effect. (It was called a Planned Unit Development by the county LDR.) In anticipation of annexation into the town, the same master plan also was approved by the town, even though annexation had not yet occurred. The town’s terminology labeled the plan a CNMP.

The subject housing parcel is within the legal description of the CNMP and maps that illustrate the master plan have included the parcel for 40 years.

Development of the CNMP has occurred steadily over four decades, including many phases that occurred after the area was annexed. Of the 785 residential units that were approved, all but 59 have been built. In good faith reliance on the CNMP approval, infrastructure has been constructed, parks have been created and developed, fees and exactions have been paid.

There is no question that the Cottonwood Park CNMP is fully vested and entitled to be completed.

Section 1.8.3 Amendments to Approved Permits and Approvals

A proposed minor deviation or amendment to an existing permit or approval shall be reviewed pursuant to the standards and procedures of Section 8.2.3.

Section 8.2.3 establishes the “findings for approval” that must be satisfied as a prerequisite for approval of the CNMP amendment. These “findings” are in multiple LDR sections, and they are highlighted below followed by the applicant’s responses.

An approved and vested CNMP can be amended per the LDR and the Cottonwood Park CNMP has been amended multiple times over the years, at least six times. A recent amendment changed the northwest corner of the CNMP from a commercial designation to residential uses and cleared the way for Cottonwood Flats to be built. This application includes an amendment to the CNMP to locate 18 of the unbuilt 59 units on the subject property, to be added to the three units already assigned to the property, allowing for a total of 21 units, and to allow townhouses on the site.

CNMP Amendment Findings, DEV Findings, CUP Findings

Amending the CNMP requires the findings in five LDR sections to be satisfied. There are two additional sets of findings for approving the development plan and the CUP for the Institutional use. The findings of all seven sections are highlighted below followed by the applicant’s responses. Many of the findings are duplicative but repetitive responses are avoided.

Section 8.2.13 Findings For Amendment To CNMP

Section 8.2.13.D.3 PUD Amendment, PUD Option No Longer Available.

- a. Improve the implementation of the desired future character of the area identified in the Jackson/Teton County Comprehensive Plan.*** The subject property is in Character District 5.5, West Jackson Residential, as defined in the Comprehensive Plan. The workforce

housing proposed by the Church exactly matches the “desired future character” for this District. The Comprehensive Plan calls out the following elements of “desired future character” for District 5.5.

- “This subarea provides much of the community’s workforce housing in a wide variety of housing types, including single family, duplex, tri-plex and multifamily.”
- “In the future, effort should be made to ensure that this neighborhood retains its vitality, cohesiveness and accessibility for the local workforce.”
- “An important goal of the subarea will be to maintain a strong sense of ownership and community in the area.”

The Church checks all these elements of the “desired future character.”

- ✓ The Church proposes 21 workforce housing units in an area where the Comprehensive Plan prioritizes workforce housing.
- ✓ The Church plays a major role in building and maintaining a sense of community. It provides services, programs and activities for people of all ages. Church facilities are used for a wide variety of community purposes.
- ✓ The Church will retain ownership of the housing and provide it to employees, program leaders and others who staff the many activities. This housing is essential for the Church to continue the services and activities that build and maintain a sense of community.

b. Comply with the requirements of the underlying base zoning to the maximum extent practicable. Please see the section above that details full compliance with the underlying NL-3 zoning. Several blanket variations to the 1983 zoning were approved, but this application does not rely on them. **Complies.**

c. Complies with the standards of the Natural Resource Overlay (NRO) and Scenic Resources Overlay (SRO), if applicable. The property is not in either overlay zone. **Not applicable.**

d. Not adversely impact public facilities and services, including transportation, potable water and wastewater facilities, parks, schools, police, fire and EMS facilities. Please see the Engineer’s Report that accompanies this application for detailed information. Municipal water and sewer lines are immediately adjacent to the property and adequate capacity exists in both systems to accommodate this proposed housing. The sewer extension onto Church property also provides an opportunity for future connections to the adjoining residential neighborhood, which could eliminate known septic problems in that area. The development will house personnel, program directors and others who work at the adjoining Church. This immediate proximity between the workforce housing and the Church will avoid adding traffic to nearby roads during the peak commuting time of day. **Complies.**

Section 8.7.4 D Planned Unit Development Findings for Approval

2. ***The extent to which the PUD enhances the implementation of the desired future character for the land of the proposal beyond what could be achieved by base zoning.*** See above response for a description of “desired future character.” The underlying zoning of NL-3 allows only single family detached houses on 7,500 square foot lots, a development pattern that cannot provide workforce housing. The CNMP unquestionably provides workforce housing, and therefore better achieves the “desired future character,” than the NL-3 zone. **Complies.**
3. ***The findings for the applicable PUD option found in Article 4.*** The applicable findings in Article 4 are identical to the findings above in Section 8.2.13 D 3. **Complies.**
4. ***The applicable findings for the amendment of an existing PUD or other special project found in 8.2.13.D.*** See above responses to Section 8.2.13. D. **Complies.**
5. ***The findings of Sec. 8.7.2.*** See below responses to Section 8.7.2. **Complies.**
6. ***The findings of Sec. 8.7.3.*** See below responses to Section 8.7.3. **Complies.**

Section 8.7.2.C LDR Text Amendment Findings

1. ***Is consistent with the purposes and organization of the LDRs.*** This amendment to the CNMP is clearly consistent with the adopted purposes of the LDRs. The primary purposes of the LDR are to implement both the common values of community character and the illustration of the community vision. The adopted common values are threefold: a) ecosystem stewardship; b) growth management; and c) quality of life.

Adopted Common Values

- a. Ecosystem Stewardship;
Steering development to the subject parcel promotes the ecosystem stewardship in multiple ways. Development will occur on property that
 - is relatively devoid of natural resources;
 - is in neither the SRO nor NRO and
 - does not contain any agricultural resources.

- Vegetative cover type is sagebrush, introduced grasses and transitional vegetation.
- Most valuable vegetation consists of the aspen and blue spruce trees that were planted between the two existing driveways by the Church and a few trees along the irrigation ditch. All these trees will remain undisturbed by the proposed development.
- Furthermore, housing Church personnel, program directors and others on the Church campus, promotes the stated value of lessening consumption of nonrenewable energy, namely the energy consumed by transportation between home and work.

b. Growth Management;

Developing the subject parcel also furthers the growth management values of directing development into complete neighborhoods and maintaining the Town of Jackson as the primary location for jobs and housing. Using density units that already have been approved, rather than creating new development rights, implements another critical growth management goal. This proposed development will not add to the projected build-out population of the county, a foundational point of the community's growth management goals.

c. Quality of Life.

The quality of life value listed among the purposes of the LDR calls for workforce housing opportunities to house 65% of the local employees. This proposed development hits the bullseye. This proposed housing is for employees, program directors and others who already work at the Church. This proposal is not a new development that will create its own demand for additional housing, and then simply house its own new employees. This development essentially will house people who are already here.

Implement Illustration of Community Vision

In addition to implementing these common values, the other adopted purpose of the LDR is to implement the community vision. The vision refers to the "desired future character" of the area containing the property. The area containing the subject property is included in Character District 5.5. Please see the discussion above that describes the response to this finding. **Complies.**

- 2. Improves the consistency of the LDRs with other provisions of the LDRs.** Amending the Cottonwood Park CNMP to locate housing on the Church property is consistent with numerous standards of the LDRs. Namely, the amendment is consistent with the stated purposes of the LDRs, as detailed above. This application follows the adopted procedure for amending existing PUD and CNMP and is consistent with the numerous

findings for such amendments, as detailed in other parts of this application. Furthermore, the development that will be permitted by this amendment

- does not invoke the natural resource protections of these LDR,
- is consistent with LDR that require and incentivize workforce housing, and
- complies with the physical development standards of the underlying NL-3 zone. **Complies.**

3. *Provides flexibility for landowners within standards that clearly define desired character.* Amending the CNMP creates flexibility for the landowner to develop workforce housing on a vacant part of the Church campus in a manner that perfectly accomplishes the “desired future character” of the area. **Complies.**

4. *Is necessary to address changing conditions, public necessity, and/or state or federal legislation.* Extraordinary housing costs create a crisis that impacts every part of our community, and this impact is steadily worsening. There is an extreme public necessity for workforce housing of every type and the magnitude of this necessity overwhelms the financial resources that are available to address it. This amendment to the CNMP is in direct response to this public necessity. **Complies.**

5. *Improves implementation of the Comprehensive Plan.* The amendment to the CNMP and the development application to develop 21 workforce housing units implement the Comprehensive Plan in numerous ways. The applications will:

- help house 65% of the workforce by building 21 units to house employees who already work here;
- avoid adding to the build-out potential of the county by using development rights that already have been approved and vested, but not yet built;
- steer development into a “complete neighborhood” (Town of Jackson);
- locate development on a site devoid of natural resources, thereby avoiding any conflict with goals to maintain the ecosystem; and,
- locate development near a transit bus stop, thereby promoting the transportation goals. **Complies.**

6. *Is consistent with other adopted Town Ordinances.* The proposed amendment to the CNMP and the development plan to build 21 residential units create no inconsistency with other Town Ordinances. **Complies.**

Section 8.7.3 C Zoning Map Amendment Findings for Approval

1. *Is consistent with the purposes and organization of the LDRs.* See response above. **Complies.**

2. ***Improves implementation of the desired future character defined in the Illustration of Our Vision chapter of the Comprehensive Plan.*** See response above. **Complies.**
 3. ***Is necessary to address changing conditions or a public necessity.*** See response above. **Complies.**
 4. ***Is consistent with the other adopted Town Ordinances.*** See response above. **Complies.**
-

Section 4.4 Planned Unit Development

F. Amendment of an Existing PUD or Other Special Project. This subsection requires compliance with the findings in Section 8.2.13 D, which is addressed above.

Section 8.3.3 C Development Plan Findings for Approval

1. ***Is consistent with the desired future character for the site in the Jackson/Teton County Comprehensive Plan.*** See response above. **Complies.**
2. ***Achieves the standards and objectives of the Natural Resource Overlay (NRO) and Scenic Resources Overlay (SRO), if applicable.*** **Not Applicable.**
3. ***Does not have significant impact on public facilities and services, including transportation, potable water and wastewater facilities, parks, schools, police fire, and EMS facilities.*** See response above. **Complies.**
4. ***Complies with the Town of Jackson Design Guidelines.*** **Not Applicable.**
5. ***Complies with all relevant standards of these LDRs and other Town Ordinances.*** See both discussions above about complying with standards of the underlying zone and consistency with other Town Ordinances. **Complies**
6. ***Is in substantial conformance with all standards or conditions of any prior or applicable permits or approvals.*** The proposed development is consistent with the Cottonwood Park CNMP as amended by a concurrent application. The subject property was not a part of the CUP issued for the Church construction and for its subsequent expansion. **Complies.**

Section 8.4.3 C Conditional Use Permit Findings for Approval

The CUP request is to allow an Institutional use of the accessory building.

1. *Is compatible with the desired future character of the area.*

In addition to the workforce housing, the desired future character of District 5.5 is to “maintain a strong sense of ownership and community” The Church is a major civic member of the community and engages in numerous important functions that maintain community. This accessory building complements and supports the Church’s ongoing community based activities. **Complies.**

2. *Complies with the use specific standards of Div. 6.1. and the zone.*

The subject property and accessory building are the Cottonwood Park CNMP, which varies from the underlying NL-3 zoning district. Accompanying this CUP request is an amendment to the CNMP to permit the Institutional use of the accessory building in a way that complements PCJH (which is not in the CNMP). Notably, the CNMP contains another church that was approved as a principal use. **Complies.**

3. *Minimizes adverse visual impacts.*

The accessory building will be approximately 1,500 square feet in size, in an architectural style compatible with the adjacent residential development, and it is setback approximately 60 feet from the edge of the travel surface in South Park Loop Road. **Complies.**

4. *Minimizes adverse environmental impacts.*

The property essentially is devoid of natural resources, is not located in the NRO or SRO, and the ground cover is classified as introduced and transitional vegetation. The overall development, and this accessory building, will create no negative environmental impact. **Complies.**

5. *Minimizes adverse impacts from nuisances.*

The uses of the building will create no negative impact. They will include small gatherings, mostly classes and bible studies and other indoor activities, and occasionally small outdoor

groups around a fire ring. **Complies.**

6. Minimizes adverse impacts on public facilities.

The uses of the accessory building will create negligible demands on water and sewer infrastructure, and will be used by residents of the adjoining residential units or visitors who otherwise will be at the adjoining Church. **Complies.**

7. Complies with all other relevant standards of these LDRs and all other Town Resolutions.

The accessory building and its uses will comply the dimensional limitations in the underlying NL-3 zone and will be consistent with the CNMP, which already contains another church within its boundaries. **Complies.**

8. Is in substantial conformance with all standards or conditions of any prior applicable permits or approvals.

The proposed CUP is consistent with the CNMP, which already contains another church within its boundaries. **Complies.**

SECTION 3 – ENGINEER’S REPORT

A. INTRODUCTION

This Engineer’s Report is intended to provide the engineering basis for design and to discuss engineering related topics for the development of Parcel 1, PT. NE1/4NW1/4 Section 6, Township 40, Range 116. The proposed development is split into two phases. Phase one includes 10 residential units intended to be employee housing and one cabin for communal space. Existing Town of Jackson road, water, sanitary sewer, and storm sewer infrastructure will be used to serve the development. Electrical, gas, and communication utilities are in place at or near the proposed development. The basic layout site plan attached in **Section 5** and the general engineering items are discussed here.

B. SETTING

The site is located at the intersection of South Park Loop Road and Hi-Country Drive in the west part of the Town of Jackson and is part of the 3-parcel site for the Presbyterian Church of Jackson Hole. There is one parcel dedicated to the Church and its parking lot, another that contains a trailhead and is undeveloped, and the subject parcel, which contains a community garden and an irrigation ditch. The site hasn’t seen any other developments.

C. GRADING, EROSION CONTROL, DRAINAGE, & STORMWATER

Proposed conditions on site for phase one include two (2) residential buildings comprised of 10 total units, one (1) cabin for communal space, and ground level parking spaces. The residential buildings will be separated by a common open space. Phase one also includes a courtyard separating the residential buildings and the cabin. Proposed conditions on site for phase two include two (2) residential buildings and a ground level parking lot.

Stormwater release rate has been determined using pre-development conditions as specified in the most current version of the Town of Jackson Land Development Regulations. The three proposed ground floor parking spaces beneath the two upper-level units in Phase One will be sloped towards trench drains to capture stormwater running down the parking spaces and driveway. All captured stormwater will be carried to infiltrators or bottomless catch basins for disposal through underground infiltration.

D. SOILS AND SITE CONDITIONS

An original Geotechnical Investigation Report was produced by Jorgensen Geotechnical, LLC in the spring and summer of 2022 is attached herein in **Section 4**. The report identified the underlying soils as stony alluvial deposits which are deemed suitable for construction after removal of topsoil and other deleterious material and compaction. The site has been determined to be in an area of moderate seismic activity due to its proximity to the Teton

Fault. Appropriate coefficients should be used in the design of structures.

E. ROADS AND ACCESS

Vehicular access to the site will be provided from Montana Road. The Church Lot access located on the western portion of the site will remain but will not serve the proposed development. There will be pedestrian access provided from the church parking lot to the proposed development.

F. TRAFFIC

A Traffic Impact Study (TIS) was completed in 2023 by Jorgensen Associates for this development. The TIS indicates a satisfactory level of service at the intersection between South Park Loop Road and Hi-Country Drive. The level of service at this intersection decreases with time and is likely to meet conditions for lower operational capacity with or without the PCJH Employee Housing Facility by 2035. The completed Traffic Impact Study for this project is presented in a separate document titled “Presbyterian Church of Jackson Hole Employee Housing Center Traffic Impact Study” and attached herein **Section 4**.

G. PARKING

The development proposes the construction of twenty-one (21) condominium units consisting of a mix of one, two, three and four-bedroom units. All units are intended for workforce housing and would require two (2) parking spaces per unit. In this application, one parking space per unit is shown plus guest parking, and a proposal for allowing this parking calculation are included with this application in the narrative section. Phase one includes ten total parking spaces: three covered parking spaces under two units and seven uncovered parking spaces. Guest parking for phase one will be accommodated via an MOU with the Church and will be in the church parking lot. One of the uncovered parking spaces will be designated for ADA. Phase two includes thirteen parking spaces – 11 for residences and 2 for guests, all uncovered, with one ADA space.

H. PATHWAYS

According to the 2015 Community Streets Plan, South Park Loop Road, Hi-Country Drive, and Blair Drive are designated to include Multi-Use Pathways. Bike paths are provided west of the intersection along South Park Loop Road, south of the intersection along Blair Drive, and north of the intersection along Hi-Country Drive. A conceptual depiction for realigning the existing bike path across the frontage of the site is shown within sheet C1.0 of the attached site plan within **Section 5**. This is shown as a concept only and is not part of the DEV.

I. WATER

Water will be supplied by the Town of Jackson (TOJ) through the existing distribution system located within South Park Loop Road. Connections to the TOJ system will require an encroachment permit and a coordinated effort with the TOJ Public Works Department to

identify the appropriate water service tap location. Once the system is on the project property it will be owned and operated by the development and all maintenance will be the responsibility of the development. The project team will coordinate with the TOJ Engineering and Public Works Department for capacity fees, backflow protection, water meter size, domestic, irrigation, and fire suppression installation arrangements. Coordination with the Town Engineer will be essential as water demand values are refined and the site infrastructure design advances. The project team will also coordinate with the Fire Department to ensure adequate fire protection measures are in place.

The maximum domestic water demand is estimated based on the building program bedroom count to be approximately 17,680 gallons per day (gpm) with a peak hour flow of approximately 49 gpm (Peak Factor 4). Water Demand was calculated using the AWWA M22 method estimated at 58 gpm based on fixture counts for all buildings. The higher value of the M22 is likely due to the additional fixtures generated by each half-bath within all units. A water model analysis with the above criteria was performed utilizing a 6-in domestic service and estimates the pressure at the building under the maximum daily demand to be 88 psi at the building and 87 psi at the TOJ 12-inch main. The expected velocity in the 6-inch domestic service is 0.14 fps. The expected velocities in the 12-inch main are expected to be 0.63 fps upstream of the connection and 0.52 fps south of the connection.

The fire suppression system demand is estimated to be 1,500 gpm from Appendix B, Table 105.2 of the 2021 International Fire Code based on the proposed building area and Type III-B construction. A water model analysis with the above criteria was performed utilizing a dedicated 6-inch fire service and estimates the pressure at the building under the fire flow and maximum daily demand to be 63 psi and 63 psi at the TOJ 12-inch main. The expected velocity in the dedicated 6-inch fire service is 0.12 fps. The expected velocities in the existing 12-inch main line is South Park Loop Road are expected to be 0.12 fps upstream of the connection and 0.15 fps south of the connection. The project team will coordinate with the fire sprinkler designer as the project advances and coordinate with the Fire Department to ensure adequate fire protection measures and equipment are in place.

Based on the water model analysis, it is expected that adequate capacity is available from the existing TOJ water main without additional improvements to the system.

A water demand estimate analysis is included in **Section 4**. A more detailed infrastructure layout is included with the Development Plan Submittal.

J. WASTEWATER

Sanitary sewer will be connected to the existing Town of Jackson sewage collection lines in Seneca Lane and eventually be treated at the TOJ Wastewater Treatment Plant in South Park. The sewage collection lines internal to the project will be the responsibility of the

development for operation and maintenance. Coordination between the building mechanical design and the TOJ Public Works Department will identify the appropriate service tap location. Continued coordination with the Town Engineer will be essential as wastewater flows are refined and the site infrastructure design advances.

A wastewater demand estimate analysis is included in **Section 4**. A more detailed infrastructure layout is included with the Development Plan Submittal.

K. CABLE UTILITIES

Communication lines will enter the project from an existing pedestal and transformer located on the southeast corner of the Church Lot. Power will enter the project from a new electrical vault to be installed near an existing power pole located near the southeast corner of the Church Lot. Lower Valley Energy and Cable Utility lines arrive at the site via buried utility lines through the northern portion of the site. Utility lines will be distributed to all buildings for phase one along with empty conduits for future connections during phase two.

L. SNOW STORAGE

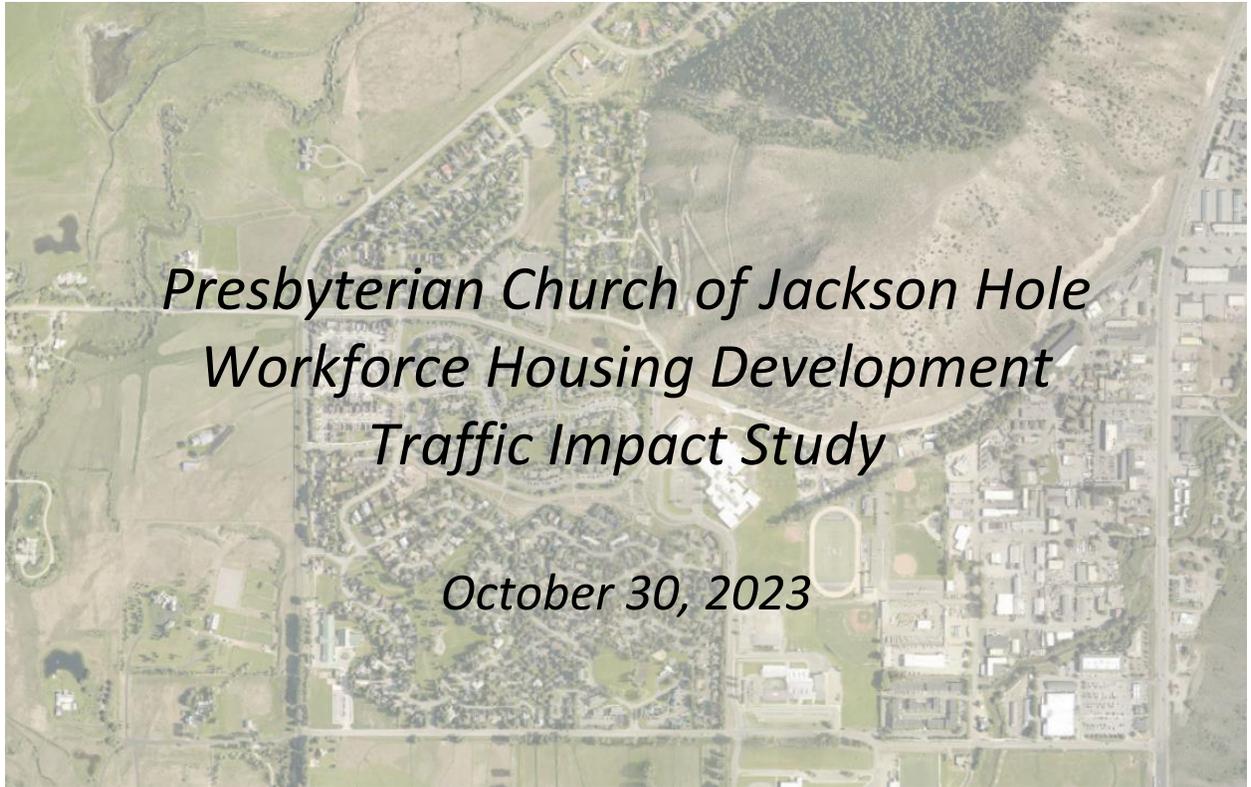
Snow storage for the site is provided within areas adjacent to driveway and parking areas. Snow storage along the open space corridor between the buildings will be provided within all landscape areas.

M. GROUNDWATER, STREAMS, & RIVERS

There are no permanent streams or rivers on the site, but it does contain the Leeks Ditch, an irrigation ditch, conveying water from north to south that bisects the property. Groundwater was not encountered during the 2022 investigation by Jorgensen Geotechnical LLC. Six groundwater monitoring well standpipes were installed at depths ranging from 11.2-ft to 12.3-ft below ground surface. All standpipes never saw any groundwater penetration for the duration of the investigation.

SECTION 4 – TRAFFIC, ACCESS, GEOTECHNICAL INVESTIGATION, WATER and WASTEWATER CALCULATIONS

- **TRAFFIC IMPACT STUDY**
- **1993 ACCESS AGREEMENT**
- **GEOTECHNICAL REPORT**
- **WATER AND WASTEWATER CALCULATIONS**



*Presbyterian Church of Jackson Hole
Workforce Housing Development
Traffic Impact Study*

October 30, 2023



Prepared For:

*Presbyterian Church
JACKSON HOLE*

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I. EXECUTIVE SUMMARY

With a focus on affordable workforce housing, the Presbyterian Church of Jackson Hole (PCJH), Wyoming, is pursuing the development of 21 deed-restricted workforce housing units consistent with the area's Comprehensive Plan identified District 5: West Jackson, Subarea 5.5: West Jackson Residential designation. The PCJH intends to construct 10 of the units initially and does not have an established timeline yet to develop the remaining units. This study includes analysis assuming development of all 21 units to evaluate the full build out condition.

The project site plan has been designed to accommodate potential future public transportation improvements, such as the installation of an adjacent START Bus stop, to facilitate convenient public transportation access for the residents. Additionally, the site plan allows for the realignment of the nearby pathway, which could improve safety and accessibility for bikers, pedestrians, and motorists. These features are proposed as potential ideas to the Town for consideration, rather than being included in the current project scope.

The study relied on traffic data collected by Jorgensen in September 2023. The anticipated trips generated by the PCJH Workforce Housing Development are based on the proposed development of 21 housing units. The traffic scenarios studied included 2025 baseline conditions without the proposed PCJH project, 2025 with the proposed PCJH Workforce Housing Development (opening conditions), 2035 baseline conditions assuming no housing development, and 2035 conditions with the PCJH project. For each traffic scenario, the intersection of South Park Loop Road and Blair Drive were analyzed at three different peak hours during the day and for traffic access at the Montana Drive / South Hi-Country Drive intersection. For the intersection of study, the Level of Service (LOS), a qualitative measure used to relate the quality of traffic service designated on a scale from A to F where LOS A represents the best operation and LOS F represents congestion/failing traffic conditions, was determined.

The study concludes that South Park Loop Road baseline conditions in 2025 is anticipated to operate at a satisfactory level of service B during the AM peak hour. In 2035, the intersection decreases to LOS D without the PCJH development. The eastbound traffic at the intersection is currently operating at a LOS B. The eastbound approach at this intersection will decrease to E 2035 with or without the PCJH Workforce Housing Development if the transportation circulation remains as is. The overall LOS of the intersection will decrease from B to D with or without the PCJH development.

With excellent access to several existing and proposed transit routes as well as nearby active transportation links (pathways, sidewalks, etc.) along Blair Drive and South Park Loop Road, the trips generated by this development are not expected to have any significant impact on levels of performance on adjacent streets and intersections or to the regional street system.

II. INTRODUCTION

The Presbyterian Church of Jackson Hole (PCJH), Wyoming, plans to develop 10 deed-restricted workforce housing units with a potential buildout of 21 total units, in alignment with the area's Comprehensive Plan that emphasizes the creation of affordable workforce housing. The church plays a key role in fostering community through diverse services for all ages, including summer camps and a pre-school program. Its facilities hosted COVID vaccinations, provides temporary housing, and hosts a variety of community events. To sustain its active role in the community, the church confronts the

challenge of staffing numerous community-serving programs, thereby emphasizing the immediate necessity for 10 workforce housing units. This housing is vital to fulfil the church's operational needs, as a failure to accommodate employees and program directors will result in cancelled programs. The church will maintain ownership of the housing units and deed restrict them for workforce housing as per Teton County housing regulations.

The site is 2.93 acres in size and is landlocked by Montana Drive to the north, South Hi-Country Drive to the east, South Park Loop Road to the south, and The Presbyterian Church to the west. Through coordination with Teton County, PCJH has placed the access to the site from Montana Drive. The intersection of South Park Loop Road, South High-Country Drive, and Blair Drive will be the primary intersection impacted by the proposed project. This study evaluates the impact of the new development on traffic volumes, speeds, and safety at the intersection of South Park Loop Road, South High-Country Drive, and Blair Drive.

Jorgensen Associates, Inc. (Jorgensen) has been commissioned to conduct a comprehensive Traffic Impact Study (TIS) for the proposed PCJH Workforce Housing Development to evaluate its impact on the adjacent transportation system. This TIS adheres to the guidelines set forth by Teton County LDRs (Land Development Regulations) and references the WYDOT Traffic Studies Manual, March 2011 Edition, for relevant study criteria.

III. STUDY AREA

The proposed site for the Presbyterian Church of Jackson Hole Workforce Housing Development Project is southeast of the existing Presbyterian Church located at 1251 South Park Loop Road. A schematic of the site and study area are shown in Figure 1. The subject property access road will connect to Montana Dr. and South Hi-Country Drive. This is within the Town of Jackson (Town) limits.

Existing Land Uses

The existing site is a 2.93 acre metes and bounds parcel that was created when South Park Loop Road was relocated. The proposed project will be located on undeveloped land located near South Park Loop Road and Montana Drive in Jackson Hole, Wyoming. In the land records, this parcel is depicted on map T-312C. The adjacent land uses are the church, single family homes, vacant land, and Jackson Hole Middle School.

Proposed Site Legal Description

The property is located within the jurisdiction of Teton County (CR 22-1) and is a 2.93 -acre portion of the parcel with the legal description of PT. NE1/4NW1/4 Section 6, Township 40, Range 116 Parcel 1. The project study area public road boundaries, for purposes of this study, are generally described as follows:

1. East Boundary – South Hi Country Drive
2. West Boundary – Presbyterian Church of Jackson Hole
3. North Boundary – Montana Drive
4. South Boundary – South Park Loop Road

The following primary intersections within the study area were analyzed as part of this study:

1. South Park Loop Road/Blair Drive

The existing roadway corridor for South Park County Road 22-1, a major collector, includes the following deeds and easements:

1. **Easement Book 8 MIXED RECORDS, p. 515.** This remnant portion of one of several initial easements for South Park Road is an approximately 25-foot-wide strip extending approximately 1200 feet from the northwest corner of Section 6 to its intersection with southwesterly boundary of the Presbyterian Church parcel deeded in Book 405, pages 1199-1202. Portions of the initial easements have been vacated as the alignment of South Park Road was altered circa 1998.
2. **Easement Book 8 MIXED RECORDS, p. 511.** This easement is a 30-foot-wide strip on the southern boundary of Indian Trails Addition to the Town of Jackson (Plat 830). Portions of the strip have been deeded to the Town of Jackson (Book 408, p. 312-313) and to the Presbyterian Church (Book 408, p. 318-319). Note: portions of this easement are no longer part of the corridor for South Park Loop Road since its realignment.
3. **Warranty Deed Book 301, p. 667-772.** Two parcels owned by Teton County. One parcel is situated immediately south of the aforesaid easement strip extending from the northwest corner of Section 6 to the east boundary of Government Lot 3 of Section 6. The second parcel is a portion of Hi-Country Drive. The two parcels also include portions of Montana Road and Hi-Country Drive.

The existing roadway corridor for Montana Road includes the following deeds and easements are as follows:

1. **Easement Book 8 MIXED RECORDS, p. 512.** Portion of previous alignment for South Park Road that is now a portion of the Montana Road corridor. The easement encumbers portions of Lot 1 of Larry's Subdivision (Plat 538), Lot 1 of Hi-Country Subdivision (Plat 181), and portions of Hi-Country Drive.
2. **Easement Dedication Larry's Subdivision Plat 538.** A forty-foot-wide strip on the west boundary of Larry's Subdivision dedicated as a private roadway on the subdivision plat for Larry's Subdivision. Note: Teton County GIS depicts the easement as 30-foot width.
3. **Quitclaim Deed Book 367, p. 954-957.** This parcel owned by Teton County includes portions of the Montana Road corridor and the Hi-Country Road corridor.
3. **Warranty Deed Book 301, p. 667-772.** See notes at number 3., South Park Road Corridor.

The existing roadway corridor for Hi-Country Drive includes the following deeds and easements are as follows:

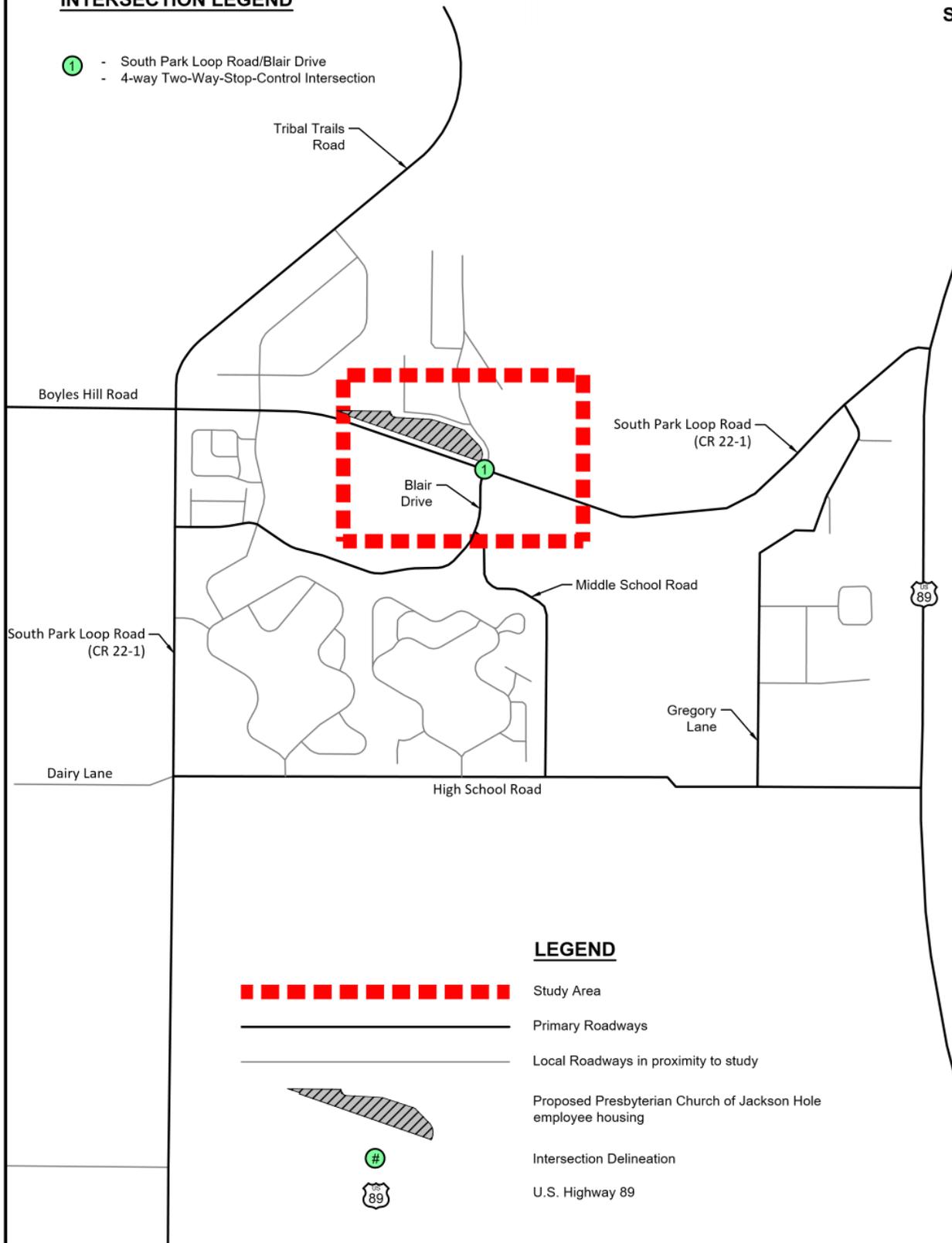
1. **Warranty Deed Book 301, p. 667-772.** See notes at number 3., South Park Road Corridor.
2. **Quitclaim Deed Book 367, p. 954-957.** See notes at number 3., Montana Road Road Corridor.

These existing roadway easements are shown in Figure 2 Roadway easements

FIGURE 1
STUDY AREA

INTERSECTION LEGEND

- ① - South Park Loop Road/Blair Drive
- 4-way Two-Way-Stop-Control Intersection



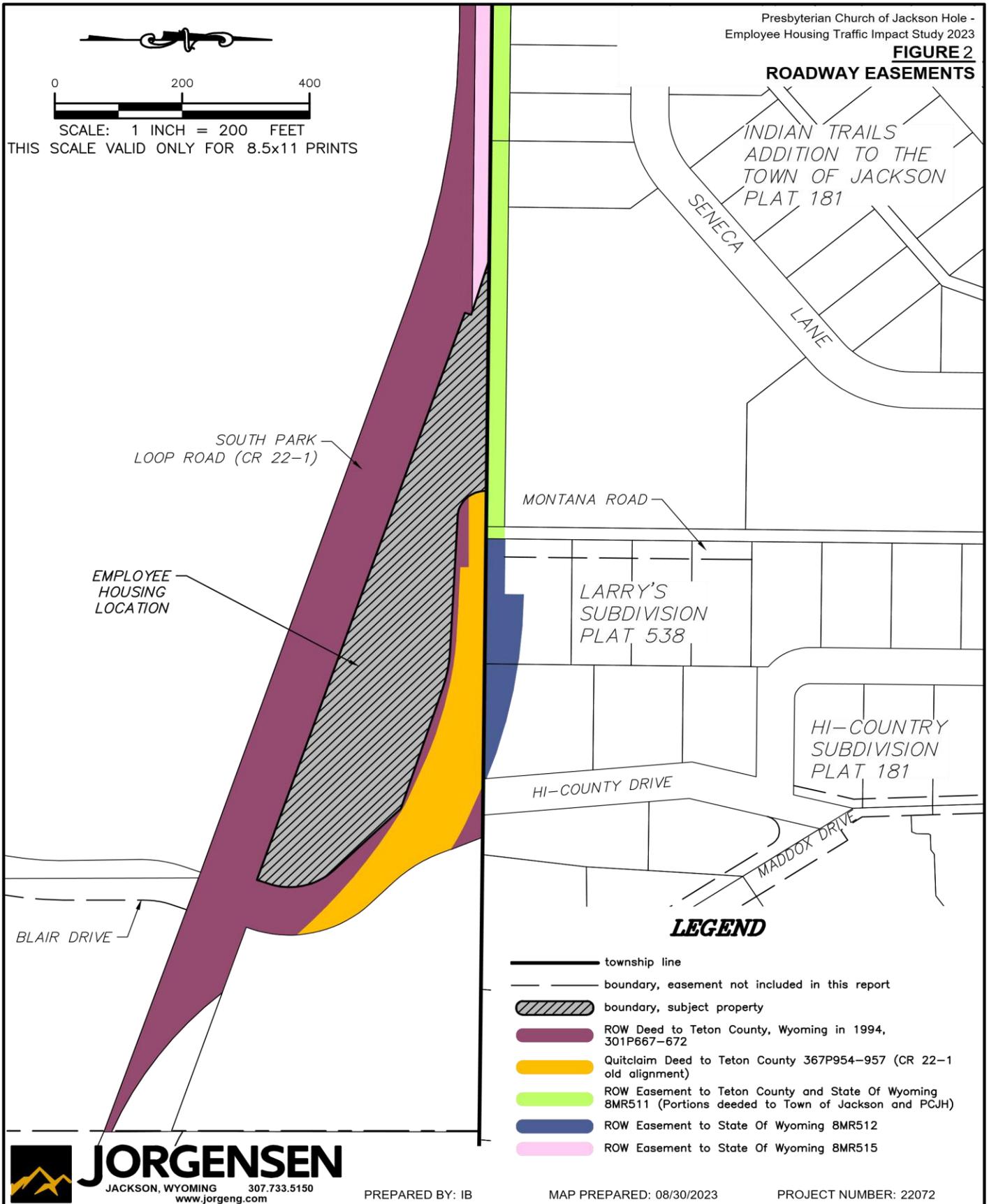
LEGEND

- Study Area
- Primary Roadways
- Local Roadways in proximity to study
- Proposed Presbyterian Church of Jackson Hole employee housing
- Intersection Delineation
- U.S. Highway 89



FIGURE 2

ROADWAY EASEMENTS



IV. METHODOLOGY

This study evaluates the impacts of the proposed PCJH Workforce Housing Development on current traffic levels and assesses the expected impacts assuming a 10-year buildout/occupancy of the project. This 10-year horizon is consistent with WYDOT's recommended horizon duration used on other recent TIS' prepared by Jorgensen. The first 10 units of the housing facility construction is anticipated to be completed by 2025. It is unknown if and when the remaining 11 units will happen. Consequently, this analysis considers 2025 as the baseline year (completion of construction). The traffic data collected in 2023 was projected up to 2025 to represent baseline conditions. For assessing impacts, we utilized existing traffic data sources and additional data collected over the past two years. Furthermore, the analysis also accounted for build-out conditions projected for 2035, assuming the construction of 21 residential housing units.

Data Collection

Jorgensen utilized the expertise of All Traffic Data Services to complete traffic counts at the intersection of Blair Drive and South Park Loop Drive on September 19 & 20, 2023. The counts from each day with the highest consecutive four 15-minute intervals in the PM & AM traffic were used to calculate peak hour traffic to give the best analysis. These counts were collected with a video camera and counts were then analyzed using a traffic counting software. These counts represent summer turning movements and total daily traffic Blair Drive and South Park loop road at this location.

Trip Generation

The methodology employed in this study to estimate trip generation draws upon established practices outlined by the Institute of Transportation Engineers (ITE) and documented in the *Trip Generation Manual, 11th Edition*. The ITE's approach to trip generation rates is derived through empirical analysis, wherein vehicle trip data is statistically correlated with various characteristics of the land use, such as the number of vehicle trips produced per dwelling unit or per 1,000 square feet of development area. The land use code associated with Multifamily Housing Low-Rise (code 220) aligns with the PCJH's proposed Workforce Housing Development, which serves as the basis for our trip generation calculations. In the context of this analysis, the average trip rate provided by the ITE Trip generation Manual was used to calculate the total number of trips generated by the proposed facility. The calculation of the projected total trips generated by this project involves multiplying the relevant unit measure for the specific land use category by the corresponding trip generation rate.

Highway Capacity Analysis

The examination is conducted employing methodologies and procedures outlined in the Highway Capacity Manual (TRB, 2010) along with the corresponding Highway Capacity Software (HCS7). This evaluative process establishes the Level of Service (LOS) experienced by users, utilizing presumed traffic volumes and fundamental traffic principles as benchmarks. The HCM2010 defines Level of Service as a qualitative gauge utilized to characterize the caliber of traffic provision, founded upon road capacity and vehicular wait times. The gradation of Level of Service spans from A to F, with A indicating optimal operational conditions and F indicating traffic congestion or inadequate performance. Each category of intersection is assessed

utilizing distinct methodologies, as stipulated by the Transportation Research Board in 2010. This study includes All-Way-Stop Controlled Intersection at South Park Loop Road and Blair Drive respectively.

Stop Controlled Intersections

In the project study area, the primary intersection is an All-Way-Stop-Controlled Intersection (AWSC), where the Level of Service (LOS) is assessed using the computed or measured control delay. Control delay is quantified for each approach and an average value is derived for the entire intersection. This approach allows for the determination of an overall intersection LOS since all vehicles experience control delay, distinguishing it from Two-Way-Stop-Controlled Intersections. The analysis adheres to the guidelines outlined in Chapter 20 of HCM2010. Table 1 below presents the LOS thresholds based on control delay for both TWSC and AWSC scenarios.

Table 1: Stop Controlled Intersection, LOS Criteria

Control Delay (s/veh)	<u>LOS by Volume-to-Capacity Ratio</u>	
	≤1.0	>1.0
≤10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

Note: For approach-based and intersection wide assessments, LOS is defined solely by control delay

The traffic scenarios studied include the following:

1. **2025 Existing Conditions.** This scenario examines traffic levels on the existing road network. Existing conditions were completed in this report for 2025.
2. **2025 Workforce Housing Development Opening Conditions.** This scenario examines traffic impacts at the completion of construction and initial opening of the PCJH Workforce Housing Development
3. **2035 Baseline Conditions.** This scenario examines traffic levels of the transportation network assuming typical background traffic growth and no development of the PCJH Workforce Housing Development.
4. **2035 Impacted Conditions.** This scenario examines traffic impacts of the PCJH Workforce Housing Development on the 2035 Baseline Conditions.

Conclusions and recommendations are described at the end of the report.

V. PAST STUDIES

The Loop Traffic Impact Study

April 2022

Hales Engineering

This Traffic Impact Study addressed the traffic impacts associated with the proposed The Loop development located in Jackson, Wyoming. The Loop development will be located on the south side of Park Loop Road, just west of the Gregory Lane / Park Loop Road intersection. The Loop is a proposed residential apartment complex of 195 units which will be near Jackson Hole Middle school.

A growth rate of 3.8% was used for this study to be used in the 10-year forecasting analyses. This was based on monthly traffic volume data were obtained from a nearby WYDOT automatic traffic recorder (ATR) on U.S. 191 (ATR #84). The 3.8% growth was adopted for this study to forecast traffic from 2025 to 2035.

VI. EXISTING TRAFFIC CONDITIONS

Existing Transportation System and Intersections

The study area encompasses the intersection of South Park Loop Road and Blair Drive. The segment of South Park Loop Road located to the east of Blair Drive is classified as a minor arterial roadway, while the portion to the west of Blair Drive is designated as a major collector roadway. Blair Drive holds the designation of a major collector road, while the northern road, South Hi Country Drive, is intended to serve as the entry and exit point for residents at the proposed property and is classified as a local road.

This intersection features a four-way stop control, with South Park Loop Road acting as the primary throughway. Within the study area, the eastbound and westbound approaches of South Park Loop Road consist of two lanes, including a left turn lane and a single lane for through and right turns. The terrain of the roadway is characterized by flat terrain with minimal vegetation, resulting in unobstructed sight lines and adequate sight triangles for approaching vehicles.

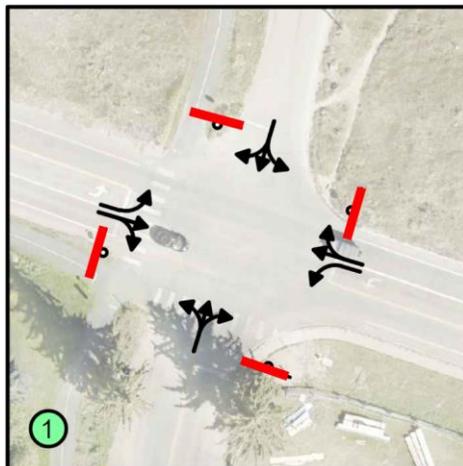


Figure 3. South Park Loop Road and Blair Drive

The established posted speed limit is 30 miles per hour (mph), which reduces to 20 mph during school hours from 7 am to 5 pm, as pictured on Figure 4.

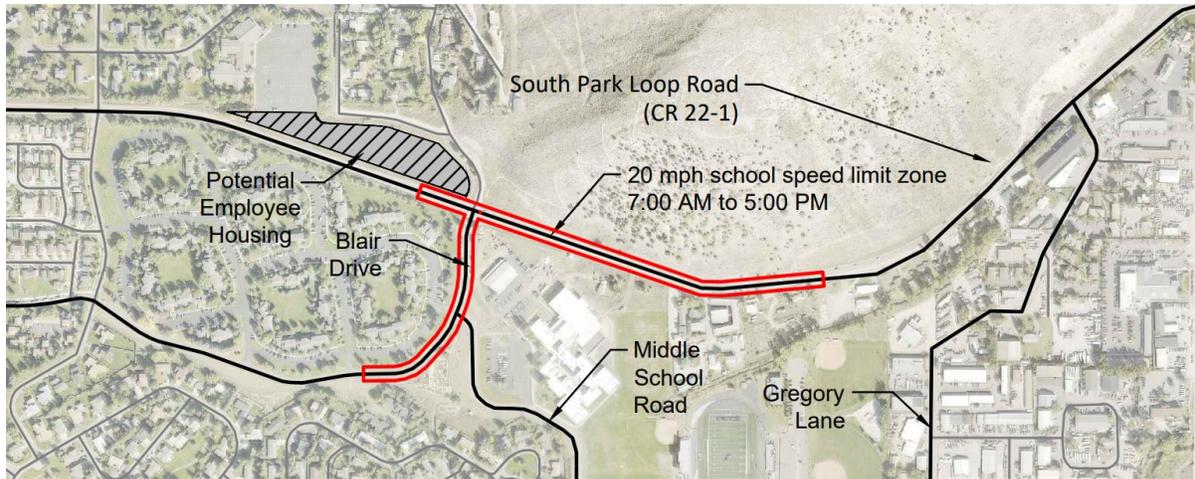
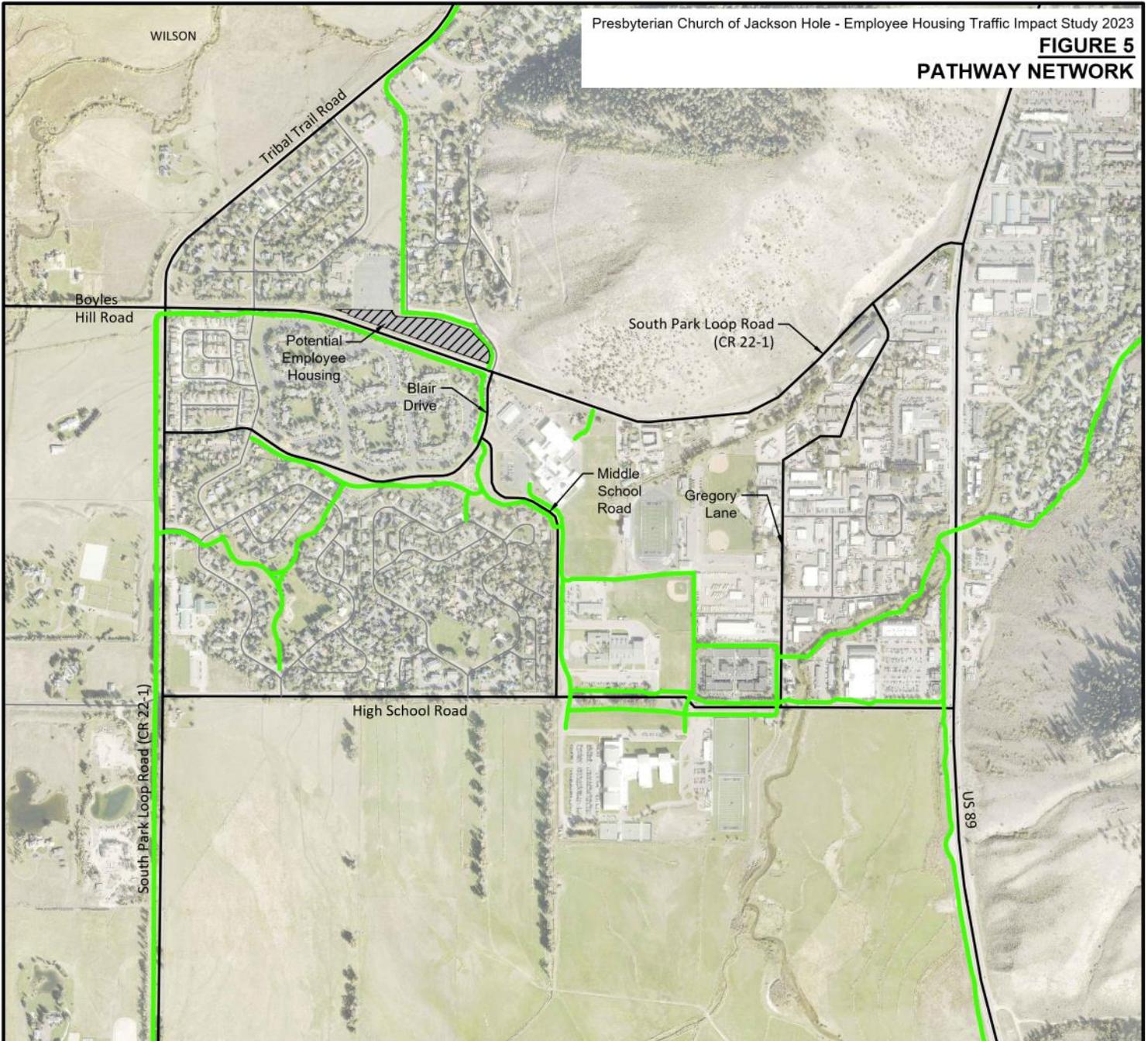


Figure 4. School Speed Limit Zones

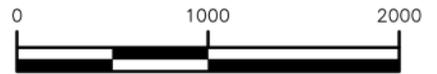
Existing Sidewalks/Pathways

There is an existing network of sidewalks and pathways available for use within the study area. Refer to Figure 5 for the pathway network. South Park Loop Road has pathways to the west of Blair Drive. The pathways on Montana Drive and Blair Drive are heavily used by pedestrians and bicyclists to access Jackson Hole Middle School and other schools in the area. Overall, the site is situated within a network of pedestrian and bicycle facilities, enabling connections to various residential areas to the north and south.



LEGEND

-  Pathway Network
-  Primary Roadways
-  Local Roadways in proximity to study
-  Proposed Presbyterian Church of Jackson Hole employee housing

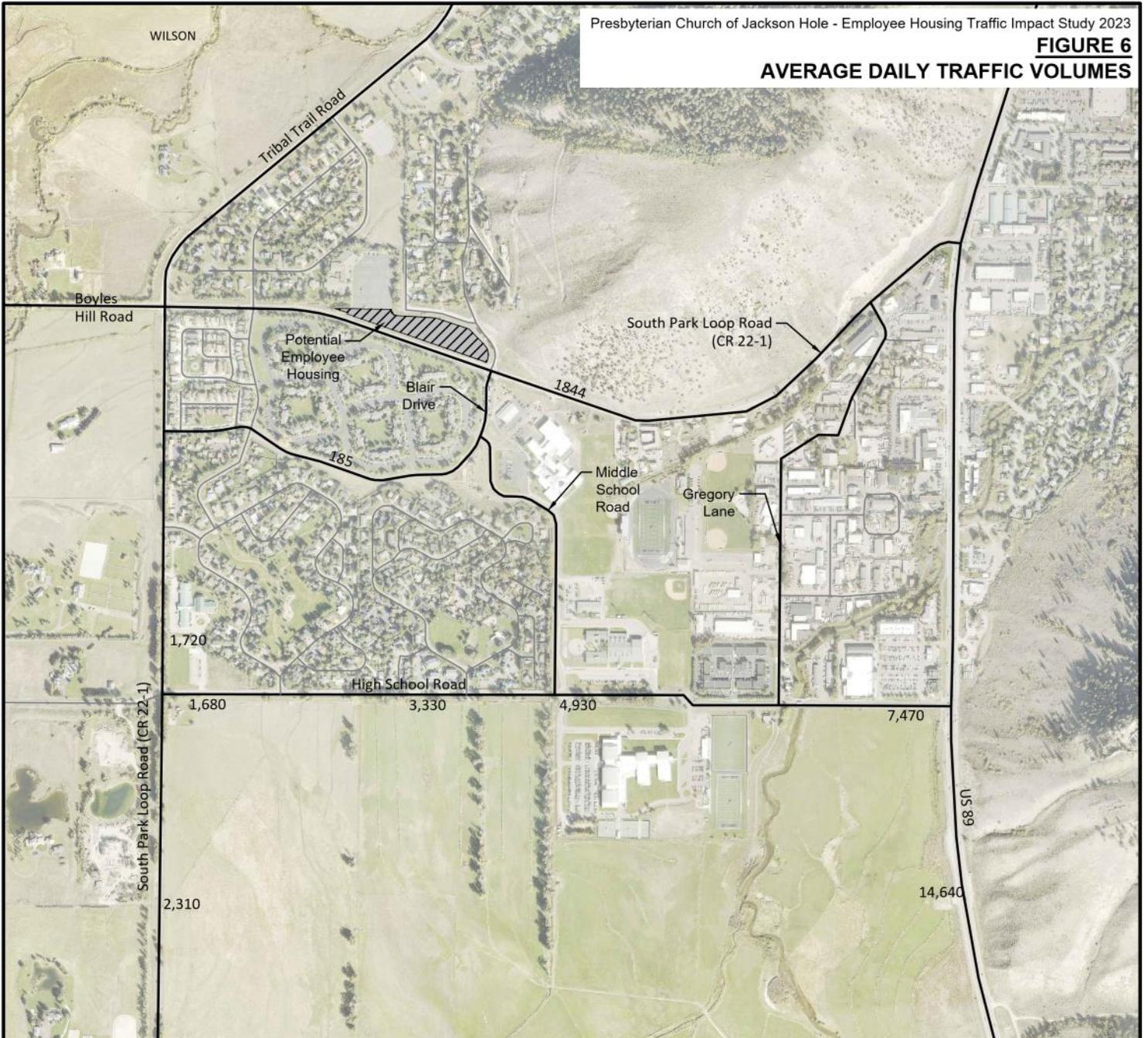


SCALE: 1 INCH = 1000 FEET
THIS SCALE VALID ONLY FOR 8x11 PRINTS

Existing Traffic

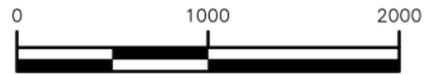
Traffic counts conducted by All Traffic Data Services was utilized for evaluating the current traffic levels within the study area. Reference Part 4. Methodologies section of this study for the different sources utilized in analyzing local traffic. Utilizing traffic volume data when schools are in session (September through mid-June) is most appropriate in evaluating impacts of the residential facility during the highest traffic volumes in the study area. A detailed examination of total daily traffic volumes was conducted, the traffic levels during peak hour time periods were meticulously studied to give an appropriate analysis of baseline and future impact of the Workforce Housing Development. Traffic counts can be found in Appendix A – Traffic Counts. These counts were completed on each of the intersections of interest located within the project area. Segment counts were not completed as part of data collection.

Average Daily Traffic volumes for streets and roads are shown in Figure 6. These volumes were obtained from WYDOT annual communitywide traffic counts.



LEGEND

- # # — Average Daily Traffic
- Primary Roadways
- Local Roadways in proximity to study
-  Proposed Presbyterian Church of Jackson Hole employee housing



SCALE: 1 INCH = 1000 FEET
THIS SCALE VALID ONLY FOR 8x11 PRINTS

Existing Traffic Conditions

Using traffic counts collected on September 19 & 20th 2023, Jorgensen evaluated the current traffic operations of the network. The study area intersection is adjacent to Jackson Hole Middle School, and traffic associated with schools operates quite differently from that of commercial, industrial, or residential developments. The highest traffic generation occurs during the morning peak hour (8:00-9:00 AM), at school dismissal (3:30 - 4:30 PM), and in the evening (5:15 – 6:15 PM).

Based on the traffic counts, these three distinct peak hour periods were analyzed along South Park Loop Road to provide a comprehensive representation of the transportation network.

1. AM Peak Hour 8:00 – 9:00 AM
2. PM Peak Hour 5:15 – 6:15 PM
3. School PM Peak Hour 3:30 – 4:30 PM

Each of these time frames were assessed as part of the Traffic Impact Study to evaluate impacts of the PCJH Workforce Housing Development on the transportation network.

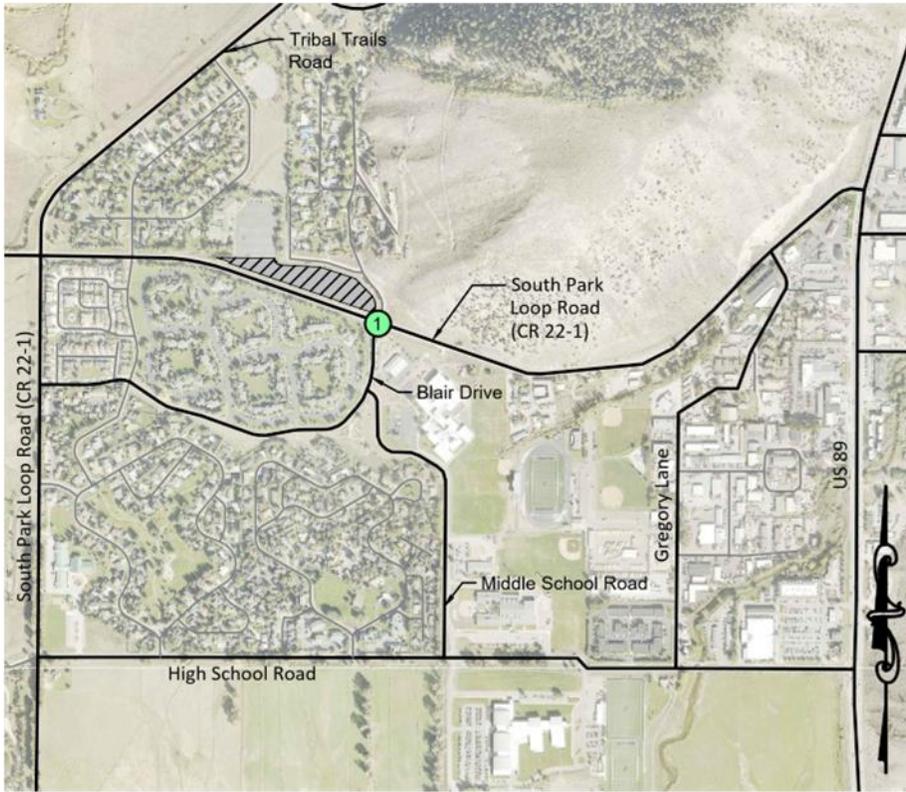
As part of the evaluation of peak hourly traffic at each intersection, we observed the peak hour factors provided in Table 3, Intersection Peak Hour Factor. The peak hour factor (PHF) is a measure of the traffic demand fluctuation within the analysis hour. It is calculated by dividing the hourly volume during the analysis hour by the peak 15-minute flow rate within the analysis hour. PHFs in urban areas generally range between 0.80 and 0.98. PHFs over 0.95 often indicate high traffic volumes, sometimes with capacity constraints on flowing during the peak hour. PHFs under 0.8 occur in locations with highly peaked demand, such as schools, factories with shift changes, and venues with scheduled events (HCM 2010, Ch. 4). PHFs were utilized in the 2025 and 2035 analyses.

Table 2. Intersection Peak Hour Factor

	High School Road & South Park Loop
AM Peak Hour	0.85
PM Peak Hour	0.84
PM School Peak Hour	0.85

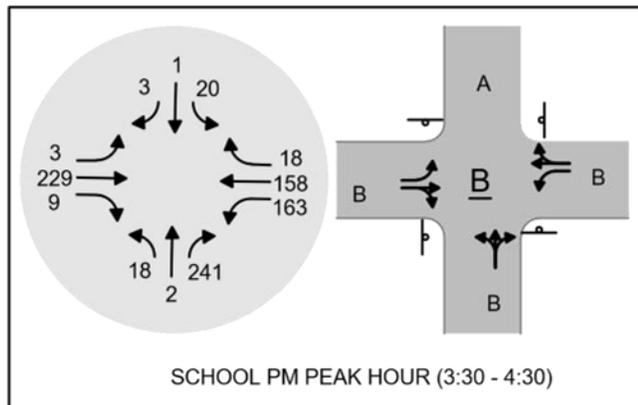
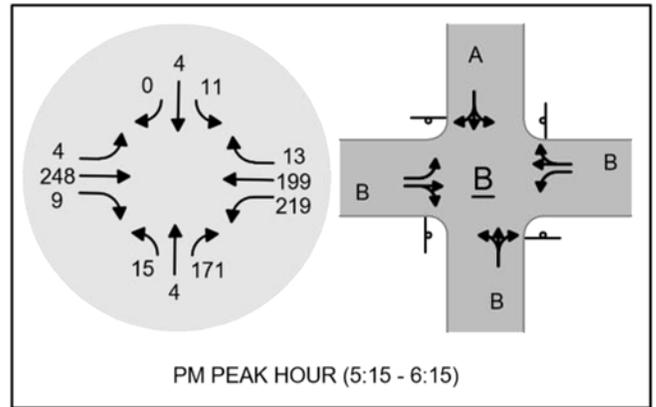
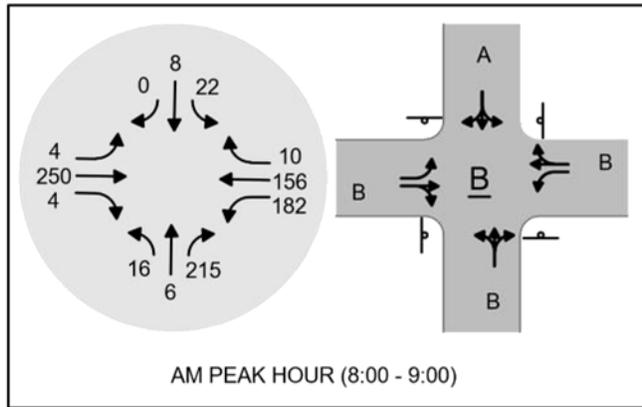
The 2025 baseline hourly traffic volumes and LOS for the intersection at the various peak hours are depicted in Figure 7. In summary, the intersections of South Park Loop Road and Blair Drive is expected to operate at a LOS B.

FIGURE 7
2025 BASELINE
TRAFFIC CONDITIONS
SOUTH PARK LOOP RD/BLAIR DRIVE



LEGEND

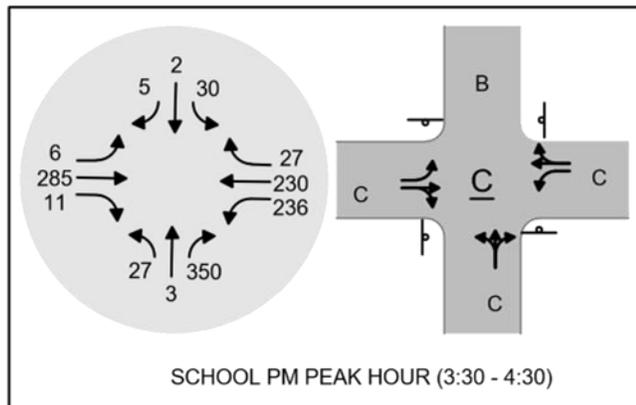
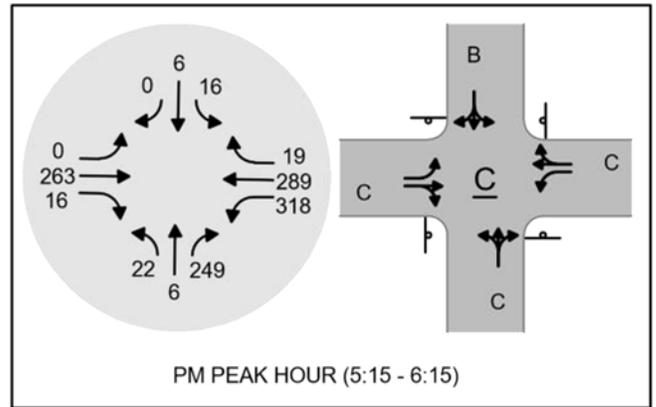
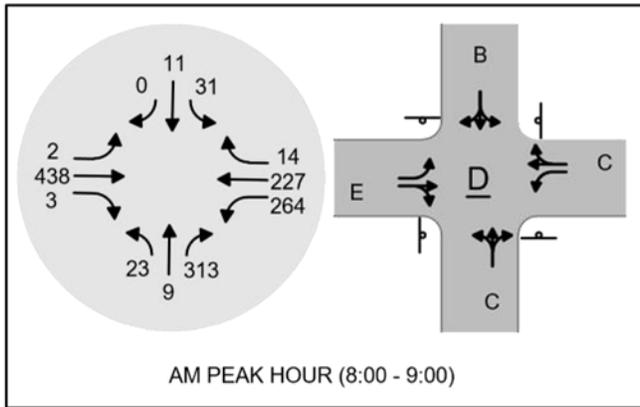
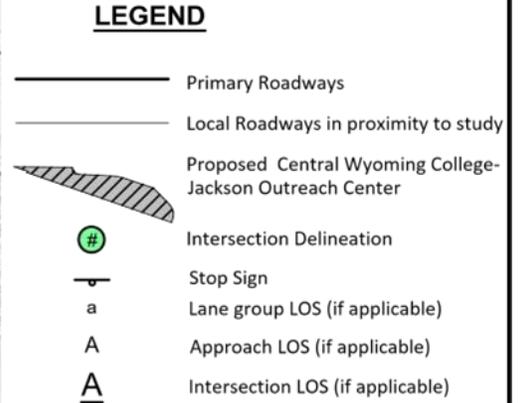
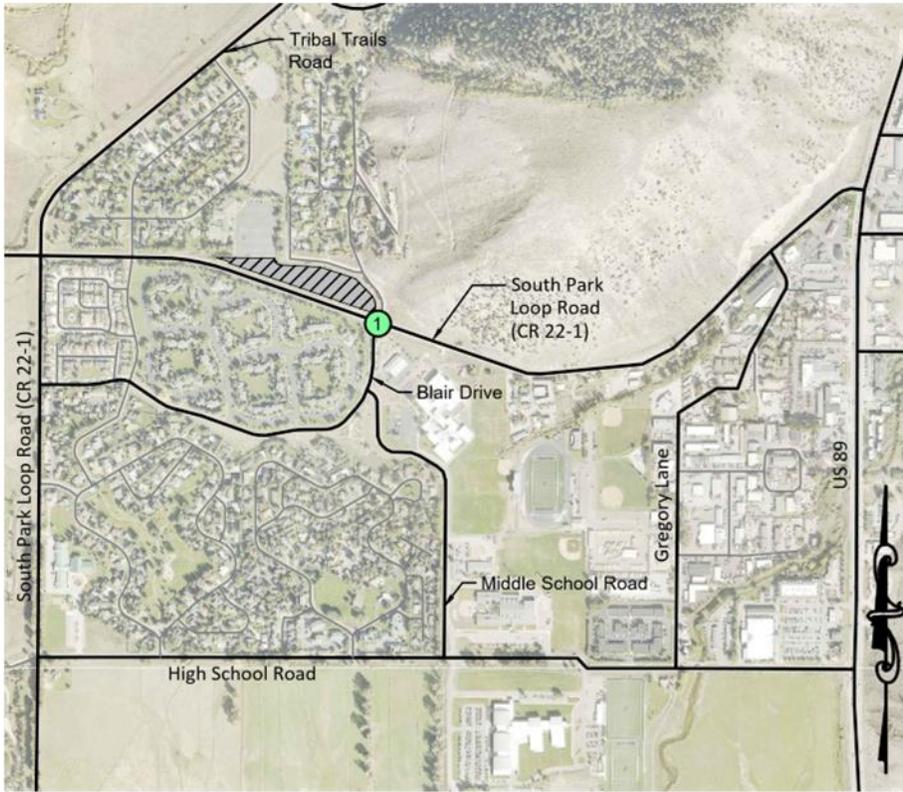
- Primary Roadways
- Local Roadways in proximity to study
- Proposed Central Wyoming College-Jackson Outreach Center
- Intersection Delineation
- Stop Sign
- Lane group LOS (if applicable)
- Approach LOS (if applicable)
- Intersection LOS (if applicable)



2035 Traffic Conditions

Due to the variation of the data found in The WYDOT Vehicle Miles Book 2022, Jorgensen used the more annualized information available from the previous traffic studies done in the area and used a 3.8% growth rate to determine the traffic counts for the 2035 hourly baseline hourly traffic volumes. These volumes and LOS for the intersection at the various peak hours are also depicted in Figure 8.

FIGURE 8
2035 BASELINE
TRAFFIC CONDITIONS
SOUTH PARK LOOP RD/BLAIR DRIVE



VII. PROPOSED CONDITIONS

The subject 2.93 acre property will include the Presbyterian Church of Jackson Hole Workforce Housing Development, which will consist of 10 residential housing units with a potential total of 21 units in the future.. The site plan currently includes one access point to the property on Montana Drive. The site plan also includes pathway connectivity throughout the property. Reference Appendix A – Site Plan for the preliminary layout of the proposed site.

VIII. TRIP GENERATION

Vehicle trip generation was calculated using the trip generation rates contained in the 11th edition of the Trip Generation Manual by the Institute of Transportation Engineers (ITE). Multifamily Housing -Low Rise (land use code 220) land use category matches the proposed development and has been used to calculate the trip generation. For this analysis, the average rate was used to estimate trip in preference to using the “fitted-curve” equation. Table 5 shows the trip generation characteristics for the land use category Multifamily Housing-Low Rise. The school peak hour of 3:30 – 4:30 was not included with the buildout development conditions analysis, since the generated trips are expected to be minimal with in the school peak hour and are expected to be during the AM and PM peak hours, which also aligns with the ITE Trip Generation Manual.

Trip generation calculations can be found in [Appendix B](#) – . The trip generation resulted in the following:

Table 3. ITE Trip Generation Rate – Multifamily Housing Low Rise (Land Use Code 220)

Peak Period	Variable	Trip Rate	Enter %	Exit %
AM peak hour of Adjacent Street	Dwelling Units	0.40	24%	76%
PM peak hour of Adjacent Street	Dwelling Units	0.51	63%	37%
Daily	Dwelling Units	6.74	50%	50%

The total trip generation expected from this project is calculated by applying the unit measure for each land use category to the appropriate trip generation rate. The trip generation for the PCJH Workforce Housing Development is shown in Table 4 below.

Table 4. Project Trip Generation

Number of Dwelling Units:

		<i>Directional Distribution</i>				
<i>Analysis Period</i>		<i>Trips</i>	<i>Entering</i>	<i>Exiting</i>	<i>Entering</i>	<i>Exiting</i>
<i>DAILY</i>	Weekday	142	50%	50%	71	71
AM Peak Hour (8:15-9:15)	Weekday	8	24%	76%	2	6
PM Peak Hour (5:00-6:00)	Weekday	11	63%	37%	7	4

Walking, biking and use of transit is an anticipated mode shift for residents due to their proximity to pathways and the START bus stop. The table below projects the multimodal rideshare options and anticipated use based on the Jackson / Teton County Integrated Transportation Plan. This study anticipates the daily total to decrease, however for analysis purposes, this modal shift was not included for the peak hours. The table below assumes the baseline scenario for 2025 and the plan scenario for 2035.

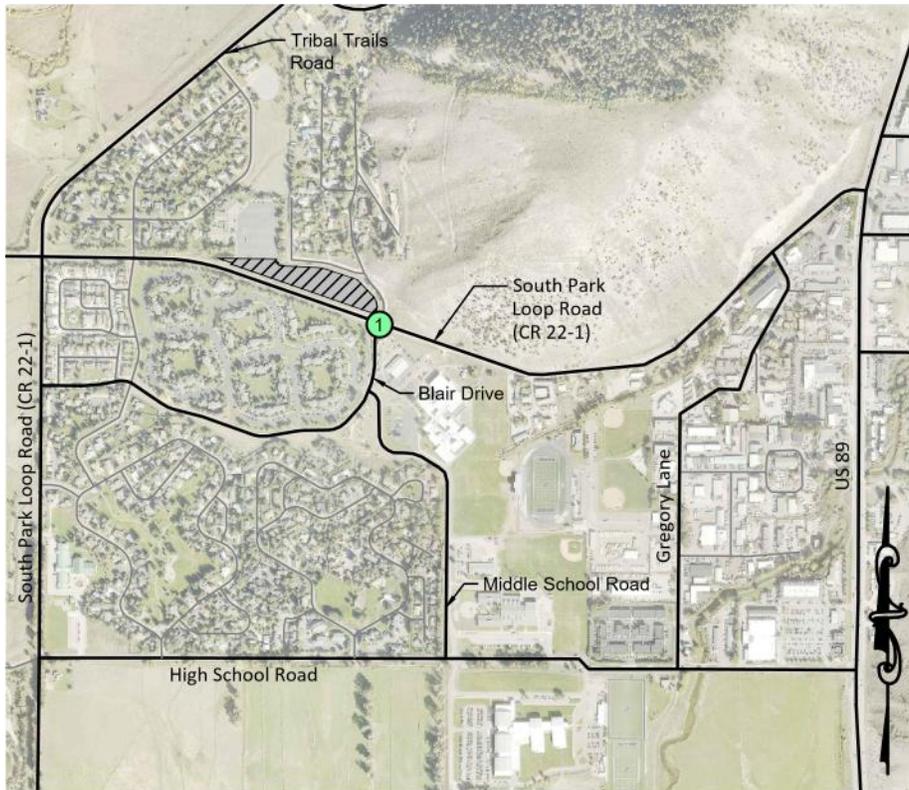
Table 5. Projected Trip Generation Including Multimodal Shift

Mode	2025 (baseline scenario)	2035 (plan scenario)
Walk	9%	11%
Bike	7%	7%
Transit	1%	3%
TOTAL	17%	21%
Total trips without multimodal	142	142
Total Trips for multimodal	142 x 17% = 24 multimodal trips	142 x 21% = 30 multimodal trips
Total Vehicle Trips	142 – 24 = 118 vehicle trips	142 – 30 = 112 vehicle trips

IX. TRIP DISTRIBUTION

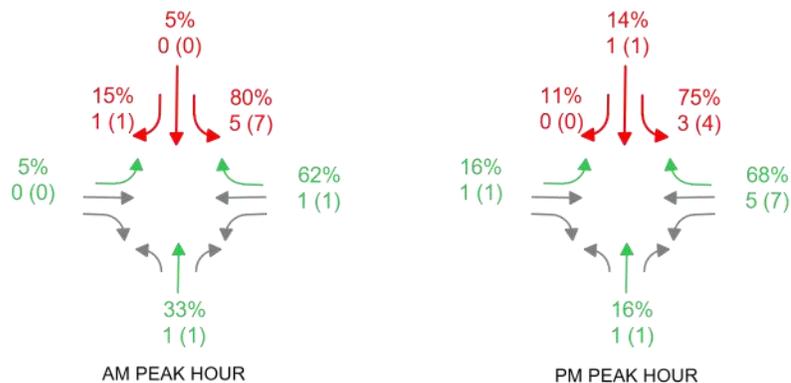
An Origin-Destination Study was not completed as part of the 2025 baseline study and assumptions had to be made to assign generated trips to the transportation network. For this study, the distribution of traffic to and from the proposed project was estimated based on the existing movement of traffic in the network. The traffic distribution percentages and site traffic assignment for the proposed development for the PM peak hour and daily time periods are shown on Figure 9. The 2025 baseline and buildout trip distribution conditions were evaluated for AM, and PM peak hours. The map includes the percentage of ingress/egress traffic associated with each movement. Ingress movements are labeled in green and egress movements in red. Each map also includes the associated number of movements for the 2025 baseline condition (normal nomenclature) and the 2035 buildout condition (in parenthesis). School peak hour traffic distribution will not be included because no trips will be produced from the development during this time period.

FIGURE 9
TRIP DISTRIBUTION
SOUTH PARK LOOP RD/BLAIR DRIVE



LEGEND

- ## Ingress Movement
- ## Egress Movement
- ##% % vehicles in movement - 2025
- ## # Vehicles in Movement - 2025 Baseline Conditions
- (##) # Vehicles in Movement - 2035 Buildout Conditions



Traffic Summary

The South Park Loop Road/Blair Drive intersection in 2025 operates at a satisfactory level of service B. However, by the year 2035 the LOS of the intersection is expected to decrease to LOS E. This is due to the LOS of the eastbound thru lane on South Park Loop Road currently operating at a LOS C. This specific lane will continue to fail in 2035 with or without the PCJH Workforce Housing Development if the transportation network and circulation remain as is.

X. TRAFFIC ANALYSIS

Although full build out of all 21 housing units will not be until a later date, the trip generation values for the PCJH Workforce Housing Development were added to the 2025 and 2035 baseline values and analyzed to determine the impact on the transportation system. Table 6 provides a summary of the LOS for each time period analyzed and intersection approach. The analysis shows that the eastbound approach will experience the most decrease in LOS with or without the development. This approach LOS is expected to decrease from a LOS B to LOS E. Traffic moving eastbound thru or right will experience the 95% que length of 9.5 vehicles. Overall, the eastbound and westbound approaches are most affected due to the development as this intersection currently has issues related to traffic in those directions. The northbound approach will also experience a decrease in level of service due to additional traffic from the proposed development.

For the analysis, the Eastbound and Westbound are along Southpark Loop Road and Northbound/South are along Montana Drive/Blair Drive.

Table 6. 2025 and 2035 Level of Service Summary

		LOS (Sec. Delay/Veh.)					
		w/o Project			w/ Project		
		AM Peak	PM Peak	School PM Peak	AM Peak	PM Peak	School PM Peak
Year	Approach						
2025	Eastbound	B (14.5)	B (11.8)	B (12.6)	B (14.6)	B (12.0)	B (12.7)
	Westbound	B (12.1)	B (12.3)	B (11.7)	B (12.2)	B (12.5)	B (11.8)
	Northbound	B (11.9)	B (10.7)	B (11.9)	B (12.0)	B (10.7)	B (12.3)
	Southbound	A (10.0)	A (9.5)	A (9.6)	B (10.1)	A (9.6)	A (9.6)
2035	Eastbound	E (41.1)	C (20.3)	C (24.6)	E (43.2)	C (20.5)	C (24.6)
	Westbound	C (21.2)	C (22.1)	C (19.2)	C (21.9)	C (22.7)	C (19.2)
	Northbound	C (23.8)	C (16.2)	C (24.7)	C (24.9)	C (16.2)	C (24.7)
	Southbound	B (12.5)	B (11.2)	B (11.8)	B (12.9)	B (11.2)	B (11.8)

2025 Baseline Conditions

In 2025, the intersection approaches are expected to operate at an LOS A to B range.

2025 Traffic Conditions with the PCJH Workforce Housing Development Project

The addition of the Workforce Housing Development results in minimal impact to the transportation network at the time of the facility's opening. The intersection approach will remain at a LOS A to B range and experience a minimal increase in delay.

2035 Baseline Conditions

The LOS for the 2035 baseline conditions show that the intersection will experience a decrease in LOS. The AM peak will decrease from LOS B to LOS D which is mainly due to heavy eastbound traffic. During peak PM hours and peak PM school hours the intersection will decrease from a LOS B to a LOS C. The eastbound approach is projected to operate at an LOS E without the development.

2035 Traffic Conditions with the PCJH Workforce Housing Development

The addition of the PCJH Workforce Housing Development is expected to have a minimal impact on the LOS for the intersection in 2035. During peak AM hours, the LOS of the eastbound approach will operate at an LOS E with or without the development in 2035.

XI. OTHER CONSIDERATIONS

Parking

All parking is anticipated to be contained on-site. A total of 25 parking spaces are proposed for the 21 workforce housing units. A variance is requested as part of the Development Plan application to allow for this number of parking spaces, which is less than would be required by the LDRs.

Traffic Circulation

Traffic circulation will take place primarily at South Hi-Country Drive and South Park Loop Road. Ingress and egress of residential traffic will take place at this intersection. Upon final design, the project site shall contain consistent signage and markings consistent with the Manual on Uniform Traffic Control Devices (MUTCD) latest edition. An additional resource for site signage and markings is the WYDOT Pedestrian and School Traffic Control Manual.

START Bus Service

START Bus presently provides service along South Park Loop Road with stops at Gregory Lane and Middle School Road.

Pedestrian/Bicycle Connectivity

The proposed development will incorporate pedestrian and bicycle access, to the existing pedestrian/bicycle network along Montana Drive and South Park Loop Road.

XII. CONCLUSIONS

Study Assumption Review

1. The construction of the PCJH Workforce Housing Development is expected to be complete 10 housing units during Phase 1 of the project by 2025. The completion of the total 21 residential housing units and 25 parking spaces is not yet planned.

2. A 3.8% per year growth factor was used to forecast traffic 2025-2035 (2022, The Loop Housing Project– Traffic Impact Study).
3. At full buildout, the site is expected to generate 142 daily trips in 2025 and 232 trips in 2035.

PCJH Housing Project Traffic Impacts

1. Eastbound traffic will continue to fail, however this is not due to the addition of the Workforce Housing Development. Eastbound traffic at the intersection of South Park Loop Road and Blair Drive is operating at a LOS B and will decrease to E in 10 years. With the addition of the Workforce Housing Development, it will increase traffic at the intersection, however the effects of the Workforce Housing Development will be minimal on the LOS.

XIII. REFERENCES

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XIV. LIST OF APPENDICES

Appendix A – Site Plan

Appendix B – Traffic Counts

Appendix C – 2025 Intersection Traffic Analysis

Appendix D – 2035 Intersection Traffic Analysis

Appendix A

Site Plan

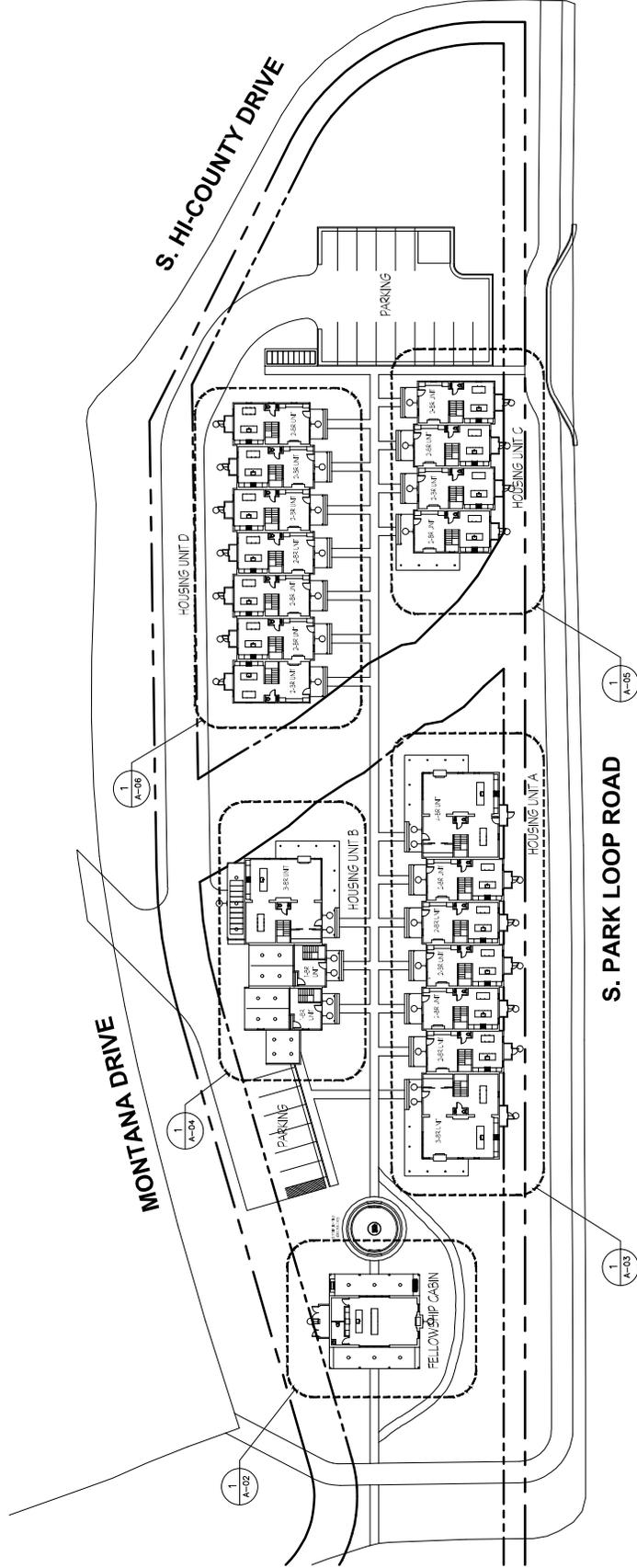




**Presbyterian Church of
Jackson Hole**
1251 South Park Loop Road
Jackson Hole, Wyoming 83001

Architect
Greenspur, Inc.
2811 Merrilee Drive, Suite D
Jackson, Wyoming 83001
Phone: 703-304-1139

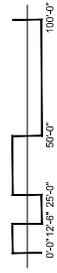
Civil Engineer
Jorgensen
1315 Highway 89 S., Suite 201
P.O. Box 9550
Jackson, Wyoming 83002
Phone: 307-735-9190



1 Site Plan
1" = 25'-0"



TRUE NORTH



Site Plan
A-01

Appendix B

Traffic Counts



Appendix C

2025 Intersection Analysis



HCS7 All-Way Stop Control Report

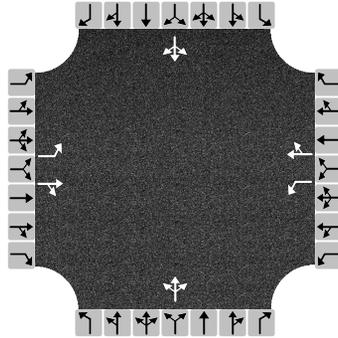
General Information

Analyst	Jorgensen
Agency/Co.	
Date Performed	10/16/2023
Analysis Year	2025
Analysis Time Period (hrs)	0.25
Time Analyzed	2025 Baseline AM Peak
Project Description	

Site Information

Intersection	Blair Dr/South Park Loop
Jurisdiction	
East/West Street	Soth Park Loop Rd
North/South Street	Blair Drive
Peak Hour Factor	0.85

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	4	250	4	182	156	10	16	6	215	22	8	0
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	TR		L	TR		LTR			LTR		
Flow Rate, v (veh/h)	5	299		214	195		279			35		
Percent Heavy Vehicles	2	2		2	2		2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20		3.20	3.20		3.20			3.20		
Initial Degree of Utilization, x	0.004	0.266		0.190	0.174		0.248			0.031		
Final Departure Headway, hd (s)	6.54	6.02		6.39	5.84		5.29			6.51		
Final Degree of Utilization, x	0.009	0.499		0.380	0.317		0.410			0.064		
Move-Up Time, m (s)	2.3	2.3		2.3	2.3		2.0			2.0		
Service Time, ts (s)	4.24	3.72		4.09	3.54		3.29			4.51		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	5	299		214	195		279			35		
Capacity	551	598		564	617		680			553		
95% Queue Length, Q ₉₅ (veh)	0.0	2.8		1.8	1.4		2.0			0.2		
Control Delay (s/veh)	9.3	14.6		12.9	11.2		11.9			10.0		
Level of Service, LOS	A	B		B	B		B			A		
Approach Delay (s/veh)	14.5			12.1			11.9			10.0		
Approach LOS	B			B			B			A		
Intersection Delay, s/veh LOS	12.7						B					

HCS7 All-Way Stop Control Report

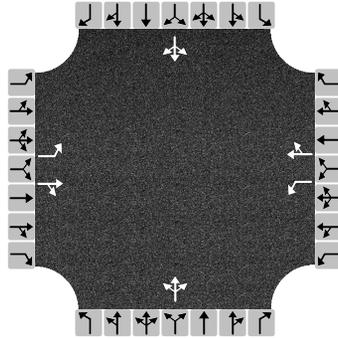
General Information

Analyst	Jorgensen
Agency/Co.	
Date Performed	10/16/2023
Analysis Year	2025
Analysis Time Period (hrs)	0.25
Time Analyzed	2025 Baseline Sch PM Peak
Project Description	

Site Information

Intersection	Blair Dr/South Park Loop
Jurisdiction	
East/West Street	South Park Loop Rd
North/South Street	Blair Drive
Peak Hour Factor	0.85

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	0	181	11	219	199	13	15	4	171	11	4	0
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	TR		L	TR		LTR			LTR		
Flow Rate, v (veh/h)	0	226		258	249		224			18		
Percent Heavy Vehicles	2	2		2	2		2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20		3.20	3.20		3.20			3.20		
Initial Degree of Utilization, x	0.000	0.201		0.229	0.222		0.199			0.016		
Final Departure Headway, hd (s)	6.37	5.82		6.01	5.46		5.21			6.33		
Final Degree of Utilization, x	0.000	0.365		0.430	0.379		0.323			0.031		
Move-Up Time, m (s)	2.3	2.3		2.3	2.3		2.0			2.0		
Service Time, ts (s)	4.07	3.52		3.71	3.16		3.21			4.33		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	0	226		258	249		224			18		
Capacity	601	618		599	659		691			568		
95% Queue Length, Q ₉₅ (veh)	0.0	1.7		2.2	1.8		1.4			0.1		
Control Delay (s/veh)	9.1	11.8		13.2	11.5		10.7			9.5		
Level of Service, LOS	A	B		B	B		B			A		
Approach Delay (s/veh)	11.8			12.3			10.7			9.5		
Approach LOS	B			B			B			A		
Intersection Delay, s/veh LOS	11.8						B					

HCS7 All-Way Stop Control Report

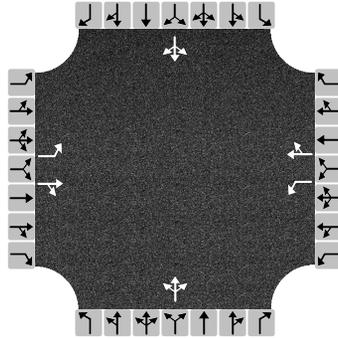
General Information

Analyst	Jorgensen
Agency/Co.	
Date Performed	10/16/2023
Analysis Year	2025
Analysis Time Period (hrs)	0.25
Time Analyzed	2025 Baseline Sch PM Peak
Project Description	

Site Information

Intersection	Blair Dr/South Park Loop
Jurisdiction	
East/West Street	South Park Loop Rd
North/South Street	Blair Drive
Peak Hour Factor	0.85

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	4	196	8	163	158	18	18	2	241	20	1	3
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	TR		L	TR		LTR			LTR		
Flow Rate, v (veh/h)	5	240		192	207		307			28		
Percent Heavy Vehicles	2	2		2	2		2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20		3.20	3.20		3.20			3.20		
Initial Degree of Utilization, x	0.004	0.213		0.170	0.184		0.273			0.025		
Final Departure Headway, hd (s)	6.54	6.01		6.33	5.75		5.08			6.27		
Final Degree of Utilization, x	0.009	0.401		0.337	0.331		0.433			0.049		
Move-Up Time, m (s)	2.3	2.3		2.3	2.3		2.0			2.0		
Service Time, ts (s)	4.24	3.71		4.03	3.45		3.08			4.27		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	5	240		192	207		307			28		
Capacity	550	599		569	626		709			574		
95% Queue Length, Q ₉₅ (veh)	0.0	1.9		1.5	1.4		2.2			0.2		
Control Delay (s/veh)	9.3	12.7		12.2	11.3		11.9			9.6		
Level of Service, LOS	A	B		B	B		B			A		
Approach Delay (s/veh)	12.6			11.7			11.9			9.6		
Approach LOS	B			B			B			A		
Intersection Delay, s/veh LOS	11.9						B					

HCS7 All-Way Stop Control Report

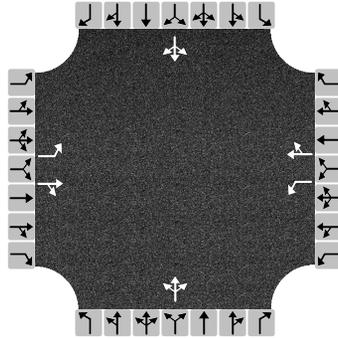
General Information

Analyst	Jorgensen
Agency/Co.	
Date Performed	10/16/2023
Analysis Year	2025
Analysis Time Period (hrs)	0.25
Time Analyzed	2025 PCJH AM Peak
Project Description	

Site Information

Intersection	Blair Dr/South Park Loop
Jurisdiction	
East/West Street	South Park Loop Rd
North/South Street	Blair Drive
Peak Hour Factor	0.85

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	4	250	4	182	156	11	16	7	215	27	8	1
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	TR		L	TR		LTR			LTR		
Flow Rate, v (veh/h)	5	299		214	196		280			42		
Percent Heavy Vehicles	2	2		2	2		2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20		3.20	3.20		3.20			3.20		
Initial Degree of Utilization, x	0.004	0.266		0.190	0.175		0.249			0.038		
Final Departure Headway, hd (s)	6.58	6.06		6.43	5.87		5.33			6.52		
Final Degree of Utilization, x	0.009	0.503		0.382	0.320		0.414			0.077		
Move-Up Time, m (s)	2.3	2.3		2.3	2.3		2.0			2.0		
Service Time, ts (s)	4.28	3.76		4.13	3.57		3.33			4.52		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	5	299		214	196		280			42		
Capacity	547	594		560	613		676			552		
95% Queue Length, Q ₉₅ (veh)	0.0	2.8		1.8	1.4		2.0			0.2		
Control Delay (s/veh)	9.3	14.7		13.0	11.3		12.0			10.1		
Level of Service, LOS	A	B		B	B		B			B		
Approach Delay (s/veh)	14.6			12.2			12.0			10.1		
Approach LOS	B			B			B			B		
Intersection Delay, s/veh LOS	12.8						B					

HCS7 All-Way Stop Control Report

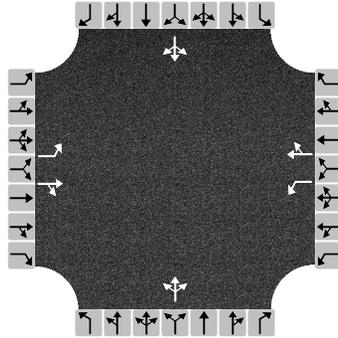
General Information

Analyst	Jorgensen
Agency/Co.	
Date Performed	10/16/2023
Analysis Year	2025
Analysis Time Period (hrs)	0.25
Time Analyzed	2025 PCJH PM Peak
Project Description	

Site Information

Intersection	Blair Dr/South Park Loop
Jurisdiction	
East/West Street	South Park Loop Rd
North/South Street	Blair Drive
Peak Hour Factor	0.84

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	1	181	11	219	199	18	15	5	171	14	5	0
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	TR		L	TR		LTR			LTR		
Flow Rate, v (veh/h)	1	229		261	258		227			23		
Percent Heavy Vehicles	2	2		2	2		2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20		3.20	3.20		3.20			3.20		
Initial Degree of Utilization, x	0.001	0.203		0.232	0.230		0.202			0.020		
Final Departure Headway, hd (s)	6.42	5.87		6.05	5.49		5.21			6.31		
Final Degree of Utilization, x	0.002	0.373		0.438	0.394		0.329			0.040		
Move-Up Time, m (s)	2.3	2.3		2.3	2.3		2.0			2.0		
Service Time, ts (s)	4.12	3.57		3.75	3.19		3.21			4.31		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	1	229		261	258		227			23		
Capacity	561	613		595	656		692			570		
95% Queue Length, Q ₉₅ (veh)	0.0	1.7		2.2	1.9		1.4			0.1		
Control Delay (s/veh)	9.1	12.0		13.4	11.7		10.7			9.6		
Level of Service, LOS	A	B		B	B		B			A		
Approach Delay (s/veh)	12.0			12.5			10.7			9.6		
Approach LOS	B			B			B			A		
Intersection Delay, s/veh LOS	11.9						B					

HCS7 All-Way Stop Control Report

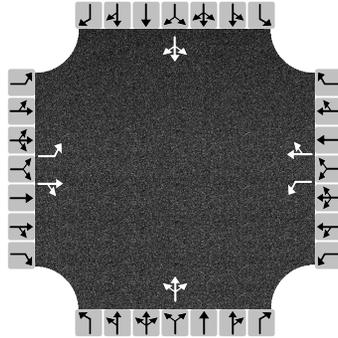
General Information

Analyst	Jorgensen
Agency/Co.	
Date Performed	10/16/2023
Analysis Year	2025
Analysis Time Period (hrs)	0.25
Time Analyzed	2025 PCJH PM Peak
Project Description	

Site Information

Intersection	Blair Dr/South Park Loop
Jurisdiction	
East/West Street	South Park Loop Rd
North/South Street	Blair Drive
Peak Hour Factor	0.85

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	4	196	8	163	158	18	18	12	241	20	1	3
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	TR		L	TR		LTR			LTR		
Flow Rate, v (veh/h)	5	240		192	207		319			28		
Percent Heavy Vehicles	2	2		2	2		2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20		3.20	3.20		3.20			3.20		
Initial Degree of Utilization, x	0.004	0.213		0.170	0.184		0.283			0.025		
Final Departure Headway, hd (s)	6.59	6.06		6.38	5.80		5.11			6.31		
Final Degree of Utilization, x	0.009	0.404		0.340	0.334		0.452			0.049		
Move-Up Time, m (s)	2.3	2.3		2.3	2.3		2.0			2.0		
Service Time, ts (s)	4.29	3.76		4.08	3.50		3.11			4.31		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	5	240		192	207		319			28		
Capacity	546	594		564	621		705			570		
95% Queue Length, Q ₉₅ (veh)	0.0	1.9		1.5	1.5		2.4			0.2		
Control Delay (s/veh)	9.3	12.8		12.3	11.4		12.3			9.6		
Level of Service, LOS	A	B		B	B		B			A		
Approach Delay (s/veh)	12.7			11.8			12.3			9.6		
Approach LOS	B			B			B			A		
Intersection Delay, s/veh LOS	12.1						B					

Appendix D

2035 Intersection Analysis



JORGENSEN

HCS7 All-Way Stop Control Report

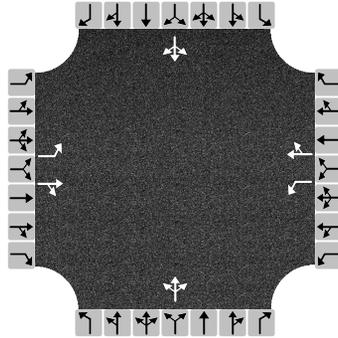
General Information

Analyst	Jorgensen
Agency/Co.	
Date Performed	10/16/2023
Analysis Year	2035
Analysis Time Period (hrs)	0.25
Time Analyzed	2035 Baseline AM Peak
Project Description	

Site Information

Intersection	Blair Dr/South Park Loop
Jurisdiction	
East/West Street	South Park Loop Rd
North/South Street	Blair Drive
Peak Hour Factor	0.85

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	6	363	6	264	227	14	23	9	313	31	11	0
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	TR		L	TR		LTR			LTR		
Flow Rate, v (veh/h)	7	434		311	284		406			49		
Percent Heavy Vehicles	2	2		2	2		2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20		3.20	3.20		3.20			3.20		
Initial Degree of Utilization, x	0.006	0.386		0.276	0.252		0.361			0.044		
Final Departure Headway, hd (s)	7.75	7.22		7.62	7.07		6.35			8.40		
Final Degree of Utilization, x	0.015	0.871		0.658	0.557		0.716			0.115		
Move-Up Time, m (s)	2.3	2.3		2.3	2.3		2.0			2.0		
Service Time, ts (s)	5.45	4.92		5.32	4.77		4.35			6.40		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	7	434		311	284		406			49		
Capacity	464	498		472	509		567			428		
95% Queue Length, Q ₉₅ (veh)	0.0	9.4		4.7	3.4		5.9			0.4		
Control Delay (s/veh)	10.6	41.5		23.8	18.3		23.8			12.5		
Level of Service, LOS	B	E		C	C		C			B		
Approach Delay (s/veh)	41.1			21.2			23.8			12.5		
Approach LOS	E			C			C			B		
Intersection Delay, s/veh LOS	27.5						D					

HCS7 All-Way Stop Control Report

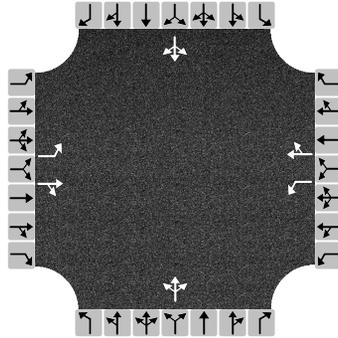
General Information

Analyst	Jorgensen
Agency/Co.	
Date Performed	10/16/2023
Analysis Year	2035
Analysis Time Period (hrs)	0.25
Time Analyzed	2035 Baseline PM Peak
Project Description	

Site Information

Intersection	Blair Dr/South Park Loop
Jurisdiction	
East/West Street	South Park Loop Rd
North/South Street	Blair Drive
Peak Hour Factor	0.84

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	0	263	16	318	289	19	22	6	249	16	6	0
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	TR		L	TR		LTR			LTR		
Flow Rate, v (veh/h)	0	332		379	367		330			26		
Percent Heavy Vehicles	2	2		2	2		2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20		3.20	3.20		3.20			3.20		
Initial Degree of Utilization, x	0.000	0.295		0.337	0.326		0.293			0.023		
Final Departure Headway, hd (s)	7.35	6.80		6.81	6.26		6.04			7.73		
Final Degree of Utilization, x	0.000	0.627		0.716	0.637		0.553			0.056		
Move-Up Time, m (s)	2.3	2.3		2.3	2.3		2.0			2.0		
Service Time, ts (s)	5.05	4.50		4.51	3.96		4.04			5.73		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	0	332		379	367		330			26		
Capacity	517	529		529	575		596			466		
95% Queue Length, Q ₉₅ (veh)	0.0	4.3		5.8	4.5		3.4			0.2		
Control Delay (s/veh)	10.1	20.3		24.8	19.3		16.2			11.2		
Level of Service, LOS	A	C		C	C		C			B		
Approach Delay (s/veh)	20.3			22.1			16.2			11.2		
Approach LOS	C			C			C			B		
Intersection Delay, s/veh LOS	20.1						C					

HCS7 All-Way Stop Control Report

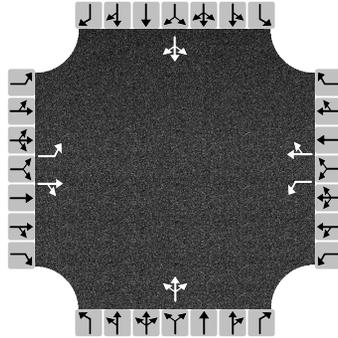
General Information

Analyst	Jorgensen
Agency/Co.	
Date Performed	10/16/2023
Analysis Year	2035
Analysis Time Period (hrs)	0.25
Time Analyzed	2035 Baseline School Peak
Project Description	

Site Information

Intersection	Blair Dr/South Park Loop
Jurisdiction	
East/West Street	South Park Loop Rd
North/South Street	Blair Drive
Peak Hour Factor	0.85

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	6	285	11	236	230	27	27	3	350	30	2	5
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	TR		L	TR		LTR			LTR		
Flow Rate, v (veh/h)	7	348		278	302		447			44		
Percent Heavy Vehicles	2	2		2	2		2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20		3.20	3.20		3.20			3.20		
Initial Degree of Utilization, x	0.006	0.310		0.247	0.269		0.397			0.039		
Final Departure Headway, hd (s)	7.75	7.21		7.48	6.89		6.02			7.97		
Final Degree of Utilization, x	0.015	0.697		0.577	0.578		0.747			0.096		
Move-Up Time, m (s)	2.3	2.3		2.3	2.3		2.0			2.0		
Service Time, ts (s)	5.45	4.91		5.18	4.59		4.02			5.97		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	7	348		278	302		447			44		
Capacity	465	499		482	523		598			452		
95% Queue Length, Q ₉₅ (veh)	0.0	5.4		3.6	3.6		6.6			0.3		
Control Delay (s/veh)	10.6	24.9		19.9	18.6		24.7			11.8		
Level of Service, LOS	B	C		C	C		C			B		
Approach Delay (s/veh)	24.6			19.2			24.7			11.8		
Approach LOS	C			C			C			B		
Intersection Delay, s/veh LOS	22.0						C					

HCS7 All-Way Stop Control Report

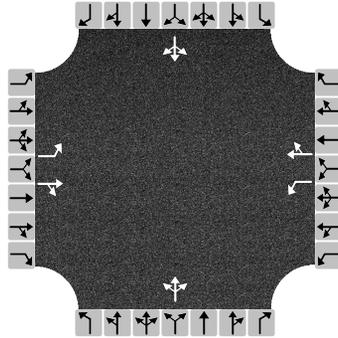
General Information

Analyst	Jorgensen
Agency/Co.	
Date Performed	10/16/2023
Analysis Year	2035
Analysis Time Period (hrs)	0.25
Time Analyzed	2035 PCJH AM Peak
Project Description	

Site Information

Intersection	Blair Dr/South Park Loop
Jurisdiction	
East/West Street	South Park Loop Rd
North/South Street	Blair Drive
Peak Hour Factor	0.85

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	6	363	6	264	227	16	23	11	313	39	11	1
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	TR		L	TR		LTR			LTR		
Flow Rate, v (veh/h)	7	434		311	286		408			60		
Percent Heavy Vehicles	2	2		2	2		2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20		3.20	3.20		3.20			3.20		
Initial Degree of Utilization, x	0.006	0.386		0.276	0.254		0.363			0.053		
Final Departure Headway, hd (s)	7.85	7.32		7.73	7.17		6.44			8.47		
Final Degree of Utilization, x	0.015	0.883		0.667	0.569		0.731			0.141		
Move-Up Time, m (s)	2.3	2.3		2.3	2.3		2.0			2.0		
Service Time, ts (s)	5.55	5.02		5.43	4.87		4.44			6.47		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	7	434		311	286		408			60		
Capacity	459	492		466	502		559			425		
95% Queue Length, Q ₉₅ (veh)	0.0	9.7		4.8	3.5		6.1			0.5		
Control Delay (s/veh)	10.7	43.7		24.6	18.9		24.9			12.9		
Level of Service, LOS	B	E		C	C		C			B		
Approach Delay (s/veh)	43.2			21.9			24.9			12.9		
Approach LOS	E			C			C			B		
Intersection Delay, s/veh LOS	28.6						D					

HCS7 All-Way Stop Control Report

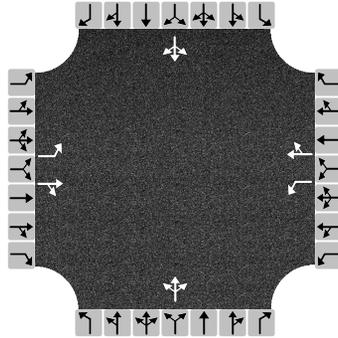
General Information

Analyst	Jorgensen
Agency/Co.	
Date Performed	10/17/2023
Analysis Year	2035
Analysis Time Period (hrs)	0.25
Time Analyzed	2035 PCJH PM Peak
Project Description	

Site Information

Intersection	Blair Dr/South Park Loop
Jurisdiction	
East/West Street	South Park Loop Rd
North/South Street	Blair Drive
Peak Hour Factor	0.84

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	1	263	16	318	289	26	22	8	249	20	8	0
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	TR		L	TR		LTR			LTR		
Flow Rate, v (veh/h)	1	332		379	375		332			33		
Percent Heavy Vehicles	2	2		2	2		2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20		3.20	3.20		3.20			3.20		
Initial Degree of Utilization, x	0.001	0.295		0.337	0.333		0.295			0.030		
Final Departure Headway, hd (s)	7.40	6.85		6.85	6.28		6.01			7.64		
Final Degree of Utilization, x	0.002	0.632		0.720	0.654		0.554			0.071		
Move-Up Time, m (s)	2.3	2.3		2.3	2.3		2.0			2.0		
Service Time, ts (s)	5.10	4.55		4.55	3.98		4.01			5.64		

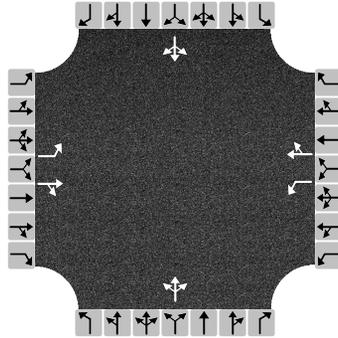
Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	1	332		379	375		332			33		
Capacity	486	526		525	573		599			471		
95% Queue Length, Q ₉₅ (veh)	0.0	4.4		5.9	4.8		3.4			0.2		
Control Delay (s/veh)	10.1	20.6		25.3	20.1		16.2			11.2		
Level of Service, LOS	B	C		D	C		C			B		
Approach Delay (s/veh)	20.5			22.7			16.2			11.2		
Approach LOS	C			C			C			B		
Intersection Delay, s/veh LOS	20.4						C					

HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst	Jorgensen	Intersection	Blair Dr/South Park Loop
Agency/Co.		Jurisdiction	
Date Performed	10/16/2023	East/West Street	South Park Loop Rd
Analysis Year	2035	North/South Street	Blair Drive
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.85
Time Analyzed	2035 PCJH School PM Peak		
Project Description			

Lanes



Vehicle Volume and Adjustments

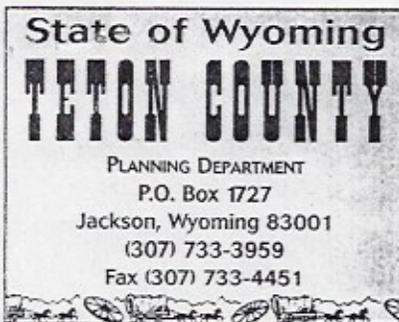
Approach	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement												
Volume	6	285	11	236	230	27	27	3	350	30	2	5
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	L	TR		L	TR		LTR			LTR		
Flow Rate, v (veh/h)	7	348		278	302		447			44		
Percent Heavy Vehicles	2	2		2	2		2			2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20	3.20		3.20	3.20		3.20			3.20		
Initial Degree of Utilization, x	0.006	0.310		0.247	0.269		0.397			0.039		
Final Departure Headway, hd (s)	7.75	7.21		7.48	6.89		6.02			7.97		
Final Degree of Utilization, x	0.015	0.697		0.577	0.578		0.747			0.096		
Move-Up Time, m (s)	2.3	2.3		2.3	2.3		2.0			2.0		
Service Time, ts (s)	5.45	4.91		5.18	4.59		4.02			5.97		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	7	348		278	302		447			44		
Capacity	465	499		482	523		598			452		
95% Queue Length, Q ₉₅ (veh)	0.0	5.4		3.6	3.6		6.6			0.3		
Control Delay (s/veh)	10.6	24.9		19.9	18.6		24.7			11.8		
Level of Service, LOS	B	C		C	C		C			B		
Approach Delay (s/veh)	24.6			19.2			24.7			11.8		
Approach LOS	C			C			C			B		
Intersection Delay, s/veh LOS	22.0						C					



WILLIAM E. COLLINS, Planning Director

June 25, 1998

Mr. Bob Graham
PO Box 1027
Jackson, WY 83001

Re: 3.66 acres @ Cottonwood Park

Dear Bob,

I am slow but not forgetful. This letter verifies the discussion we had in my office a couple of weeks ago. The 3.66 acres of acres of land we discussed can receive four (4) dwelling units. This land consists of 2.73 acres between the old and new alignments of South Park Loop County Road and 0.93 acres recovered from the old road alignment located due north of the Jackson Hole Middle School.

The density of four (4) units was agreed to as part of a land exchange between 4 Lazy F Ranch and Teton County in 1993, and is based on the uses and densities of the Cottonwood Park Master Plan. The actual platting of the lots and construction of the units require the applicable applications and approvals for such actions. At the time of these applications the specifics of dimensional limitations and water/sewer requirements will be resolved.

Please call if there are any further questions.

Sincerely,

A handwritten signature in black ink that reads "W. E. Collins".

William E. Collins, AICP



PROPOSED AGREEMENT FOR LAND EXCHANGE

BETWEEN

TETON COUNTY, WYOMING

AND

THE FOUR LAZY F RANCH, INC

July 20, 1993

Date	# of pages
From	
Co.	
Phone #	
Fax #	

73-6068

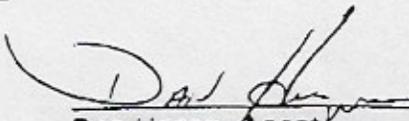
Both parties agree to the exchange of two acres owned by Teton County at Adams Canyon for 4.01± acres owned by the Four Lazy F Ranch, Inc. and located north of Cottonwood Park and south of the existing South Park Loop County Road. In addition, Teton County will abandon a total of 1.57± acres of existing road right-of-way within the boundary lines of the Four Lazy F Ranch for the use of the Four Lazy F Ranch. The four acres to be acquired by Teton County will be used for the realignment of the South Park Loop County Road. The two acres to be acquired by the Four Lazy F Ranch is to be given to the Cottonwood Park Homeowners Association for the storage of recreational vehicles. The lands recovered by Four Lazy F Ranch within their property boundaries are to be used for single family dwelling units. This agreement is subject to the following conditions:

1. The two acres to be provided at Adams Canyon are "net" area, useable for storage, and do not include area needed for screening, landscaping, setbacks, side slopes or other grading activities. The areas needed for these additional activities are in addition to the area needed for storage and will not be included in the exchange parcel.
2. Teton County will grade the two acre Adams Canyon site to meet the Development and Grading permit requirements of Teton County. Teton County will landscape and maintain said landscaping on the sloped and landscaped lands adjacent to the two acre parcel being exchanged to the level off landscaping applied to the entire Adams Canyon site. Four Lazy F Ranch will construct a perimeter fence around the two acre parcel to standards applicable to the entire Adams Canyon site.
3. Irrigation ditches and utilities will be relocated (as necessary) under the new South Park Loop County Road as a result of the South Park Loop County Road reconstruction and at no cost to the Four Lazy F Ranch. The portions of the sewer line and water line that fall under the new road alignment will be installed as part of the roadway reconstruction.
4. Teton County agrees that the platting of three dwelling units on the 2.73± acres of land between the old and new South Park Loop County Road alignments and one dwelling unit on the 0.93± acres recovered from the old road alignment located due north of the Jackson Hole Middle School will be permitted as allowed under the uses and densities permitted within the Cottonwood Park Master Plan and shall be considered part of the total units permitted under said Master Plan. The Interim Land Use Regulations permit continued development in accordance

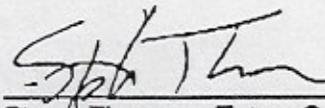


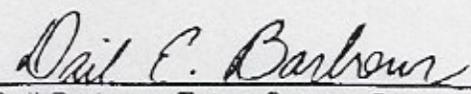
with approved Master Plans. Four Lazy F Ranch will pay the costs of platting these four single family lots. No lots will access directly to the South Park Loop County Road.

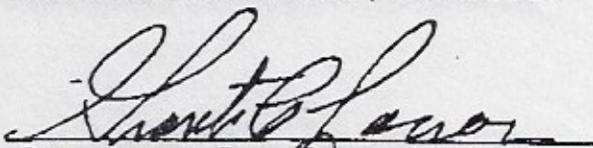
5. The single access point to High Country Subdivision and Larry's Subdivision will be from the intersection of South Park Loop County Road and the Middle School Road. No lots will access directly to the South Park Loop County Road. This access is to be provided as part of the South Park Loop County Road reconstruction.
6. The new roadway will be designed and constructed to match the existing grade as closely as possible.
7. The two acres at Adams Canyon will be surveyed by the County Surveyor in coordination with the development plan for the Adams Canyon area.
8. The necessary surveys and descriptions for the parcels owned by the Four Lazy F Ranch, Inc. will be surveyed by the County Engineer and coordinated with the plan development for the realignment of the South Park Loop County Road.
9. The land exchange shall take place by October 15, 1993.


 Dan Hazen, Agent
 Four Lazy F Ranch, Inc.

7-23-93


 Steve Thomas, Teton County Commission


 Dail Barbour, Teton County Commission


 Grant Larson, Teton County Commission



JORGENSEN GEOTECHNICAL, LLC

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Jackson, WY 83002
PH: 307.733.5150
www.jorgeng.com

July 12, 2022

Presbyterian Church of Jackson Hole
c/o Mike Halpin
PO Box 7530
Jackson, WY 83002

**RE: GEOTECHNICAL INVESTIGATION REPORT, PRESBYTERIAN CHURCH OF JACKSON HOLE,
PT. NE1/4NW1/4 SEC. 6, TWP. 40, RNG. 116 PARCEL 1
JA PROJECT No.: 22072**

Dear Mike,

We are pleased to present this report of our geotechnical site investigation for the proposed development on Presbyterian Church of Jackson Hole property located at PT. NE1/4NW1/4 SEC. 6, TWP. 40, RNG. 116 PARCEL 1 in Jackson, Wyoming. This report describes site conditions observed during the subsurface investigation and presents engineering analyses and recommendations to support the design and construction of foundation elements typically associated with residential construction.

In summary, the site appears to be underlain by alluvial deposits originating from the Snake River Floodplain. The alluvium comprises primarily gravels and cobbles in a sandy matrix with trace fines. The stony alluvial deposits appear to be an adequate bearing layer to support the anticipated foundation loads.

Groundwater was not encountered at the time of the site investigation. A total of three groundwater monitoring wells have been installed to depths ranging from approximately 11.2 to 12.3-ft below the existing ground surface. We have installed dataloggers in all three of the standpipes to continuously record groundwater fluctuations during the spring and summer months of 2022. At the time of this report, all monitoring wells have been observed to be dry.

If you have any questions about this report, or if we may provide other services to you, please contact us. As the project progresses, we will be available to answer questions.

Respectfully submitted,

JORGENSEN GEOTECHNICAL

Nick Annala, E.I.
Design Engineer Technician

Colter H Lane, P.E.
Geotechnical Project Manager

**Geotechnical Investigation Report
Presbyterian Church of Jackson Hole
Teton County, Wyoming**

Prepared for:

**Presbyterian Church of Jackson Hole
PO Box 7530
Jackson, WY 83002**

Prepared by:



JORGENSEN
GEOTECHNICAL, LLC

**PO Box 9550
Jackson, WY 83002**

July 12, 2022

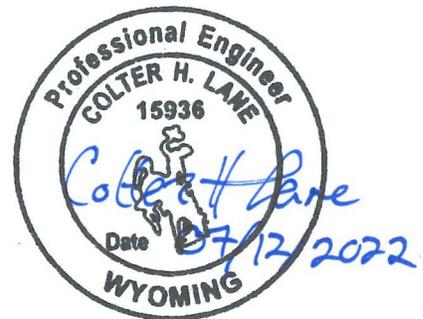


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Appendix A: Test Pit Logs

1.0 INTRODUCTION

At the request of the Presbyterian Church of Jackson Hole (PCJH), Jorgensen Geotechnical (JG) conducted a Geotechnical Site Investigation for the proposed residential development located at PT. NE1/4NW1/4 SEC. 6, TWP. 40, RNG. 116 PARCEL 1 in Jackson, Wyoming (Figure 1). The purposes of the investigation were to observe soil and groundwater conditions, evaluate soil engineering properties, and to provide recommendations to support the design and construction of foundation elements commonly associated with residential construction. The scope of services included excavating and logging six exploratory test pits, installing three groundwater monitoring wells, performing engineering analyses, and furnishing this Geotechnical Site Investigation Report.

2.0 PROPOSED CONSTRUCTION

A project outline provided to JG by PCJH includes plans to build employee housing and a possible mixed-use development. Parking is also to be designed. Based on the outline provided, a basement may be incorporated into the design. Footing elevations were not provided at the time this report was furnished. We assume conventional construction techniques will be used with typical foundation loads associated with residential construction.

3.0 INVESTIGATION PROCEDURES

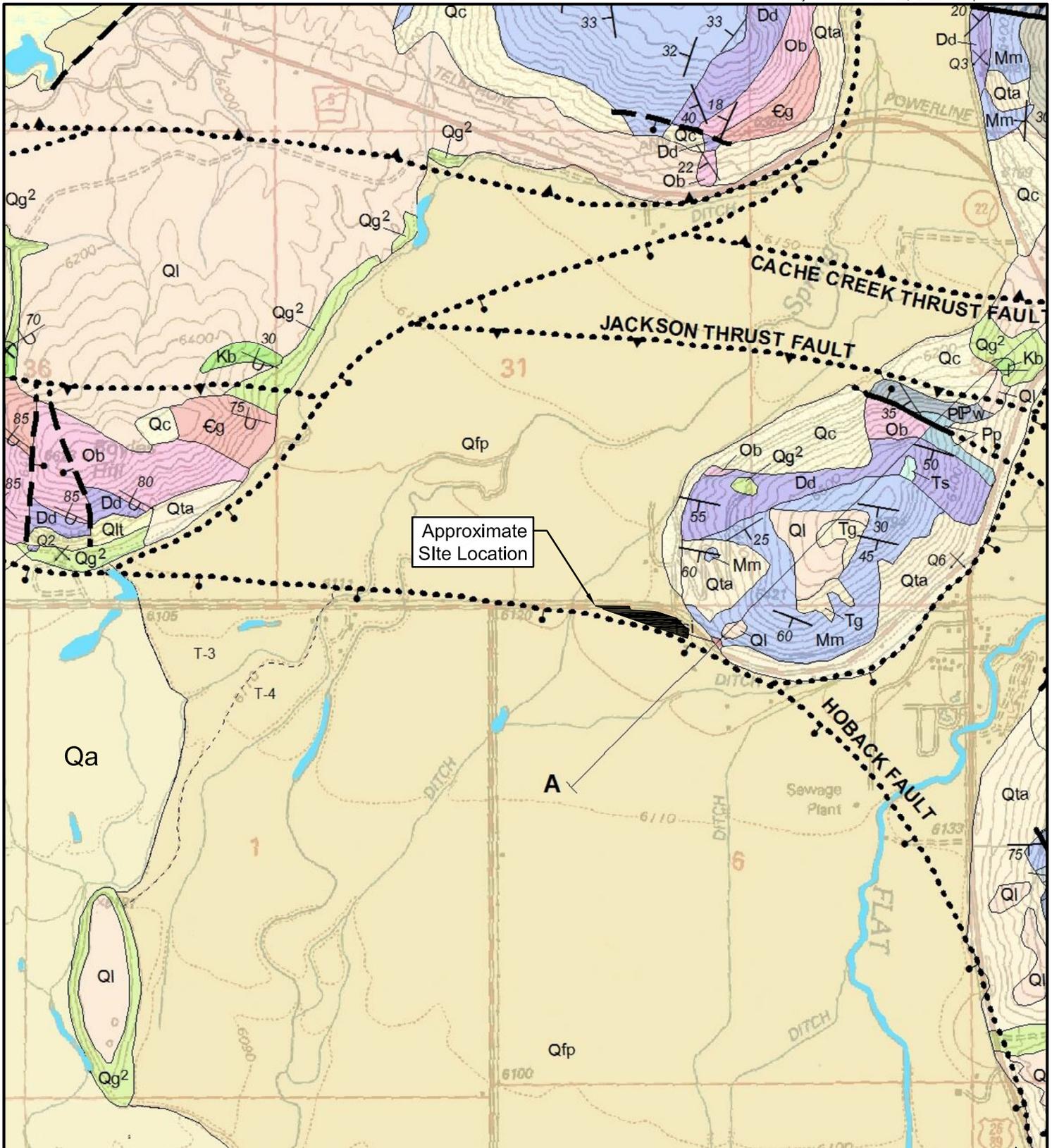
3.1 Field Investigation

The subsurface exploration was conducted on May 19, 2022. Six test pits were excavated to depths ranging from 11 to 12.5-ft below ground surface (bgs) using a rubber-tired John Deere 310SJ backhoe operated by FC Excavation. Three groundwater monitoring wells were installed in TP-3, TP-5, and TP-6 to depths of 12.3, 11.4-ft and 11.2-ft. bgs, respectively. Test pit locations were chosen to bracket the site location without disturbing soils underlying the anticipated foundation system, however, due to the preliminary stages of planning, this may not have been avoided. Approximate test pit locations are shown on Figure 2.

Soil type, thickness, consistency, and relative moisture contents were observed and documented by a Jorgensen geotechnical engineer. Soil samples were collected during the investigation, but due to the predominantly stony nature of the soil, laboratory testing was not performed. Detailed test pit logs are presented graphically in Appendix A. Based on observations made during the test pit excavations, site soils appear consistent across the project area, but observations are limited to discrete locations. Actual subsurface conditions between the test pits may differ from those represented in the exploration logs.

3.2 Report Preparation

This report describes the geologic site conditions and subsurface soil conditions observed during the site investigation. It includes a site location and geologic map (Figure 1), test pit location map (Figure 2), and descriptive test pit logs are presented graphically in Appendix A. The report provides engineering analyses and recommendations to support the design and construction of foundation elements associated with residential construction.



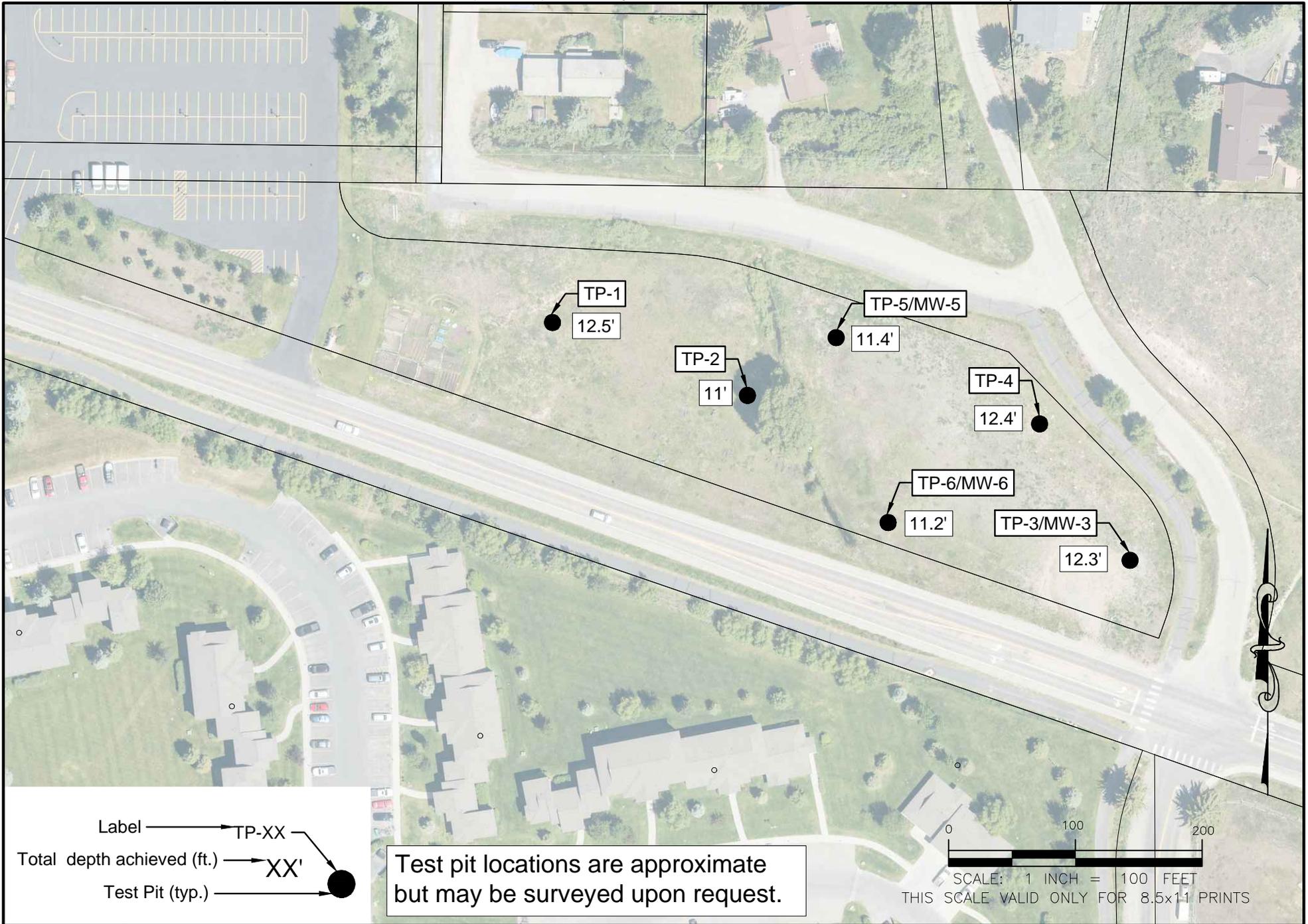
SCALE: 1 INCH = 1500 FEET
THIS SCALE VALID ONLY FOR 8.5x11 PRINTS

Map symbols: Qfp - Flood Plain Deposits
Qa - Alluvium



From Love and Albee, Geologic Map of the Jackson Quadrangle, 2004

DRAFTED BY: NJA	SHEET TITLE: Figure 1 Site Location and Geologic Map	PROJECT TITLE: Geotechnical Investigation Report Presbyterian Church of Jackson Hole Teton County, Wyoming	 <p>JORGENSEN Geotechnical, LLC 307-733-5150 www.jorgeng.com</p>
REVIEWED BY: CHL			
PROJECT NUMBER 22072			



Test pit locations are approximate but may be surveyed upon request.

DRAFTED BY:	NJA
REVIEWED BY:	CHL
PROJECT NUMBER	22072

SHEET TITLE:
Figure 2
 Test Pit Location Map

PROJECT TITLE:
 Geotechnical Investigation Report
 Presbyterian Church of Jackson Hole
 Teton County, Wyoming



JORGENSEN
 Geotechnical, LLC
 307-733-5150 www.jorgeng.com

4.0 SITE CONDITIONS

4.1 Description

The project site is located near the toe of High School Butte, bounded by South Park Loop Road to the south. Private residences neighbor the parcel to the north, with a portion of PCJH parking lot extending into the western portion of the parcel. According to the Teton County GIS MapServer the site is relatively flat at an average elevation of about 6,132-ft above mean sea level (AMSL). Access to the site is via South Park Loop Road. The site appears to be undisturbed and previously undeveloped, although we observed some surface disturbance from vehicle access to the site. We understand this area is traditionally used as a location for snow storage in the winter. Fill appears to have been previously placed near the existing community garden, as well as stony fill stockpiles along the eastern extent of the property at the toe of the Montana Road embankment, in the mid-2000s. An irrigation ditch conveys water from north to south and bisects the property. It is currently unknown whether the water in the ditch influences groundwater conditions at the site.

4.2 Geology

The project site is found on the Geologic Map of the Jackson Quadrangle (Love and Albee., 2004), which has been adapted as Figure 1. The map shows the location of surficial deposits, bedrock units, and geologic structures (i.e., faults and folds). According to the map, the site is underlain by flood plain deposits (Qfp) and alluvium (Qa) of the Snake River Floodplain, typically consisting of water-laid gravel, cobbles, and sand. Subsurface conditions appear consistent with those of the mapped geology, predominantly consisting of sands, gravels, and cobbles, overlain near the surface by a layer of native, clayey sand (i.e., topsoil). Loess and Colluvium deposits were also mapped nearby but were not observed at this site.

Numerous Quaternary-age (relatively young and potentially active) faults have been mapped in the Jackson Hole area (USGS, 2006). Recent mapping of the Teton Fault produced by Zellman, et al. (2019), indicates the fault is approximately 5 miles northwest of the project site. The Teton Fault is considered a major structural component of the region. Estimated slip rates range from 0.2 to 1.0 mm per year. The 2004 geologic map indicates the approximate traces of the Cache Creek, Hoback, and Jackson thrust faults are near the project site; however, these faults are considered old and inactive.

4.3 Soils

Clayey sand topsoil was generally observed to blanket the site stony alluvium from existing grade to depths ranging from the surface to 1.5-ft bgs in five of the six test pits. It was described as slightly moist, dark brown, loose, containing many roots terminating at 2 to 4-ft bgs, and containing no apparent structure. Field estimates classify the soil as consisting of approximately 65-75% sand, 25-30% clayey fines, and varying amounts of gravel.

A layer given an origin of fill, was observed underlying the topsoil in JG-1 and JG-2 at depths ranging from 0.8 to 4-ft. A layer of fill was also observed in JG-4 from the surface extending to a depth of 3.5-ft bgs. It was described as slightly moist to moist, dark brown, medium dense to dense. No structure was recorded, though some roots were observed within this unit. This layer consisted of approximately 40-50 sand, 30-40% clay, and 10-20% gravel in JG-1 and JG-2. In JG-4, this layer contains an increase in fines consisting of approximately 10-15% subangular to subrounded gravel and cobble greater than 3-in by volume, 40-45% gravel, 20-25% fines, and 30-35% fines.

Stony native material underlying topsoil, fill, and gravelly alluvium was generally observed as sandy gravel and cobble. It was described in the field as slightly moist to moist, light brown, dense to very dense,

stratified, and clast-supported. Field estimates classify the soil as sandy gravel and cobble consisting of approximately 30-40% subrounded cobble greater than 3-in by volume, with the remainder estimated to be 70-75% gravel, 30-40% sand, and trace silt and clay by mass. These stony alluvial soils are common in this area and are typically referred to as “pit-run”. They generally compact into a strong, dense engineered fill.

4.4 Groundwater

Groundwater was not encountered at the time of the investigation. However, May is generally considered a time of year when groundwater is assumed to be lower than peak levels. Groundwater levels fluctuate in response to seasonal snowmelt, local irrigation, and flow levels in nearby rivers and streams, which tend to peak mid- to late-June. Groundwater levels can vary annually, especially during years with above average snowpack. Flow levels in nearby streams and local irrigation will likely have the greatest influence on groundwater levels.

Three groundwater monitoring standpipes were installed at the time of the investigation. Three data loggers from Heron Instruments were installed to collect water level data continuously during the spring and summer. We will conclude the monitoring no later than mid-autumn and submit a final groundwater monitoring report. However, at the time of this report the dataloggers have recorded dry conditions with peak groundwater levels observed on other sites in the Jackson Hole area in late-June.

These data consist of recordings in spring 2022 only and may not be representative of all possible groundwater conditions. We recommend taking precautions against moisture in basement and/or crawlspace areas. It is prudent to take a conservative approach to site groundwater levels as they tend to fluctuate seasonally; 2022 likely does *not* represent the highest possible groundwater levels. However, in our opinion, we do not expect groundwater to pose an issue with design and construction of the proposed project as long as precautions are taken to protect below grade areas.

4.5 Earthquakes and Ground Shaking

Jackson Hole is located within the Intermountain Seismic Belt, a zone of seismicity that extends from southern Utah through eastern Idaho, western Montana, and Western Wyoming (Smith and Arabasz, 1991). The Teton Fault, located along the eastern margin of the Teton Range about 5 miles northwest of the project site, is considered an important structural element of the Intermountain Seismic Belt. Predicted recurrence intervals for maximum credible earthquakes have passed for most of the fault systems capable of generating magnitude 7.5 earthquakes in western Wyoming (Case, 1997), implying the risk of major earthquakes is relatively high. The owner should be aware that in the event of a large magnitude earthquake (i.e., approximately 7.5), strong ground shaking, liquefaction, or slope movement could potentially cause damage to structures (Smith, et al., 1993).

Ground motion accelerations should be derived for the project site in accordance with the general procedure defined in the International Building Code (IBC). The IBC references ASCE 7-16 to determine the ground motion accelerations. Based on subsurface soils, the site is classified as Site Class D (“Stiff Soil”). For your convenience, Seismic Design Maps (SEAOC, 2019) values are summarized in Table 4-1.

Table 4-1: U.S. Seismic Design Maps Summary

Maximum Considered Earthquake (MCE) Spectral Response Acceleration Parameters	
Short Period (S_s) =	1.054
1-Second Period (S_1) =	0.348

Site Coefficients and Adjusted MCE Spectral Response Acceleration Parameters	
$F_a = 1.078$	$S_{MS} = 1.136$
$F_v = 1.952$	$*S_{M1} = 0.679$
Design Spectral Response Parameters	
$S_{DS} = 0.757$	
$*S_{D1} = 0.453$	

Note: Values for F_v are based on linear interpolation of Table 11.4-2 of ASCE Standard 7-16. Values for S_{M1} , and S_{D1} are calculated from F_v . Per Section 11.4.8 of ASCE 7-16, if the proposed structure foundation will include seismic isolators or damping systems, a site response analysis shall be performed in accordance with Section 21.1 ASCE of 7-16.

The project site is located in an area of moderate seismic activity. The current peak horizontal acceleration (PGA) with a probability of occurrence of 2% in 50 years is approximately 0.468g (SEAOC, 2019). This has been applied for the analysis of seismic lateral loading on retaining walls Section 5.3.

The provisions of the IBC are intended to provide uniform levels of performance for structures depending on their intended occupancy and use, and the risk inherent to their failure. The approach adopted in the IBC is intended to provide a uniform margin of safety against collapse at the design motion. The design earthquake ground motion is selected at a ground shaking level that is 2/3 of the maximum considered earthquake (MCE) ground motion, which has a likelihood of exceedance of 2% in 50 years (corresponding to a return period of 2,500 years). The owner should be aware that the IBC is not intended to prevent damage or loss of function during a major earthquake; it is intended to reduce the risk of loss of life. Structural design should follow the level of risk tolerable to the owner.

4.6 Geologic and Geotechnical Hazards

In our opinion, the most significant geologic hazard to the project site is its close proximity to the Teton Fault which is roughly 5.5 miles to the northwest. The owner should be aware that in the event of a large magnitude earthquake, strong ground shaking and ground cracking could potentially cause damage to structures (Smith et al., 1993). The owners may wish to consider the option of carrying earthquake insurance in addition to homeowner’s insurance. However, the distance from any Quaternary (i.e., relatively young) faults implies surface rupture at the project site is unlikely to occur.

Loose, saturated sands and silty sands, and in some cases, silts and gravels may liquefy when exposed to seismic shaking. The gravels and cobbles observed throughout the site are unlikely to liquefy in a seismic event. Liquefaction at depth, if it were to occur, could cause minor differential settlement. However, liquefaction is unlikely to cause lateral spreading, which is major slope movement commonly responsible for catastrophic damage during earthquakes, at this relatively flat site.

5.0 ENGINEERING ANALYSIS

5.1 Settlement

Significant consolidation (i.e., greater than 1-inch of total settlement or 0.5-inches of differential settlement) of the stony alluvial deposits encountered in the test pits is not anticipated. Foundation elements should be placed directly on the native stony alluvial material or approved engineered fill. Any overlying topsoil or fine-grained deposits should be removed, and no such material should be incorporated into any foundation subgrades. Lenses of loose sand or fine-grained material may occur in the stony material; if encountered during construction, they should be removed and replaced with structural fill, consisting of imported stony “pit-run” or re-compacted native stony alluvial material.

5.2 Bearing Capacity

Bearing capacity of soil refers to its ability to resist shear failure under load and was calculated using Terzaghi’s bearing capacity equation for isolated strip footings (Bowles, 1996). Soil parameters (i.e., inputs to the bearing capacity equation) were derived based on visual classification of the soil and established empirical estimates (CANMET, 1982). The calculated allowable bearing capacity of the stony alluvial deposits or recompacted fill is 7,000 psf, assuming that topsoil and any other deleterious materials are removed prior to fill placement and subgrade preparation recommendations are followed. These values assume footings will be placed directly on the stony alluvium or approved engineered fill and groundwater levels do not rise above 5-ft bgs.

Soil bearing capacity is dependent not only on its strength, but also the geometry of the foundation elements. The calculated allowable bearing capacity has been determined assuming 2-ft “strip” or spread footings placed at least 3-ft bgs with groundwater levels deeper than 5-ft below final grade. If groundwater monitoring in the spring and summer of 2022 determines peak groundwater levels shallower than the assumed 5-ft, the allowable bearing capacity shall be re-evaluated by JG.

If footing size and depth differs remarkably from these assumptions, this office should be notified to evaluate our recommendations. It is often the case that heavily loaded, isolated footings may be optimized (i.e., made smaller) using a larger bearing capacity, thereby reducing the quantity of concrete required. Please contact JG for an evaluation during the design process.

5.3 Lateral Pressures

Lateral pressures were calculated using methods suggested by Bowles (1996). Lateral pressures were calculated for at-rest, active, and passive conditions assuming level backfill, and are presented in Table 5-1. These values assume stony site-derived material will be used as exterior backfill. We have assumed an estimated internal friction angle of 35° and a unit weight of 135 pcf based on visual classification of the soils.

Table 5-1: Lateral Pressure Parameters for Native Stony Site Soils

Condition	Coefficient of Earth Pressures	γK (equivalent fluid pressure)
Static Conditions Level Backfill	$K_o = 0.43$ $K_a = 0.27$ $K_p = 3.69$	58 pcf 37 pcf 498 pcf
Earthquake Conditions Level Backfill	$K_{ae} = 0.43$ $K_{pe} = 3.20$	57 pcf 432 pcf

5.3.1 Active Pressures

For lateral pressure design of retaining walls, which are allowed to deflect and develop an active soil wedge, the calculated equivalent fluid pressure (γK_a) is 37 pcf (pounds per cubic foot). This pressure distribution would be equivalent to a force of approximately $18.5H^2$ pounds per horizontal foot of wall acting at one-third the wall height (H) above the base.

Lateral pressures on retaining walls from earthquakes were estimated using the Mononobe-Okabe equations (Bowles, 1996; Duncan et al, 1990). Because the maximum acceleration occurs only briefly during an earthquake, it is common practice when designing dams and other earth structures to reduce the design acceleration to ½ of the maximum design acceleration (Hynes-Griffin and Franklin, 1984). Thus, we have calculated seismic lateral pressures using a horizontal acceleration k_h of 0.23g (1/2 of k_h max) per SEAOC (2019).

Research has indicated that lateral pressures due to earthquakes are non-hydrostatic in distribution, and the resultant acts above the lower third-point of the wall (Bakeer, et al, 1990). Accordingly, active soil pressures must be divided into two components that act at different wall heights. The static force acts at the lower third-point, as discussed above. The resultant force from seismic lateral pressures is applied at 60% of the wall height above the base with a magnitude equal to the difference between seismic and static active pressures; i.e., $1/2(\gamma K_{ae} - \gamma K_a)H^2$ or $10H^2$ pounds per horizontal foot of wall applied.

5.3.2 At-Rest Pressures

For lateral pressure design of basement walls, which are restrained and not allowed to deflect, the calculated at rest earth pressure (γK_o) is 58 pcf. Design control of such walls shall be whichever generates the higher resultant force: at-rest pressures or active seismic pressures.

5.3.3 Passive Pressures

For passive pressure design, the earth pressure coefficient (γK_p) is about 498 pcf, assuming a horizontal ground surface adjacent to the wall, and reduced to 432 pcf for seismic conditions. Passive pressure design should neglect loose fill and soil located within the frost zone.

5.4 Soil Friction

Terzaghi, et al (1996), suggest use of the internal strength of the soil for the friction angle along a concrete base in granular soils, with a maximum value of 30°. Accordingly, a friction value of 0.58, which is the tangent of 30°, is suggested if foundation elements are founded on native stony alluvial deposits or compacted, granular structural fill. The friction value may be combined with the passive pressure to resist horizontal loads.

6.0 RECOMMENDATIONS

6.1 Foundations

In our opinion, the existing native stony alluvial material consisting of sandy gravels and cobbles, is likely to provide adequate support for anticipated foundation loads. We recommend building foundation systems be placed entirely on the native stony material or engineered fill consisting of imported “pit-run” or re-compacted stony site soils. The clayey sand (i.e., topsoil) and any fine-grained deposits should be removed below all footings. At the time of the site investigation, the approximate building footprint was unknown, and test pits may have disturbed the soil under proposed footings. Disturbed, native soil should be re-compacted.

All footings should be placed below the frost line, including exterior footings for awnings and porches. The building code for Teton County requires that footings be placed at a minimum depth of 34 inches from finished grade, with a minimum foundation exposure of 6 inches above finished grade.

Minor cracks in the foundation walls, floor slabs, and sheetrock are normal and should not be a cause for concern. A structural engineer should review the plans to check that adequate lateral restraint is provided to foundation walls by the floor joists.

6.2 Site Preparation

At the start of construction, the site should be cleared and stripped of topsoil, fine grained soils, and organic debris. No brush, roots, frozen material, or other deleterious or unsuitable materials shall be incorporated in the foundation subgrade or site-derived engineered fill. All exposed subgrade surfaces should be free of mounds and depressions which could prevent uniform compaction. If unexpected fills or obstructions are encountered during site clearing or excavation, such features should be removed and the excavation thoroughly cleaned prior to backfill placement and/or construction. All excavations should be inspected by representative of Jorgensen prior to fill or concrete placement, especially if questionable materials are exposed.

If fine-grained soils or lenses of loose sands are observed at foundation depth, they should be removed and replaced with an approved engineered fill, such as pit-run or select site soils. During excavation for the foundation system, removal of large cobbles and boulders may disturb and loosen the surrounding material. All disturbed areas should be compacted with a smooth-drum vibratory roller, in vibratory mode with a minimum of three passes, prior to placement of structural fill and/or footing construction. The actual number of passes should be determined by observing whether the surface is yielding after each pass. If the surface appears to be yielding, the number of passes should be increased until a non-yielding condition is observed and approved by Jorgensen.

6.3 Excavation and Cut Slope Stability

OSHA regulations (29CFR1926) appear to classify site soils as Type C. For planning and design purposes, simple cut slopes should be no steeper than 1.5H:1V in the stony alluvium. These are recommendations based on observations made at the time of the investigation. The contractor shall be responsible for adherence to OSHA and other safety regulations by observing soil and groundwater conditions at the time of construction.

6.4 Final Backfilling and Grading

Properly compacted backfill and site drainage are important. Stony fill (e.g., site-derived sandy gravel and cobble alluvium or imported “pit-run”) will compact into a dense, strong, well-draining engineered fill, and strict moisture control is usually not required, making it a preferred alternative for many contractors for exterior backfills, utility trenches, and subbase under interior and exterior slabs. However, compaction testing with a nuclear density gauge is usually problematic due to the presence of large stones. Therefore, we recommend compacting stony fills using a **method specification**, for which Table 6-1 provides initial guidelines.

Table 6-1: Compaction Parameters for Stony Fill

Compactor Type	Lift Thickness	Maximum Particle Size	Minimum Number of Passes
5-ton vibratory	12 inches	9-inch*	3
1.5-ton vibratory	9 inches	6-inch	5
Hand-held	4 inches	4-inch	5

* Occasional clasts to 12-inch are permitted, if encountered, but should not be nested (placed against one another).

Stony fill will compact into a dense, strong, well-draining structural fill, and strict moisture control is usually not required. Compaction testing with a nuclear density gauge is usually problematic due to the presence of large stones. Therefore, we recommend compacting stony fills using a **method specification**, for which Table 6-1 provides initial guidelines.

The method specification may be established as follows:

- The contractor will place fill in loose lifts no greater than specified in Table 6-1 for whichever class of compactor is used.
- Fill will be compacted with the *minimum* number of passes specified in Table 6-1. The actual number of passes should be determined by observing compaction after each pass to determine if the surface is non-yielding. If the fill surface appears to be yielding, the number of passes should be increased until a non-yielding condition is observed.
- Once the number of passes is determined, this **method** (unique to the material type, compactor, lift thickness, and number of passes) may be continued for the rest of the project as long as fill material properties and subgrade soil conditions remain the same.

It is important to establish a method specification as early in the construction as possible and apply it consistently for the entirety of the building pad construction. JG should observe lift thickness, number of passes, and equipment used during compaction. Additional guidance on construction observations may be found in Section 6.9.

Exterior backfills should be placed as early as possible. However, do not over-compact exterior backfills against “green” foundation walls. Utility trenches should also be backfilled in lifts and compacted. Stony soils will require a vibrating smooth-drum roller or vibratory plate (i.e., hoe-pack or “jumping jack”) for compaction.

6.5 Interior Slabs-on-Grade

Interior slabs should be at least 4 inches thick, and any slabs bearing vehicles should be at least 6 inches thick, or as approved by a Structural Engineer. Minor floor cracking of slab-on-grade construction is difficult, if not impossible, to prevent. Such cracking is normal and should be expected to occur with time. Buildings

are almost never free of cracks, and cracking is caused by many factors other than soil movement, such as concrete shrinkage or curling, or daily and seasonal variability in temperature and humidity.

An impermeable layer (usually plastic) is suggested beneath interior slabs, underlain by 4 inches of clean drain gravel that will act as a capillary break to reduce dampness. Two options are available to reduce the tendency for the concrete to crack or curl as it dries:

1. A blotter layer may be placed under the slab. In the past, loose sand has been used for this purpose, but is no longer recommended. A cover of 4 inches of trimmable, compactible, granular material may be placed over the impermeable layer to receive the concrete slab. This material usually consists of “crusher run material”, which varies in size from about 1.5-inch down to rock dust. Alternatively, 3 inches of compacted, fine-graded material such as crusher fines or manufactured sand may be used.
2. The blotter layer may be eliminated if the concrete is reinforced properly. The attached article entitled “Controlling Curling and Cracking in Floors to Receive Coverings” provides a discussion of proper floor slab reinforcement. If the contractor needs additional guidance on reinforcement, a Structural Engineer should provide it.

Three articles from the American Concrete Institute (ACI) that discuss these options are listed in Section 8.0. We are able to offer additional guidance if requested.

6.6 Exterior Slabs-on-Grade

Exterior slabs (e.g., sidewalks, patios, driveways, hardscapes, etc.) typically sustain the greatest damage. Cracking is almost impossible to avoid, and freeze-thaw adds to the difficulty caused by soil movement. Performance of exterior slabs in areas underlain by clayey sand (i.e., topsoil) will be improved by over-excavation the topsoil and replacing it with “pit-run” or site derived alluvium compacted per Section 6.4. A 6-inch leveling course comprising road mix gravel (e.g., WYDOT Grading H) is recommended to be placed and compacted directly below the slab. Prior to placement and compaction of the gravel, the surface of the exposed excavation should be compacted to a non-yielding condition. The gravel should be separated from any native clayey sand using a non-woven separation fabric (e.g., Mirafi 140N).

Exterior slabs should be at least 4 inches thick, 6 inches if supporting vehicles, or as approved by the Structural Engineer. Exterior slabs should not be tied to foundation walls. Any movement of exterior slabs may be transmitted to the foundation walls, resulting in damage. Posts for patios or other exterior columns should not bear on exterior slabs. If the slabs settle or rise, the movement can be transmitted to the post, resulting in damage to the structure. Expansion joints are recommended in all concrete flatwork.

6.7 Crawlspace Ventilation and Radon

There is a slight risk that seasonal groundwater or surface water fluctuations may result in dampness or water entering crawl space areas. Evaluation of radon was beyond the scope of work; local codes should be followed and specialty contractors employed, if necessary. The building contractor is ultimately responsible for following local building codes. Crawlspace ventilation to reduce moisture and potential accumulation of radon gas is required by code. Placing a Class 1 vapor retarder in the crawlspace may reduce ventilation opening area requirements. A capillary break layer, such as is recommended in Section 6.5, may also accommodate a radon vent pipe.

6.8 Reinforcing, Utilities Testing, and Concrete Considerations

Footings, slabs, and foundation walls should be reinforced to resist differential movement. Consultation with a Structural Engineer to specify adequate reinforcement is suggested. Water and sewer lines should be pressure tested before backfilling. Exterior concrete should contain 5% to 7% entrained air.

6.9 Observations during Construction

Recommendations in this report are contingent upon our involvement. If any unexpected soils or conditions are revealed during construction, this office should be notified immediately to observe the conditions and make any necessary modifications. All excavations and foundation subgrades should be observed by a representative of JG prior to fill or concrete placement, especially if questionable materials are exposed. Notice shall be provided at a minimum of 24 hours before the requested observation.

We are able to provide the most value observing site conditions at the following times:

1. Upon completion of site preparation to verify stony alluvial soils have been reached and prepared in accordance with Section 6.2.
2. During the placement of the beginning lifts of engineered fill, if required, to observe compaction (i.e., develop a method specification, see Section 6.4).
3. Once the site has been prepared to the bottom of footing elevation to witness a proof roll with the compactor.

7.0 LIMITATIONS

This report has been prepared based on inherently limited data. Actual site conditions may vary. These services have been performed in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other warranty is made or implied.

This report is site-specific and has been prepared in support of the proposed project. The report is for the sole use of the current property owner and their design and construction team and shall be considered non-transferable to future property owners without the written consent of Jorgensen Geotechnical. Under no circumstances are the figures and text to be used separately.

8.0 REFERENCES

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APPENDIX A

Test Pit Logs



July 5, 2023

Scott O'Hare and Steve Iobst
Presbyterian Church of Jackson Hole
1251 South Park Loop Road
Jackson, WY 83001

**RE: GROUNDWATER MONITORING REPORT, PRESBYTERIAN CHURCH OF JACKSON HOLE, PT.
NE1/4NW1/4 SEC. 6, TWP. 40, RNG. 116 PARCEL 1
JG PROJECT NO.: 27072**

Dear Scott and Steve,

We are pleased to submit this report summarizing the results of the 2023 spring runoff groundwater monitoring for the proposed development on Presbyterian Church of Jackson Hole (PCJH) property located at PT. NE1/4NW1/4 SEC. 6, TWP. 40, RNG. 116 PARCEL 1 in Jackson, Wyoming.

Jorgensen Geotechnical conducted a subsurface investigation on May 19, 2022. Six test pits were excavated, and three groundwater monitoring standpipe piezometers were installed in TP-3/MW-3, TP-5/MW-5, and TP-6/MW-6 to depths of 12.3, 11.4, and 11.2 feet below ground surface (bgs), respectively. Data loggers from Heron Instruments were installed to collect water level data continuously during the spring and summer of 2022. Results showed the standpipe piezometers were dry during the monitoring period in 2022.

PCJH contacted Jorgensen to conduct groundwater monitoring in 2023. The piezometers were spot-monitored weekly throughout June 2023 for a total of four monitoring events. Groundwater was measured using a manual groundwater tape. No groundwater was encountered during the monitoring period (i.e., the piezometers were dry).

These data consist of recordings in June 2023 only and may not be representative of all possible groundwater conditions. It is prudent to take a conservative approach to site groundwater levels as they tend to fluctuate seasonally. However, in our opinion, it is unlikely that groundwater will pose issues with design or have an impact during construction.

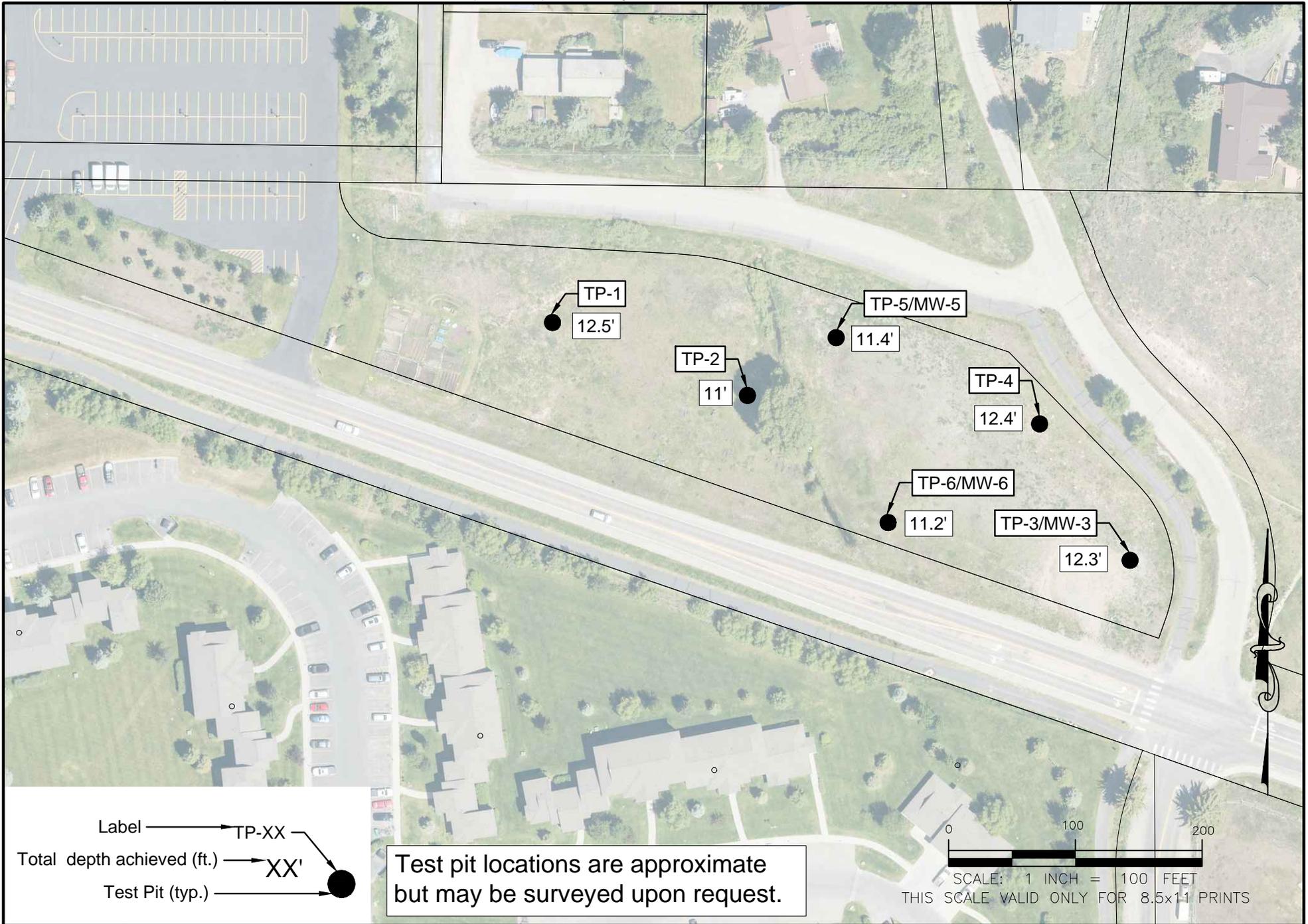
If you have any questions, please contact our office. We are happy to provide additional observations and recommendations as the project progresses.

Respectfully submitted,
Jorgensen Geotechnical, LLC

Dominique Brough, P.G.
Geotechnical Project Manager

Attached: 2023 Groundwater Monitoring Log
Figure 2 – Groundwater Monitoring Well Location Map (from July 2022 Geotechnical Investigation Report)

Standpipe Piezometer Measurements			
Depth Below Ground Surface (feet)			
Date	MW-3	MW-5	MW-6
6/5/2023	Dry	Dry	Dry
6/14/2023	Dry	Dry	Dry
6/22/2023	Dry	Dry	Dry
6/27/2023	Dry	Dry	Dry



Test pit locations are approximate but may be surveyed upon request.

DRAFTED BY:	NJA
REVIEWED BY:	CHL
PROJECT NUMBER	22072

SHEET TITLE:
Figure 2
 Test Pit Location Map

PROJECT TITLE:
 Geotechnical Investigation Report
 Presbyterian Church of Jackson Hole
 Teton County, Wyoming

JORGENSEN
 Geotechnical, LLC
 307-733-5150 www.jorgeng.com



WATER SYSTEM DEMAND PER WYDEQ CHAPTER 12

Project Name: **Presbyterian Church of Jackson Hole Employee Housing Center**
 Jorgensen Project Number: **JA Project No. 22072**
 Site Calculation Date: **1.16.2024**

Average Day Occupancy Rate ¹	75%
Max Day Factor ¹ , MDF	2.72
Peak Hour Factor ² , PHF	4

WATER DEMAND					
	a	b	c=a*b	d=MDF*c	e=d/1440 * PHF
	Quantity	Average gpd/capita	Average TOTAL, gpd	Maximum TOTAL, gpd	PEAK HOUR, gpm
Unit, 1 Bedroom	2	125	250	680	1.9
Unit, 2 Bedroom	14	125	3500	9520	26.4
Unit, 3 Bedroom	0	125	0	0	0.0
Unit, 4 Bedroom	5	125	2500	6800	18.9
Cabin, 1 Bathroom and 1 Kitchen	1	125	250	680	1.9
Subtotal Housing			6,500	17,680	49.1

FIRE SUPPRESSION						
Total Building Size	Building Type	Required Pressure ³	Required Duration ⁴	Total Fire Flow ⁴	Sprinkler Reduction ⁵	Adjusted Fire Flow ⁵
(SF)	(IBC)	(psi)	(hours)	(gpm)	(%)	(gpm)
0	IV	20	3	3,750	75%	1,500

Note:

- ¹ Based on daily rates from the WYDEQ CH 12, Section 8
- ² Peak Hour Factor based on busiest hour occurring during the busiest quarter of the day.
- ³ IFC - Appendix B, Section B102
- ⁴ IFC - Appendix B, Table B105.1(2), Type IV
- ⁵ IFC - Appendix B, Section B105.2, 75% reduction for automatic sprinkler systems, minimum 1500 gpm



WATER SYSTEM DEMAND PER AMERICAN WATER WORKS ASSOCIATION (M22)

Project Name: Presbyterian Church of Jackson Hole Employee Housing Center
Jorgensen Project Number: JA Project No. 22072
Site Calculation Date: 1.12.2024

WATER DEMAND - M22 FIXTURE CALCULATION					
	Fixture	No. Units	Fixtures per Unit ²	Fixture Value ¹	Total Fixture Value
Unit, 1 Bedroom	Toilet	2	1	6	12
	Lavatory Sink	2	1	1.5	3
	Shower	2	1	2.5	5
	Kitchen Sink	2	1	1.8	4
	Dishwasher	2	1	1.3	3
	Laundry (Washer)	2	1	3	6
Unit, 2 Bedroom	Toilet	14	3	6	252
	Lavatory Sink	14	3	1.5	63
	Shower	14	2	2.5	70
	Kitchen Sink	14	1	1.8	25
	Dishwasher	14	1	1.3	18
	Laundry (Washer)	14	1	3	42
Unit, 3 Bedroom	Toilet	0	4	6	0
	Lavatory Sink	0	4	1.5	0
	Shower	0	3	2.5	0
	Kitchen Sink	0	1	1.8	0
	Dishwasher	0	1	1.3	0
	Laundry (Washer)	0	1	3	0
Unit, 4 Bedroom	Toilet	5	5	6	150
	Lavatory Sink	5	5	1.5	38
	Shower	5	4	2.5	50
	Kitchen Sink	5	1	1.8	9
	Dishwasher	5	1	1.3	7
	Laundry (Washer)	5	1	3	15
Cabin	Toilet	1	1	6	6
	Lavatory Sink	1	1	1.5	2
	Kitchen Sink	1	1	1.8	2
	Dishwasher	1	1	1.3	1
TOTAL FIXTURE VALUE					781

Probable Water Flow Demand (AWWA M22 - Figure 4-3) 58
 Design Pressure Adjustment Factor (AWWA M22 - 60 psi) 1.00
 Adjusted Probable Demand (gpm)³ 58

Note: Domestic use only, no irrigation



WATER SYSTEM DEMAND PER WYDEQ CHAPTER 11

Project Name: **Presbyterian Church of Jackson Hole Employee Housing Center**
 Jorgensen Project Number: **JA Project No. 22072**
 Site Calculation Date: **1.12.2024**

Average Daily Flow	60%
Peak Hour Factor	4

SANITARY SEWER DEMAND					
Unit Type	No. of Units ²	Max Flow per Bedroom, gpd ¹	Average TOTAL, gpd	Maximum TOTAL, gpd	PEAK HOUR, gpm
1 Bedroom	2	150	180	300	0.8
2 Bedroom	14	150	2520	4200	11.7
3 Bedroom	0	150	0	0	0.0
4 Bedroom	5	150	1800	3000	8.3
Cabin	1	150	0	0	0.0
TOTAL SANITARY SEWER DEMAND			4,500	7,500	21

Notes:

¹ Based on daily flow rates from the WYDEQ CH 11, Part B, Table 1

² Bedroom count shown based on Development Plan, 1.12.2024



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PROJECT TITLE
PCJH - Employee Housing
PRESBYTERIAN CHURCH OF JACKSON HOLE
PARCEL 1 - TRIANGLE LOT
JACKSON, WYOMING

SHEET TITLE
WATER MODEL
PRESBYTERIAN CHURCH
JUNCTION AND PIPE EXHIBIT

DRAFTED BY:	JA
REVIEWED BY:	JA
PLAN VERSION	DATE
EXHIBIT	1-16-2024

PROJECT NUMBER	20030
SHEET	WC-1



0 40 80
SCALE: 1" = 80'



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PROJECT TITLE:
PCJH - Employee Housing
PRESBYTERIAN CHURCH OF JACKSON HOLE
PARCEL 1 - TRIANGLE LOT
JACKSON, WYOMING

SHEET TITLE:
WATERCAD MODEL
ZONE 3B SELECTED JUNCTION
LAYOUT EXHIBIT

DRAFTED BY:	JA
REVIEWED BY:	JA
PLAN VERSION	DATE
EXHIBIT	1-16-2024

PROJECT NUMBER
22072
SHEET
WC-2



**TOWN OF JACKSON
WATER SYSTEM ZONE 3B**

PRESBYTERIAN CHURCH

JUNCTION WITH
HIGHEST ELEVATION
IN ZONE 3B

3 Creek Ranch
Golf Club

0 250 500
SCALE: 1" = 500'

Existing TOJ Demands Plus Presbyterian Church

MDD Scenario

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Zone
J-20	6,100.95	0.000	75	WestB
J-49	6,130.00	0.000	87	WestB
J-60	6,130.00	0.000	87	WestB
J-61	6,128.00	12.300	88	WestB
J-197	6,175.00	13.400	68	WestB
J-200	6,139.00	15.000	84	WestB
J-201	6,142.00	15.000	82	WestB
J-202	6,128.00	20.000	88	WestB
J-203	6,120.00	10.000	92	WestB
J-204	6,105.50	0.000	103	WestB
J-205	6,130.00	0.000	87	WestB
J-206	6,125.00	11.300	90	WestB
J-207	6,134.00	12.000	86	WestB
J-208	6,118.00	12.000	93	WestB
J-209	6,115.00	0.000	94	WestB
J-210	6,115.00	12.000	94	WestB
J-211	6,126.00	6.000	89	WestB
J-212	6,114.00	0.000	94	WestB
J-213	6,120.00	20.000	92	WestB
J-256	6,130.00	0.000	88	WestB

Existing TOJ Demands Plus Presbyterian Church

MDD Scenario

FlexTable: Pipe Table

Label	Start Node	Stop Node	Diameter (in)	Material	Flow (gpm)	Velocity (ft/s)
P-25	J-49	J-63	8.0	Ductile Iron	81.588	0.52
P-26	J-63	J-50	8.0	Ductile Iron	81.583	0.52
P-52	J-60	J-61	6.0	Ductile Iron	12.300	0.14
P-55	J-63	H-2	6.0	Ductile Iron	0.004	0.00
P-423	J-205	J-60	12.0	Ductile Iron	-211.506	0.60
P-424	J-60	J-49	12.0	Ductile Iron	-223.806	0.63
P-425	J-49	J-256	12.0	Ductile Iron	-305.394	0.87

Existing TOJ Demands Plus Presbyterian Church

MDD Scenario

FlexTable: Reservoir Table

ID	Label	Elevation (ft)	Zone	Flow (Out net) (gpm)	Hydraulic Grade (ft)
522	WELL-VFD-8	6,345.00	West	375.811	6,345.00
523	WELL-VFD-6	6,345.00	West	425.094	6,345.00
524	WELL-VFD-7	6,345.00	West	255.307	6,345.00

Existing TOJ Demands Plus Presbyterian Church
MDD with Fire

Fire Flow Node FlexTable: Fire Flow Report

Label	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual) (psi)	Pressure (Calculated Zone Lower Limit) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Is Fire Flow Run Balanced?
H-2	1,500.000	1,550.000	20	60	43	J-197	True

Fire flow shown above is in addition to MDD demands.

Existing TOJ Demands Plus Presbyterian Church
MDD with Fire When Hydrant H-2 Activated

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Pressure (psi)	Zone
J-20	6,100.95	0.000	75	WestB
J-49	6,130.00	0.000	63	WestB
J-60	6,130.00	0.000	63	WestB
J-61	6,128.00	12.300	63	WestB
J-197	6,175.00	13.400	43	WestB
J-200	6,139.00	15.000	60	WestB
J-201	6,142.00	15.000	58	WestB
J-202	6,128.00	20.000	65	WestB
J-203	6,120.00	10.000	71	WestB
J-204	6,105.50	0.000	100	WestB
J-205	6,130.00	0.000	63	WestB
J-206	6,125.00	11.300	65	WestB
J-207	6,134.00	12.000	61	WestB
J-208	6,118.00	12.000	68	WestB
J-209	6,115.00	0.000	69	WestB
J-210	6,115.00	12.000	69	WestB
J-211	6,126.00	6.000	64	WestB
J-212	6,114.00	0.000	71	WestB
J-213	6,120.00	20.000	67	WestB
J-256	6,130.00	0.000	63	WestB

Existing TOJ Demands Plus Presbyterian Church
MDD with Fire When Hydrant H-2 Activated

FlexTable: Pipe Table

Label	Start Node	Stop Node	Diameter (in)	Material	Flow (gpm)	Velocity (ft/s)
P-25	J-49	J-63	8.0	Ductile Iron	1,209.675	7.72
P-26	J-63	J-50	8.0	Ductile Iron	-340.325	2.17
P-52	J-60	J-61	6.0	Ductile Iron	12.300	0.14
P-55	J-63	H-2	6.0	Ductile Iron	1,550.000	17.59
P-423	J-205	J-60	12.0	Ductile Iron	52.048	0.15
P-424	J-60	J-49	12.0	Ductile Iron	39.748	0.11
P-425	J-49	J-256	12.0	Ductile Iron	-1,169.927	3.32

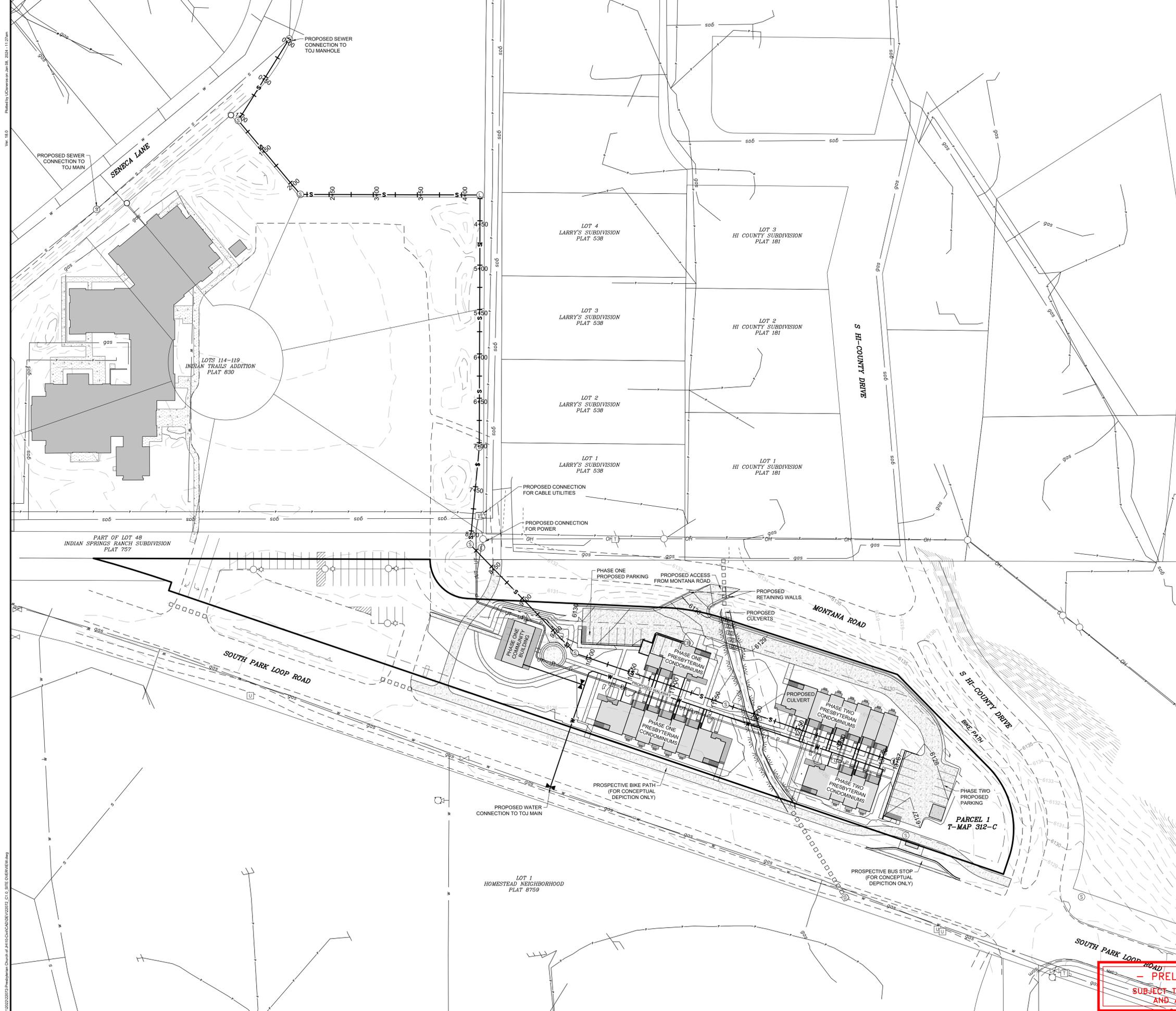
Existing TOJ Demands Plus Presbyterian Church
MDD with Fire When Hydrant H-2 Activated

FlexTable: Reservoir Table

ID	Label	Elevation (ft)	Zone	Flow (Out net) (gpm)	Hydraulic Grade (ft)
522	WELL-VFD-8	6,345.00	West	927.314	6,345.00
523	WELL-VFD-6	6,345.00	West	1,048.919	6,345.00
524	WELL-VFD-7	6,345.00	West	629.970	6,345.00

SECTION 5 – CIVIL SITE PLAN, LANDSCAPING PLAN, BUILDING PROGRAMMING, AQUATIC RESOURCE INVENTORY

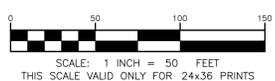
- **CIVIL SITE PLAN WITH PROPOSED CONDITIONS**
- **LANDSCAPE PLAN**
- **BUILDING PROGRAMMING**
- **AQUATIC RESOURCE INVENTORY**
- **AQUATIC RESOURCE INVENTORY UPDATE VERIFICATION**



- GENERAL CONSTRUCTION NOTES**
- ALL SITE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF WYOMING PUBLIC WORKS STANDARD SPECIFICATIONS AND ARTICLE 4 OF THE TOWN OF JACKSON LAND DEVELOPMENT REGULATIONS.
 - EXISTING BASE MAPPING WAS PERFORMED BY ON SIGHT LAND SURVEYORS, INC.
 - IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN A WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY NPDES STORMWATER PERMIT PRIOR TO COMMENCING ANY LAND DISTURBING ACTIVITIES.
 - CONTRACTOR SHALL CONSTRUCT EROSION CONTROL STRUCTURES PRIOR TO ANY EARTHWORK OR CONSTRUCTION. CONTROL STRUCTURES SHALL BE CONSTRUCTED AND MAINTAINED BY CONTRACTOR UNTIL VEGETATION IS REESTABLISHED IN DISTURBED AREAS.
 - CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND SHALL PROMPTLY NOTIFY THE ENGINEER OF ANY VARIATIONS OR DISCREPANCIES.
 - BURIED UTILITIES
 - CONTRACTOR SHALL VERIFY LOCATION OF ALL BURIED AND OVERHEAD UTILITIES PRIOR TO ANY EXCAVATION IN THE VICINITY. UTILITY LOCATIONS SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. ENGINEER DOES NOT WARRANT THE ACCURACY NOR COMPLETENESS OF THE INFORMATION SHOWN FOR EXISTING UTILITIES.
 - CONTRACTOR SHALL COORDINATE WITH THE PROJECT REPRESENTATIVE TO LOCATE AND AVOID DAMAGE TO ANY FUEL PUMPING FACILITIES, IRRIGATION FACILITIES, WATER UTILITIES, AND STATE MONITORING WELLS AND PIPING. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES PRIOR TO INSTALLING IMPROVEMENTS.
 - CONTRACTOR SHALL NOTIFY WYOMING ONE CALL, 1-800-348-1030, A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION FOR UTILITY LOCATES.
 - ALL EXCAVATION ACTIVITIES SHALL COMPLY WITH PERMIT REQUIREMENTS ISSUED FOR THE PROJECT. CONTRACTOR SHALL REVIEW AND BE RESPONSIBLE FOR PERMIT COMPLIANCE.
 - CONTRACTOR TO CONFIRM STOCKPILE AND STAGING LOCATIONS WITH THE OWNER.
 - CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.
 - FILL MATERIAL SHALL BE SUITABLE ON-SITE OR IMPORTED MATERIAL WITH ROCKS NO LARGER THAN 6 INCHES IN DIAMETER. LARGER MATERIAL MAY BE PLACED ONLY WHEN AUTHORIZED BY THE ENGINEER.
 - CRUSHED GRAVEL BASE COURSE MATERIAL SHALL BE GRADING H. BASE COURSE SHALL BE MECHANICALLY COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 (ASHTO T-180 - MODIFIED PROCTOR DENSITY).
 - DESTRUCTION AND DAMAGE TO TREES AND OTHER NATURAL VEGETATION SHALL BE MINIMIZED AND ALL DISTURBED SURFACES SHALL BE RESEED AS SOON AS PRACTICAL IN ACCORDANCE TO THE REVEGETATION SPECIFICATIONS.
 - STRIP AND SALVAGE TOPSOIL FROM ALL EXCAVATED AREAS.
 - WEEDS SHALL BE CONTROLLED BY SPRAYING, LIMITING DISTURBANCE AREA, OR OTHER MEANS PRIOR TO REVEGETATION AND AFTER REVEGETATION IS COMPLETE.
 - FUGITIVE DUST WILL BE CONTROLLED BY WATERING DURING DRY PERIODS OR AS REQUIRED BY ENGINEER.
 - ALL EXCAVATED MATERIALS SHALL BE STOCKPILED AND PROCESSED ON-SITE ONLY AT LOCATIONS AS DESIGNATED ON THE PLANS.
 - TOPS OF CUT AND FILL SLOPES SHALL BE ROUNDED TO AVOID RAVELING AND EROSION.
 - CUT AND FILL SLOPES SHALL NOT EXCEED 2:1.

- WATER AND SEWER UTILITY NOTES**
- WATER AND SEWER INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY, WATER QUALITY DIVISION RULES AND REGULATIONS AND THE TOWN OF JACKSON STANDARDS FOR CONSTRUCTION.
 - CONTRACTOR SHALL NOTIFY THE TOWN OF JACKSON PUBLIC WORKS DEPARTMENT AT PHONE NUMBER (307) 733-3079, PRIOR TO START OF CONSTRUCTION AND PRIOR TO EACH WATER AND SEWER TEST.
 - CONTRACTOR SHALL MAINTAIN WATER AND SEWER SLOPES CONSISTENT WITH THE PLANS. ABRUPT ELEVATION CHANGES ARE NOT PERMITTED AND MAY REQUIRE ADDITIONAL AIR RELEASE VALVES OR BLOW-OFFS AT THE CONTRACTORS EXPENSE.
 - TYPE A TRENCH BACKFILL SHALL APPLY TO ALL PAVED SURFACES AND AROUND ALL APPURTENANCES INCLUDING VALVES, FIRE HYDRANTS AND MANHOLES. TYPE B TRENCH BACKFILL SHALL APPLY TO NON-TRAVELED AREAS. SEE SPECIFICATION WPPWSS 0225.
 - CONTINUOUS RIGID TYPE B PIPELINE INSULATION SHALL BE PROVIDED AS SHOWN ON THE TYPICAL TRENCH DETAIL, UNDER ALL TRAVELED AREAS AND AT ALL LOCATIONS WHERE DEPTH OF COVER IS LESS THAN 5 FEET FOR SEWER MAINS AND SERVICES; LESS THAN 7 FEET FOR SEWER FORCE MAINS, WATER MAINS AND SERVICES OR AS SHOWN ON THE PLANS.
 - MAINTAIN A MINIMUM OF 10 FEET HORIZONTAL SEPARATION BETWEEN WATER PIPES AND SEWER PIPES/MANHOLES. MEASURED EDGE TO EDGE. MAINTAIN A MINIMUM OF 18 INCHES VERTICAL SEPARATION AT WATER-SEWER PIPE CROSSINGS. WHERE SEWER PIPE CROSSES ABOVE WATER PIPE, SPECIAL CONSTRUCTION IS REQUIRED. SEE TYPICAL DETAILS.
 - WATER SERVICE LINES 4" AND LARGER SHALL BE DUCTILE IRON PIPE, OR APPROVED EQUAL. FITTINGS FOR WATER MAINS SHALL BE DUCTILE IRON, CONFORMING TO AWWA C110 OR C153. MINIMUM DEPTH OF BURY FOR ALL WATER LINES SHALL BE 7'.
 - SANITARY SEWER LINES AND FITTINGS SHALL BE SCHEDULE 40 PVC AND CONFORM TO ASTM D-3034, OR APPROVED EQUAL.

- PRELIMINARY -
 SUBJECT TO CORRECTION
 AND APPROVAL

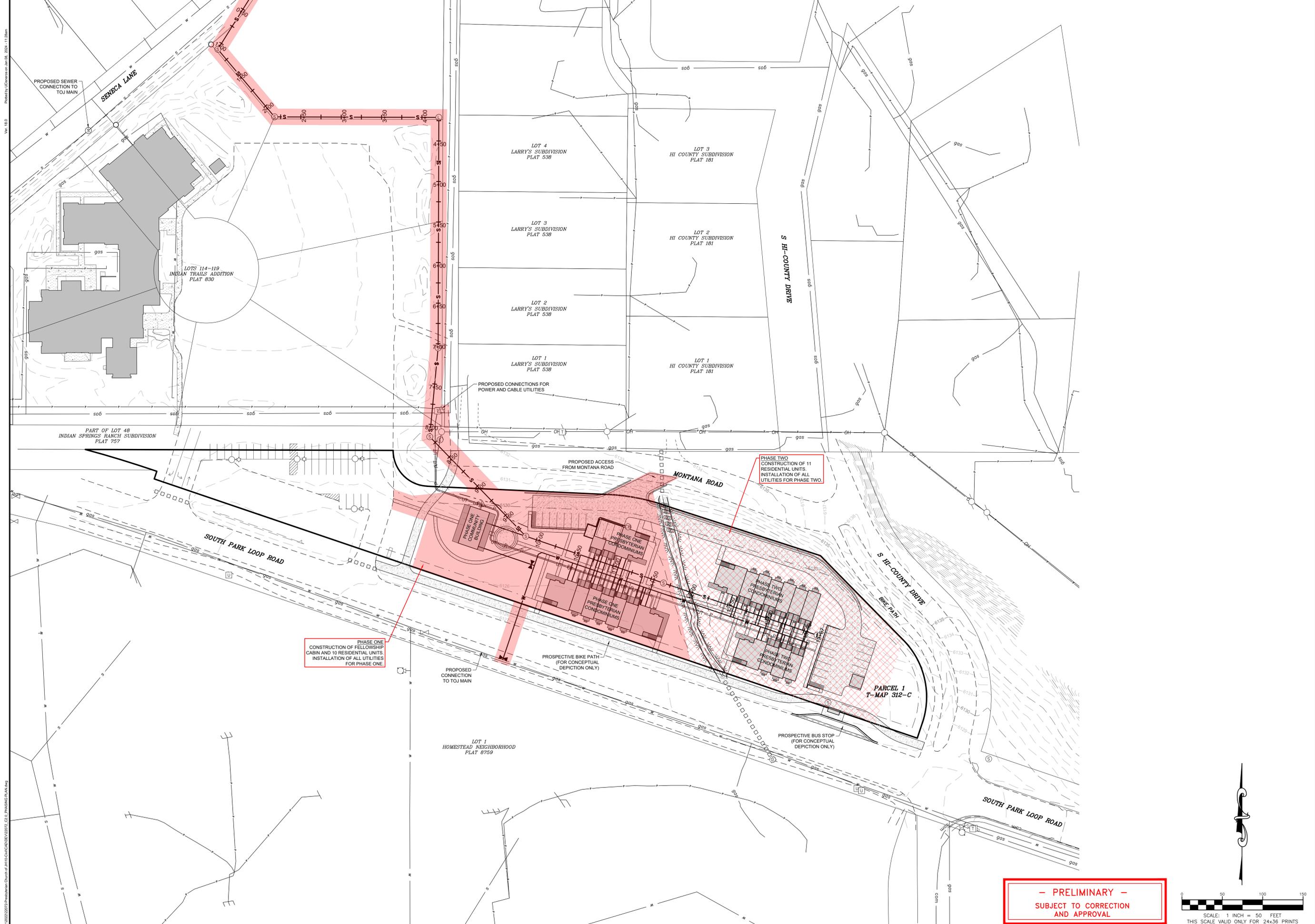


PROJECT TITLE:
**PCJH - Employee Housing
 PRESBYTERIAN CHURCH OF JACKSON HOLE
 PARCEL 1 - TRIANGLE LOT
 JACKSON, WYOMING**

SHEET TITLE:
SITE OVERVIEW

DRAFTED BY:	UC
REVIEWED BY:	
PLAN VERSION	DATE
DEV	2023.10.10
DEV	2024.01.08
PROJECT NUMBER	22072
SHEET	C1.0

Ver. 18.00
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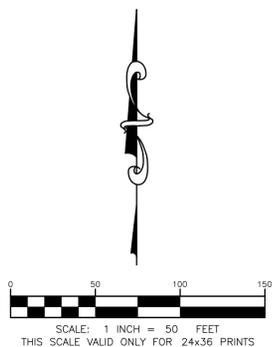
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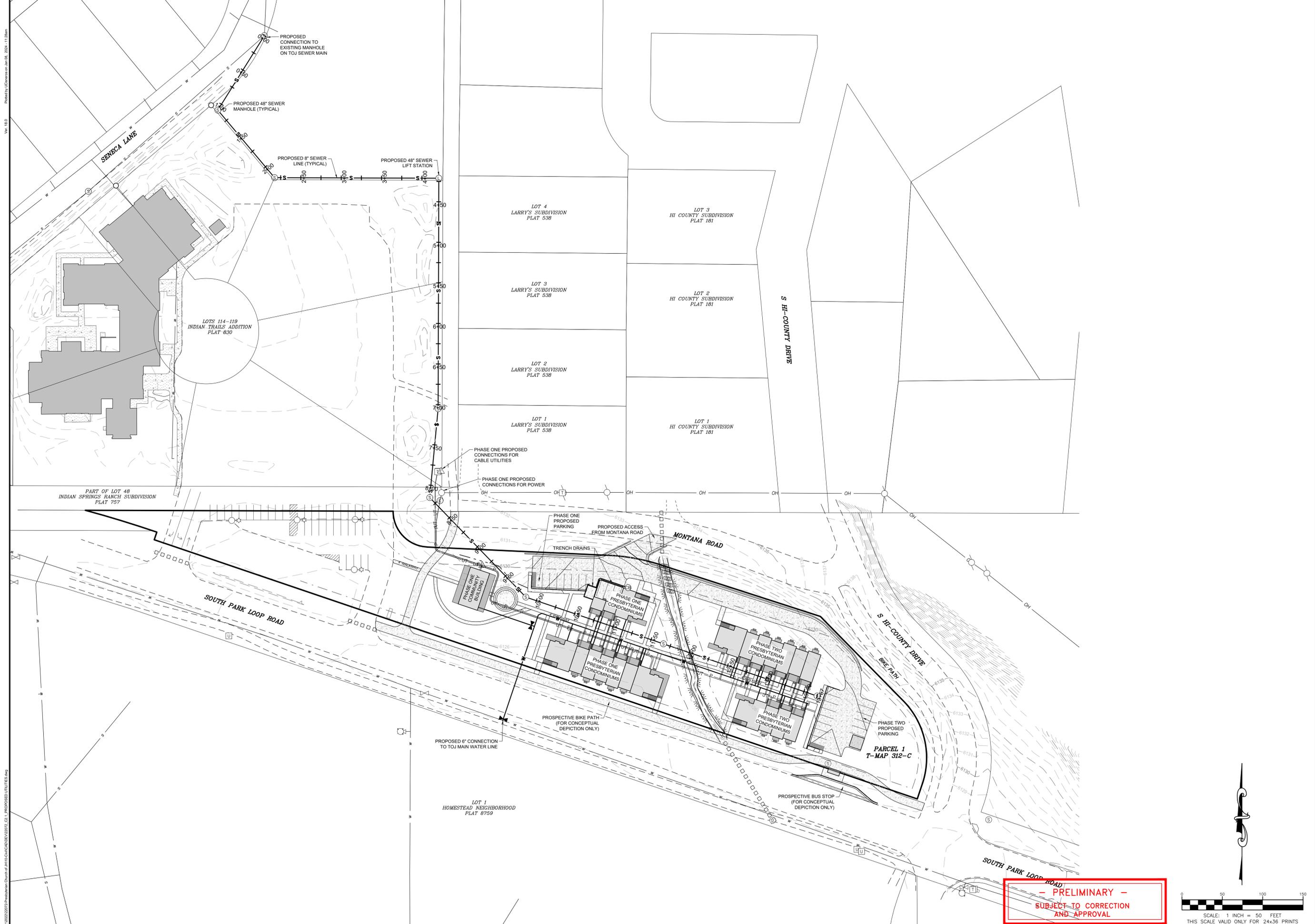


PROJECT TITLE:
PCJH - Employee Housing
PRESBYTERIAN CHURCH OF JACKSON HOLE
PARCEL 1 - TRIANGLE LOT
JACKSON, WYOMING

SHEET TITLE:
PHASING PLAN

DRAFTED BY:	UC
REVIEWED BY:	
PLAN VERSION	DATE
DEV	2023.10.10
DEV	2024.01.08
PROJECT NUMBER	22072
SHEET	C2.0





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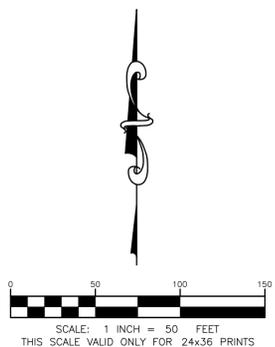


PROJECT TITLE:
PCJH - Employee Housing
PRESBYTERIAN CHURCH OF JACKSON HOLE
PARCEL 1 - TRIANGLE LOT
JACKSON, WYOMING

SHEET TITLE:
PROPOSED UTILITIES

DRAFTED BY:	uc
REVIEWED BY:	
PLAN VERSION	DATE
DEV	2023.10.10
DEV	2024.01.08
PROJECT NUMBER	22072
SHEET	C2.1

- PRELIMINARY -
 SUBJECT TO CORRECTION
 AND APPROVAL





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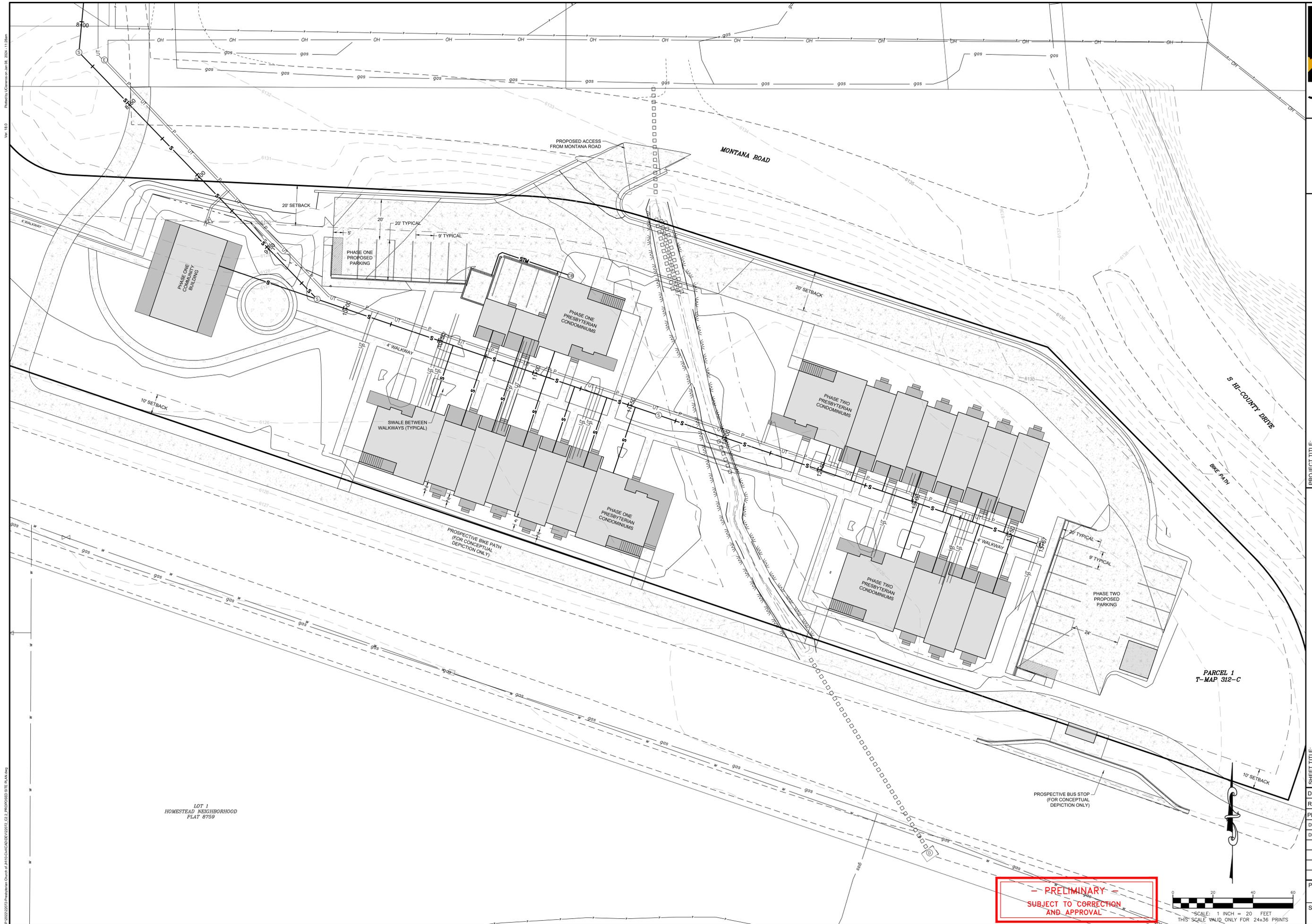
PROJECT TITLE:
**PCJH - Employee Housing
 PRESBYTERIAN CHURCH OF JACKSON HOLE
 PARCEL 1 - TRIANGLE LOT
 JACKSON, WYOMING**

SHEET TITLE:
PROPOSED SITE PLAN

DRAFTED BY:	UC
REVIEWED BY:	
PLAN VERSION	DATE
DEV	2023.10.10
DEV	2024.01.08

PROJECT NUMBER
22072

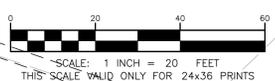
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C2.2



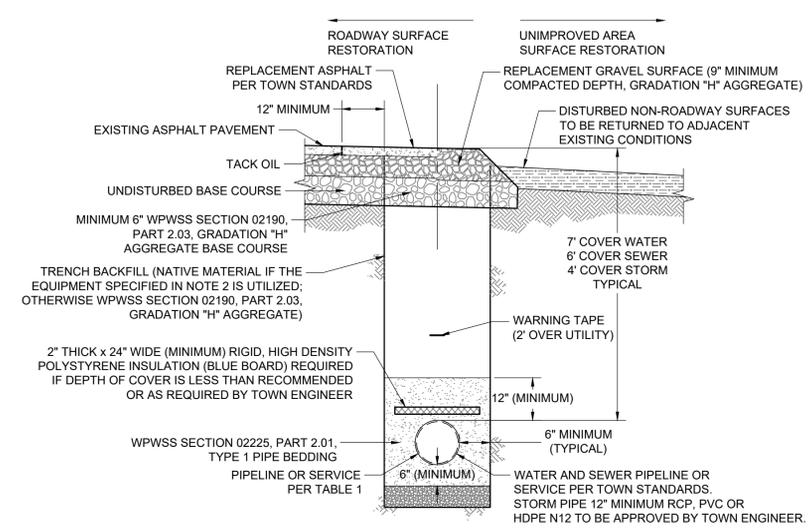
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LOT 1
 HOMESTEAD NEIGHBORHOOD
 PLAT 8759

- PRELIMINARY -
 SUBJECT TO CORRECTION
 AND APPROVAL

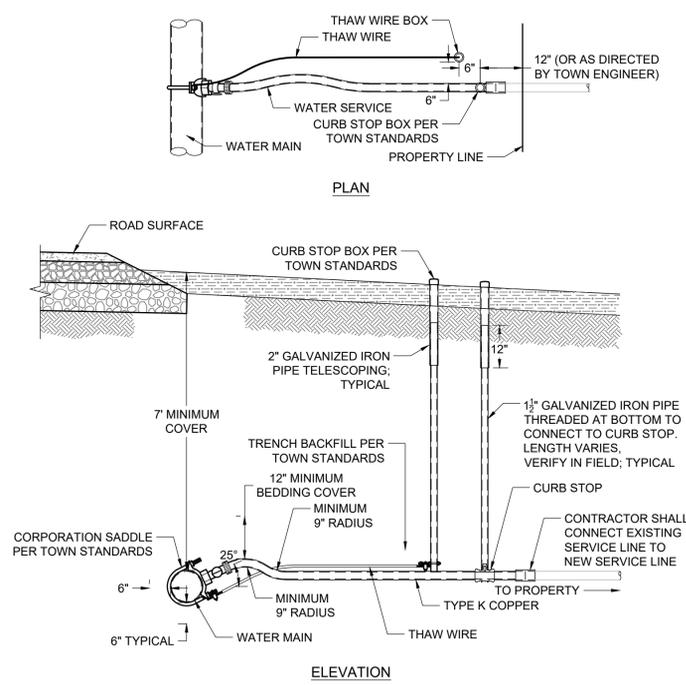


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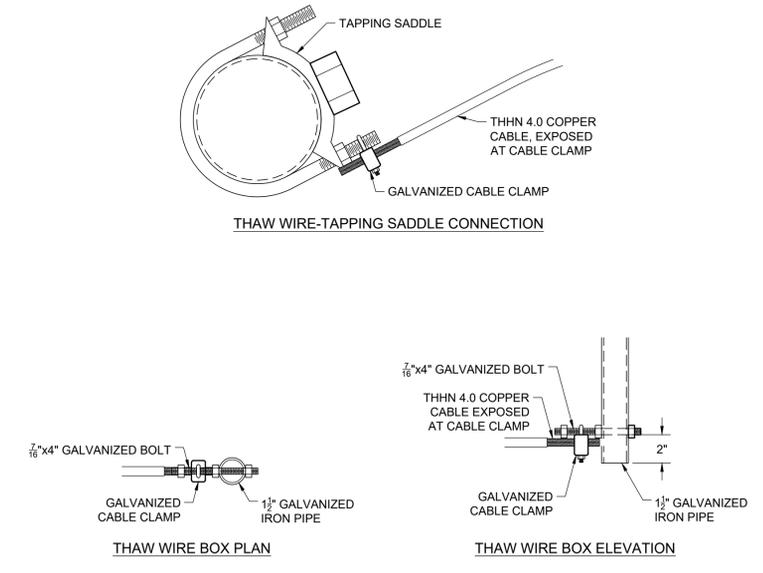
- NOTE**
- TRENCH BACKFILL BELOW THE SURFACE SHALL MEET THE FOLLOWING CRITERIA:
 - 95% MODIFIED PROCTOR DENSITY WITHIN STREET AND ALLEY RIGHTS-OF-WAY.
 - 90% MODIFIED PROCTOR DENSITY OUTSIDE STREET AND ALLEY RIGHTS-OF-WAY.
 - COMPACTION OF NATIVE TRENCH BACKFILL, WITH ALL ROCK LARGER THAN 6" REMOVED, 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 WPWSS SECTION 02231, PART 3.03.
 - ALL TRENCH EXCAVATION SHALL CONFORM TO WYOMING OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (WYOSHA) REGULATIONS.
 - PROVIDE INSULATION WHERE COVER OVER WATER LINES AND FORCE MAINS ARE LESS THAN 7 FEET AND WHERE SANITARY SEWER AND STORM LINES ARE LESS THAN 5 FEET.

PIPE TRENCH DETAIL
NOT TO SCALE TOJ W-100, SS-100, STM-100

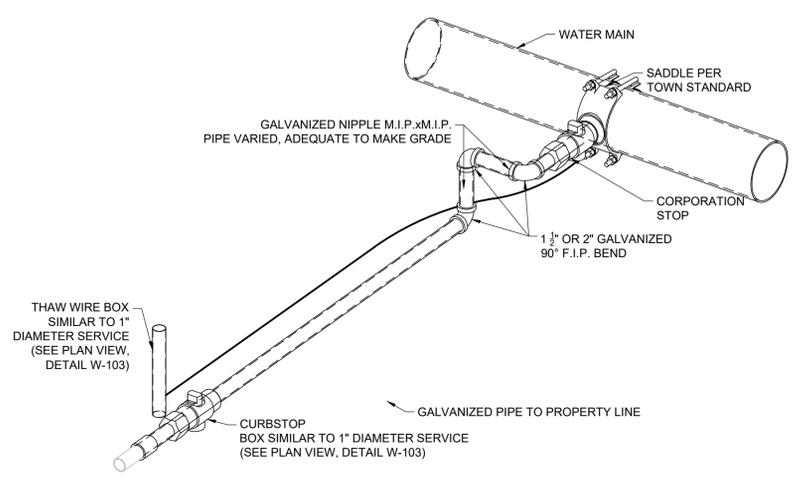


- NOTE**
- THAW WIRE TO BE INSTALLED ON ALL NEW AND EXISTING WATER SERVICES IN THE TOWN OF JACKSON.

1" SERVICE WITH THAW WIRE DETAIL
NOT TO SCALE TOJ W-102/103

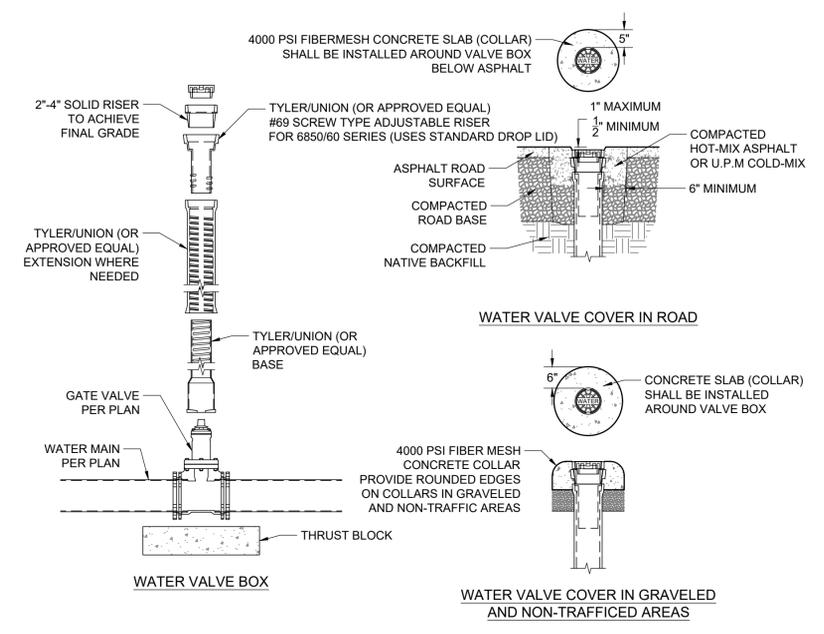


SERVICE CONNECTION THAW WIRE DETAIL
NOT TO SCALE TOJ W-104



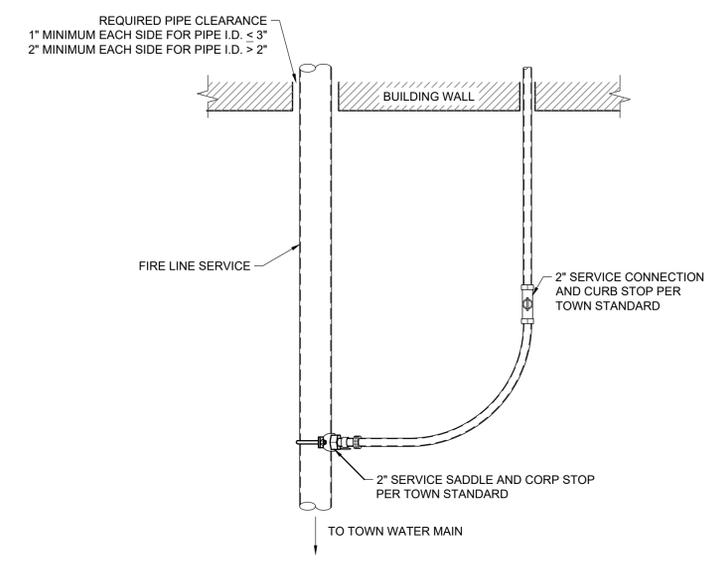
- NOTE**
- THAW WIRE IS REQUIRED ON THIS SERVICE

1 1/2" AND 2" DIAMETER STEEL SERVICE DETAIL
NOT TO SCALE REVISED TOJ W-105



- NOTE**
- ADJUST WATER VALVE BOX UPWARD OR DOWNWARD AS REQUIRED. FINAL ADJUSTMENT SHALL BE MADE AFTER PAVING AND BEFORE SEAL COATING
 - THE TOWN SHALL INSPECT THE VERTICAL ALIGNMENT BEFORE AND AFTER BACKFILLING.
 - MUD PLUGS ARE REQUIRED TO BE PLACED IN ALL VALVE BOXES

WATER GATE VALVE DETAIL
NOT TO SCALE TOJ W-106

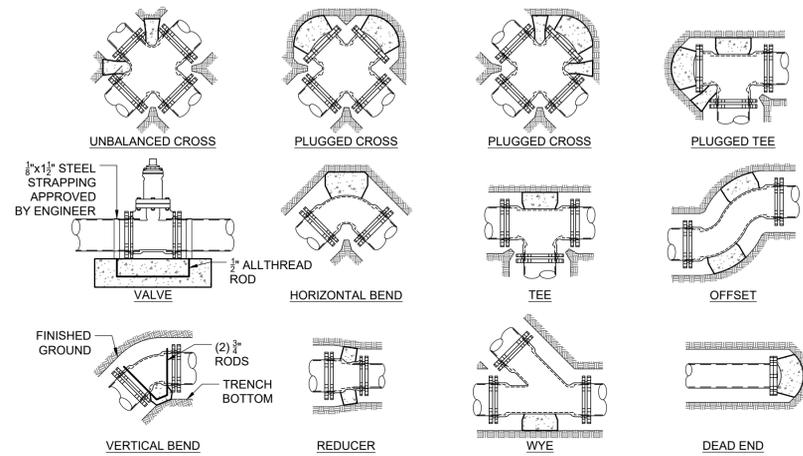


- NOTE**
- FIRE SERVICE LINE ENTRY INTO BUILDING OR STRUCTURE SHALL BE SUBJECT TO REGULATIONS OF AND REVIEW BY THE TOWN OF JACKSON BUILDING DEPARTMENT AND FIRE MARSHALL.

FIRE LINE WITH 2" WATER SERVICE DETAIL
NOT TO SCALE REVISED TOJ W-110

- PRELIMINARY -
 SUBJECT TO CORRECTION
 AND APPROVAL

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 P:\02\2023\Presbyterian Church of 4110 Civic Center\2023\CD\DETAILS.dwg
 Ver. 18.0
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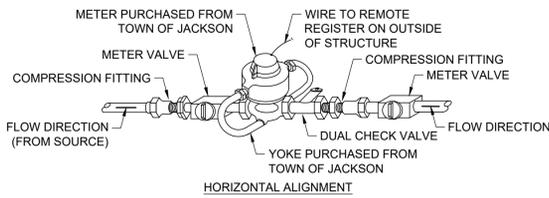
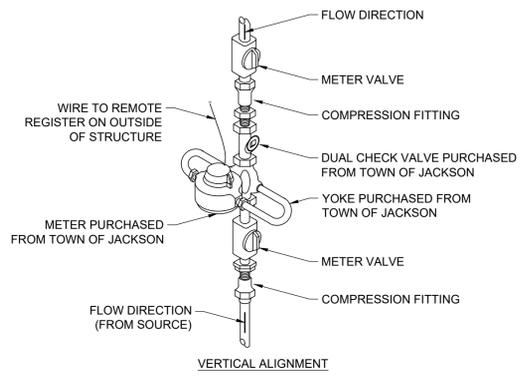
MINIMUM DIMENSIONS FOR THRUST BLOCKING NOTES

FITTING SIZE	TEES AND PLUGS		90° BENDS		45° BENDS AND WYES		REDUCERS AND 22 1/2° BENDS		11 1/2° BENDS	
	A	B	A	B	A	B	A	B	A	B
4"	1'-7"	1'-2"	1'-9"	1'-6"	1'-8"	0'-10"	1'-7"	0'-6"	0'-6"	0'-6"
6"	2'-0"	1'-11"	2'-5"	2'-2"	1'-10"	1'-7"	1'-9"	0'-10"	1'-0"	0'-6"
8"	2'-8"	2'-6"	3'-2"	3'-0"	2'-5"	2'-1"	1'-9"	1'-6"	1'-0"	1'-0"
10"	3'-4"	3'-3"	4'-0"	3'-10"	3'-0"	2'-9"	2'-2"	1'-11"	1'-6"	1'-0"
12"	4'-0"	3'-10"	4'-8"	4'-8"	3'-8"	3'-3"	2'-7"	2'-3"	2'-0"	1'-0"
14"	5'-5"	3'-10"	6'-6"	4'-11"	4'-9"	3'-5"	3'-5"	2'-5"	2'-0"	1'-6"
20"	5'-0"	5'-0"	6'-0"	6'-0"	5'-0"	4'-0"	3'-6"	3'-0"	3'-0"	2'-0"
24"	6'-0"	6'-0"	7'-0"	7'-0"	5'-0"	4'-6"	3'-0"	3'-0"	3'-0"	3'-0"
30"	7'-6"	7'-6"	8'-0"	8'-0"	6'-3"	6'-3"	4'-9"	4'-6"	3'-3"	3'-3"

- NOTE**
1. SIZE BLOCKS SHALL BE A MINIMUM OF 6" THICK
 2. ALL BLOCKING SHALL BEAR AGAINST UNDISTRIBUTED MATERIAL
 3. DESIGN IS BASED ON 150 PSI MAIN PRESSURE AND 2000 PSF SOIL BEARING CAPACITY.
 4. 4 MIL POLYETHYLENE PLASTIC BOND BREAKER SHALL BE PROVIDED BETWEEN THRUST BLOCK AND WATER PIPE

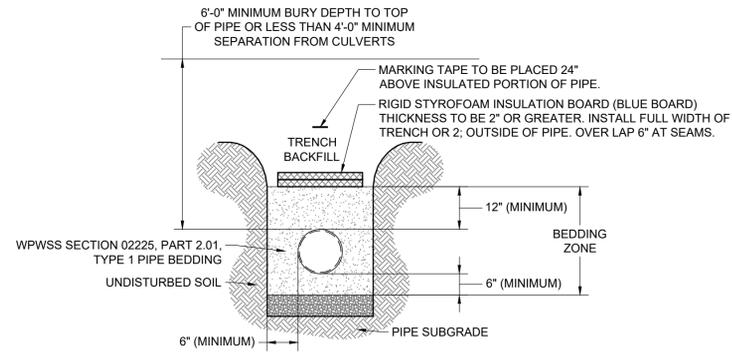


THRUST BLOCK DETAIL
NOT TO SCALE TOJ W-111



- NOTE**
1. SERVICE PIPE MATERIAL SHALL MEET ADOPTED PLUMBING CODE REQUIREMENTS.
 2. METER SHALL BE INSTALLED WITH THE METER FACING UP.
 3. METER SHALL BE PURCHASED FROM AND SUPPLIED BY THE TOWN OF JACKSON.

3/4" & 1" WATER METER INSTALLATION DETAIL
NOT TO SCALE INTERIOR TOJ W-112



- NOTE**
1. A CONDITION OF LESS THAN MINIMUM BURY DEPTH IS ALLOWED ONLY WITH WRITTEN APPROVAL FROM THE TOWN ENGINEER PRIOR TO CONSTRUCTION. INSULATION SHALL BE INSTALLED ON ALL PIPE THAT DO NOT MEET MINIMUM BURY REQUIREMENTS.
 2. INSULATION SHALL BE INSTALLED ON ALL PIPE THAT IS WITHIN FOUR FEET OF ANY DRAINAGE CULVERT. THIS APPLIES TO ANY SIDE OF THE PIPE WHICH IS NEAR THE CULVERT.
 3. INSULATION SHALL BE INSTALLED ON ALL PIPE THAT IS WITHIN VEHICULAR TRAVEL LANES.

WATER PIPE INSULATION DETAIL
NOT TO SCALE REVISED TOJ W-116

- PRELIMINARY -
 SUBJECT TO CORRECTION
 AND APPROVAL



PROJECT TITLE:
 PCJH - Employee Housing
 PRESBYTERIAN CHURCH OF JACKSON HOLE
 PARCEL 1 - TRIANGLE LOT
 JACKSON, WYOMING

SHEET TITLE:
 WATER DETAILS

DRAFTED BY:	uc
REVIEWED BY:	
PLAN VERSION	DATE
DEV	2023.10.10
DEV	2024.01.08

PROJECT NUMBER
 22072
 SHEET
C3.1

Ver. 18.0
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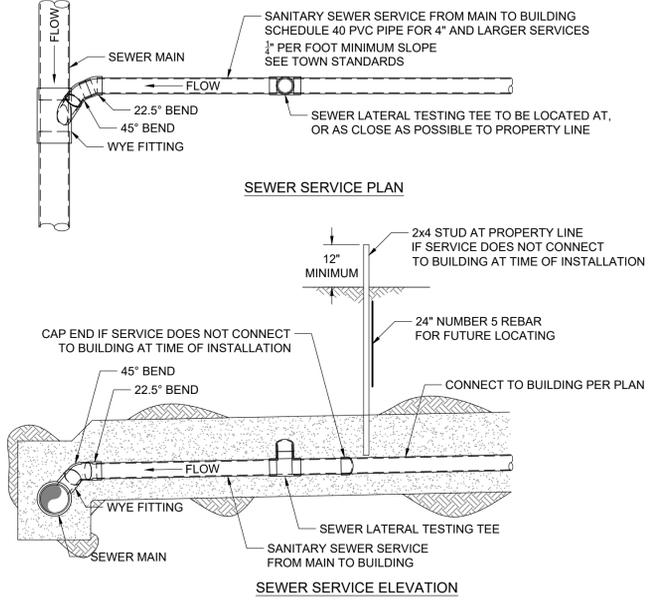


PROJECT TITLE:
 PCJH - Employee Housing
 PRESBYTERIAN CHURCH OF JACKSON HOLE
 PARCEL 1 - TRIANGLE LOT
 JACKSON, WYOMING

SHEET TITLE:
 SEWER AND STORM DETAILS

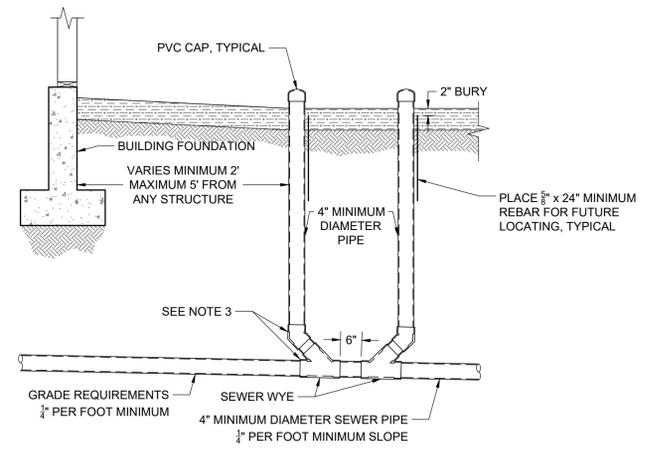
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REVIEWED BY:	
PLAN VERSION	DATE
DEV	2023.10.10
DEV	2024.01.08

PROJECT NUMBER
 22072
 SHEET
C3.3



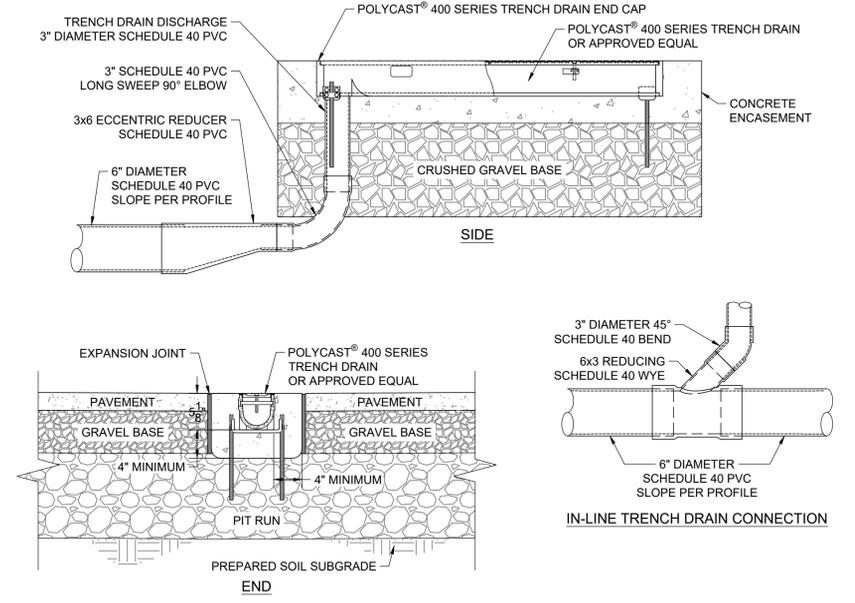
- NOTE
1. NEW SERVICE CONNECTIONS TO EXISTING SANITARY SEWER MAINS SHALL BE COORDINATED WITH TOWN OF JACKSON PUBLIC WORKS.
 2. BACKFILL OPERATIONS AT NEW SERVICES CONNECTED TO EXISTING SANITARY SEWER MAINS SHALL BE COMPACTED PER TOWN STANDARDS.
 3. CLEANOUTS TO BE PROVIDED ADJACENT TO BUILDING, EVERY 100' ALONG THE SERVICE LINE AND AT ALL BENDS.
 4. PRIVATE PARTY BEING SERVED BY CONNECTION RESPONSIBLE FOR FEE TAP AND APPROVAL BY UTILITY OWNER.

SANITARY SEWER SERVICE DETAIL
 NOT TO SCALE TOJ SS-111



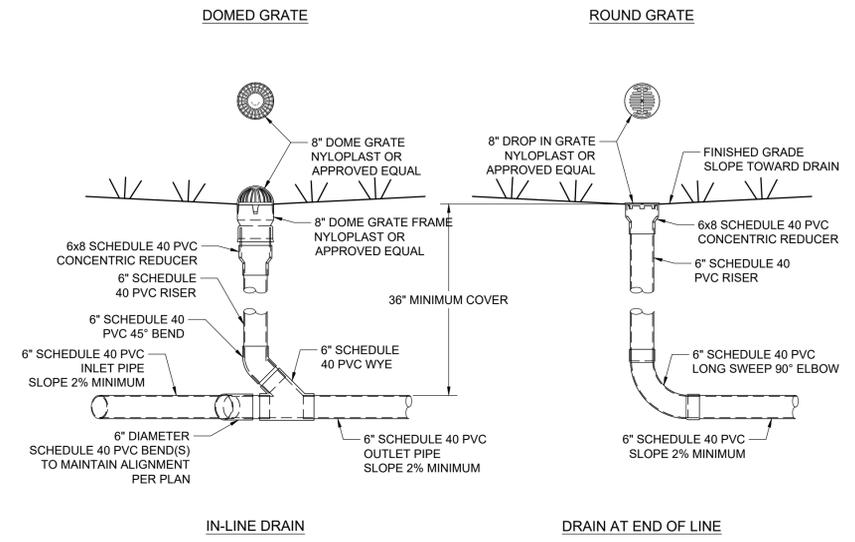
- NOTE
1. PRIOR TO BACKFILLING THE TOWN PUBLIC WORKS DEPARTMENT MUST INSPECT ALL PIPE, FITTINGS, COUPLINGS, GRADE AND COMPLETE LEAK TESTING.
 2. INSTALL AND COMPACT ALL BACKFILL MATERIAL PER TOWN PUBLIC WORKS DEPARTMENT STANDARD SPECIFICATIONS AND AS SHOWN WITHIN THE TRENCH DETAIL.
 3. ALL PVC FITTINGS SHALL MEET ASTM D3034 SPECIFICATIONS, AND SHALL ALSO MEET ASTM D312 SPECIFICATIONS FOR RUBBER GASKETED BELL AND SPIGOT TYPE WITH INTEGRAL BELL.

BUILDING CLEANOUT DETAIL
 NOT TO SCALE TOJ SS-114

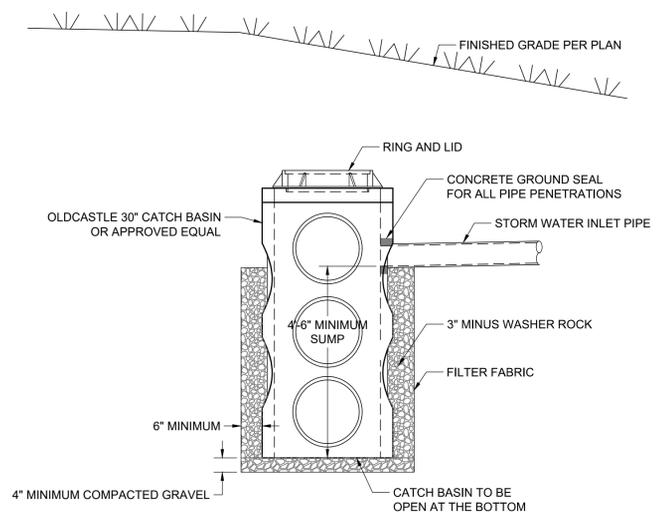


- NOTES
3. EXPANSION JOINT SHOULD BE USED TO PROTECT THE CHANNEL AND CONCRETE ENCASUREMENT.
 4. ADJACENT CONCRETE AND EXPANSION JOINTS ACCORDING TO TYPICAL CONCRETE SIDEWALK DETAIL.
 5. REFER TO POLYCAST® INSTALLATION GUIDE FOR COMPLETE DETAILS. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTION.
 6. INSTALL HEAT TRACE IN EXTERIOR TRENCH DRAINS AND DISCHARGE PIPING.
 7. INSTALL SUMP BOX AT END OF TRENCH DRAIN TO COLLECT CONCENTRATED FLOW FROM GUTTER. CONNECT SUMP BOX TO TRENCH DRAIN WITH PIPE.

TRENCH DRAIN DETAIL
 NOT TO SCALE WITHIN PAVEMENT



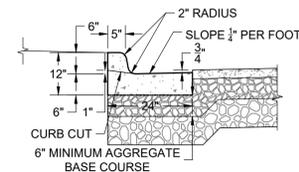
8" AREA DRAIN DETAIL
 NOT TO SCALE



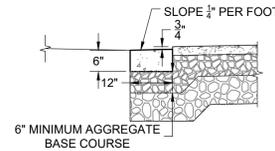
30" CATCH BASIN DETAIL
 NOT TO SCALE OPEN BOTTOM

- NOTE
1. GRAVEL SHALL BE 4" MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART2.03, GRADING H. AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03
 2. ALL DIMENSIONS TO BE APPROVED BY THE ENGINEER.
 3. MANHOLE COVER SHALL BE DESIGNED FOR H20S LOADING.

- PRELIMINARY -
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VERTICAL CURB

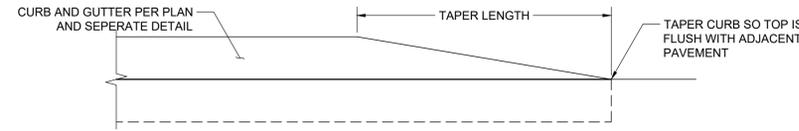


RIBBON CURB

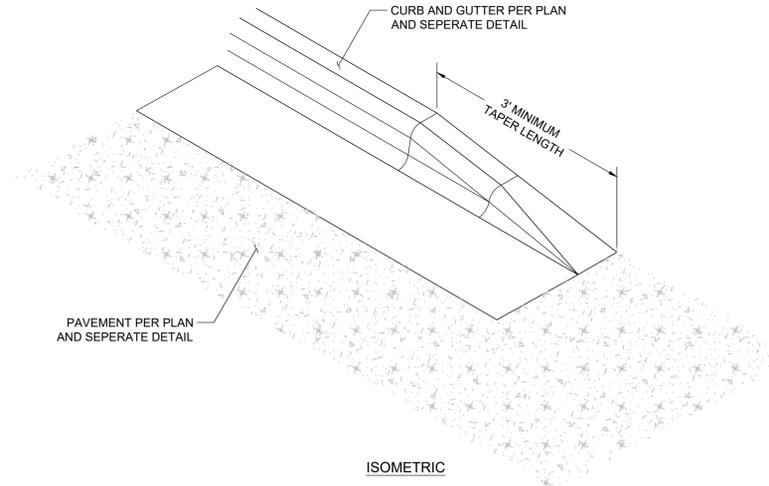
NOTE

- CURBS SHALL CONFORM TO WPSS SECTION 02525, EXCEPT THAT PORTLAND CEMENT CONCRETE SHALL BE FIBERMESH-REINFORCED CLASS 4000 CONCRETE CONFORMING WITH WPSS SECTION 03304, PART 2.07.
- AGGREGATE BASE COURSE SHALL BE SIX INCH MINIMUM THICKNESS, CONFORM TO WPSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPSS SECTION 02231, PART 3.03.
- REMOVAL AND REPLACEMENT OF CURB SHALL TAKE PLACE IN FULL PANELS.
- ROLL CURB SHALL NOT BE ALLOWED.

CURB SECTION DETAIL
NOT TO SCALE TOJ ST-110

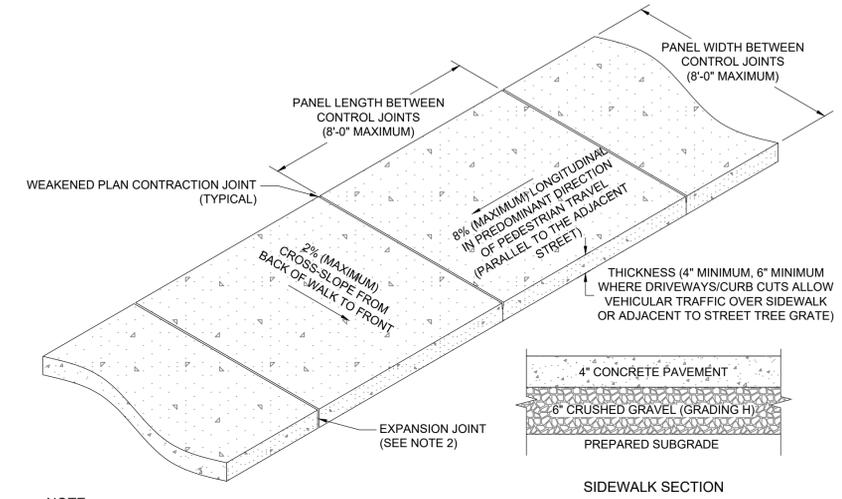


PROFILE



ISOMETRIC

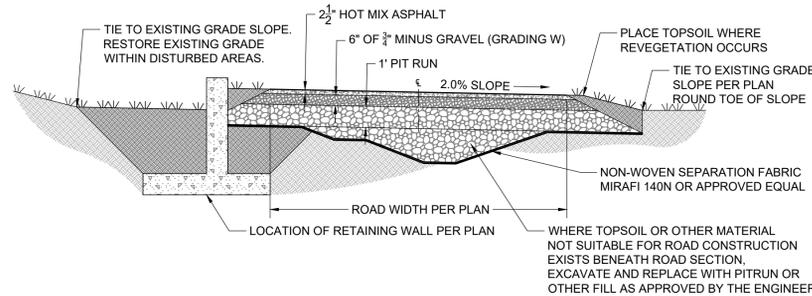
CURB TAPER DETAIL
NOT TO SCALE



NOTE

- SIDEWALK SHALL CONFORM TO ALL APPLICABLE ADA STANDARD REQUIREMENTS SIDEWALKS SHALL CONFORM TO WPSS SECTION 02776, EXCEPT THAT PORTLAND CEMENT CONCRETE SHALL BE FIBERMESH-REINFORCED CLASS 4000 CONCRETE CONFORMING WITH WPSS SECTION 03304, PART 2.07.
- EXPANSION JOINTS SHALL BE PLACED IN SIDEWALK AT THE SAME LOCATIONS AS THOSE IN CURB AND GUTTER WHEN SIDEWALK IS ADJACENT TO CURB. (PER WPSS SECTION 03251, PART 3.04 SPACING SHALL NOT EXCEED 32'-0" ON CENTER.)
- FOR SIDEWALKS GREATER THAN EIGHT FEET IN WIDTH, A LONGITUDINAL CONTROL JOINT SHALL BE INSTALLED AT THE CENTER OF THE WALK.
- REMOVAL AND REPLACEMENT OF SIDEWALK SHALL TAKE PLACE IN FULL PANELS.
- AGGREGATE BASE COURSE SHALL BE FOUR INCH MINIMUM THICKNESS, CONFORM TO WPSS SECTION 02190, PART 2.03 GRADING H, AND BE INSTALLED PER WPSS SECTION 02231, PART 3.03.
- CLEAR VEGETATION AND STRIP TOPSOIL TO SUBGRADE. SCARIFY, CONDITION, AND COMPACT. PROOF ROLL IN THE PRESENCE OF THE ENGINEER.
- MATERIAL STRIPPED TO DEPTH LOWER THAN SUBGRADE SHALL BE REPLACED WITH STRUCTURAL MATERIAL TO SUBGRADE ELEVATION.
- WHERE UNSUITABLE SUBGRADE SOIL EXISTS, OVER EXCAVATION AND REPLACEMENT WILL BE REQUIRED. GEOGRID MAY BE SUBSTITUTED FOR OVER EXCAVATION UPON APPROVAL FROM GEOTECHNICAL ENGINEER.

TYPICAL CONCRETE SIDEWALK DETAIL
NOT TO SCALE TOJ ST-127



NOTE

- STRIP TOPSOIL TO COMPETENT FOUNDATION MATERIAL AND REPLACE WITH PITRUN OR OTHER FILL AS APPROVED BY THE ENGINEER.
- CENTERLINE OF ROAD GRADE TO BE ±1' ABOVE ADJACENT GROUND FOR GOOD DRAINAGE AND SNOW REMOVAL.

DRIVEWAY DETAIL
NOT TO SCALE



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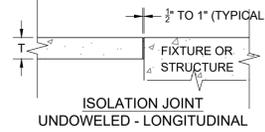
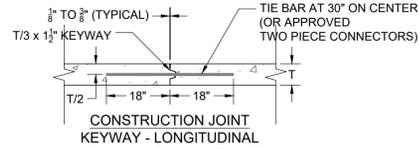
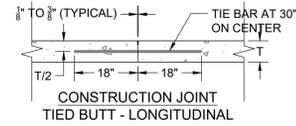
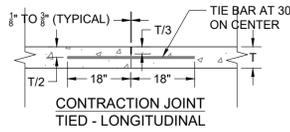
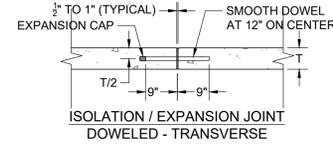
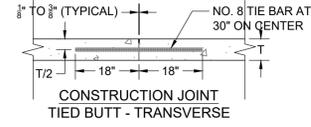
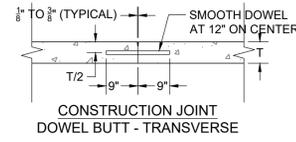
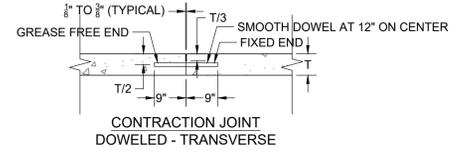
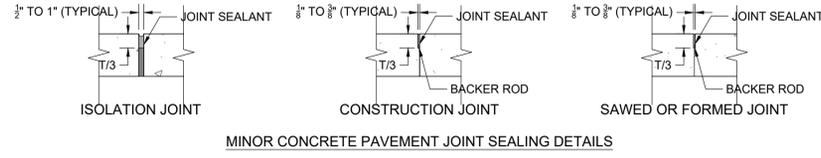
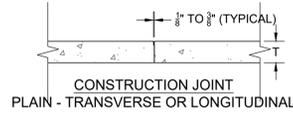
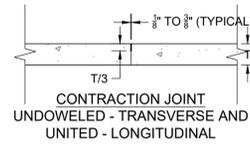
PROJECT TITLE:
PCJH - Employee Housing
PRESBYTERIAN CHURCH OF JACKSON HOLE
PARCEL 1 - TRIANGLE LOT
JACKSON, WYOMING

SHEET TITLE:
STREET DETAILS

DRAFTED BY:	uc
REVIEWED BY:	
PLAN VERSION	DATE
DEV	2023.10.10
DEV	2024.01.08

PROJECT NUMBER
22072
SHEET
C3.4

- PRELIMINARY -
SUBJECT TO CORRECTION
AND APPROVAL



NOTE

1. USE EPOXY-COATED MATERIAL FOR ALL TIE BARS, DOWELS, AND OTHER STEEL USED IN THE CONSTRUCTION OF CONCRETE PAVEMENT.
2. DEFORMED REINFORCING BARS OR HOOKS MAY BE USED FOR TIE BARS.
3. DO NOT PLACE TIE BARS WITHIN 15" OF TRANSVERSE JOINTS.
4. INSTALL ISOLATION JOINTS WHEN ABUTTING A FIXED STRUCTURE. USE EXPANSION JOINT MATERIAL EXTENDING THE FULL DEPTH AND LENGTH OF THE CONCRETE SURFACE.
5. TRANSVERSE AND LONGITUDINAL CONSTRUCTION JOINTS ARE NOT INCLUDED IN THE JOINT LAYOUT PLAN. USE TRANSVERSE AND LONGITUDINAL CONSTRUCTION JOINTS SPARINGLY. SUBMIT PLANNED CONSTRUCTION JOINT LOCATIONS TO THE CO FOR APPROVAL.
6. FOR CONSTRUCTION JOINTS, IF TIE BARS AND DOWELS ARE NOT SET INTO CONCRETE DURING PLACEMENT, DRILL AND ANCHOR THE TIE BARS AND DOWELS INTO THE EXISTING CONCRETE CONSTRUCTION WITH EPOXY RESIN.
7. MAINTAIN JOINT SEALANT SHAPE FACTOR 1:1 EXCEPT WHEN SILICONE SEALANT IS USED, THE WIDTH TO DEPTH SHAPE FACTOR IS 2:1 OR AS RECOMMENDED BY SEALANT MANUFACTURER.

MINOR CONCRETE PAVEMENT DETAILS
NOT TO SCALE

- PRELIMINARY -
SUBJECT TO CORRECTION
AND APPROVAL

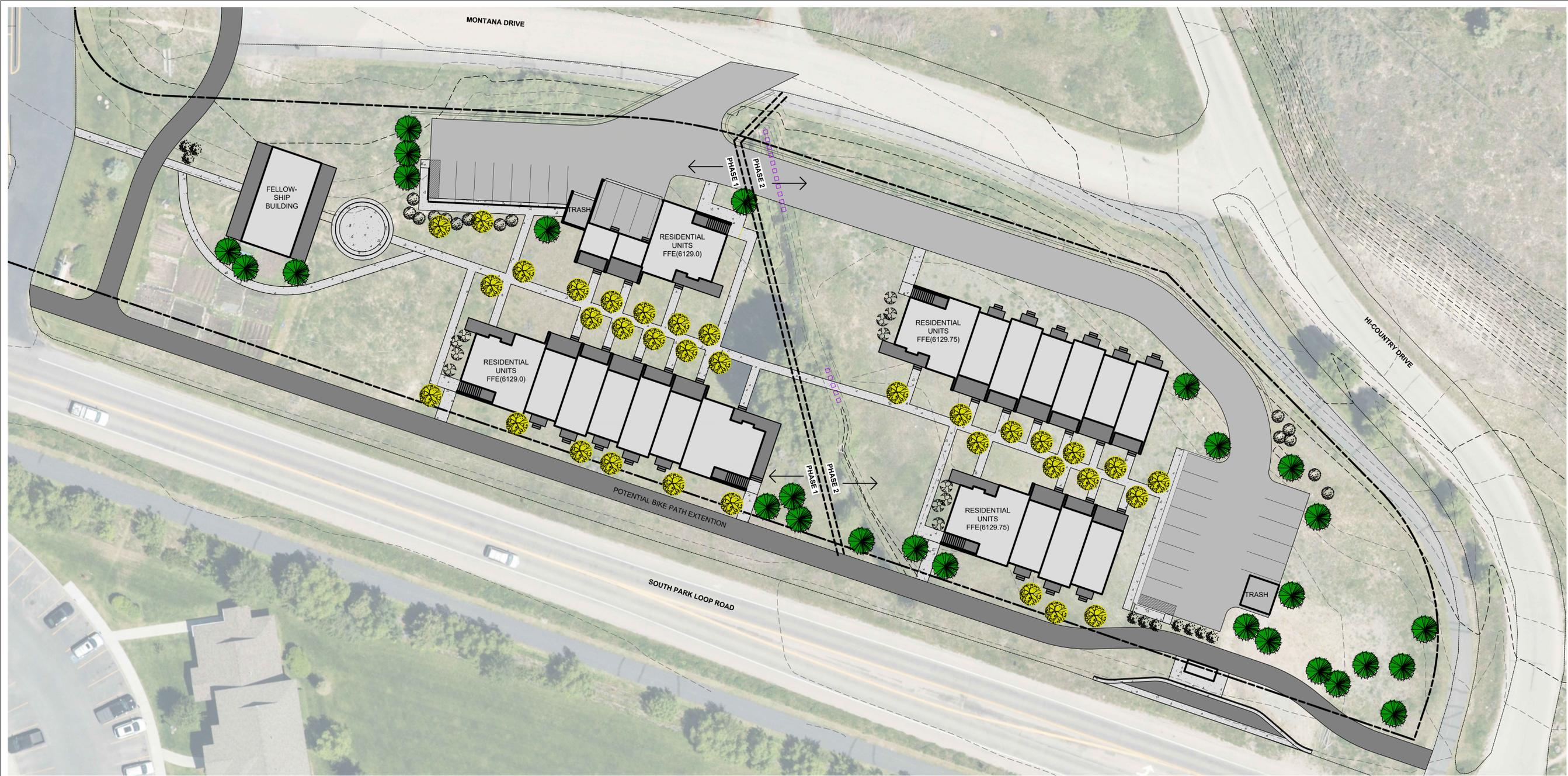


PROJECT TITLE:
PCJH - Employee Housing
PRESBYTERIAN CHURCH OF JACKSON HOLE
PARCEL 1 - TRIANGLE LOT
JACKSON, WYOMING

SHEET TITLE:
STREET DETAILS

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DEV	2023.10.10
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PROJECT NUMBER
22072
SHEET
C3.5



PLANT CREDITS FROM L1.2
 Tree credit from retained vegetation and plant unit alternative

PLANT UNITS - PHASE 1 and 2
 (21) Plant Units required - TOJ Alternative B

(44) 3" Cal. Tree less 10 credits 34
 (42) 6" B+B Shrub less 5 credits 37
 (63) 8' Evergreen Tree less 36 credits 27

FULL PROJECT PROPOSED PLANT SCHEDULE
 Populus tremuloides - 3" Cal. 34
 Prunus virginiana - 6" B+B 15
 Cornus sericea - 6" B+B 10
 Crataegus douglasii - 6" B+B 12
 Picea pungens - 8" B+B 27

NOTES

- No underground utilities shown. Contractor shall be responsible for on-site utility location services before any excavation activity.
- Refer to Sheet L1.2 for map showing existing vegetation retained for plant unit credits.
- Trees and shrubs indicated shall conform to Wyoming Nursery Stock and Seed Laws. Nursery Stock shall be in accordance with W.S. 11-9-101 to 109 accompanied by a valid health certificate, and acquired through a dealer licensed by the Wyoming Dept. of Agriculture.
- Trees and shrubs indicated shall be maintained by an automatic underground irrigation system.

44 Trees and 5 Shrubs

(21) 3" Cal. Tree less 1 credit 20
 (20) 6" B+B Shrub less 4 credits 16
 (30) 8' Evergreen Tree less 19 credits 11

PROPOSED PLANT SCHEDULE - PHASE 1
 Populus tremuloides - 3" Cal. 20
 Prunus virginiana - 6" B+B 3
 Cornus sericea - 6" B+B 9
 Crataegus douglasii - 6" B+B 4
 Picea pungens - 8" B+B 11

PLANT UNITS - PHASE 2
 (11) Plant Units required - TOJ Alternative B

(23) 3" Cal. Tree less 9 credit 14
 (22) 6" B+B Shrub less 1 credit 21
 (33) 8' Evergreen Tree less 17 credits 16

PROPOSED PLANT SCHEDULE - PHASE 2
 Populus tremuloides - 3" Cal. 14
 Prunus virginiana - 6" B+B 7
 Cornus sericea - 6" B+B 6
 Crataegus douglasii - 6" B+B 8
 Picea pungens - 8" B+B 16

Legend

Existing	Property Line	Proposed
- 6290 - - - -	Index Contour	
- - - - -	Intermediate Contour	
	Spruce	
	Picea pungens	
	Aspen	
	Populus tremuloides	
	Native Shrub	

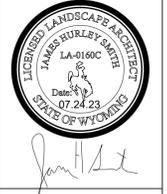


Teton Heritage Landscaping
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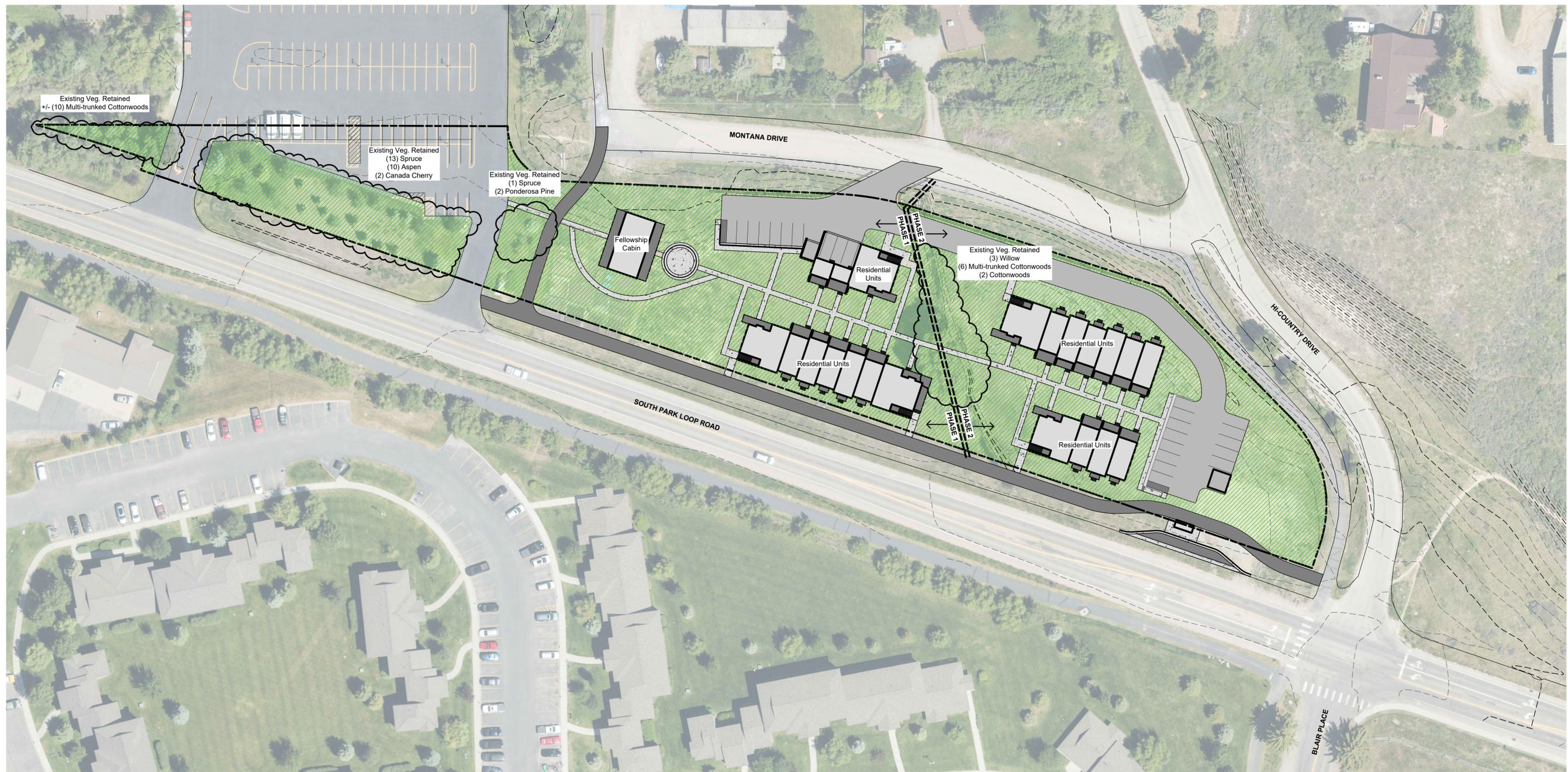
PRESBYTERIAN CHURCH OF JACKSON HOLE
 Employee Housing Development
 1251 South Park Loop Road, Town of Jackson WY
 P.T. NE1/4NW1/4 SEC. 6, TWP. 40, RNG. 116 PARCEL 1
Landscape Plan

DRAWING DATE 07.24.23
 REVISION 1 01.11.24



L2.2
 PCJH
 Employee Housing
 Landscape Plan





SITE CALCULATIONS

Gross Site Area 2.93 acres - 127,630 sq. ft.
 Required per Section 2.2.4 - NL - 3
 Minimum LSR (0.45) (0.45)127,630 = 57,433 sq. ft.
 Plant Units (1 per dwelling unit) 21 D.U.'s = 21 p.u.

Proposed Landscape Surface 66,020 sq. ft
Proposed Plant Units 21 Plant Units

EXISTING VEGETATION RETAINED

Spruce	14
Aspen	10
Multi-trunked Cottonwood	16
Cottonwood	2
Ponderosa Pine	2
Plant Unit Credits	44 Trees

Canada Cherry	2
Willow Shrubs	3
Plant Unit Credits	5 Shrubs

PLANT UNIT ALTERNATIVES

Bike Rack (6 spaces min)	2
Plant Unit Credits	2 Trees

PROJECT PHASING NOTES

Phase 1	10 Residential Units
Phase 2	11 Residential Units

Legend

Existing	Proposed
—	Property Line
- - - 6290	Index Contour
- - - - -	Intermediate Contour
Cloud icon	Retained Vegetation (for plant units)
Hatched box icon	Landscape Area (for LSR)



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PRESBYTERIAN CHURCH OF JACKSON HOLE
 Employee Housing Development
 1251 South Park Loop Road, Town of Jackson WY
 PT. NE1/4NW1/4 SEC. 6, TWP. 40, RNG. 116 PARCEL 1
Landscape Plan

DRAWING DATE 07.24.23
 REVISION 1 01.11.24



James Hurley

L1.2
 PCJH
 Employee Housing
 Landscape Plan



Presbyterian Church of Jackson Hole

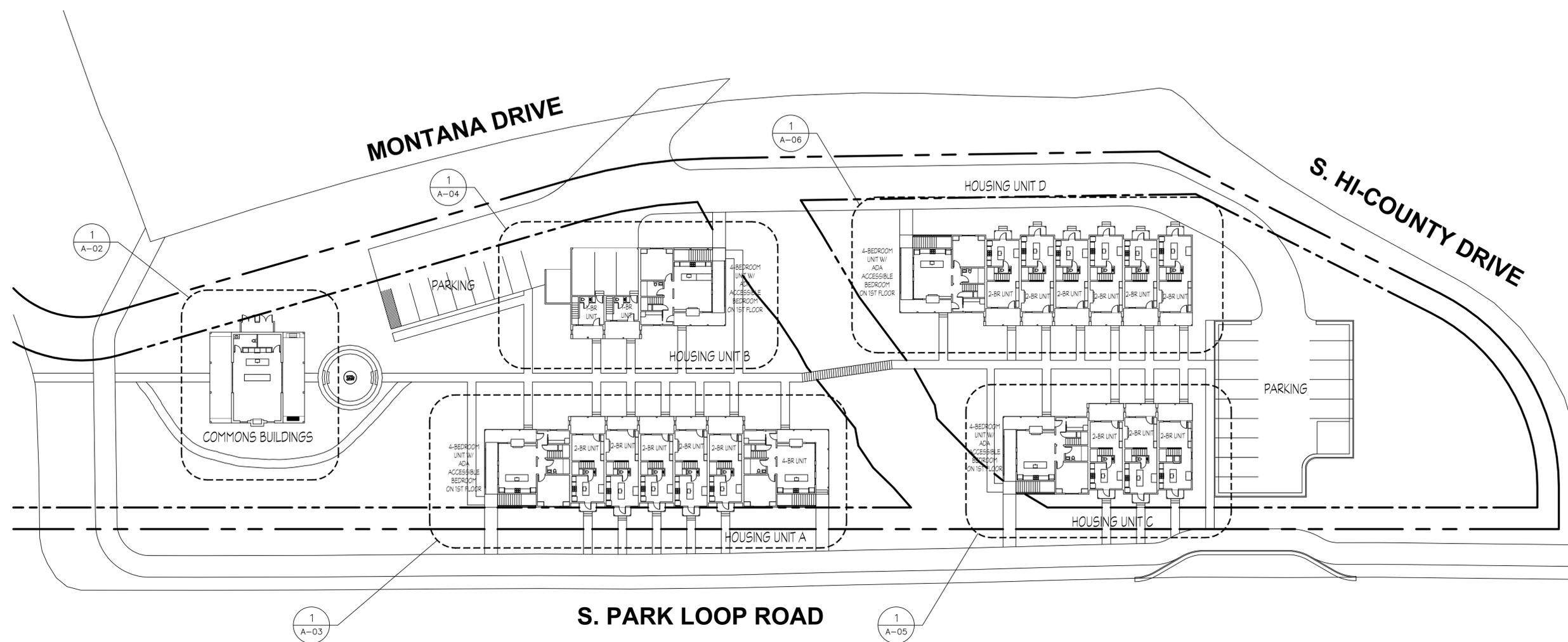
1251 South Park Loop Road
Jackson Hole, Wyoming 83001

Architect

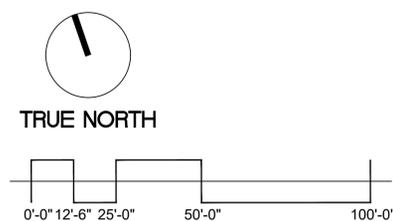
Greenspur, Inc.
2811 Merrilee Drive, Suite D
Fairfax, Virginia 22031
Phone: 703-304-1159

Civil Engineer

Jorgensen Associates
1315 Highway 89 S., Suite 201
P.O. Box 9550
Jackson, Wyoming 83002
Phone: 307-733-5150



1 Site Plan
1" = 25'-0"



Site Plan

A-01

Presbyterian Church of Jackson Hole

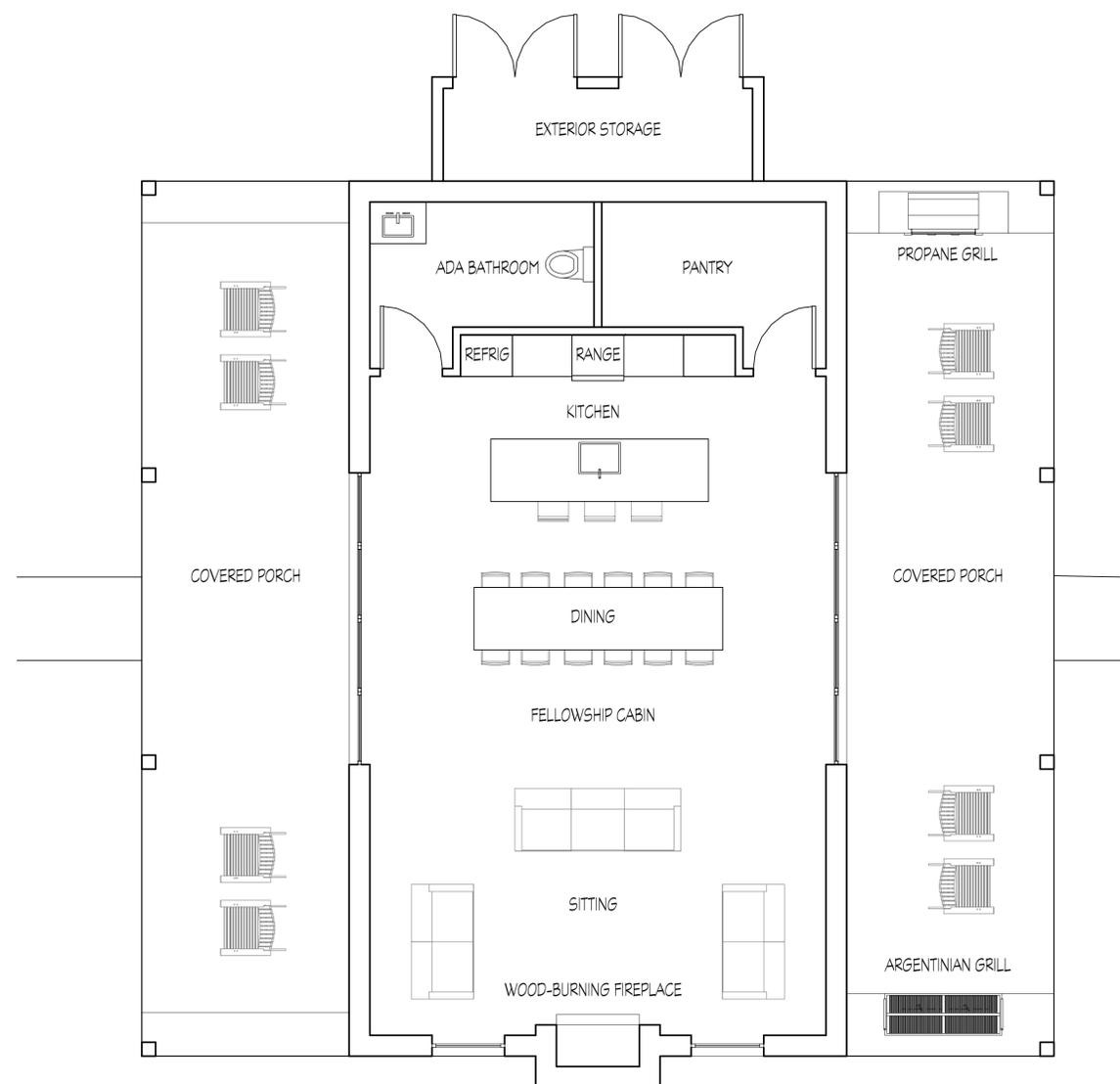
1251 South Park Loop Road
Jackson Hole, Wyoming 83001

Architect

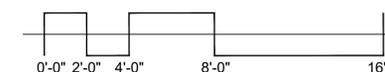
Greenspur, Inc.
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Fairfax, Virginia 22031
Phone: 703-304-1159

Civil Engineer

Jorgensen Associates
1315 Highway 89 S., Suite 201
P.O. Box 9550
Jackson, Wyoming 83002
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① First Floor Plan - Fellowship Cabin
1/4" = 1'-0"



Presbyterian Church of Jackson Hole

1251 South Park Loop Road
Jackson Hole, Wyoming 83001

Architect

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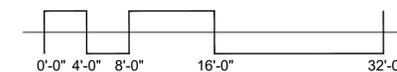
Jorgensen Associates
1315 Highway 89 S., Suite 201
P.O. Box 9550
Jackson, Wyoming 83002
Phone: 307-733-5150



② Second Floor Plan - Unit A
1/8" = 1'-0"



① First Floor Plan - Unit A
1/8" = 1'-0"



Floor Plans - Unit A

A-03

Presbyterian Church of Jackson Hole

1251 South Park Loop Road
Jackson Hole, Wyoming 83001

Architect

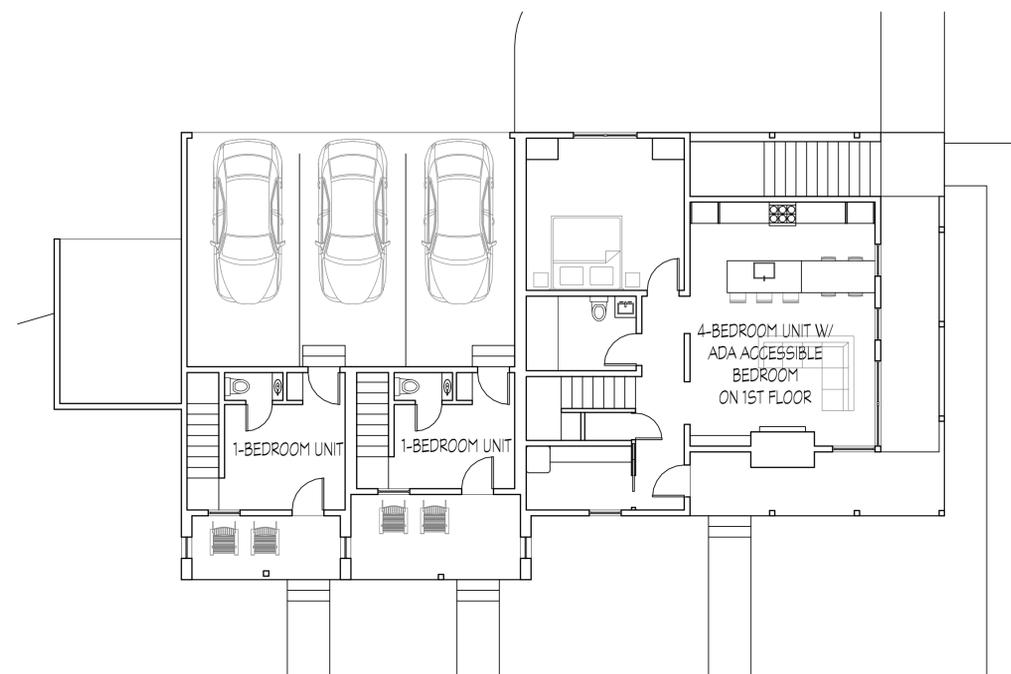
Greenspur, Inc.
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Civil Engineer

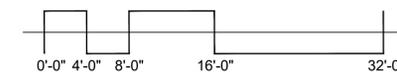
Jorgensen Associates
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② Second Floor Plan - Unit B
1/8" = 1'-0"



① First Floor Plan - Unit B
1/8" = 1'-0"



Floor Plans - Unit B

A-04

Presbyterian Church of Jackson Hole

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Jackson Hole, Wyoming 83001

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Civil Engineer

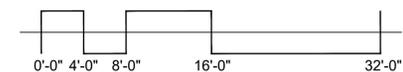
Jorgensen Associates
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Jackson, Wyoming 83002
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② Second Floor Plan - Unit D
1/8" = 1'-0"



① First Floor Plan - Unit D
1/8" = 1'-0"



Floor Plans - Unit D

A-06



**Presbyterian Church of
Jackson Hole**

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Jackson Hole, Wyoming 83001

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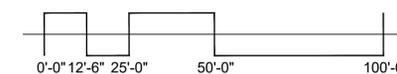
Jorgensen Associates
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P.O. Box 9550
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Phone: 307-733-5150



② North Elevation
1" = 25'-0"



① South Elevation
1" = 25'-0"



Elevations

A-01A



Presbyterian Church of Jackson Hole

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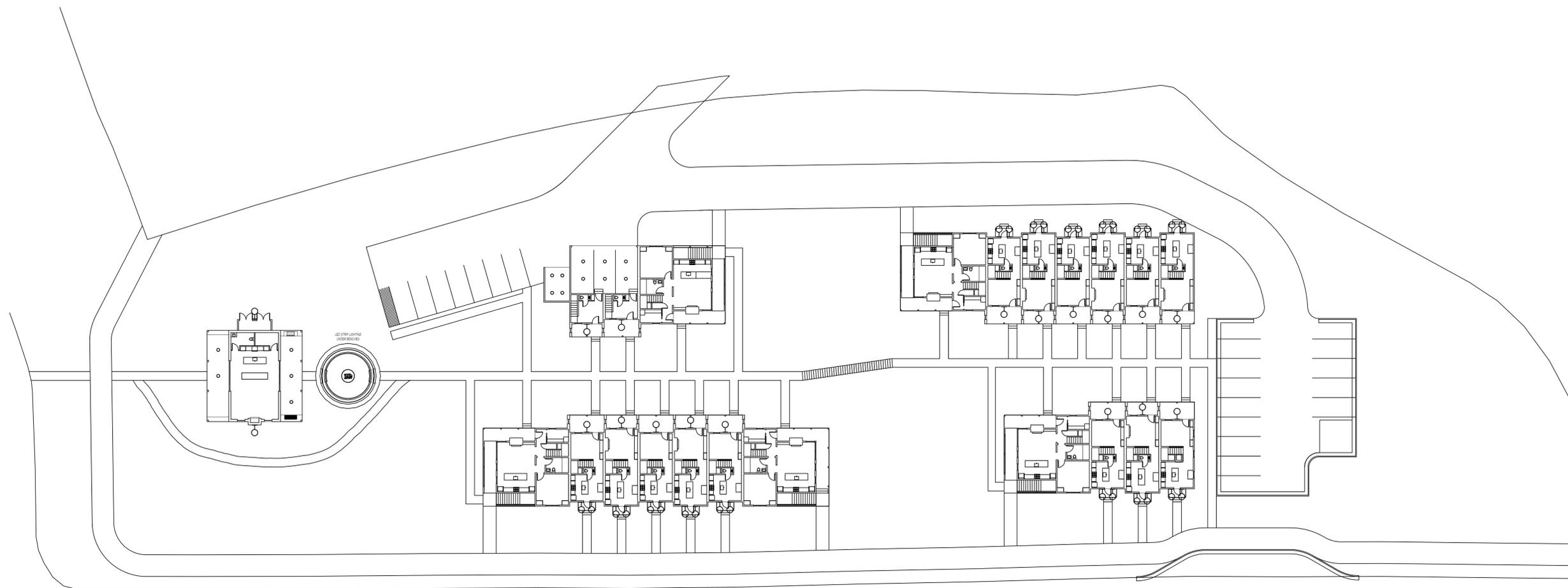
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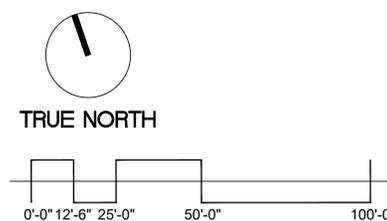


REFLECTED CEILING LEGEND

○	4" RECESSED DOWNLIGHT	⊙	WALL SCONCE
—	LED STRIP LIGHTING		



① Site Lighting Plan
1" = 25'-0"



Site Lighting Plan

A-07



AERIAL VIEW OF DEVELOPMENT



VIEW FROM ENTRANCE TO CHURCH PARKINGLOT LOOKING EAST



VIEW FROM NEW BIKE PATH ALONG SOUTH PARK LOOP ROAD LOOKING EAST



VIEW FROM SOUTH PARK LOOP ROAD LOOKING NORTH



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Preliminary Exterior Images

A-08



VIEW FROM MONTANA DRIVE LOOKING SOUTH



VIEW FROM COMMONS BUILDING LOOKING EAST THROUGH CENTER OF DEVELOPMENT



VIEW FROM CENTER OF DEVELOPMENT LOOKING WEST TOWARDS COMMONS BUILDING



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Preliminary Exterior
Images

A-09

**AQUATIC RESOURCES INVENTORY
PRESBYTERIAN CHURCH OF JACKSON HOLE
TETON COUNTY, WYOMING**



Prepared For

Presbyterian Church of Jackson Hole

PO Box 7530, Jackson, WY 83002

Prepared By

research & consulting inc.

B i o t a



PO Box 8578, 140 E. Broadway, Suite 23, Jackson, Wyoming 83002

July 1, 2015

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Table 2. Summary of aquatic resources within the Presbyterian Church of Jackson Hole study area, Teton County, WY.	4

AQUATIC RESOURCES INVENTORY
PRESBYTERIAN CHURCH OF JACKSON HOLE PROPERTY
TETON COUNTY, WYOMING

INTRODUCTION

An Aquatic Resources Inventory (ARI) was performed in June 2015 within the 6.7-acre Presbyterian Church of Jackson Hole study area in Teton County, Wyoming. The study area consists of 2 parcels (PIDN 22-40-16-06-2-00-006 and 22-40-16-06-2-00-004) owned by the Presbyterian Church of Jackson Hole (PO Box 7530, Jackson, WY 83002). The ARI was conducted by Kent Werlin, Biota's Senior Wetland Scientist.

The purpose of this study was to determine if any wetlands, per wetland definitions in the 1987 U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual (Environmental Laboratory 1987) and applicable supplements, exist within the study area; and if present, to identify and document the locations and boundaries of all wetlands and other aquatic resources within the study area per guidance provided by the USACE Wyoming Regulatory Office (USACE 2011). Final determination of wetland presence, boundaries, and jurisdiction under Section 404 of the Federal Clean Water Act is the privilege and responsibility of the USACE.

All wetlands (except those shown to be irrigation-induced) are afforded protection by Teton County Land Development Regulations and given a 30-foot setback by Teton County within which development is prohibited unless no alternative is available (Division 3200, Section 3220, B3 and Cb3 of Article III).

LOCATION AND PHYSIOGRAPHY

The study area is located off of South Park Loop Road in Jackson, WY (T40N, R116W, S06; Appendix 1-Exhibit 1). Access to the study area is achieved by driving south on Broadway; then west on South Park Loop Road for about 0.9 miles. The study area includes a portion of High School Butte and a historic agricultural meadow that has been fallow for a number of years.

LAND USE

The study area is currently used for a community garden and recreational purposes.

SURFACE HYDROLOGY

Surface water features within the study area consist of an irrigation ditch that originates from several diversion points on Spring Creek, north of the study area (Appendix 1-Exhibits 3 and 4). The ditch conveys water through the study area, under South Park Loop Road, and then continues south through a complex irrigation ditch network involving both open and buried segments. At its southernmost extent and after water conveyed by this ditch has mixed with other irrigation ditches, one of the numerous lateral ditches appears to flow into Flat Creek.

SOILS

The soil types mapped within the study area include Tineman Gravelly Loam, Grobutte-Thayne Gravelly Loams and Charlos Variant Loam (Young 1982; Appendix 1-Exhibit 5). None of these soils are listed on the National List of Hydric Soils (USDA 2015).

Tineman gravelly loam – These soils are very deep soils formed in non-calcareous alluvium and glacial till at elevations ranging from 6,000 to 7,000 feet along the Snake River. They occur on nearly level to steep alluvial fans, stream terraces, mountains and moraines. Soil permeability is moderate, surface runoff is slow to moderate, the available water capacity is low, and erosion potential is slight. The typical profile includes a surface layer of brown gravelly loam about 7 inches thick. The upper 8 inches of the subsoil is brown gravelly loam, and the lower 12 inches is light brown very gravelly sandy loam, with a light brown extremely gravelly substratum. The average annual precipitation is 15 to 24 inches. These soils are well to somewhat excessively drained, but a water table may be present in some soils below 36 inches. These soils are used for irrigated cropland, rangeland, homesites and other community uses, recreation, and wildlife habitat. Native vegetation is big sagebrush, bluebunch wheatgrass, prairie junegrass, and bluegrass.

Grobutte-Thayne complex – This soil complex consists of steep gravelly loam soils, which were formed in alluvium and are found on south and west facing slopes of buttes and foothills. The soils are well drained, very deep soils with moderate permeability. Surface runoff is rapid, and the erosion potential is high. The complex consists of about 50% Grobutte gravelly loam, 20% each of Thayne and Greyback gravelly loams, and 10% of Crow Creek and Rock outcrop soils. The typical soil profile of Grobutte soils consists of 4 inches of light brownish gray gravelly loam (surface), 6 inches of light gray gravelly loam (subsoil), and 60 inches or more of light gray very gravelly sandy loam (substratum). The typical profile of Thayne soils shows a 6-inch surface layer of grayish brown gravelly loam; a 28-inch subsoil layer of pale brown gravelly loam; and a 60-inch thick or more layer of light gray extremely gravelly sandy loam substratum. Vegetation is typically dominated by grasses and shrubs such as sagebrush, rabbitbrush, and antelope bitterbrush.

Charlos Variant loam – These soils are very deep, somewhat poorly drained, and formed in alluvium. Permeability and water capacity are moderate. These soils generally occur on nearly level land such as floodplains or low terraces. The water table is generally at a depth of between one and 3 feet during the growing season. The typical profile includes a surface layer of grayish brown loam 7 inches thick, underlain by more than 30 inches of light brownish gray clay loam. The clay loam is underlain by 22 inches of light brownish gray extremely gravelly loamy sand to a depth of 60 inches or more. The depth to the extremely gravelly loamy sand is generally 20 to 40 inches. Vegetation is often limited to grasses and sedges due to a high water table; therefore, these soils are frequently used for irrigated hay or pasture.

WETLAND DELINEATION

METHODS

A routine wetland delineation was performed as part of the aquatic resources inventory in June 2015 using the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). Biota adhered to guidance provided by the USACE-Wyoming Regulatory Office outlining documentation requirements for an Aquatic Resources Inventory (USACE 2011). Sample points were established based on topographical setting; and soils, hydrology, and vegetation were characterized at each sample point.

Preliminary data were gathered from several sources including the US Fish and Wildlife Service’s National Wetlands Inventory (NWI) mapping; the National Wetland Plant List (Lichvar et al. 2012); and color aerial photography provided by Teton County taken between 1999 and 2013.

Data associated with the wetland delineation were collected from 2 sample plots and recorded onto wetland delineation datasheets from the 2010 USACE Regional Supplement (Appendix 2). Wetland boundaries were mapped with the assistance of a Trimble GeoXT resource-grade GPS unit and multiple aerial photography datasets. Photographic documentation of wetlands and sample plots are presented in Appendix 3.

RESULTS

NWI mapping depicts only uplands within the study area. Field data collected during this study showed that definitional wetlands were present within the study area. Subsequent mapping of wetland boundaries revealed that approximately 0.02 acres (1,056 sq ft) of the study area conformed to the definitional criteria for wetlands per the 1987 USACE Manual and the 2010 USACE Regional Supplement. Of the 2 sample plots, 1 plot met all 3 wetland criteria and was determined to be located in wetlands. One sample plot did not meet all 3 wetland criteria and was located in an upland area (Table 1). Wetland locations and sample plots are depicted in Appendix 1-Exhibit 6.

Table 1. Summary of individual sample plots and wetland criteria for the Presbyterian Church of Jackson Hole study area. (Are criteria met and is it a wetland? N=No and Y=Yes)

Sample Point	Hydrophytic Vegetation	Wetland Hydrology	Hydric Soils	Wetland Determination
SP1	Y	Y	Y	Y
SP2	Y	N	N	N

WETLAND TYPES

Palustrine Emergent Wetlands

Vegetation - Vegetation within the emergent wetland sample plot was dominated by *Carex nebrascensis*.

Hydrology – Study area emergent wetlands exist as a fringe along the irrigation ditch, and the source of hydrologic support for these wetlands is the irrigation ditch. The hydrologic regime of delineated wetlands appears to be seasonally flooded. Primary wetland hydrology indicators found in emergent wetland sample plots included high water table (A2) and saturation (A3), with positive FAC-neutral tests (D5) and geomorphic position as secondary indicators (D2). In its absence of water conveyed by the irrigation ditch, wetlands can be expected to revert to uplands.

Soils – The only hydric soil indicator found in the emergent wetland sample plot was “other”. This indicator was used because these are problem area soils that have been disturbed and mixed as a result of ditch construction and maintenance activities. No redoximorphic features were present. The soils were considered hydric due to the presence of a strongly hydrophytic plant community and active wetland hydrology.

Table 2. Summary of aquatic resources within the Presbyterian Church of Jackson Hole study area.

Aquatic Resource Feature	Aquatic Resource Type	Sample Point ID	Wetland Type (Cowardin)	Area (Acres)	Area (Sq Ft)	Notes	Photos
W1	Emergent Wetland	SP1	PEMC	0.02	1,056	Fringe along the ditch channel	P1, P2
D1	Ditch	na	na	na	na	Irrigation ditch; 220 lineal feet	P1

SUMMARY AND CONCLUSIONS

A routine wetland delineation was performed as part of an ARI of the 6.7-acre Presbyterian Church of Jackson Hole study area. Field data collected from 2 sample plots showed that about 0.02 acres of the study area conformed to wetland definitional criteria per the USACE 1987 Wetland Delineation Manual and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). Wetlands were classified as palustrine emergent and located along the irrigation ditch that bisects the study area. These fringe wetlands would likely revert to uplands in the absence of hydrologic support provided by the irrigation ditch. A lateral of the irrigation ditch, once its water has co-mingled with water conveyed by other ditches, appears to potentially provide return flows to Flat Creek. Because of the small size of the wetlands and accuracy limitations associated with our Trimble resource-grade GPS, wetland boundaries were mapped via GIS with the assistance of multiple aerial photography datasets, including color-infrared photography.

LITERATURE CITED

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- USDA. 2014. National Hydric Soils List by State. USDA Natural Resources Conservation Service. <http://soils.usda.gov/use/hydric/lists/state.html>.
- Young, J. F. 1982. Soil survey of Teton County, Wyoming, Grand Teton National Park area. USDA Soil Cons. Serv. 173pp.

APPENDIX 1 – EXHIBITS

- 1) Location and topography of the Presbyterian Church of Jackson Hole Property, Teton County, Wyoming.
- 2) Aerial photograph depicting the Presbyterian Church of Jackson Hole study area, Teton County, Wyoming.
- 3) Aerial photograph depicting surface waters within the Presbyterian Church of Jackson Hole study area, Teton County, Wyoming.
- 4) Aerial photograph depicting a zoomed-out view of surface waters within the Presbyterian Church of Jackson Hole study area, Teton County, Wyoming.
- 5) Aerial photograph depicting mapped soils within the Presbyterian Church of Jackson Hole study area, Teton County, Wyoming.
- 6) Aerial photograph depicting the results of the ARI within the Presbyterian Church of Jackson Hole study area, Teton County, Wyoming.

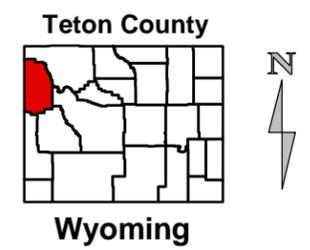
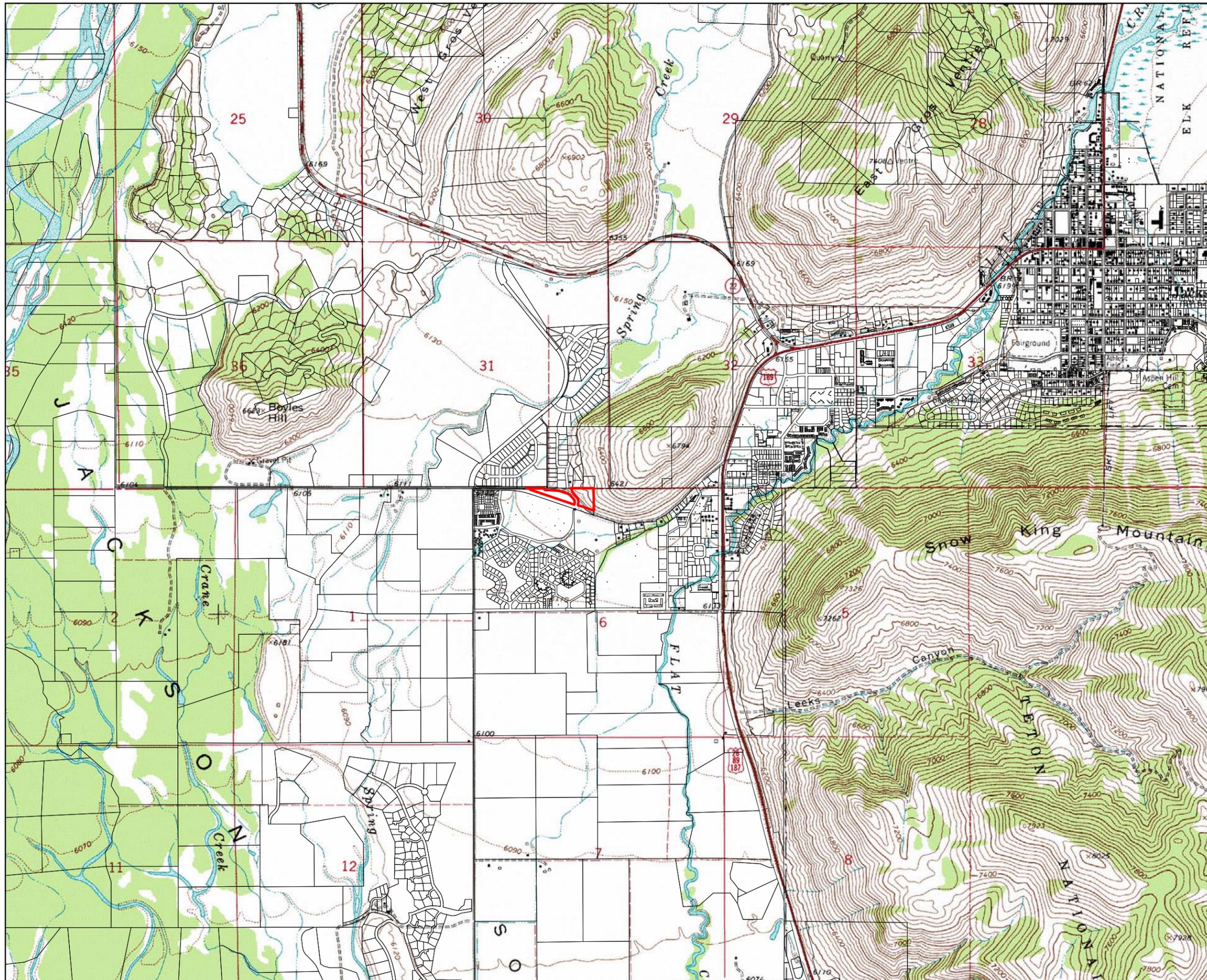
Exhibit 1
Location and topography of the Presbyterian
Church of Jackson Hole ARI study area,
Teton County, Wyoming.

July 1, 2015

Approximate Scale: 1 inch = 2,000 feet

LEGEND

-  ARI Study Area
-  Platted Parcels



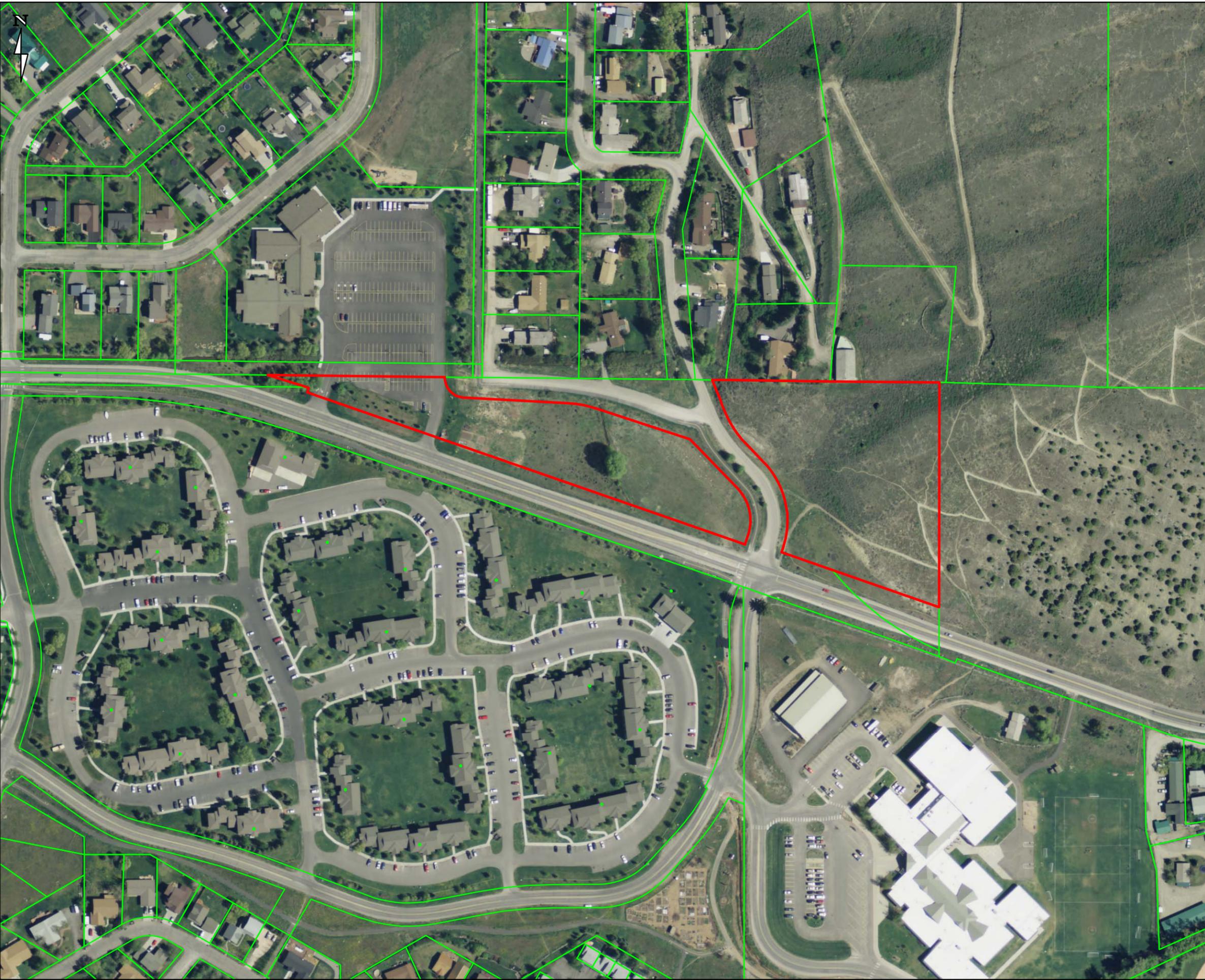


Exhibit 2
Aerial photograph depicting the Presbyterian
Church of Jackson Hole ARI study area,
Teton County, Wyoming.

July 1, 2015

Approximate Scale: 1 inch = 200 feet
2013 Aerial Photography

Legend

-  ARI Study Area
-  Platted Parcels

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Exhibit 3
Aerial photograph depicting surface waters
within the Presbyterian Church of Jackson Hole
ARI study area, Teton County, Wyoming.

July 1, 2015

Approximate Scale: 1 inch = 120 feet
2013 Aerial Photography

Legend

-  ARI Study Area
-  Irrigation Ditch

research & consulting inc.



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Exhibit 4
Aerial photograph depicting a zoomed-out view
of surface waters in the vicinity of the
Presbyterian Church of Jackson Hole ARI study
area, Teton County, Wyoming.

July 1, 2015

Approximate Scale: 1 inch = 1,000 feet
2013 Aerial Photography

Legend

-  ARI Study Area
-  Irrigation Ditch
-  Irrigation Ditch (Buried)





Exhibit 5
Aerial photograph depicting USDA mapped soils
within the Presbyterian Church of Jackson Hole
ARI study areas, Teton County, Wyoming.

July 1, 2015

Approximate Scale: 1 inch = 120 feet
2013 Aerial Photography

- Legend
- ARI Study Area
 - Tineman Gravelly Loam (Wet)
 - Charlos Variant Loam
 - Grobutte-Thayne Gravelly Loams

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Exhibit 6
 Aerial photograph depicting the results of the
 ARI within the Presbyterian Church of Jackson
 Hole ARI study area, Teton County, Wyoming.

July 1, 2015

Approximate Scale: 1 inch = 120 feet
 2013 Color Aerial Photography

Legend

-  ARI Study Area
-  Irrigation Ditch (D1)
-  Emergent Wetland (W1)
-  Sample Plot
-  Photopoint

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APPENDIX 2 – WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Presbyterian Church City/County: Teton Sampling Date: 30-Jun-15
 Applicant/Owner: Presbyterian Church of Jackson Hole State: Wyom Sampling Point: **SP 1**
 Investigator(s): K. Werlin Section, Township, Range: S 6 T 40N R 116W
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): flat Slope: 0.0 % / 0.0 °
 Subregion (LRR): LRR E Lat.: 43.46489400 Long.: -110.80623200 Datum: NAD 83
 Soil Map Unit Name: Charlos Variant Loam NWI classification: Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: edge of irrigation ditch	

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Rel.Strat. Cover	Indicator Status	
Tree Stratum (Plot size: _____)				
1. _____	0	<input type="checkbox"/> 0.0%	_____	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. _____	0	<input type="checkbox"/> 0.0%	_____	
3. _____	0	<input type="checkbox"/> 0.0%	_____	
4. _____	0	<input type="checkbox"/> 0.0%	_____	
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	0	<input type="checkbox"/> 0.0%	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>85</u> x 1 = <u>85</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>15</u> x 3 = <u>45</u> FACU species <u>10</u> x 4 = <u>40</u> UPL species <u>0</u> x 5 = <u>0</u> Column Total s: <u>120</u> (A) <u>190</u> (B) Prevalence Index = B/A = <u>1.583</u>
2. _____	0	<input type="checkbox"/> 0.0%	_____	
3. _____	0	<input type="checkbox"/> 0.0%	_____	
4. _____	0	<input type="checkbox"/> 0.0%	_____	
5. _____	0	<input type="checkbox"/> 0.0%	_____	
= Total Cover				
Herb Stratum (Plot size: <u>1-meter radius</u>)				
1. <u>Carex nebrascensis</u>	85	<input checked="" type="checkbox"/> 70.8%	OBL	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrologic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Epilobium ciliatum</u>	5	<input type="checkbox"/> 4.2%	FACW	
3. <u>Myosotis scorpioides</u>	5	<input type="checkbox"/> 4.2%	FACW	
4. <u>Poa pratensis</u>	15	<input type="checkbox"/> 12.5%	FAC	
5. <u>Solidago canadensis</u>	10	<input type="checkbox"/> 8.3%	FACU	
6. _____	0	<input type="checkbox"/> 0.0%	_____	
7. _____	0	<input type="checkbox"/> 0.0%	_____	
8. _____	0	<input type="checkbox"/> 0.0%	_____	
9. _____	0	<input type="checkbox"/> 0.0%	_____	
10. _____	0	<input type="checkbox"/> 0.0%	_____	
11. _____	0	<input type="checkbox"/> 0.0%	_____	
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	0	<input type="checkbox"/> 0.0%	_____	
2. _____	0	<input type="checkbox"/> 0.0%	_____	
= Total Cover				
% Bare Ground in Herb Stratum: <u>0</u>				

Remarks:

¹Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13	10YR	3/1	85				Silt Loam	
13-20								coarse alluvium

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Muck Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
 disturbed/mixed soils from history of ditch maintenance, assumed hydric due to presence of hydrophytic vegetation community and active wetland hydrology

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> FAC-neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): <input type="text" value="0"/>	Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Water Table Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <input type="text" value="3"/>	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches): <input type="text" value="2"/>	

Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Presbyterian Church City/County: Teton Sampling Date: 26-Jun-15
 Applicant/Owner: Presbytetian Church of Jackson Hole State: Wyom Sampling Point: **SP 2**
 Investigator(s): K. Werlin Section, Township, Range: S 6 T 40N R 116W
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): flat Slope: 0.0 % / 0.0 °
 Subregion (LRR): LRR E Lat.: 43.46493400 Long.: -110.80615800 Datum: NAD 83
 Soil Map Unit Name: Charlos Variant Loam NWI classification: Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: near irrigation ditch	

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Rel.Strat. Cover	Indicator Status	
Tree Stratum (Plot size: _____)				
1. _____	0	<input type="checkbox"/> 0.0%	_____	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. _____	0	<input type="checkbox"/> 0.0%	_____	
3. _____	0	<input type="checkbox"/> 0.0%	_____	
4. _____	0	<input type="checkbox"/> 0.0%	_____	
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	0	<input type="checkbox"/> 0.0%	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>90</u> x 3 = <u>270</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species <u>5</u> x 5 = <u>25</u> Column Total s: <u>125</u> (A) <u>415</u> (B) Prevalence Index = B/A = <u>3.320</u>
2. _____	0	<input type="checkbox"/> 0.0%	_____	
3. _____	0	<input type="checkbox"/> 0.0%	_____	
4. _____	0	<input type="checkbox"/> 0.0%	_____	
5. _____	0	<input type="checkbox"/> 0.0%	_____	
= Total Cover				
Herb Stratum (Plot size: <u>2-meter radius</u>)				
1. <u>Bromus inermis</u>	90	<input checked="" type="checkbox"/> 72.0%	FAC	
2. <u>Galium boreale</u>	10	<input type="checkbox"/> 8.0%	FACU	
3. <u>Elymus glaucus</u>	20	<input type="checkbox"/> 16.0%	FACU	
4. <u>Tragopogon dubius</u>	5	<input type="checkbox"/> 4.0%	UPL	
5. _____	0	<input type="checkbox"/> 0.0%	_____	
6. _____	0	<input type="checkbox"/> 0.0%	_____	
7. _____	0	<input type="checkbox"/> 0.0%	_____	
8. _____	0	<input type="checkbox"/> 0.0%	_____	
9. _____	0	<input type="checkbox"/> 0.0%	_____	
10. _____	0	<input type="checkbox"/> 0.0%	_____	
11. _____	0	<input type="checkbox"/> 0.0%	_____	
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	0	<input type="checkbox"/> 0.0%	_____	
2. _____	0	<input type="checkbox"/> 0.0%	_____	
= Total Cover				
% Bare Ground in Herb Stratum: <u>0</u>				
Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrologic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>				
Remarks:				

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: SP 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR	3/1	70				Fine Sandy Loam	dry and compacted
6-20								rock/gravel

¹Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except in MLRA 1)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Muck Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
 unable to excavate beyond 6 inches

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): <input type="text" value="0"/>	Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): <input type="text" value="0"/>	
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches): <input type="text" value="0"/>	

Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:

Remarks:
 dry and highly compacted soil

APPENDIX 3 – PHOTOGRAPHIC DOCUMENTATION



Photograph P1. Photograph depicting the topographic setting of Sample Plot #1, looking northwest.



Photograph P2. Photograph depicting the soil pit and profile for Sample Plot #1.



Photograph P3. Photograph depicting the topographic setting of Sample Plot #2, looking north.



Photograph P4. Photograph depicting the soil pit and profile for Sample Plot #2.



Photograph P5. Photograph depicting the view from photopoint PP1, looking northwest.



Photograph P6. Photograph depicting the view from photopoint PP2, looking southeast.



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
WYOMING REGULATORY OFFICE
2232 DELL RANGE BOULEVARD, SUITE 210
CHEYENNE WY 82009-4942

June 20, 2023

Michael Halpin
The Presbyterian Church of Jackson Hole
P.O. Box 610
Jackson, Wyoming 83001
mike@halpinmail.com

Dear Mr. Halpin:

This letter is in response to a request we received on April 26, 2023, to review and verify the *Aquatic Resources Inventory (ARI) for the Presbyterian Church of Jackson Hole, study area in Teton County, Wyoming* dated April 17, 2023. The study area includes two parcels with a total area of 6.7 acres in the NE ¼ NW ¼ of Section 6, Township 40 North, Rang 116 West, Teton County, Wyoming (Centroid: Latitude 43.465089°, Longitude -110.805402°).

The U.S. Army Corps of Engineers regulates placement of dredged and fill material into waters of the United States under Section 404 of the Clean Water Act (33 U.S.C. 1344). The term "waters of the United States" has been broadly defined by statute, regulation, and judicial interpretation to include most streams, canals, reservoirs, lakes and adjacent wetlands. The Corps' regulations are published in the *Code of Federal Regulations* as 33 CFR Parts 320 through 332. Information on Section 404 requirements in Wyoming can be obtained from our website at: <http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/Wyoming.aspx>

Based on documentation in the report, I determined that methods BRCI used to identify wetlands at the property are consistent with the requirements of the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region (Version 2.0)*. Therefore, in the report, provides an accurate depiction of boundaries for all wetlands and other surface waters within the study area. This verification of delineation results is valid for a period of 5 years, until **June 20, 2028**, unless new information warrants a modification.

The results identify of 0.02 acre of palustrine emergent wetland adjacent to an excavated ditch that may function as a tributary of Flat Creek, a tributary of the Snake River, which is a traditional navigable water. Therefore, the ditch and 0.02 acre of wetland in the study area are likely to be waters of the United States as defined as 33 CFR Part 328.3 (a)(5) and (7).

Please understand that the purpose of this letter is to verify the accuracy of an aquatic resources inventory only, which does not constitute of any type of jurisdictional

determination. An extensive evaluation in accordance with administrative procedures, under the current regulatory regime, implemented by Headquarters of the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, is required before exerting jurisdiction over many streams and wetlands.

The administrative procedure described above is not necessary prior to undertaking activities authorized by nationwide permits. Nationwide permits were published in the *Federal Register* January 13, 2021 (86 FR 7244) and December 27, 2021 (86 FR 73522) and are available until March 14, 2026. Additional information on nationwide permits is available from our website or office should impacts to aquatic resources be unavoidable.

Thank you for your interest in cooperating with requirements of the Corps' regulatory program. Please contact me at juliana.santarelli@usace.army.mil or (307) 772-2300 and reference file NWO-2015-01719 if you have any questions about jurisdictional determination procedures or permit requirements.

Sincerely,



Juliana J. Santarelli
Project Manager
Wyoming Regulatory Office

Copy Furnished:

Kent Werlin
Biota Research and Consulting, Inc.
P.O. Boc 8578
Jackson, Wyoming 83002

The Omaha District, Regulatory Branch, Wyoming Regulatory Office is committed to providing quality and timely service to our customers. Please take a moment to complete a Customer Service Survey found on our web site at <http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/Wyoming.aspx>

SECTION 6 – ADDITIONAL MATERIALS

- **APPLICATION**
- **RESPONSE TO CHECKLIST**
- **LETTER - FOUR LAZY F to TOWN OF JACKSON**
- **NEIGHBORHOOD MEETING SUMMARY**
- **DEED**
- **LETTER of AUTHORIZATION**
- **TITLE REPORT**
- **COTTONWOOD PARK MASTER PLAN**



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: Presbyterian Church of Jackson Hole Workforce Housing
 Physical Address: PT. NE1/4NW1/4 SEC. 6, TWP. 40, RNG. 116 PARCEL 1
 Lot, Subdivision: _____ PIDN: 22-40-16-06-2-00-006

PROPERTY OWNER.

Name: Presbyterian Church of Jackson Hole Phone: _____
 Mailing Address: PO BOX 7530, JACKSON, WY ZIP: 83001
 E-mail: mike@halpinmail.com

APPLICANT/AGENT.

Name: Jorgensen Associates Phone: 307-733-5150
 Mailing Address: PO Box 9550 Jackson WY ZIP: 83002
 E-mail: mdi@jorgeng.com

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	Physical Development	Interpretations
_____ Basic Use	_____ Sketch Plan	_____ Formal Interpretation
<input checked="" type="checkbox"/> Conditional Use	<input checked="" type="checkbox"/> Development Plan	_____ Zoning Compliance Verification
_____ Special Use	_____ Design Review	Amendments to the LDRs
Relief from the LDRs	Subdivision/Development Option	_____ LDR Text Amendment
_____ Administrative Adjustment	_____ Subdivision Plat	_____ Map Amendment
_____ Variance	_____ Boundary Adjustment (replat)	Miscellaneous
_____ Beneficial Use Determination	_____ Boundary Adjustment (no plat)	<input checked="" type="checkbox"/> other: Master Plan Amendm
_____ Appeal of an Admin. Decision	_____ Development Option Plan	_____ 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 #: P22-161 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?

- 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 <http://www.townofjackson.com/DocumentCenter/View/845/LetterOfAuthorization-PDF>.
- 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

Mila Dunbar-Irwin
Name Printed

Jan 10, 2024
Date

Deputy Planning Manager
Title



PRE-APPLICATION CONFERENCE SUMMARY
Planning & Development Department
Planning Division

150 E Pearl Ave. | ph: (307) 733-0440
 P.O. Box 687 | fax: (307) 734-3563
 Jackson, WY 83001 | www.townofjackson.com

This Summary will be prepared by Planning Staff. The applicant, or the applicant's agent, shall receive a copy of this summary for their reference in submitting a sufficient application.

Staff may request additional materials during review as needed to determine compliance with the LDRs.

PRE-APPLICATION MEETING GENERAL INFORMATION.

PAP#: P22-161
 Date of Conference: 8/17/22 & 11/10/22
 Planning Staff: Tyler Valentine

PROJECT.

Name/Description: Presbyterian Church Housing
 Physical Address: 1251 South Park Loop Road & the 2 parcels to the east (Parcel 1 and Parcel 2)
 Lot, Subdivision _____ PIDN: _____
 Zoning District(s): Indian Trails PUD (NL-3 underlining zoning) & Cottonwood Park PUD (NL-3 underlining zoning)
 Overlay(s): n/a

STAKEHOLDERS.

Applicant: Jorgensen Associates
 Owner: Presbyterian Church of JH
 Agent: _____

REQUIRED APPLICATIONS. *This project will require the following applications:*

Application	Reason	Fee
PUD Amendment	Required for both Indian Trails and Cottonwood PUDs for density transfer, to allow the new institutional use on Parcel 1, to transfer the unit from Parcel 2 to Parcel 1, and to allow apartment/attached single family to Cottonwood PUD.	\$1,803
Development Plan	Required to subdivide Parcel 1	\$3,005
Conditional Use Permit	Required for the new institutional use on Parcel 1	\$601
Subdivision Plat Amendment	Required to change the plat map and T-map references to density and use.	\$1,202 + technical review fees

Subdivision Plat	Required to subdivide Parcel 1	\$1,202 + technical review fees
Grading Pre-App	Required prior to Building Permit for site disturbance greater than 3,000 sf or required at Town Engineer's discretion.	\$180
Building Permit	Required for new structures.	TBD

MEETING ATTENDEES:

Name	Company	Phone/Email
Tyler Valentine	Town Planning	(307) 733-0440 x1305
Mila Dunbar-Irwin	Jorgensen Associates	(307) 733-5150
Brendan Schulte	Jorgensen Associates	(307) 733-5150
Alex Norton	OPS Strategies	(307) 690-9892
Mike Halpin	Property Owner	mike@halpinmail.com

TIMELINES. This table is intended to provide general information regarding the review process and timing of decisions. See Article 8 for a complete explanation of the review process.

The following timelines are generally applicable:

Application Types:	Sufficiency	Decision-Maker	Timeline
PUD Amendment	14 days	Town Council	120-150 days
Development Plan	14 days	Town Council	120-150 days
Conditional Use Permit	14 days	Town Council	120-150 days
Subdivision Plat	14 days	Town Council	90-120 days
Grading Pre-App	14 days	Town Engineer	3-4 weeks
Building Permit	1 week	Building Official	First round review is typically 4 weeks.

Checklist Key.

 √ **Required.** Applicant must demonstrate compliance with this requirement.

 N/A **Not Applicable.** Review requirement is not applicable to this project.

General Information

Requirement

Notes

<u>√</u>	Planning Permit Application. The application should list all pertinent permits (use, physical development, interpretation, relief from the LDRs, Development Option/Subdivisions, Amendments to the LDRs) for which you are applying.	
<u>√</u>	Notarized Letter of Authorization. See “Permit and Applications” section on Planning Department website for copy of form.	Required If applicant is different than owner.
<u>√</u>	Application Fees. Fees are cumulative. Applications for multiple types of permits, or for multiple permits of the same type, require multiple fees. See the currently adopted Fee Schedule in the Administrative Manual for more information.	Please see above.
<u>√</u>	Review fees. The applicant is responsible for paying any review fees and expenses from consulting services necessitated by the review of the application by the County Surveyor, Town Engineer, Title Company and any other required consultant. Such fees shall be paid prior to approval of the permit.	
<u>√</u>	Mailed Notice fee. See Section 8.2.14.C.2 for notice requirements. If mailed notices are required, the applicant is responsible for paying for any mailing in excess of 25 notices.	Landowners within two hundred (200) feet of the land subject to the application. Done by Town Staff.
<u>√</u>	Digital Format. All applications submitted to the Town Planning Department must be submitted in digital format.	Please provide digital copy with application.
<u>√</u>	Response to Submittal Checklist. All applications require response to applicable review standards. For applications where a pre-application conference is required, applicable standards are identified below. If a pre-application conference is optional, see the submittal checklist for the relevant application type, established in the Administrative Manual.	This checklist serves as a guideline for process, but has additional concerns/recommendations throughout.
<u>√</u>	Title Report. A title report, title certificate or record document guarantee prepared within the last six months that includes evidence of ownership and all encumbrances on the subject property. Copies of the documents referenced in the report should not be submitted unless requested by the planner during review.	Required for plat
<u>√</u>	Narrative description of the proposed development. Describe in detail the existing condition of the property and the proposed development, use, or subdivision for which you are seeking approval.	
<u>√</u>	Findings for approval. Include in your narrative a response to the findings for approval found in LDR Sec. 8.3.2, as applicable.	
<u>√</u>	Proposed Development Program. Provide a table that summarizes the the projects compliance with the primary development standards (setbacks, heights, FAR, LSR, etc.).	
<u>√</u>	Site Plan. Provide a detailed site plan of the proposed project. A list of minimum standards for a site plan are established in the Administrative Manual.	Please provide site plan to scale and dimensioned.
<u>√</u>	Floor Plans. Include floor plans for any existing buildings that will be occupied by a proposed use. If changes to existing buildings are proposed, indicate those on the floor plans.	Please provide site plan to scale and dimensioned.

N/A **Neighborhood Meeting Summary.** See Section 8.2.3 for Neighborhood Meeting requirements. Optional.

√ **Posted Notice.** See Section 8.2.14.C.4 for Posted Notice requirements for all public hearings.

ARTICLES 2 (COMPLETE NEIGHBORHOODS), 3 (RURAL AREA ZONES), and 4 (SPECIAL PURPOSE ZONES).

Applicable Zone: Indian Trails and Cottonwood PUD (NL-3 Underlining zoning)

Applicable LDR Section: _____

PHYSICAL DEVELOPMENT. *Please see Subsection B in applicable Zone District for specific standards.*

Requirement	Notes
<u>√</u> Structure Location and Mass (setbacks, height, FAR, etc.)	
<u>N/A</u> Maximum Scale of Development (individual building size)	
<u>N/A</u> Design Review (Design Guidelines and Design Review Committee)	
<u>√</u> Site Development (Driveway and Access limits)	
<u>√</u> Landscaping (see Div. 5.5 for more information)	
<u>√</u> Fencing (see Sec. 5.1.2 for more information)	
<u>N/A</u> Environmental Standards (see Div. 5.1 and 5.2 for more information) <ul style="list-style-type: none"> • Natural Resource Buffers • Irrigation Ditch Setback • Wild Animal Feeding • Natural Resource Overlay Standards • Bear Conflict Area Standards 	
<u>√</u> Scenic Standards (see Div. 5.3 for more information) <ul style="list-style-type: none"> • Exterior Lighting • Scenic Resource Overlay (SRO) Standards 	Provide exterior lighting worksheet with building permit submittal, provide manufacturer cut sheets.
<u>√</u> Natural Hazards to Avoid (see Div. 5.4 for more information) <ul style="list-style-type: none"> • Steep Slopes • Areas of Unstable Soils • Fault Areas • Floodplains • Wildland Urban Interface 	Only if applicable
<u>N/A</u> Signs (see Div. 5.6 for more information)	Signs approved separately.
<u>√</u> Grading, Erosion Control, Stormwater (see Div. 5.7 for more information) <ul style="list-style-type: none"> • Grading • Erosion Control • Stormwater Management 	Grading pre-app will be required. All grading info will be included in the building permit.

USE STANDARDS. *Please see Subsection C in applicable Zone District for specific standards.*

Requirement	Notes
<u>√</u> Allowed Uses (see Div. 6.1 for more information)	
<u>√</u> Parking (see Div. 6.2 for more information)	Show all parking dimensions including drive aisle width.
<u>√</u> Employee Housing (see Div. 6.3 for more information)	
<u>√</u> Maximum Scale of Use	
<u>√</u> Operational Standards (see Div. 6.4 for more information) <ul style="list-style-type: none"> • Outside Storage • Refuse and Recycling • Noise • Vibration • Electrical Disturbances • Fire and Explosive Hazards • Heat and Humidity • Radioactivity 	

DEVELOPMENT OPTIONS. *Please see Subsection D in applicable Zone District for specific standards.*

Requirement	Notes
<u>√</u> Allowed Subdivision and Development Options (see Div. 7.1 and 7.2 for more information)	
<u>N/A</u> Residential Subdivision Requirements (see Div. 7.4 and 7.5 for more information) <ul style="list-style-type: none"> • School and Parks Exactions 	
<u>√</u> Infrastructure (see Div. 7.6 and 7.7 for more information) <ul style="list-style-type: none"> • Transportation Facilities • Required Utilities 	

OTHER APPLICABLE LDR STANDARDS

Requirement

Notes:

N/A

Division 1.9, Nonconformities

- 1.9.2 Nonconforming Physical Development
- 1.9.3 Nonconforming Uses
- 1.9.4 Nonconforming Development Options and Subdivisions
- 1.9.5 Nonconforming Signs

N/A

Division 7.3, Open Space Standards

- 7.3.3 Configuration and Location of Required Open Space
- 7.3.4 Use of Open Space
- 7.3.5 Physical Development Permitted in Open Space
- 7.3.6 Record of Restriction
- 7.3.7 Ownership of Open Space

ADDITIONAL COMMENTS

1. Can we build all 6 units from the Church Lots or do we have to reserve 1 of the church lots for the institutional use?

Response: At this time staff has not found evidence that 6 units can be built, neither on-site or off-site at Parcel 1, while the church exists. According to the plat, Lots 113-119 are called out as a school site or 7 residential lots. The plat does not indicate that both uses are allowed simultaneously. If the desire is to transfer 6 residential lots from the Indian Trails PUD to the Cottonwood PUD, the first step is a PUD Amendment to Indian Trails. If the density is granted and can be transferred, then a PUD Amendment is needed for Cottonwood to transfer the density and define what type of housing it can be and introduce institution uses.

2. With the break of institutional use into education and assembly is the church nonconforming or does the PUD interpretation continue to allow either assembly or education use?

Response: As this question relates to the church itself located within the Indian Trails PUD, the church was approved through a Sketch Plan and Development Plan and even though there was a break in institutional use (assembly and education) that occurred after the previous approvals, staff finds that the church use is in compliance. As this question relates to the interest of having a church-related use on Parcel 1, the applicant would have the opportunity to propose a church and/or school use as part of the Cottonwood PUD amendment. Currently, Parcel 1 does not allow either church or school and so the PUD amendment would answer the question of whether either of these uses could be permitted.

3. Are we limited to detached units given the underlying NL-3 zoning, or can we attach units to the assembly square footage as would be allowed for an accessory residential unit in a zone where nonresidential use is allowed?

Response: As staff understands it, ARUs are prohibited in the CC&Rs for both HOAs. It is staff's understanding that the current development right of 3 units on Parcel 1 is for detached single-family homes. If the unit from Parcel is transferred over to Parcel 1, the answer remains the same. With that being said, the transfer of density will require a PUD Amendment which can include a proposal for attached units.

4. Will a traffic study be required if it is either a solely residential project or if it is a mixed-use project?

Response: Unlikely. But this would be determined by the Town Engineer.

PLAN REVIEW COMMITTEE. *The Plan Review Committee consists of the following listed agencies. Planning Staff will transmit pertinent portions of the application to each agency. Other agencies and individuals not checked off on this list may be added to the PRC if necessary.*

Agency	Required for:
<input checked="" type="checkbox"/> Building Official	
<input checked="" type="checkbox"/> Town Attorney	
<input checked="" type="checkbox"/> Town Engineer	
<input checked="" type="checkbox"/> Title Company – for subdivision plat	
<input checked="" type="checkbox"/> County Surveyor – for subdivision plat	
<input checked="" type="checkbox"/> Jackson Hole Fire EMS	
<input checked="" type="checkbox"/> Housing Authority	
<input type="checkbox"/> Integrated Solid Waste & Recycling	
<input type="checkbox"/> National Park Service	
<input checked="" type="checkbox"/> Parks and Recreation Department	
<input checked="" type="checkbox"/> Pathways Coordinator	
<input type="checkbox"/> Public and Environmental Health	
<input checked="" type="checkbox"/> Police Department	
<input type="checkbox"/> Teton Conservation District	
<input type="checkbox"/> Teton County School District	
<input type="checkbox"/> Teton County (required when subdividing land within one mile of the Teton County)	
<input type="checkbox"/> U.S. Forest Service (if adjacent to or accessing through forest service lands)	
<input type="checkbox"/> Wyoming Department of Environmental Quality	
<input type="checkbox"/> Wyoming Department of Game & Fish	
<input type="checkbox"/> Other	

Town of Jackson, Wyoming
Planning and Zoning Department

November 9, 2023

Re: Density Unit Allocation within the Cottonwood Park Masterplan
Oliver Family and Four Lazy F Ranch Inc. to Presbyterian Church of Jackson Hole

To Whom it May Concern,

On behalf of the Board of Shareholders of the Four Lazy F Ranch Inc., PO Box 453, Jackson, WY 83001, I have been authorized to transfer 18 Density Units (DUs) held by Four Lazy F Ranch, Inc., to the Presbyterian Church of Jackson Hole for use on parcel 1 on the Exhibit A on T-312C.

In 1983, 785 DUs were allowed under the Cottonwood Park Masterplan. There are currently 55 DUs remaining and after this allocation of these 18 DUs, 37 will remain unallocated and in the possession of Four Lazy F, Inc.

We are aware of the Church's proposal to develop a 21-unit workforce housing development and offer our full support. It is for this reason that we have entered into an agreement with the Church to transfer to it the 18 DUs it needs to meet its 21 DU requirement for the proposed project.

Please let me know what else we may provide to support the Church's proposal or confirm the transfer of the 18 Density Units.

Sincerely,
DocuSigned by:

Charles S. Oliver

B11783061CBE408...
Four Lazy F Ranch, Inc.

Charles S. Oliver
Vice President and Treasurer

EXHIBIT "A"

SECTION 6, T40N, R116W, 6th P.M., Teton County, Wyoming

PARCEL No. 1 is located in Lot 3 and Lot 4 of said Section 6 and is more particularly described as follows:

BEGINNING at a point which lies on the north line of said Lot 4 coincident with a portion of the south boundary of Indian Springs Ranch (a subdivision of record in said Office as Plot No. 757), and from which the northwest corner of said Section 6 bears N89°46'26"W, 1151.50 feet; -

thence along the north line of said Lot 3 and Lot 4 and said south boundary of Indian Springs Ranch, S89°46'26"E, 381.36 feet to the intersection with a non-tangent circular curve, from which the radius point bears S89°44'37"E, 44.00 feet;

thence southerly along the arc of said curve, through a central angle of 34°37'02", 26.58 feet to a corner of that 4.19 acre tract described as additional right-of-way for Teton County, Wyoming in that instrument of record in said Office in Book 301 of Photo, page 667-672;

thence along the boundary of said tract as follows:

continuing southerly along the arc of said curve, through a central angle of 52°58'10", 40.68 feet;

thence S87°19'41"E, 224.44 feet to the beginning of a circular curve, concave to the southwest with a radius of 250.00 feet;

thence southeasterly along the arc of said curve, through a central angle of 15°11'08", 66.26 feet;

thence S72°08'34"E, 207.83 feet;

thence S44°35'28"E, 146.36 feet to the beginning of a circular curve, concave to the west, with a radius of 100.00 feet;

thence southeasterly along the arc of said curve, through a central angle of 63°19'15", 110.52 feet;

thence S18°43'47"W, 19.70 feet;

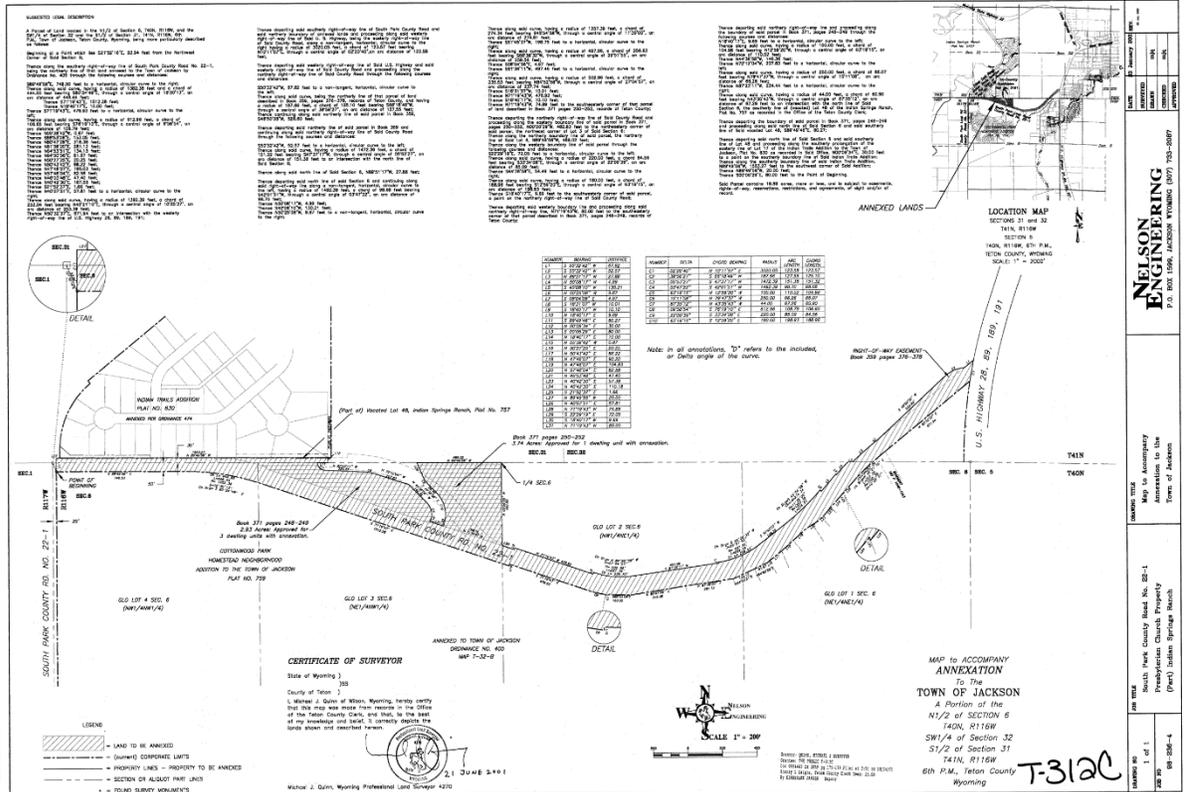
thence N71°16'13"W, 997.69 feet;

thence along a radial bearing N18°43'47"E, 10.00 feet to the beginning of a circular curve, concave to the southwest, with a radius of 1482.38 feet;

thence northwesterly along the arc of said curve, through a central angle of 00°12'00", 5.17 feet;

thence departing said boundary and continuing northwesterly along the arc of said curve, through a central angle of 03°22'48", 87.45 feet to the **POINT OF BEGINNING**;

ENCOMPASSING an area of 2.93 acres, more or less;



NELSON ENGINEERING
P.O. BOX 1096, JACKSON WYOMING 83007

Map to Accompany
Annexation to the
Town of Jackson

South Park County Book No. 28-1
Professional Land Surveyor
(Part) Jackson Springs Branch

Scale: 1" = 200'



NEIGHBORHOOD MEETING SUMMARY

A neighborhood meeting was held to discuss the proposed Presbyterian Church Housing Project. The meeting occurred between 4pm and 6pm on March 20th, 2023, and saw 11 attendees (see sign-in sheet). Issues discussed included the access road, parking, storage, density, and workforce deed restrictions. Participants suggested a shared entrance off South Park Loop Rd with the Church driveway as preferable to Montana Road, and cited reasons such as visibility, condition of Montana Rd, and not wanting to add to traffic at the intersection between Hi Country and Middle School Rd.

Comments were collected and included:

“Please keep a space for a community garden (as exists now)”

“Strongly suggest primary entrance (or an entrance) on South Park Loop Road – as merge onto Hi-Country from Montana Rd is blind”

“Please size the water and sewer so that Hi-Country subdivision could connect one day in the future”

“Too much density; stick with current entitlement”

“Do not like entrance on to Montana”

“No solid fuel in the firepit!”

“In looking at the most current site plan, I can see at a glance that there is not adequate parking. In the corner of the property at South Park Loop Rd and Montana Rd there is open space that could be useful for more parking. One parking space per unit does not work, it never has, especially in the winter.”

“Too dense for lot size, maybe 8 units; add screening between Church boundary and Montana Rd; question ability of Montana Rd to handle additional traffic; where will people keep their cars and toys? Storage?”

Invitations were sent out to 56 addresses 12 days prior to the meeting. These included everyone within a 400’ buffer of the property boundary, as well as nearby HOAs even if they were not within the boundary. The address list is attached. A public notice sign was posted on the property on March 9th and left up for 11 days prior to the meeting (photo attached).

Presbyterian Church of Jackson Hole

Neighborhood Meeting
Master Plan Amendment and Development Plan
 Monday, March 20th, 2023

	NAME	PHYSICAL ADDRESS	EMAIL
1	KATHY BUCHNER	975 Hi Country DR	KBUCHNER@WYOMING.COM
2	Maryellen Frank	825 Seneca Lane	maryellenfrank@gmail.com
3	Mark Thompson	780 Hi Country Dr	markthompson@gmail
4	LINDA HANLON	995 MADDOX DR.	THEHANLONS@JHSR.COM
5	JOHN HANLON	995 MADDOX DR	THEHANLONS@JHSR.COM
6	Ashley Nonygnod	875 Hi Country Dr	CARRAZ@gmail.com
7	Alan Bromsted	1000 Montana Rd	albromsted@gmail.com
8	JAMES MUSCLOW		
9	SHERI MUSCLOW	800 Madox Dr	jcmsclow@gmail.com SMUSCLOW@gmail.com
10	Scott Garland	950 High Country Dr	sgarland@bresnan.net
11	Mindy Polan		
12			
13			
14			
15			
16			
17			
18			
19			
20			

March 7, 2023

Presbyterian Church of Jackson Hole Employee Housing Project

The Presbyterian Church of Jackson Hole will be seeking approval to build workforce housing for staff on the 2.93 acre parcel at the corner of South Park Loop Road and Hi-Country Drive in order to secure its future viability as a church and community asset. The development program is for a community comprised of 21 townhomes, 10 of which are to be built as soon as possible in order to fill staff vacancies and retain current staff. A second phase of 11 townhomes may be built in the future, as funding allows. A small Fellowship Cabin will be part of the community's first phase to serve as flex space.

The PCJH workforce housing is being planned and designed by GreenSpur, a design build firm led by Mark Turner, a Jackson Hole native. Turner is a champion of pocket communities and modular systems that are cost efficient and more sustainable than typical construction, key elements in the plan. Church members and supporters will fund the proposed staff housing community. No public funds will be sought.

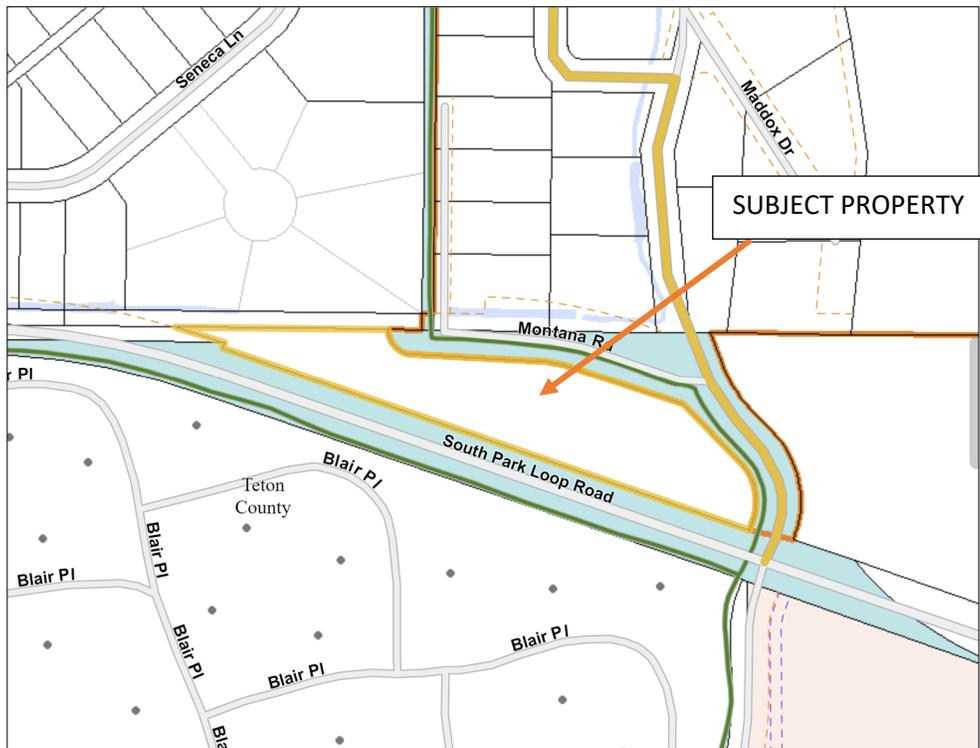
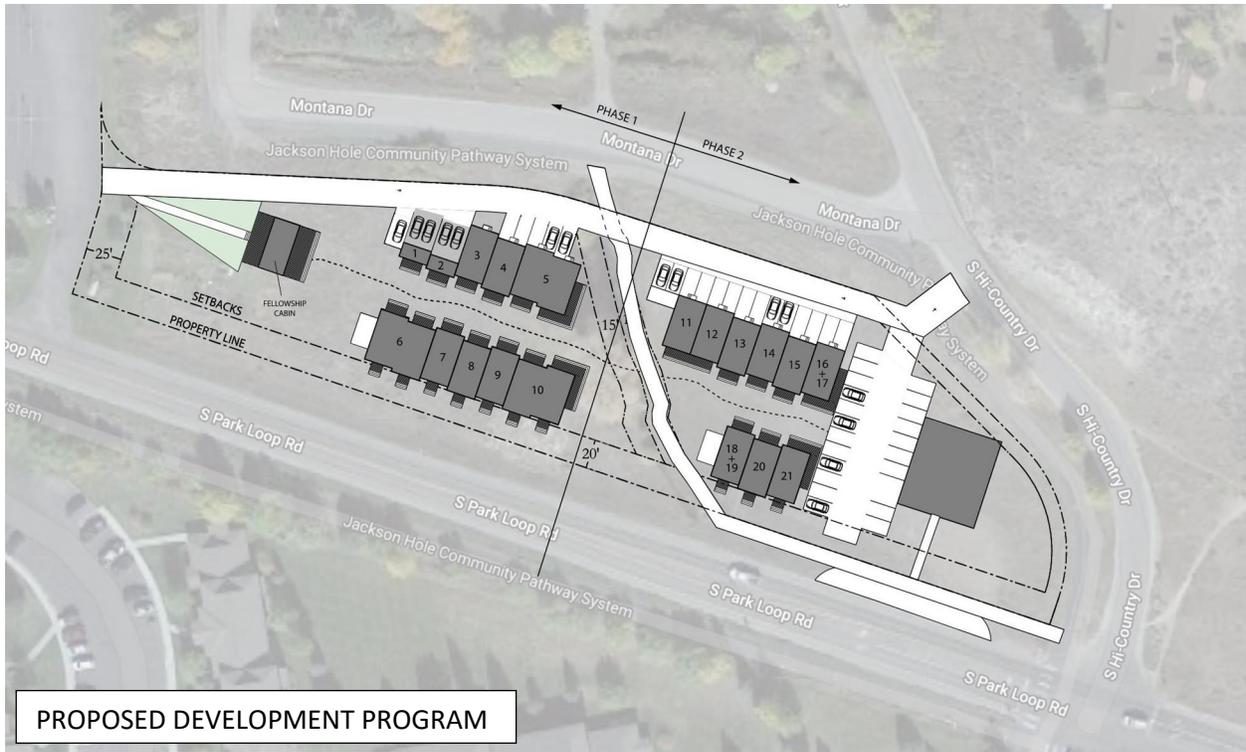
“Creation of this on-site staff housing is critical to the church’s ability to continue to provide needed community services to Jackson. We believe our proposal offers a rare opportunity to address a public crisis with private resources and preserve the viability and vitality of the church as an important community asset” – Scott O’Hare, PCJH Employee Housing Team Chair

You are invited to attend a neighborhood meeting to learn more about the proposed development. The meeting will be held at:

**The Presbyterian Church of Jackson Hole
March 20th
4pm – 6pm**

*See reverse for the proposed site plan.

For questions please contact:
Mila Dunbar-Irwin – mdi@jorgeng.com



Name	Address 1	Address 2
OLIVER, CHARLES II CO-TRUSTEE ET AL C/O TRUST REAL ESTATE SERVICES	620 LIBERTY AVE FL 19	PITTSBURGH, PA 15222-2722
OLIVER, HENRY, JR. ARTICLE 4TH RESIDUARY TRUST PNC BANK, NAT'L ASSOC., TRUST RE SERVICES	100 S COMMONS STE 116	PITTSBURGH, PA 15212-5359
920 MADDOX, LLC	2800 RANCH HOUSE CIR	JACKSON, WY 83001-9545
ANDERSON REVOCABLE TRUST ANDERSON, CALVIN C. & VIRGINIA R., TRUSTEES	PO BOX 3338	JACKSON, WY 83001-3338
BALLARD, CHUCK GST TRUST ELLINGSON, KRISTIN BALLARD, TRUSTEE	PO BOX 3578	JACKSON, WY 83001-3578
BARDY, GUST H. & AMY C.	PO BOX 12289	JACKSON, WY 83002-2289
BRIDGE-JACKSON, LLC & BRIDGE-BLAIR PLACE, LP	1850 MT DIABLO BLVD STE 410	WALNUT CREEK, CA 94596-4439
BRUMSTED, CHARLES A. & NANCY A	1000 MONTANA RD	JACKSON, WY 83001-8401
BUCHNER, JAY C. & KAREN KATHLEEN	PO BOX 1022	JACKSON, WY 83001-1022
CCC'S COTTONWOOD FLATS, LLC	PO BOX 844	JACKSON, WY 83001-0844
CORE VENTURES LLC	815 SENECA LN	JACKSON, WY 83001-8475
COX, JUSTIN ROBERT & DARCY JANINE	PO BOX 10734	JACKSON, WY 83002-0734
DEMING, CHRISTOPHER L. REVOCABLE TRUST	PO BOX 7884	JACKSON, WY 83002-7884
DENNISON, FLETCHER L. & CRAIG, JACQUELINE A.	2825 IBIS LN	JACKSON, WY 83001-9533
DEPAOLO, LAURIE & TINTO, KEVIN	41 MERCURY AVE	TIBURON, CA 94920-1344
DESHNER, EARL A. & JULIE A.	855 HI COUNTRY DR	JACKSON, WY 83001-9442
DIPRISCO, MICHAEL R. & ASHLEY A. REVOCABLE TRUSTS	PO BOX 10143	JACKSON, WY 83002-0143
DOANE, JEFFREY E. & NOWYGRAD, ASHLEY C.	875 HI COUNTRY DR	JACKSON, WY 83001-9442
ELLERSTEIN, DAVID J. & TARA M.	PO BOX 9005	JACKSON, WY 83002-9005
FOUR LAZY F RANCH	PO BOX 453	JACKSON, WY 83001-0453
FRANK, DONALD W. & MARYELLEN C. TRUSTEES	PO BOX 3325	JACKSON, WY 83001-3325
GARLAND, R. SCOTT & JANET	PO BOX 3438	JACKSON, WY 83001-3438
GORDON, ROBERT T. & MICK, SUSAN N. LIVING TRUSTS	PO BOX 1450	JACKSON, WY 83001-1450
HAMMOND, BENJAMIN R. & JOHNSON, LISA ANN TRUSTEES	PO BOX 6796	JACKSON, WY 83002-6796
HANLON REVOCABLE TRUST	PO BOX 3583	JACKSON, WY 83001-3583
HATTAWAY, PATRICK WILLIAM & SMITH, MALLORY ANNE	860 WHITEHOUSE DR., #9258	JACKSON, WY 83002-9258
HOLT, NATHAN MORLEY	PO BOX 4671	JACKSON, WY 83001-4671
INDIAN TRAILS HOMEOWNERS ASSOCIATION, INC.	PO BOX 11127	JACKSON, WY 83002-1127
JEFFERIS, KATHLEEN TAYLOR & WADE CLOUD	PO BOX 852	JACKSON, WY 83001-0852
JONES, MICHAEL M. & ROBYN A. TRUSTEES	PO BOX 112	JACKSON, WY 83001-0112
KEELER, ROBERTA FAHEY REVOCABLE TRUST	PO BOX 1583	WILSON, WY 83014-1583
KIRKPATRICK, KENNETH	PO BOX 7230	JACKSON, WY 83002-7230
KORPI, BRYAN J.	PO BOX 14616	JACKSON, WY 83002-4616
KRASNOW, K. LIVING TRUST & KRASNOW, INGRID DAFFNER LIVING TRUST	2001 CORNER CREEK LANE, BOX 44	JACKSON, WY 83001
KYLE REVOCABLE TRUST	PO BOX 11362	JACKSON, WY 83002-1362
LANE, FRANK W., JR. & ALISA	PO BOX 4333	JACKSON, WY 83001-4333
LILLY, T.A. & SHANNON R. TRUSTEES	PO BOX 9215	JACKSON, WY 83002-9215
LUTZ, FREDERICK W. & SHIRLEY A. TRUSTEES	PO BOX 820	JACKSON, WY 83001-0820
MORROW, WILLIAM B. & LACEY	PO BOX 6391	JACKSON, WY 83002-6391
NEW MOON LLC	PO BOX 353	TETON VILLAGE, WY 83025-0353
PARK REVOCABLE TRUST	PO BOX 301	JACKSON, WY 83001-0301

POPULUS TREMULOIDES REVOCABLE TRUST
PRESBYTERIAN CHURCH OF JACKSON HOLE
RILEY, PETTI A. & RILEY, NATALIE N.
ROBICHAU, JOANNE M.
SCHUPMAN FAMILY REVOCABLE TRUST
SKINNER, BARRY & JANICE
SMITH, SCOTT P. & SAMANTHA J.
TETON COUNTY
TETON COUNTY SCHOOL DISTRICT #1
TOWN OF JACKSON
TUFTE, KATIE JANE & TUFTE, RYAN NICHOLSON
VAN HOLLAND, THEODORE J. & TAMMIE L.
VOORHEES, BRETT JOEL & CLINTON, DONNA L.
WALSH, MARNI E.
WARBURTON-MCGUIRE JOINT REVOCABLE TRUST

PO BOX 751
PO BOX 7530
PO BOX 9436
PO BOX 11025
PO BOX 6764
PO BOX 3646
PO BOX 11091
PO BOX 1727
PO BOX 568
PO BOX 1687
PO BOX 3804
PO BOX 2190
PO BOX 6319
PO BOX 6929
PO BOX 11246

JACKSON, WY 83001-0751
JACKSON, WY 83002-7530
JACKSON, WY 83002-9436
JACKSON, WY 83002-1025
JACKSON, WY 83002-6764
JACKSON, WY 83001-3646
JACKSON, WY 83002-1091
JACKSON, WY 83001-1727
JACKSON, WY 83001-0568
JACKSON, WY 83001-1687
JACKSON, WY 83001-3804
JACKSON, WY 83001-2190
JACKSON, WY 83002-6319
JACKSON, WY 83002-6929
JACKSON, WY 83002-1246



JORGENSEN
 PINEDALE, WYOMING
 307.367.6548
 www.jorgeng.com

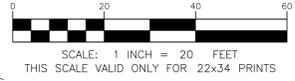
PROJECT TITLE:
**PRESBYTERIAN CHURCH OF JACKSON HOLE
 EMPLOYEE HOUSING DEVELOPMENT
 JACKSON, WYOMING**

SHEET TITLE:
PROPOSED DEVELOPMENT

DRAFTED BY:	UC
REVIEWED BY:	MD
PLAN VERSION	DATE
SCHEMATIC	03/20/2023

PROJECT NUMBER
22072
 SHEET
C2.0

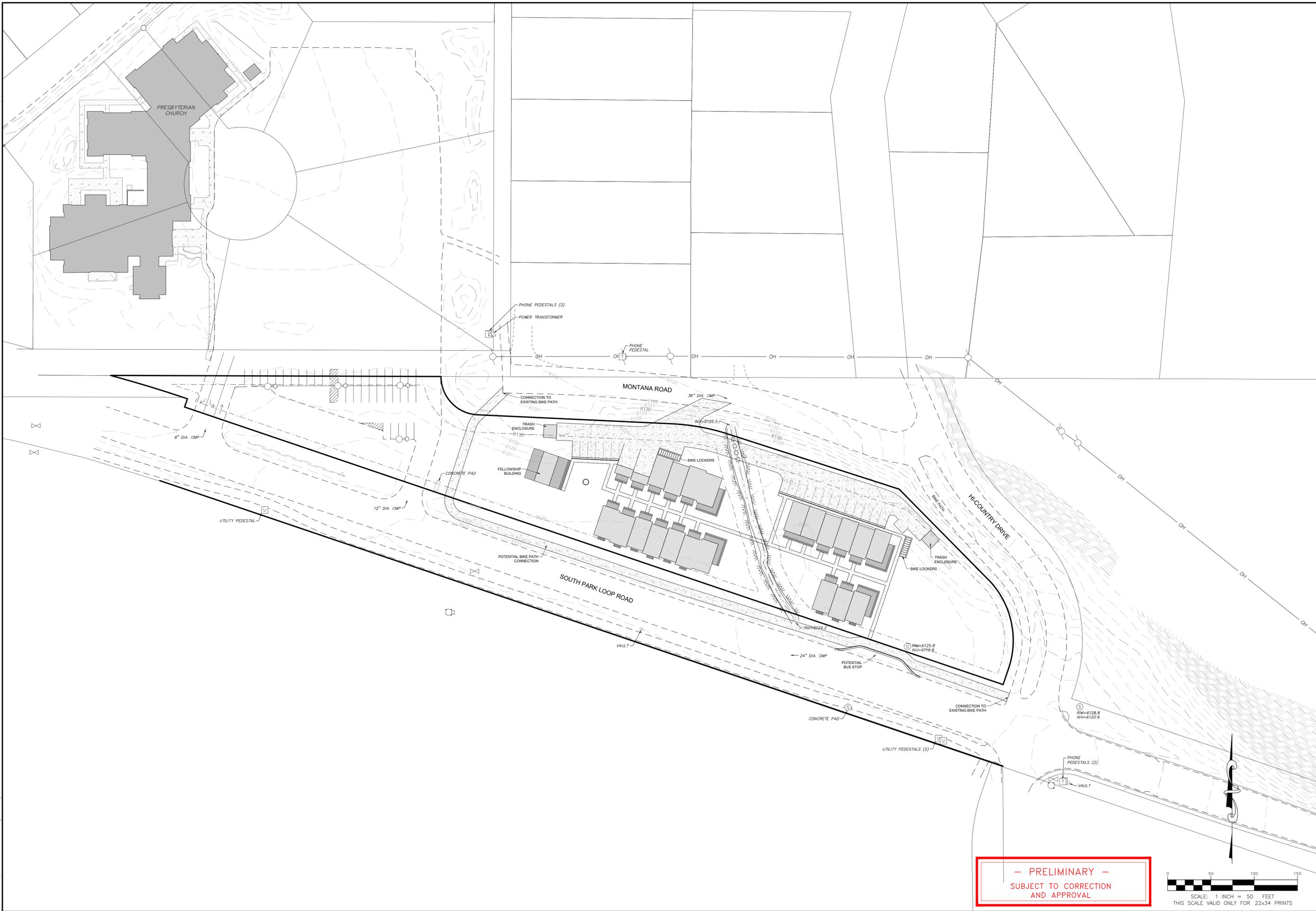
- PRELIMINARY -
 SUBJECT TO CORRECTION
 AND APPROVAL



Ver. 18.0
 Property: UC/Church on Mar 20, 2023 - 12:10pm
 P:\2022\2072-Presbyterian Church of Jackson Hole\2022_JA_SITE.dwg

Ver. 1.0
Prepared by UC/checked on Mar. 20, 2023 - 12:00pm

P:\2022\2072 Presbyterian Church of Jackson Hole\REF\2072_A SITE.dwg



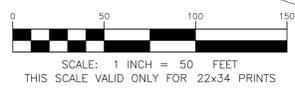
PROJECT TITLE:
**PRESBYTERIAN CHURCH OF JACKSON HOLE
 EMPLOYEE HOUSING DEVELOPMENT
 JACKSON, WYOMING**

SHEET TITLE:
SITE OVERVIEW

DRAFTED BY:	UC
REVIEWED BY:	MD
PLAN VERSION	DATE
SCHEMATIC	03/20/2023

PROJECT NUMBER
22072
 SHEET
C1.0

- PRELIMINARY -
 SUBJECT TO CORRECTION
 AND APPROVAL



DESCRIPTION OF
FOUR LAZY F RANCH
REMNANT PARCELS
LOCATED IN LOT 3 AND LOT 4, SECTION 6
T40N, R116W, 6th P.M.
TETON COUNTY, WYOMING

TO WIT:

TWO PARCELS of land, each located within Section 6, T40N, R116W, 6th P.M., Teton County, Wyoming;

PARCEL No. 1 is located in Lot 3 and Lot 4 of said Section 6 and is more particularly described as follows:

BEGINNING at a point which lies on the north line of said Lot 4 coincident with a portion of the south boundary of Indian Springs Ranch (a subdivision of record in said Office as Plat No. 757), and from which the northwest corner of said Section 6 bears N89°46'26"W, 1151.50 feet;

thence along the north line of said Lot 3 and Lot 4 and said south boundary of Indian Springs Ranch, S89°46'26"E, 381.36 feet to the intersection with a non-tangent circular curve, from which the radius point bears S89°44'37"E, 44.00 feet;

thence southerly along the arc of said curve, through a central angle of 34°37'02", 26.58 feet to a corner of that 4.19 acre tract described as additional right-of-way for Teton County, Wyoming in that instrument of record in said Office in Book 301 of Photo, page 667-672;

thence along the boundary of said tract as follows:

continuing southerly along the arc of said curve, through a central angle of 52°58'10", 40.68 feet;

thence S87°19'41"E, 224.44 feet to the beginning of a circular curve, concave to the southwest with a radius of 250.00 feet;

thence southeasterly along the arc of said curve, through a central angle of 15°11'08", 66.26 feet;

thence S72°08'34"E, 207.83 feet;

thence S44°35'28"E, 146.36 feet to the beginning of a circular curve, concave to the west, with a radius of 100.00 feet;

thence southeasterly along the arc of said curve, through a central angle of 63°19'15", 110.52 feet;

thence S18°43'47"W, 19.70 feet;

thence N71°16'13"W, 997.69 feet;

thence along a radial bearing N18°43'47"E, 10.00 feet to the beginning of a circular curve, concave to the southwest, with a radius of 1482.38 feet;

thence northwesterly along the arc of said curve, through a central angle of 00°12'00", 5.17 feet;

thence departing said boundary and continuing northwesterly along the arc of said curve, through a central angle of 03°22'48", 87.45 feet to the **POINT OF BEGINNING**;

ENCOMPASSING an area of 2.93 acres, more or less;

TOGETHER WITH PARCEL No. 2 which is located in said Lot 3 of Section 6, and is more particularly described as follows:

BEGINNING at the northeast corner of said Lot 3;

thence S00°22'59"E, 482.84 feet to the intersection with the northerly right-of-way line of South Park County Road No. 22-1; said northerly line having been established as a result of a partial vacation of an easement over a strip of land described in that instrument of record in said Office in Book 8 of Mixed Records, page 515; said partial vacation was accomplished by a Quitclaim Deed of record in said Office in Book 366 of Photo, page 36-38;

thence along said right-of-way line, N71°16'13"W 244.85 feet to a corner of that 4.19 acre tract described as additional right-of-way for Teton County, Wyoming in that instrument of record in said Office in Book 301 of Photo, page 667-672;

thence along the boundary of said tract as follows:

continuing N71°16'13"W, 114.85 feet;

thence N18°43'47"E 9.70 feet to the point of beginning of a circular curve, concave to west with a radius of 180.00 feet;

thence northwesterly along the arc of said curve, through a central angle of 23°46'42", 74.70 feet to the southernmost corner of that 1.04 acre tract deeded to Teton County in 1998;

thence departing the boundary of said 4.19 acre tract and continuing northwesterly along the boundary of that 1.04 acre tract as follows:

continuing along the arc of said curve, through a central angle of 39°32'33" 124.23 feet to the end of said curve;

thence N44°35'28"W, 54.49 feet to the beginning of a circular curve, concave to the northeast, with a radius of 220.00 feet;

thence northwesterly along the arc of said curve, through a central angle of 22°09'38", 85.09 feet to the end of said curve;

thence N22°25'49"W, 19.22 feet to the southernmost corner of that 0.04 acre tract described as additional right-of-way for Teton County, Wyoming in that instrument of record in said Office in Book 301 of Photo, page 667-672;

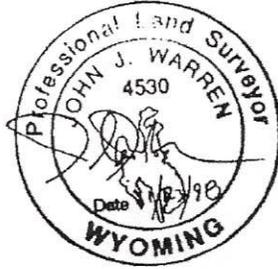
thence departing said 1.04 acre tract and proceeding along the boundary of said 0.04 acre tract to the intersection with the north line of said Lot 3;

thence along a segment of the north line of said Lot 3, coincident with a segment of the south boundary of said Hi-Country Subdivision, and its extension to the east, S89°46'26"E, 489.02 feet to the **CORNER OF BEGINNING**;

ENCOMPASSING an area of 3.74 acres, more or less;

said PARCELS are SUBJECT TO any easements, rights-of-way, covenants, conditions, restrictions, reservations, agreements or encumbrances of sight and/or record.

the BASIS OF BEARING for these descriptions being S89°46'26"E along the north line of said Lot 3 and Lot 4;



John J. Warren
Wyoming Professional Land Surveyor No. 4530
Jorgensen Engineering & Land Surveying P.C.
Project No. 98095.00 / 82124.21
(map of survey located in d.93010/d.01/surv11)
98/98095/Remnant Parcels.doc
November, 1998



Town of Jackson
 150 E Pearl Avenue
 PO Box 1687, Jackson, WY 83001
 P: (307)733-3932 F: (307)739-0919
 www.jacksonwy.gov

Date:

LETTER OF AUTHORIZATION
NAMING APPLICANT AS OWNER'S AGENT

PRINT full name of property owner as listed on the deed when it is an individual OR print full name and title of President or Principal Officer when the owner listed on the deed is a corporation or an entity other than an individual

Being duly sworn, deposes and says that PREBYTERIAN CHURCH OF JACKSON HOLE is the owner in fee of the premises located at: PARCEL 1

Address of Premises: PT NE1-4 NW 1-4 SEC 6 TWP 40 RNG 116
Name of property owner as listed on deed

Legal Description: PARCEL 1 (SEE ATTACHED, GIS MAY BE INCORRECT)
 Please attach additional sheet for additional addresses and legal descriptions

And, that the person named as follows: Name of Applicant/agent: JORJONKON ASSOCIATES
 Mailing address of Applicant/agent: PO BOX 9550 JACKSON WY 83002
 Email address of Applicant/agent: MDIA@JORJONKON.COM
 Phone Number of Applicant/agent: 307 733-5150

Is authorized to act as property owner's agent and be the applicant for the application(s) checked below for a permit to perform the work specified is this(these) application(s) at the premises listed above:

- Development/Subdivision Plat Permit Application Building Permit Application
- Public Right of Way Permit Grading and Erosion Control Permit Business License Application
- Demolition Permit Home Occupation Other (describe) MASTER PLAN AMENDMENT

Under penalty of perjury, the undersigned swears that the foregoing is true and, if signing on behalf of a corporation, partnership, limited liability company or other entity, the undersigned swears that this authorization is given with the appropriate approval of such entity, if required.

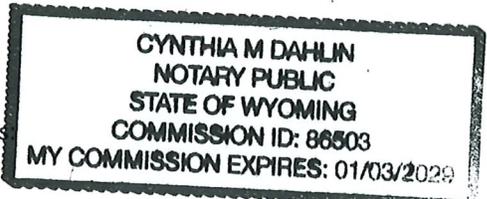
[Signature]
 Property Owner Signature
Benjamin Pascal - Authorized Agent
 Title if signed by officer, partner or member of corporation, LLC (secretary or corporate owner) partnership or other non-individual Owner

STATE OF WY)
) SS.
 COUNTY OF Teton)

The foregoing instrument was acknowledged before me by Ben Pascal this 10th day of October 2023. WITNESS my hand and official seal.

[Signature]
 Notary Public

My commission expires



01-03-2029 @



**OWNERSHIP AND ENCUMBRANCE
REPORT
VERSION 3**

Issued To:

Hawks & Associates, L.C.
P.O. Box 1495
Jackson, WY 83001
(307) 733-9437

Report No.: W-28552
Effective Date: September 25, 2023
Cost: \$250.00

Project Reference:

Property Address: Parcel 1, TBD South Park Loop, Jackson, WY 83001
Parcel 2, TBD South Park Loop, Jackson, WY 83001

County: Teton

1. According to the last deed appearing of public record, title to the fee simple estate or interest in the land described or referred to in this Report at the effective date hereof appears to be vested in:

Presbyterian Church of Jackson Hole
2. The land referred to in this Report is described as follows:

See Exhibit "A" Attached Hereto and Made a Part Hereof

Issued By:

WYOMING TITLE & ESCROW, INC.
Christina Feuz, President
Phone: 307.732.2983

This Ownership and Encumbrance Report is not a Commitment for Title Insurance nor is it an Abstract of Title. This Ownership and Encumbrance Report is for informational purposes only, does not necessarily contain all defects, liens or encumbrances of record, and may not be relied upon as a representation of the record regarding the subject property, and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

EXHIBIT "A" LEGAL DESCRIPTION

TWO PARCELS of land, each located within Section 6, T40N, R116W, 6th P.M., Teton County, Wyoming;

PARCEL No. 1 is located in Lot 3 and Lot 4 of said Section 6 and is more particularly described as follows:

BEGINNING at a point which lies on the north line of said Lot 4 coincident with a portion of the south boundary of Indian Springs Ranch (a subdivision of record in said Office as Plat No. 757), and from which the northwest corner of said Section 6 bears N89°46'26"W, 1151.50 feet;
thence along the north line of said Lot 3 and Lot 4 and said south boundary of Indian Springs Ranch, S89°46'26"E, 381.36 feet to the intersection with a non-tangent circular curve, from which the radius point bears S89°44'37"E, 44.00 feet;
thence southerly along the arc of said curve, through a central angle of 34°37'02", 26.58 feet to a corner of that 4.19 acre tract described as additional right-of-way for Teton County, Wyoming in that instrument of record in said Office in Book 301 of Photo, page 667-672;
thence along the boundary of said tract as follows:
continuing southerly along the arc of said curve, through a central angle of 52°58'10", 40.68 feet;
thence S87°19'41"E, 224.44 feet to the beginning of a circular curve, concave to the southwest with a radius of 250.00 feet;
thence southeasterly along the arc of said curve, through a central angle of 15°11'08", 66.26 feet;
thence S72°08'34"E, 207.83 feet;
thence S44°35'28"E, 146.36 feet to the beginning of a circular curve, concave to the west, with a radius of 100.00 feet;
thence southeasterly along the arc of said curve, through a central angle of 63°19'15", 110.52 feet;
thence S18°43'47"W, 19.70 feet;
thence N71°16'13"W, 997.69 feet;
thence along a radial bearing N18°43'47"E, 10.00 feet to the beginning of a circular curve, concave to the southwest, with a radius of 1482.38 feet;
thence northwesterly along the arc of said curve, through a central angle of 00°12'00", 5.17 feet;
thence departing said boundary and continuing northwesterly along the arc of said curve, through a central angle of 03°22'48", 87.45 feet to the POINT OF BEGINNING.

PARCEL No. 2 which is located in said Lot 3 of Section 6, and is more particularly described as follows:

BEGINNING at the northeast corner of said Lot 3;
thence S00°22'59"E, 482.84 feet to the intersection with the northerly right-of-way line of South Park County Road No. 22- 1 ; said northerly line having been established as a result of a partial vacation of an easement over a strip of land described in that instrument of record in said Office in Book 8 of Mixed Records, page 515; said partial vacation was accomplished by a Quitclaim Deed of record in said Office in Book 366 of Photo, page 36-38;
thence along said right-of-way line, N71°16'13"W 244.85 feet to a corner of that 4.19 acre tract described as additional right-of-way for Teton County, Wyoming in that instrument of record in said Office in Book 301 of Photo, page 667-672;
thence along the boundary of said tract as follows:
continuing N71°16'13"W, 114.85 feet;
thence N 18°43'47"E 9.70 feet to the point of beginning of a circular curve, concave to west with a radius of 180.00 feet;
thence northwesterly along the arc of said curve, through a central angle of 23°46'42", 74.70 feet to the southernmost corner of that 1.04 acre tract deeded to Teton County in 1998;

Wyoming Title & Escrow
Ownership and Encumbrance Report
Report No.: W-28552

thence departing the boundary of said 4.19 acre tract and continuing northwesterly along the boundary of that 1.04 acre tract as follows:
continuing along the arc of said curve, through a central angle of 39°32'33" 124.23 feet to the end of said curve;
thence N44°35'28"W, 54.49 feet to the beginning of a circular curve, concave to the northeast, with a radius of 220.00 feet;
thence northwesterly along the arc of said curve, through a central angle of 22°09'38", 85.09 feet to the end of said curve;
thence N22°25'49"W, 19.22 feet to the southernmost corner of that 0.04 acre tract described as additional right-of-way for Teton County, Wyoming in that instrument of record in said Office in Book 301 of Photo, page 667-672;
thence departing said 1.04 acre tract and proceeding along the boundary of said 0.04 acre tract to the intersection with the north line of said Lot 3;
thence along a segment of the north line of said Lot 3, coincident with a segment of the south boundary of said Hi-Country Subdivision, and its extension to the east, S89°46'26"E, 489.02 feet to the CORNER OF BEGINNING.
the BASIS OF BEARING for these descriptions being S89°46'26"E along the north line of said Lot 3 and Lot 4,

PIDN: 22-40-16-06-2-00-006, 22-40-16-06-2-00-004

ENCUMBRANCES WHICH AFFECT THE SUBJECT PROPERTY APPEAR TO BE (BUT ARE NOT NECESSARILY LIMITED TO) THE FOLLOWING:

1. General taxes for the year 2023, and subsequent years, a lien not yet due or payable.

Taxes, special and general, assessment districts and service areas, for the year 2023. Tax ID No. EXEMPT.
NOTE: AFFECTS PARCEL 1

Taxes, special and general, assessment districts and service areas, for the year 2023. Tax ID No. OJ-008855.
1st Installment: \$99.47 PAID
2nd Installment: \$99.47 PAID
NOTE: AFFECTS PARCEL 2
2. An easement upon the terms, conditions and provisions contained therein for the purpose shown below and rights incidental thereto as granted to the State of Wyoming in a document recorded October 22, 1946, as (book) 6 of Mixed Records (page) 68, Official Records:
Purpose: Right of way
[6MR68](#)
3. An easement upon the terms, conditions and provisions contained therein for the purpose shown below and rights incidental thereto as granted to the State of Wyoming in a document recorded October 22, 1946, as (book) 6 of Mixed Records (page) 69, Official Records:
Purpose: Right of way
[6MR69](#)
4. An easement upon the terms, conditions and provisions contained therein for the purpose shown below and rights incidental thereto as granted to the State of Wyoming in a document recorded November 5, 1956, as (book) 8 of Mixed Records (page) 515, Official Records:
Purpose: Right of way
[8MR515](#)
5. An easement upon the terms, conditions and provisions contained therein for the purpose shown below and rights incidental thereto as granted to US West Communications, INC., a Colorado corporation in a document recorded September 16, 1991, as (book) 241 (page) 1106, Official Records:
Purpose: Telecommunications
[B241P1106](#)
6. Matters as disclosed in Warranty Deed, and the terms, conditions, and provisions as contained therein, recorded February 1, 1995, as (book) 301 (page) 667, Official Records.
[B301P667](#)
7. Matters as disclosed in Resolution (Alteration of County Road 22-1), and the terms, conditions, provisions contained therein, recorded December 1, 1998, as (book) 366 (page) 29, Official Records.
[B366P29](#)
8. Record of Survey T-312C recorded October 24, 2001, as (instrument) 0554449 (book) 2 of Maps (page) 179, Official Records.
[T-312](#)

***** End of Schedule B *****

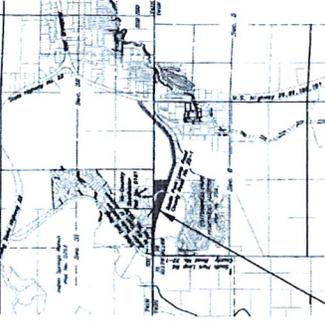
Teton County Wyoming MapServer



-  Township Line
-  2020 Color, 3" resolution, private land
-  Highway
-  County Road



Teton County provides this map for illustrative purposes only and assumes no liability for actions taken by users based on information shown.



ANNEXED LANDS

These annexed lands are shown in blue on the map and are described as follows:

1. A portion of land located in the N1/2 of Section 6, T40N, R116W, 6th P.M., Teton County, Wyoming, containing approximately 1.5 acres, more or less, as shown on the map. This land is being annexed to the Town of Jackson.

2. A portion of land located in the S1/2 of Section 31, T40N, R116W, 6th P.M., Teton County, Wyoming, containing approximately 1.5 acres, more or less, as shown on the map. This land is being annexed to the Town of Jackson.

3. A portion of land located in the S1/2 of Section 32, T40N, R116W, 6th P.M., Teton County, Wyoming, containing approximately 1.5 acres, more or less, as shown on the map. This land is being annexed to the Town of Jackson.

CHORD BEARING

NUMBER	AREA	CHORD BEARING	ANGLE	ARC LENGTH	CHORD
1	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
2	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
3	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
4	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
5	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
6	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
7	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
8	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
9	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
10	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
11	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
12	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
13	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
14	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
15	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
16	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
17	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
18	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
19	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
20	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
21	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
22	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
23	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
24	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
25	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
26	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
27	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
28	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
29	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000
30	0.000000	S 89°17'17.17" W	100.0000	1.0000	1.0000

RIGHT-OF-WAY EASEMENT
 Book 259 pages 376-378

RIGHT-OF-WAY EASEMENT
 Book 259 pages 376-378

RIGHT-OF-WAY EASEMENT
 Book 259 pages 376-378

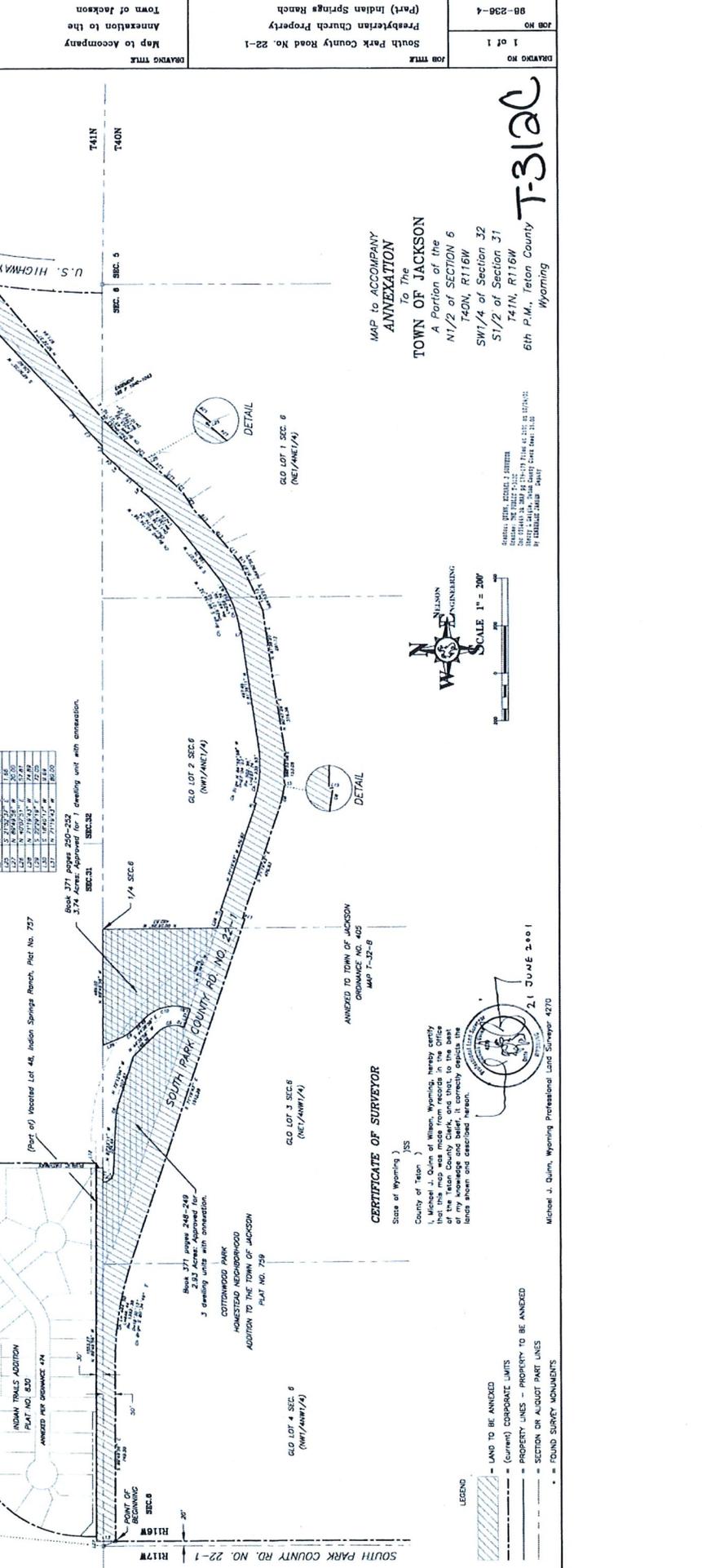
CHORD BEARING

NUMBER	AREA	CHORD BEARING	ANGLE	ARC LENGTH	CHORD
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RIGHT-OF-WAY EASEMENT
 Book 259 pages 376-378

RIGHT-OF-WAY EASEMENT
 Book 259 pages 376-378

RIGHT-OF-WAY EASEMENT
 Book 259 pages 376-378



LEGEND

- LAND TO BE ANNEXED
- (certain) CORPORATE LIMITS
- PROPERTY LINES - PROPERTY TO BE ANNEXED
- SECTION OR ALIQUOT PART LINES
- FOUND SURVEY MONUMENTS

CERTIFICATE OF SURVEYOR

State of Wyoming)
 County of Teton)
 I, Michael J. Quinn, Wyoming, hereby certify that this map was made from records in the Office of the Teton County Clerk, and that, to the best of my knowledge and belief, the same are true and correct.

Michael J. Quinn, Wyoming, Professional Land Surveyor 4270

21 JUNE 2001

MAP TO ACCOMPANY ANNEXATION TO THE TOWN OF JACKSON

A Portion of the N1/2 of SECTION 6 T40N, R116W SW1/4 of Section 32 S1/2 of Section 31 T41N, R116W 6th P.M., Teton County Wyoming

SCALE 1" = 200'

21 JUNE 2001



TOWN OF JACKSON TOWN COUNCIL AGENDA DOCUMENTATION

PREPARATION DATE: JULY 16, 2008
MEETING DATE: JULY 21, 2008

SUBMITTING DEPARTMENT: PLANNING
DEPARTMENT DIRECTOR: TYLER SINCLAIR
PRESENTER: SHAWN HILL, ASSOCIATE PLANNER

SUBJECT: **ITEM P08-071:** A REQUEST FOR APPROVAL OF A FINAL (MAJOR) DEVELOPMENT PLAN FOR A 65-UNIT TOWNHOME DEVELOPMENT IN THE COTTONWOOD PARK COMPLETE NEIGHBORHOOD MASTER PLAN

APPLICANT: CHIMARRA, LLC (COTTONWOOD FLATS, LLC)

OWNER: COTTONWOOD FLATS, LLC

REPRESENTATIVE: ERIK BEDFORD

STATEMENT/PURPOSE

The applicant is requesting approval of a Final (Major) Development Plan (FDP) for a 65-unit townhome development on a 6.37 acre parcel located in the Complete Neighborhood Master Plan (CNMP) commonly referred to as "Cottonwood Park." This FDP application has been submitted pursuant to the CNMP amendment approved in January 2008. The item was continued to allow the applicant to submit more architectural and landscape detailing requested at the July 7, 2008, meeting.

APPLICABLE REGULATIONS

Section 1440. [Existing] Conditional Use Permits, Subdivisions, and Complete Neighborhood Master Plans.

BACKGROUND/STAFF ANALYSIS

In response to the Council's concerns regarding the aesthetic character of the FDP, Staff met with the applicant and requested the following items:

1. A detailed site plan identifying the placement of corresponding building elevations, with the building pads labeled according to building type, with the landscape plan incorporated into the site plan.
2. Detailed building elevations labeled by building type that correspond with the keyed building pads in the detailed site plan. Additional windows, doors, architectural features, etc in order to address Council concerns relating to this issue were encouraged.
3. Color and material schemes used for each unit and identified on the site plan referred to in Item #1.



TOWN OF JACKSON TOWN COUNCIL AGENDA DOCUMENTATION

PREPARATION DATE: JULY 2, 2008
MEETING DATE: JULY 7, 2008

SUBMITTING DEPARTMENT: PLANNING
DEPARTMENT DIRECTOR: TYLER SINCLAIR
PRESENTER: SHAWN HILL, ASSOCIATE PLANNER

SUBJECT: **ITEM P08-071:** A REQUEST FOR FINAL (MAJOR) DEVELOPMENT PLAN APPROVAL OF A 65-UNIT TOWNHOME DEVELOPMENT IN THE COTTONWOOD PARK COMPLETE NEIGHBORHOOD MASTER PLAN

APPLICANT: CHIMARRA, LLC

OWNER: CHIMARRA, LLC

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APPLICABLE REGULATIONS

Section 1440. [Existing] Conditional Use Permits, Subdivisions, and Complete Neighborhood Master Plans.

LOCATION

The subject property is described as Lot 23 of the Cottonwood Park Homestead Neighborhood 4th Addition and is addressed is 1250 South Park Loop Road.

intensity than the previously approved commercial uses. Council approval in January also included approval of a concept plan for the property describing the roadway layout, number of units, landscaping, etc. The Council is now being asked to review the proposed FDP for compliance with the approved concept plan and Land Development Regulations.

ALIGNMENT WITH THE COUNCIL'S STRATEGIC INTENT

Staff finds that the proposed development is in line with the Council's strategic intent. The proposed development provides affordable and market housing in within Town limits, allowing for occupancy by year-round residents. The development is also accessible by pathways may include transit connections in the future.

PROJECT DESCRIPTION

The tables below compare the dimensional limitations and approved in the CNMP amendment and those of the current FDP proposal:

	CNMP Amendment	Proposed	Complies?
FAR	.41	.41	Yes
Landscape Surface Ratio (LSR)	.32	.32	Yes
Minimum Lot Area	2615 SF	2615 SF	Yes
Front setback	10'	10'	Yes
Side setback	5'	5'	Yes
Rear setback	10'	10'	Yes
Building Height	28'	24'4"	Yes
Parking Spaces	142	178	Yes

The project is comprised of 65 townhome units configured in duplex, triplex, and four-plex buildings. Situated on 6.37 acres, this comprises a density of 10.2 units/acre, which is slightly less than the Ellingwood development to the south. The FAR/LSR calculations are roughly .41 and .32 respectively, although no FAR or LSR standards exist in the NC-PUD zoning district (of which Cottonwood Park is part); the site plan and building elevations affirmed in the FDP will serve as the governing mechanism for the application of these standards and other dimensional limitations. The maximum building height proposed is 24 feet 4 inches (24'4").

The landscaping plan mainly clusters manicured open space in two areas in the southwest corner of the development. Otherwise, the required plantings are placed around the proposed structures. Parking is provided in single and double-car garages and 20-foot driveways, which equate to at least two (2) parking spaces per unit with overflow being accommodated by on-street, parallel spaces. Access is provided at two (2) points on Whitehouse Drive and, in response to Town Council comments, no vehicular connection is proposed to the Ellingwood development (although a sidewalk connection is proposed). The project is proposed to connect to Town water and sewer systems with a proposed lift station at the north end of the project being utilized to facilitate a connection to the latter. Streets are designed to Town standards, including five (5) foot detached sidewalks on both sides.

The proposed affordable housing is the result of a compromise between Town Staff, the Housing Authority, and the applicant (in the proposed CNMP amendment) in which 10% of the population is to be housed in Categories I, II, and III (the only categories allowed in Town for affordable housing requirements) and an additional 5% to be housed in Categories IV and V (which are recognized in the County). The nine (9)

Building Design and Materials Selection

The applicant has proposed a building design that is similar to surrounding developments, particularly the Ellingwood development. A materials board will be presented to the Council at the meeting wherein the siding and roofing materials will be displayed. Staff is requesting the Council comment on the proposed building design and materials selection.

Pathways

A proposed pathway is located at the northern end of the site plan. As the pathway was included in the site plan that was the subject of the CNMP amendment, Staff has determined that it is the applicant's obligation to provide the pathway. With the pathway construction under construction, the applicant has (verbally) agreed to contribute a proportional share of the construction costs to the County Engineering Department. In order to memorialize this agreement, Staff is recommending that this contribution (\$53,797) be included as a condition of the FDP.

Phasing

A two-phase approach is proposed with the northeastern portion of the project proposed to be completed first and the southeastern portion to follow (see the phasing plan in the applicant's submittal). As all development improvements, including the proposed affordable housing, are proposed to be provided in a proportionate fashion, Staff is comfortable with the proposed phasing plan.

Platting

As stated in the Planning Commission Review section of this report, Staff has determined that this proposal is, for all intents and purposes, a townhome development and should be platted as such. As such, Staff has recommended a condition requiring a townhome plat (rather than a modified single-family lot approach as proposed before).

STAFF IMPACT

None identified.

FISCAL IMPACT

School and park exactions for the proposed 65 units will be required as part of a future Final Plat approval.

ATTACHMENTS

Departmental Reviews
Applicant Submittal

RECOMMENDATIONS/ CONDITIONS OF APPROVAL

The Planning Director recommends **approval of** a Final (Major) Development Plan containing 65 residential units in the Cottonwood Park Complete Neighborhood Master Plan located at 1250 South Park Loop Road, subject to the following conditions:

7/2/2008

**Town of Jackson
Project Reviews**

Project Number	P08-071	Applied	5/1/2008	NP
Project Name	Cottonwood Flats	Approved		
Type	FDP MAJOR	Closed		
Subtype	PUD	Expired		
Status	PC/BOA	Status	6/18/2008	AD
Applicant	Chimarra, LLC	Owner	CHIMARRA, LLC	
Site Address		City	JACKSON	State
1250 South Park Loop				Zip
				WY 83001

Subdivision Parcel No
22401606247001

Type of Review Notes	Status	Dates			Remarks
		Sent	Due	Received	

Building	APPROVED	5/5/2008	5/5/2008	5/16/2008	
----------	----------	----------	----------	-----------	--

Fire	APPROVED W/COND	5/5/2008	5/5/2008	5/12/2008	
------	-----------------	----------	----------	-----------	--

Brian Coe, Fire Inspector
Jackson Hole Fire/EMS
733-4732

The fire department access roads at 24 feet for the connections and 20 feet for the interior streets provide adequate access to all areas of the subdivision. In addition, the streets are looped which provides for no dead-ends. The minimum turn radius for subdivision roads will be 50 foot on center. The four fire hydrants positioned at the four corners of the subdivision meet the minimum requirement of every 500 feet. Hydrant positioning as drawn is acceptable, as long as the locations are not located in a snow storage area.

Fire hydrants will be dry barrel type with two 2 and 1/2 inch outlets and one 4 and 1/2 inch outlet, all with National Standard Thread. The height of the outlets shall be 3 feet.

Legal	APPROVED	5/5/2008	5/5/2008	5/19/2008	see notes
-------	----------	----------	----------	-----------	-----------

I reviewed the CC&R's for form and they are fine. I am, however, uncertain if certain items need to be restricted to state that the HOA cannot amend them without the consent of Town Council. Due to the multiple departmental reviews and amendments for the CNMP, and pending FDP approval and conditions, I will have to research what conditions or restrictions were required for the CNMP (and amendments thereto) and may be required for this plan (e.g. 3.1(c) commercial use), 3.11 (parking), etc.). As such, CC&R possible restrictions will be reviewed and researched further before Final Plat approval.

Parks and Rec	APPROVED W/COND	5/5/2008	5/5/2008	5/19/2008	
---------------	-----------------	----------	----------	-----------	--

Steve Ashworth
Landscape Architect/Park Planner
Teton County/Jackson Parks and Recreation

A park exaction fee-in-lieu will be due for the increased residential units.

Pathways	APPROVED	5/5/2008	5/5/2008	5/19/2008	
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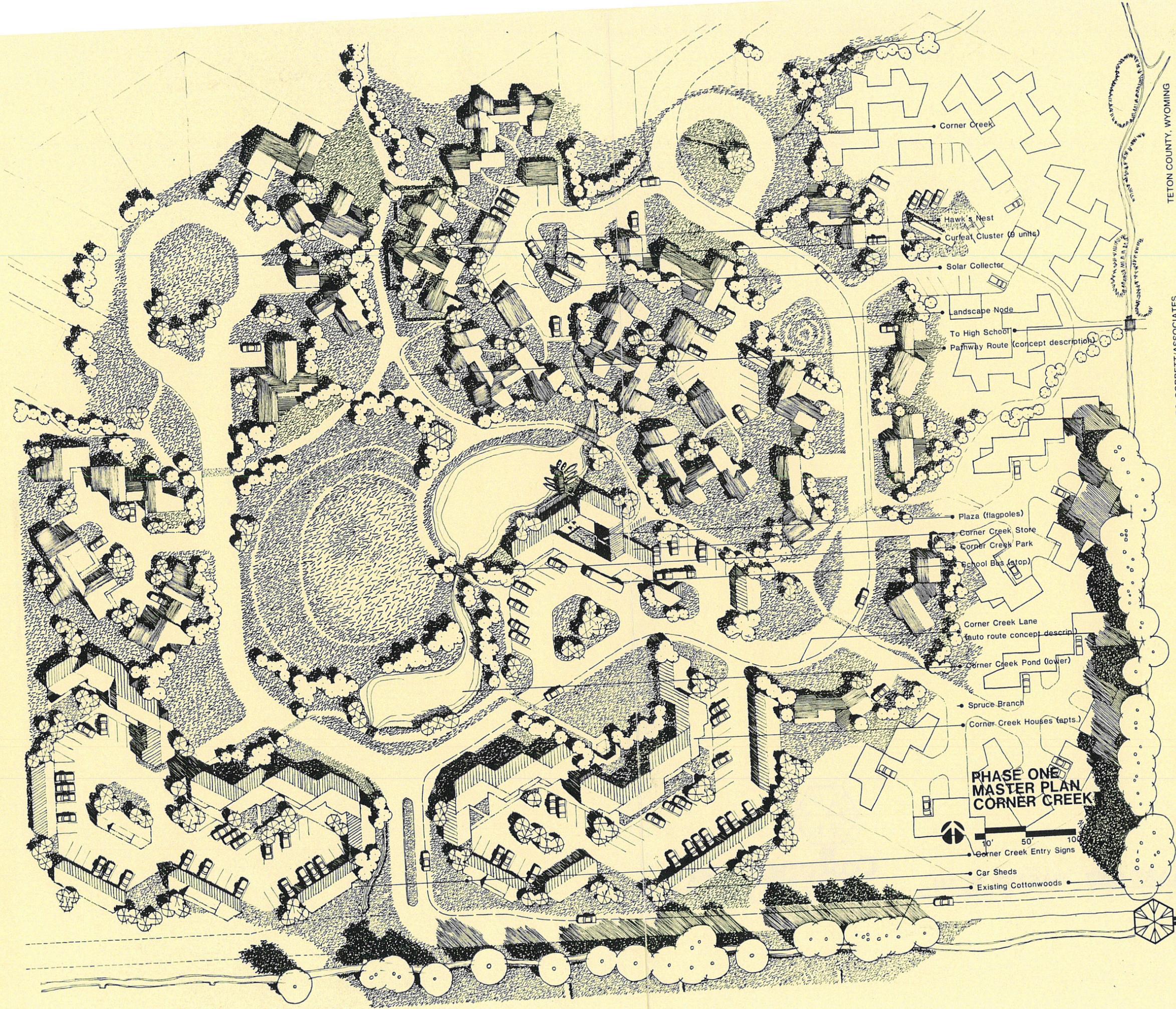
Sheet L 2.0 / Irrigation Plan indicates that the applicant is planning on irrigating the area between the north project line and the south edge of pavement. The Pathways Program is planning to construct a pathway within this east - west corridor this summer. We request that any work in this area, by the applicant, not occur until we have completed pathway construction and topsoil spreading. In addition, I have a concern regarding the possibility that the pathway will be sprinkled as a result of the proposed irrigation system. This can create user safety issues related to water freezing on the asphalt along with the potential for ponding water near the pathway, which could result in long-term structural damage. Attention to grading will be required to ensure that ponding does not occur.

Type of Review Notes	Status	Dates			Remarks
		Sent	Due	Received	
Shawn P. O'Malley					
Prior to start of any construction related activities the applicant shall submit a construction staging and project-sequencing plan. This plan shall be approved by the Town public works department prior to the start of any construction related activities.					
Prior to start of any construction related activities the applicant shall execute with the Town a Subdivision Improvement Agreement (SIA) for the project.					
The final locations of the sidewalk crossings and stop signs shall be approved by the Town development review team staff. Please note that will be considering the location of crosswalks as they relate to intersection and considering the installation of pedestrian cross walk signs at locations away from intersections.					
The applicant is advised that all power, cable, gas and telephone lines shall be installed outside of the right-of-way boundaries.					
Prior to issuance of any permits associated with this project, the applicant shall review the stormwater calculations for the project and obtain the Town engineers approval for the design.					
Prior to the start of utility the applicant shall obtain all necessary DEQ permits.					
The final approval of the sewer lift station shall be completed upon review of the stations technical specification. Please be advised that a Town standard generator shall be provided and the area shall be fenced.					
The applicant shall be required to dedicate (prior to building occupancy) Town standard sewer easements for all lines outside of the right-of-way. Please note that these shall be 30-foot in width centrally located over the main and shall exclude the planting of trees within the easement areas.					
The landscaping plan shall be revised to indicate the relocation of the trees out of future Town utility easements. This shall be completed prior to presenting the project to Town boards.					
The final approval of sewer system shall be provided prior to issuance of any permit associated with this project. Please note that minor adjustments to the proposed system maybe warranted.					
The final approval of site grading, street grades, street cross slopes and the stormwater drainage system shall be provided prior to issuance of any permit associated with this project. Please note that minor adjustments to the proposed systems maybe warranted.					
Prior to the start of street construction, the applicant shall provide a detailed geotechnical and engineering report specifying the required structural section to the roadway. This shall be pre-approved by Town engineering.					
Prior to issuance of any permits associated with this project, the applicant shall revise the curb returns on Whitehouse Drive to tapers back to the new sidewalk.					
The final approval of water valve and fire hydrants shall be provided prior to issuance of any permit associated with this project. Please note that minor adjustments to the proposed system maybe warranted.					
The final approval of sewer system shall be provided prior to issuance of any permit associated with this project. Please note that minor adjustments to the proposed system maybe warranted.					
Prior to the occupancy of any building the applicant shall dedicate all public areas to the Town.					
TC Housing Authority	APPROVED W/COND	5/5/2008	5/5/2008	5/21/2008	

Type of Review Notes	Status	Dates			Remarks
		Sent	Due	Received	

4. UNITS DEVELOPED

The applicant shall record deed restrictions on the affordable units to ensure long-term affordability. TCHA staff will provide the applicant with a sample deed restriction, and the applicant should return a redlined copy to TCHA staff to ensure that it meets Town requirements. Deed restrictions for the affordable units shall be recorded prior to Final Plat recordation.



**PHASE ONE
MASTER PLAN
CORNER CREEK**

- Corner Creek Entry Signs
- Car Sheds
- Existing Cottonwoods

• Corner Creek

• Hawk's Nest
• Curfeat Cluster (9 units)

• Solar Collector

• Landscape Node

• To High School
• Pathway Route (concept description)

• Plaza (flagpoles)

• Corner Creek Store

• Corner Creek Park

• School Bus (stop)

• Corner Creek Lane
(auto route concept descrip.)

• Corner Creek Pond (lower)

• Spruce Branch

• Corner Creek Houses (apts.)

TETON COUNTY, WYOMING

PLANNERS: CORBETT/ASSOCIATES
BOX 1009 / 86 EAST BROADWAY / JACKSON, WYOMING 83001 / 307-733-3170

OWNERS: HENRY OLIVER III & CHARLES OLIVER II

DATE: 7 FEBRUARY 1983

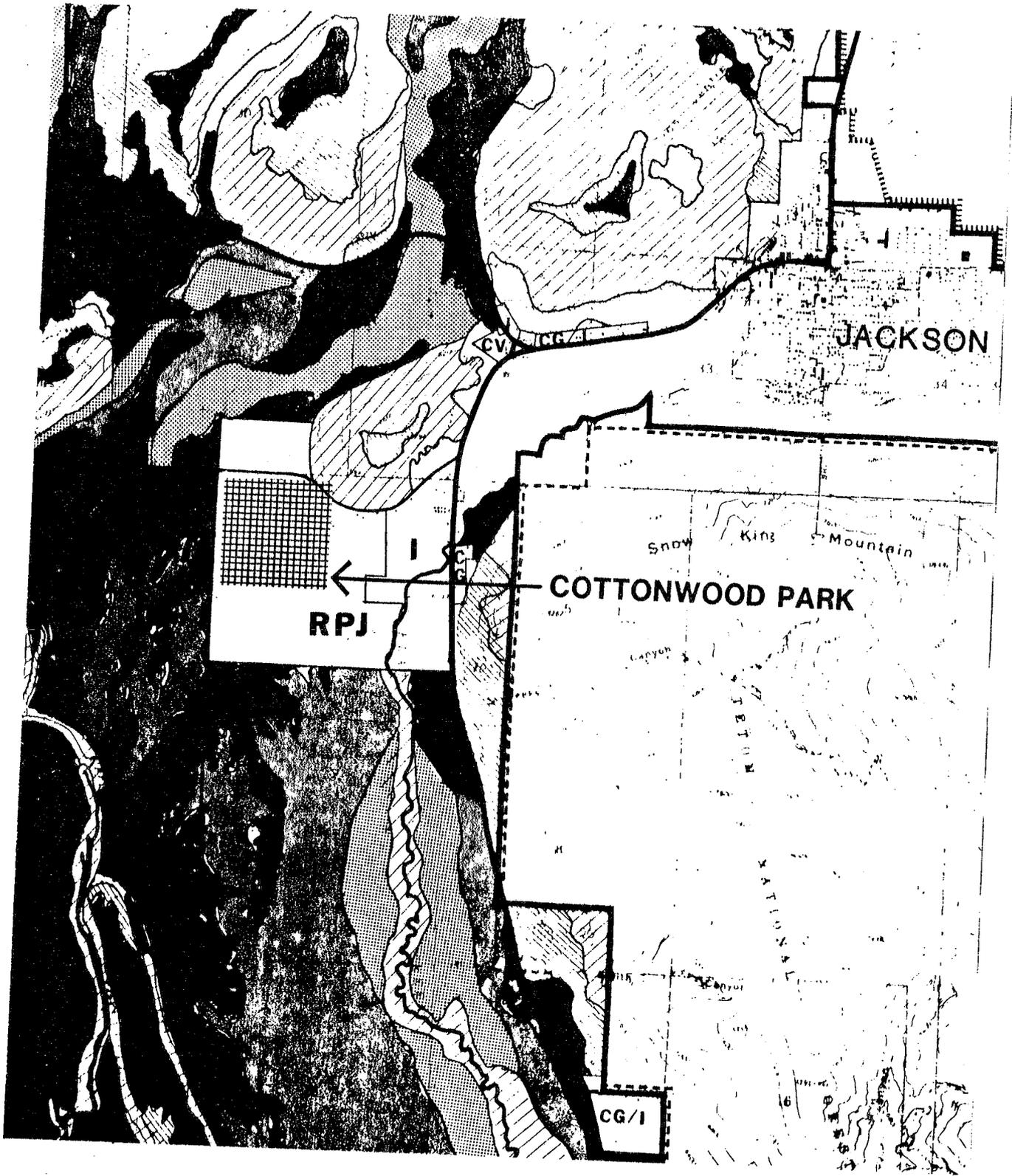
Costonwood Park

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VICINITY MAP



DATE: 7 FEBRUARY 1983

OWNERS: HENRY OLIVER III & CHARLES OLIVER II

PLANNERS: CORBETT/ASSOCIATES
 BOX 1009 - 84 EAST BROADWAY - JACKSON WYOMING 83001 / 307-733-3170

TETON COUNTY, WYOMIN

INTRODUCTION

This report has been prepared to clearly and simply present the site data and development concept for Cottonwood Park, a planned residential community of over 800 dwelling units to be constructed on 160 acres in the Jackson Planned Expansion Area (RPJ).

The site is owned in fee simple title, and is the only property thus owned, by Henry Oliver III, President, and Charles Oliver II, Vice President and Treasurer, of the Four Lazy F Ranch, Box 425, Jackson, Wyoming.

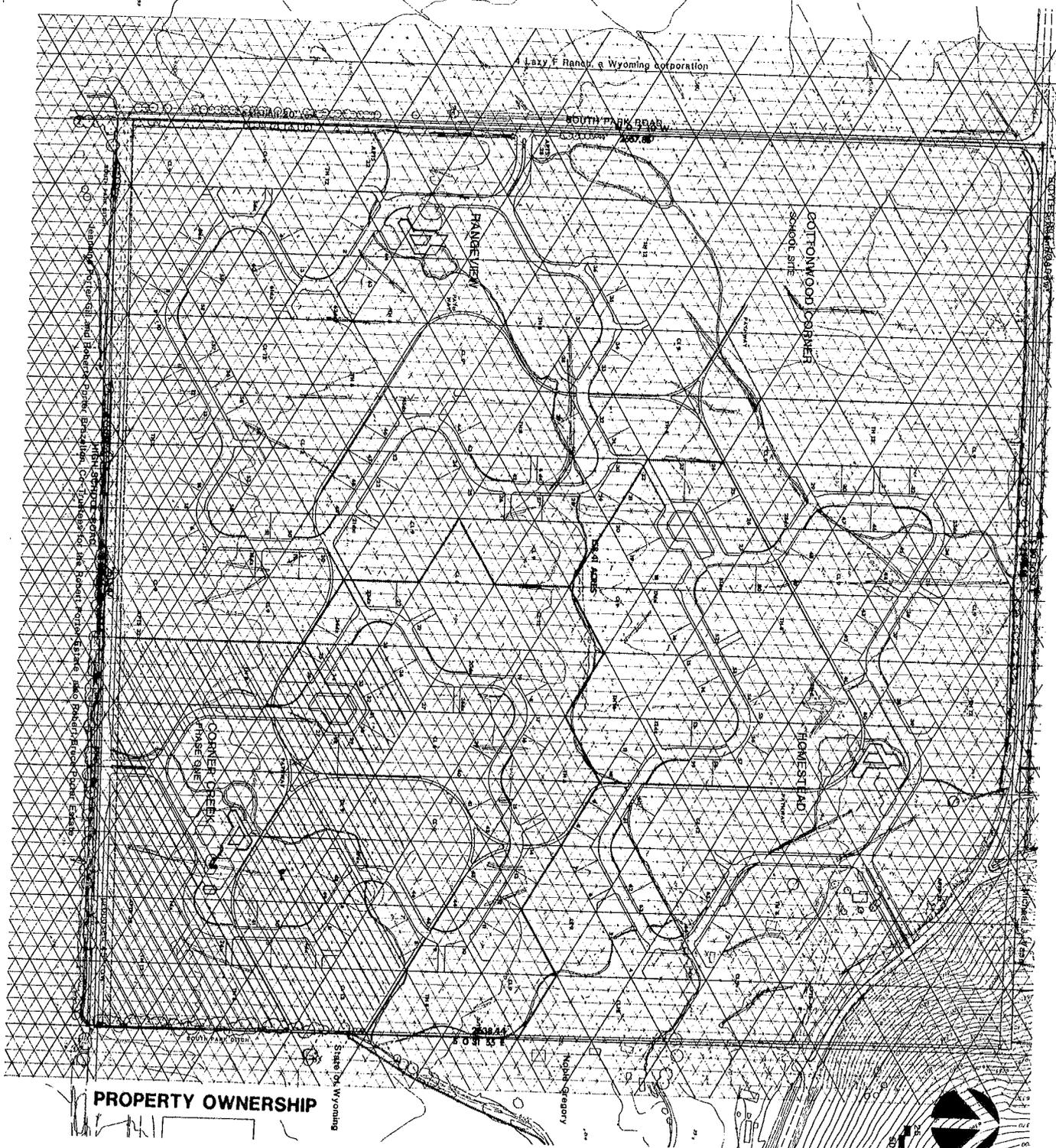
It is hoped that this report will simplify processing and approval of the project by the planning staff, Planning Commission, and County Commissioners, as well as review by the Town of Jackson. While there has been some confusion as to the existence of applicable standards for review, a thorough study of the County Comprehensive Plan reveals abundant standards which are distributed throughout the plan. In fact these collective standards exceed those of most Planned Unit Development regulations with which we are familiar. We also understand that the Town is currently drafting large neighborhood development standards, and we have offered to participate with town officials and consultants for concurrent processing and to meet their goal for orderly growth and eventual annexation.

It is however true that this is the first project to be proposed for development in the RPJ District, and the feasibility of the regulations have not been previously tested. We have, therefore, developed the project in accordance with the latest and most progressive planning concepts and engineering standards, and where these conflict with adopted regulations variances will be requested. In such cases we will clearly document the basis for the variance.

We are fully aware of the national issues and goals for affordable housing and current proposals for increasing densities and updating development standards to achieve them. The national issue is magnified in Teton County which has the historical distinction of combining the lowest wages with the highest housing costs of any county in the State. Census data for 1980 gives the median price of existing housing in Teton County as \$96,100.00, and the median family income as \$18,442.00. Current ratios of housing cost as a percentage of gross income indicate a house costing \$40,000 - 45,000 as the maximum affordable by our average resident family. While housing in this range is not attainable without subsidy, moderately priced affordable housing (defined by HUD as below the market median) is a project goal. Housing in the \$60,000 - 65,000 range would be affordable for 25% of our local market.

These problems were clear to the framers of the Comprehensive Plan and led to identification of the RPJ District as an integral element of the Plan as adopted in December, 1977. The Oliver's have ranched the property since 1964, but decided to bow to the pressures of ranching economics, the IRS, and the RPJ designation in the fall of 1981 when they retained Corbett/Associates to undertake development studies. They delayed further study while the County explored South Park development issues with the R/UDAT Team and examined planning standards with the Planning Commission and staff. When this effort was shelved in late summer, the Olivers revived their effort and established a critical path schedule to complete planning, processing, and site engineering by late spring, and initiate construction of site improvements in June, 1983.

The Olivers have clearly defined their goals to develop a model residential community that is responsive to energy and resource conservation, offers attractive affordable housing opportunities, meets the Goals and Policies of the Comprehensive Plan, and will be a source of pride and enjoyment for both its residents and neighbors in Jackson Hole.



PROPERTY OWNERSHIP



SITE DESCRIPTION

Since the RPJ District was thoroughly examined for development constraints by Livingston Associates in the comprehensive planning process of 1976, and having been found suitable for intensive use was so designated when the plan was adopted by the County in 1977, there is no need to repeat that process here.

The quarter section site is bounded on the north by Boyles Hill Road and on the west by South Park Road. A small portion of about five acres forms the toe of South Gros Ventre Butte, while the remainder of the property is distinguished by its flatness with a slight pitch (3/10%) to the southwest. The new high school is adjacent to the southeast corner.

Its agricultural history began with the original patent granted in 1903 to Charles Wilson, and the stand of mature cottonwoods on the east and south boundaries (some over 80' tall) must have been planted shortly after completion of the irrigation system. The South Park ditch is the major water system and is within the property line on the east, but traverses through the northern edge of the Porter Estate along the south boundary.

The SCS map indicates the topsoil types which overlay the gravel base and ground water in depths of three to six feet. The only adverse feature is a slight potential for moderate flooding in the northwest corner which can be easily altered with proper elevation of realigned roadways at the intersection.

The initial masterplan of the Brown-Oliver properties indicated continued use of the Boyles Hill and South Park roads with a north-south connector to eliminate the cul-de-sac problem at the High School. However, discussions with the planning staff and County Engineer indicate a preference for a new arterial route which extends the High School Road to the South Park Road as shown in Transportation Plan A. The preference is based on the feasibility of obtaining adequate right-of-way (120') to provide a median and turning lanes, the ability to limit access, and reduced construction cost for a road with sufficient capacity to serve ultimate South Park development needs. We have planned for this route by placing one double traffic lane, initially two-way, north of the southern site boundary on Oliver property in alignment with the High School Road. When future demand warrants the road capacity can be increased by constructing an additional two lanes south of the irrigation ditch, leaving the ditch and cottonwoods in an undisturbed median with one way traffic routes to the north and south. Since both the median and east-bound lanes would be on Porter Estate property, impact on the High School would be minimal.

We concur with this route selection providing that the High School Road is realigned as shown on Plan A to form an extension of a new arterial connector to downtown. We also believe the west end of the road should curve southward as it joins the South Park Road, and the intersection of South Park Road to the north should be restructured to improve traffic flow and clearly express its arterial function.

Contact has been made with all utilities that will service the site, and trunk, distribution, and collection systems are discussed later in the Report.

We concur that the site is uniquely suited for development as Town expansion area. It is well screened from highway corridors, is adjacent to a major public facility, is readily serviced and accessed, and has no significant natural constraints.

Description of Blair Place

for

MASTER PLAN

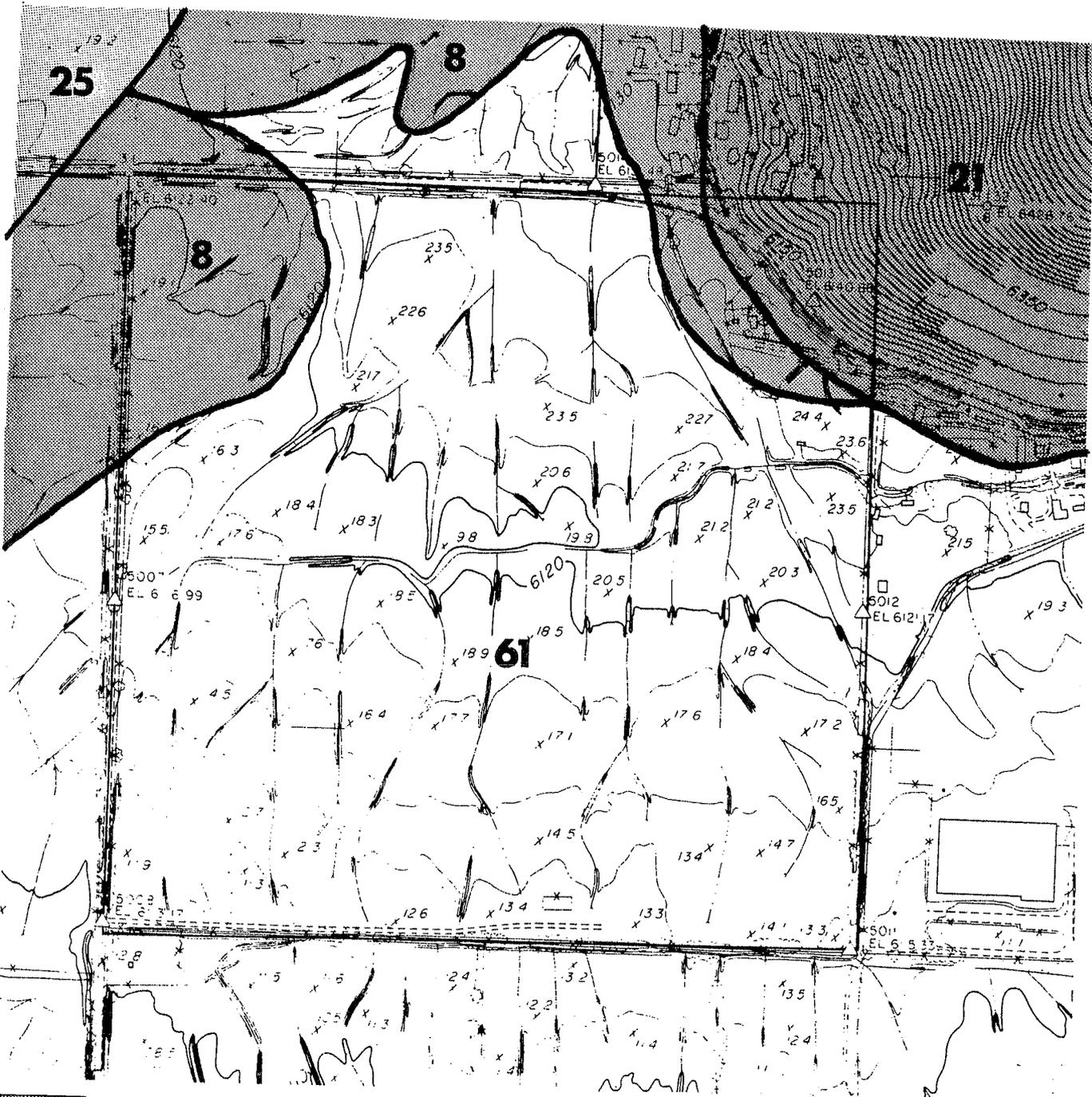
To-wit:--

All of Lots 3, 4 and 5 and the SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 6, T40N, R116W, 6th P.M., Teton County, Wyoming as conveyed to 4 Lazy F Ranch, a Wyoming corporation in a deed of record in the Office of the Clerk of Teton County in Book 107 of Photo on page 262;

This description reflects ownership of record and may not reflect actual conditions of occupation on the ground.

Scott R. Pierson
Wyoming Registered Land Surveyor No. 3831

February 4, 1983



21	GROBUTTE
61	TINEMAN
8	CHARLOS VARIANT
25	LEAVITT VARIANT

SOILS SURVEY



DATE: 7 FEBRUARY 1983

OWNERS: HENRY OLIVER III & CHARLES OLIVER II

PLANNERS: CORBETT/ASSOCIATES

BOX 1029 86 EAST BIRDAWAY JACKSON WYOMING 83001 307 733-3170

TETON COUNTY, WYOMING

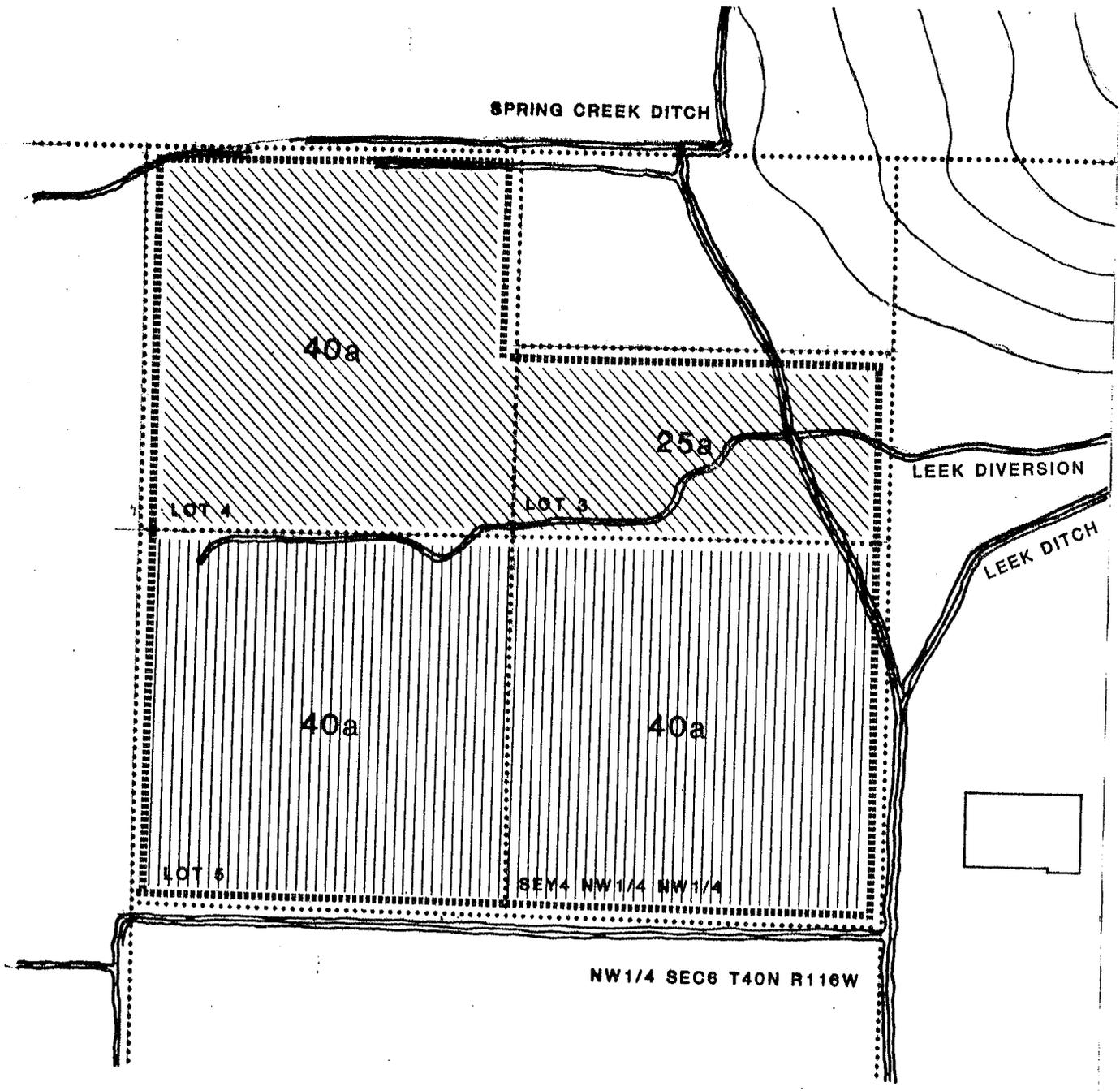
WATER RIGHTS

There are presently adjudicated water rights on 145 acres of the property. The source of this water is Flat Creek and the Gros Ventre River and is conveyed to the land by means of the Leeks Ditch and Spring Creek Ditch.

State Statute 18-5-306 requires the developer to abandon the irrigation rights, transfer them to other lands in his ownership which do not have water rights, or distribute the water rights among the subdivided land. We propose investigating the feasibility of retaining water rights in the community association, or converting them to other types of rights, for continued irrigation use. Our goal is reduced demand on the Town water storage and distribution system as well as lower operating costs and adequate maintenance of landscape improvements for the community association.

The proposed development calls for the impoundment of small bodies of water, less than 20 acre-feet, in conjunction with the open space and park lands. As a matter of procedure, the appropriate permits must be obtained from the State Engineer's Office. Consent must also be obtained from the downstream appropriators. The impoundments will not affect the present flow of irrigation water.

Irrigation ditches and the areas of the site which they service are indicated on the Water Rights Diagram.



-  ORIGINAL SUPPLY #1811 FLAT CREEK 4-1-98
LEEK DITCH
-  ORIGINAL SUPPLY #730 65A FLAT CREEK 5-28-94
SPRING CREEK DITCH
-  SUPPLEMENTAL SUPPLY #4800E FLAT CREEK 1-22-92

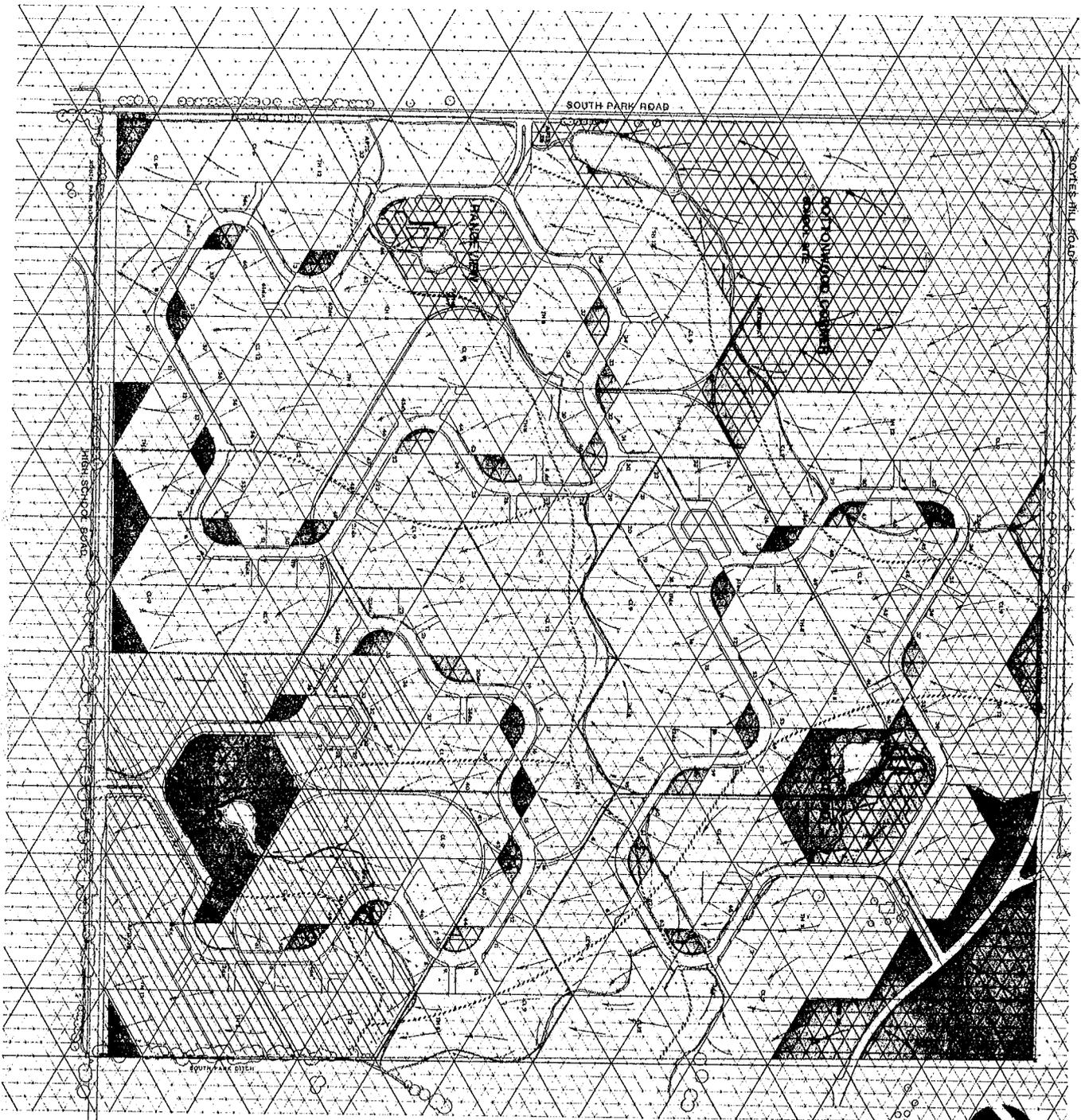
WATER RIGHTS



WATER RETENTION & DRAINAGE

The site slopes gently to the southwest at gradients of 0.30 to 0.50%. Since the site has an historic agricultural useage and optimum water retention, we have developed special features to minimize the impact from development on downstream agricultural neighbors. Natural ground covers will constitute 57.5% of the site (see Impervious Surface Table). The Water Retention & Drainage Diagram indicates drainage basins, flow directions, swales, and retention features.

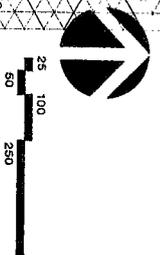
- Retention features include depressed grades at landscape nodes, distributed throughout the site at park areas and along the southern boundary where arterial construction will retain run-off. Roads and private driveways will utilize curbs only where they are essential to control traffic and water run-off. We plan the majority of paved areas to be curb free to return as much water as possible to the ground water system and avoid point-source pollution of creek channels.



WATER RETENTION & DRAINAGE DIAGRAM

LEGEND

-  Direction of Surface Flow
-  Drainage Basin Boundary
-  Ponds and Creeks
-  Water (Snow) Retention Areas



DATE 7 FEBRUARY 1983

OWNERS HENRY OLIVER III & CHARLES OLIVER II

PLANNERS CORBETT/ASSOCIATES
BOX 1218 86 EAST BROADWAY JACKSON WYOMING 83001 327 733-3170

TETON COUNTY, WY



OLIVER/BROWN CONCEPT

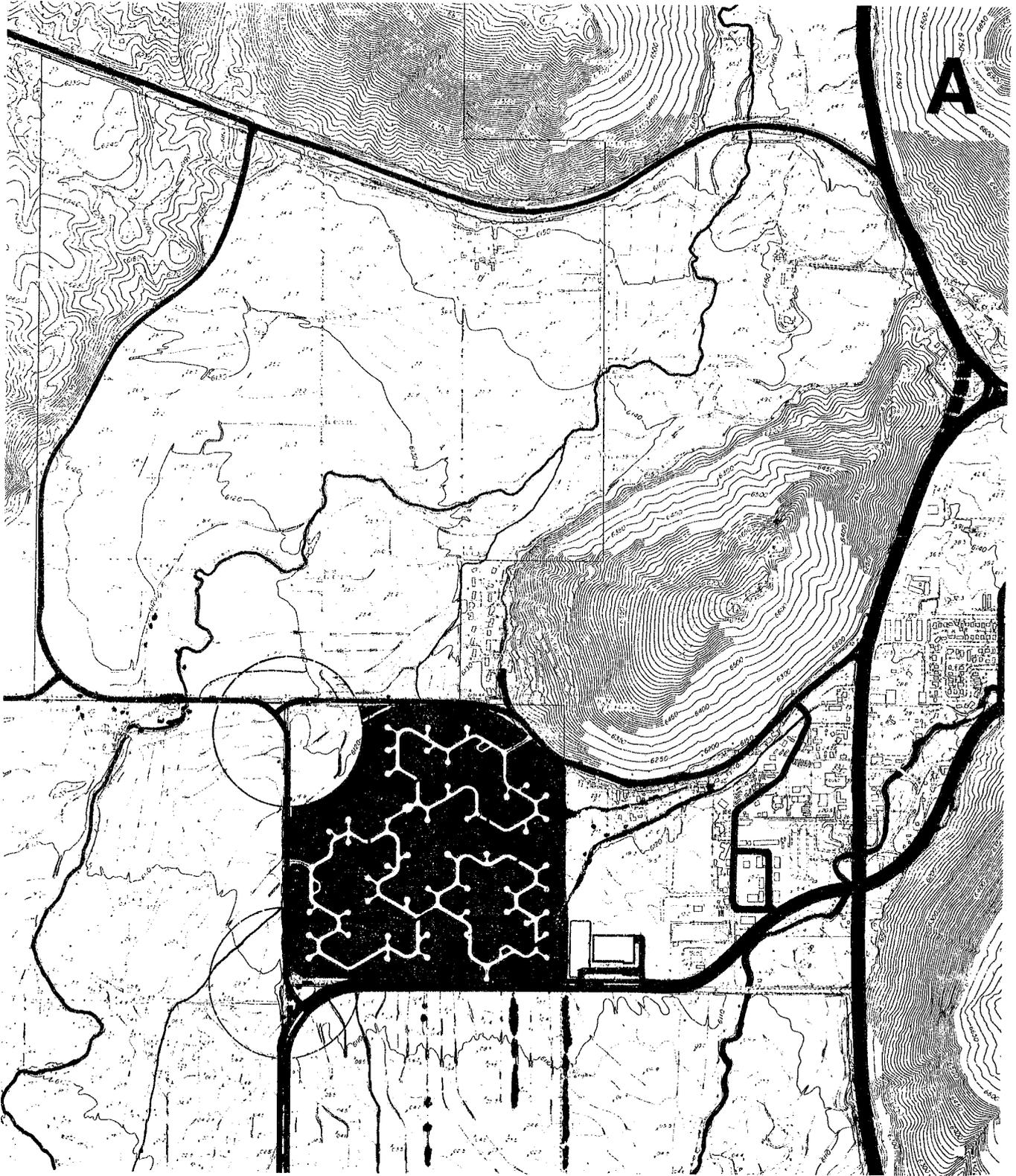


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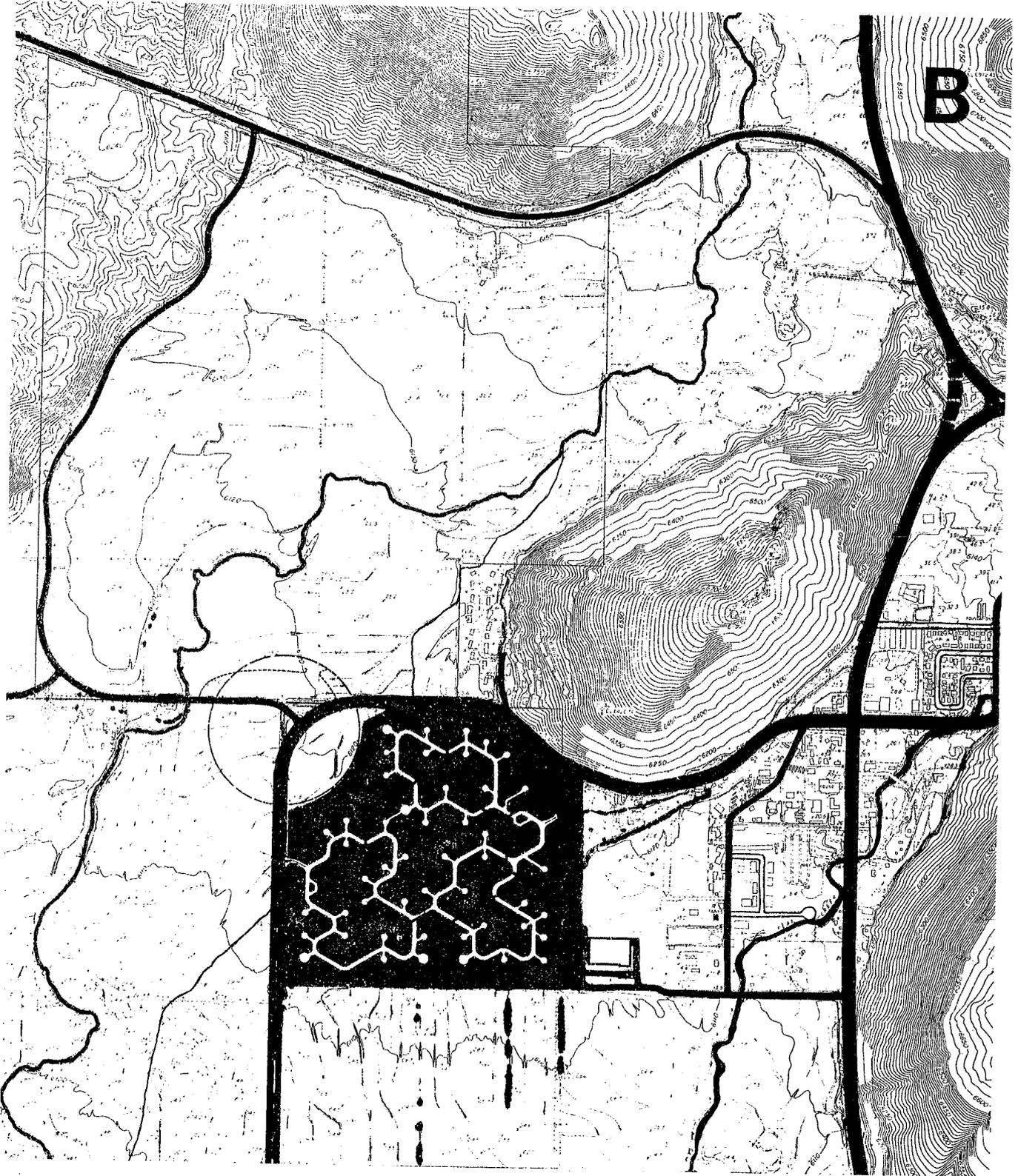
OWNERS HENRY OLIVER III & CHARLES OLIVER II

PLANNERS CORBETT ASSOCIATES
809 1019 N. EAST BROADWAY JACKSON WY 83301

TETON COUNTY WYOMING



TRANSPORTATION PLAN A



TRANSPORTATION PLAN B

DEVELOPMENT CONCEPT

The planning concept organizes the site into three residential neighborhoods and a mixed-use village center. Each neighborhood, or CORNER, contains a variety of housing types, a small park, and neighborhood common facilities. Corners average about forty acres and 270 dwelling units, and have a density of approximately 6-1/2 units/acre.

A twenty acre segment of CORNER CREEK, the neighborhood in the southeast corner of the site, has been selected for initial development and is presented in detail in the Phase One Master Plan. While this phase contains 146 dwelling units, initial construction of as few as 40 - 50 units would serve to define its park and create a pleasant neighborhood environment.

Let's take a short drive out to Corner Creek to see what the concept is all about. (Our route is indicated on the Phase One Master Plan).

We approach CORNER CREEK westerly down a cottonwood edged drive past the new high school. Our eyes are drawn to irregular higher structures beyond, but their bases are obscured by low shed-like buildings which might well house stock or farm machinery. Suddenly there is a break in the sheds, and the road curves to the right paralleling the spiral formed by the linkage of the sheds and taller structures, and we find ourselves focused on an entrance opening. Signs on sheds on either side announce, 'Corner Creek'. Directly ahead is an appealing vista into a grassy tree-edged park and light sparkles as it reflects from a pond in the foreground. As we continue we notice a small cluster of buildings to our right with flags rippling above and a bright yellow school

bus in front. We turn toward the buildings and bus, which has now emptied, and we notice a sign to the right, CORNER CREEK STORE. We wonder if there is just one store, or several, judging by the complexity of the form.

To our right we see yet another sign, CORNER CREEK HOUSES. And we examine more closely the structures which we first saw in the distance although we are now on their opposite side, and assume them to be apartments, though they vary in height and some are just one story.

We continue around a landscaped curve and find ourselves on an attractive residential street, but are pleasantly surprised by the irregular placement of houses and immediately prefer it to the regimented housing rows which are so commonplace and dull. To our right attractive wood signs, at what appear to be driveway entries, carry small directories below larger letters above. As we approach the first sign we read 'Spruce Branch', and assume it to be some sort of minor lane, for an appealing group of houses is tightly clustered at its end. As we proceed down the street we decide to explore the next such drive and so turn left at one marked 'Curleaf Cluster' which sports a similar directory containing a half dozen names. The short drive terminates in a pleasant landscaped court and a center island which contains a small sloped sided form which we decide is worthy of closer inspection. We get out to have a look. Heading to its southern side, a glazed face appears and we know at once it is some sort of solar device, but are puzzled by its isolation.

Sidewalks ahead obviously lead to individual housing units, but we notice one that continues between them with no apparent destination. We submit to the urge to follow it between the houses. It soon intersects a larger path.

Low signs, which apparently also serve as lights, are marked, 'Corner Creek Store', to the left, and 'High School', to the right. Since our original approach route took us by the high school, we elect for the left and muse about the name. Corner Creek? Corner Store? How many? We are passed by a group of small children on bikes who seem to need the whole pathway width to keep upright and are too preoccupied to stop and explain.

Ahead is the park again with a larger pond encircled by paths and two youngsters are Huck Finning a small rubber raft near its edge. Across the pond is the cluster of stores, broken by a large deck busy with people. As the path curves along the pond's edge we are passed by more bikers and ahead is a bike rack and more activity. As we pass the rack, an entrance framed by a balcony above appears between the buildings and we soon find ourselves in a small plaza within the cluster. We decide to take advantage of a handy bench and pause before exploring the activities within.

As we enter the Corner Store we are greeted by a friendly group clustered about a small wood stove and enjoying coffee. At the counter beyond, a pleasant older woman looks up and acknowledges our presence. As we approach the counter we notice an alcove to our left which is racked with mail boxes, so this must be a post office as well. The woman greets us enthusiastically and offers to answer any questions while handing us an information brochure. We feel welcome and intrigued by the neighborly atmosphere of this place and return to our sunlit bench to see what the brochure has to say.

The brochure shows a detailed plan of Corner Creek which clearly presents the simple concept.

The short divided entrance road forms the stem of an undulating loop road which is the primary circulation, and together with a sprinkling of residential courts called Nests, are the only public roads in the neighborhood. The loop road is fronted with single family, and occasionally duplex housing on larger lots. Apartment structures frame the opening at the entrance stem and are arranged to overlook the focal park. The park contains the Corner Store and related neighborhood facilities including enclosed solid waste collection, central mail distribution and collection, bus stop, all-purpose community room, manager's apartment and offices. These facilities will be owned and operated by the Corner Creek Community Association.

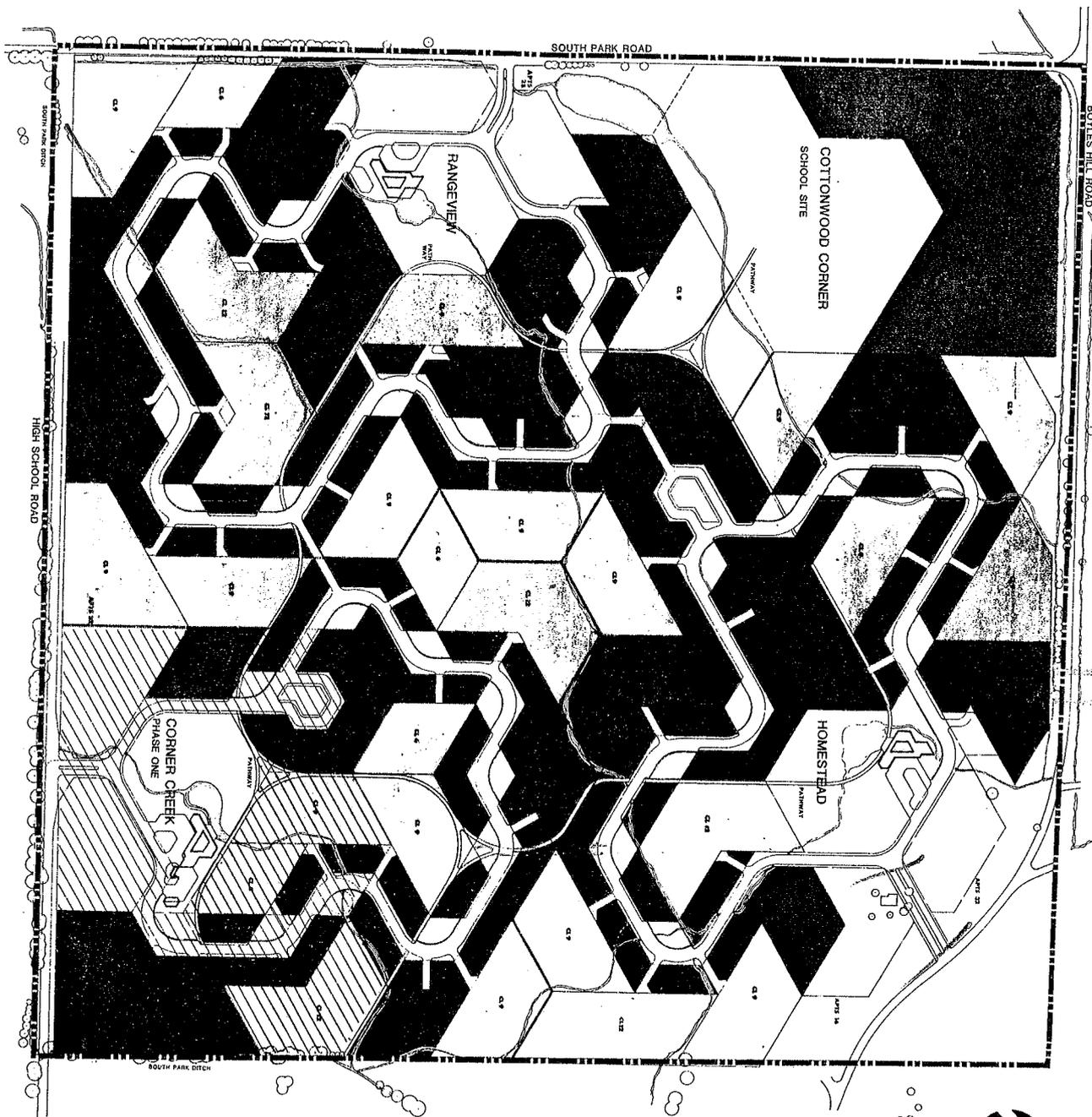
Short private driveways lead from the loop road to small groups of multi-family housing. These are of two types: one and two story townhouses (Branches) with attached garages and individual driveways; and one story townhouses (Clusters) placed around central motor courts with grouped garages. Both types have outdoor living decks and the option to fence small private yard areas. The plan permits the free substitution of townhouse types and residential courts in response to market preference. To provide a balanced residential community and respond to a strong market for single person households, apartments offer a high percentage of studio and one bedroom units.

In addition to public roads and private driveways there are two other important circulation systems. A primary pathway network interconnects neighborhood centers and leads to the village center, Cottonwood Corner, in the northwest corner of the site and the High School at the southeast corner of the site.

Secondary pathways connect housing groups to the primary system, but only occasionally in the conventional street adjacency. Minor private walks link parking areas with dwellings to complete the system. Standards for surfacing, lighting, and signing pathways are given elsewhere in the report. The second circulation system is a creek network which responds to the water resource of the site. Rights will be converted to permit withdrawal from the irrigation ditches and impoundment to supply the creeks and small ponds which they feed.

Cottonwood Park is planned to satisfy our local need for affordable housing. While the plan incorporates a high percentage (80%) of multi-family housing, the variety, discrete placement, and minimal aggregations of these units all work to reduce their visual impact. On the other hand the placement of single family housing along the internal road loops reflects its importance in the neighborhood and makes it appear the dominant housing type.

Every effort has been expended to meet the Oliver's goals for a model development that is responsive to energy and resource conservation, offers attractive affordable housing opportunities, meets the Goals and Policies of the Comprehensive Plan, and will be a source of pride and enjoyment for both its residents and neighbors in Jackson Hole.

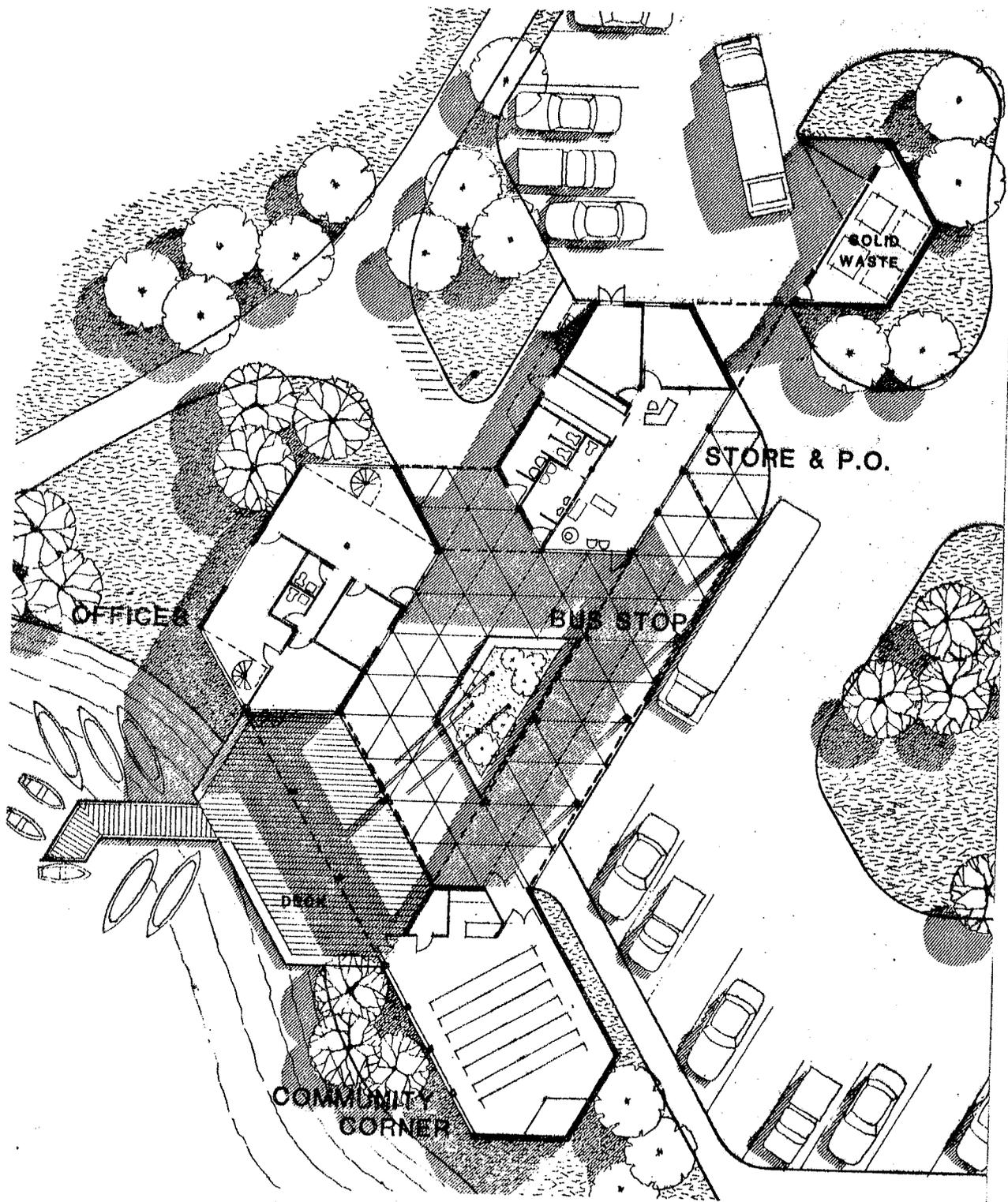


MASTER PLAN

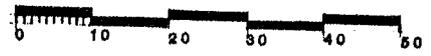
LEGEND

- | | | | |
|--|------------------------|--|-------------------------|
| | Apartments | | Parks/Public Facilities |
| | Townhouses | | Landscape Nodes |
| | Cluster Housing | | Existing Cottonwoods |
| | Duplex | | Property Lines |
| | Single Family | | Boundary |
| | Convenience Commercial | | |





CORNER STORE



LAND USE TABLE

1. SITE AREA			
	Gross Site Area	158.41 ac	
	(1) Less Butte & Peripheral ROW'S	<u>9.80</u>	
		148.61	
2. DEVELOPMENT			
	(2) Residential		
	N.H. One (CORNER CREEK)	31.90	
	N.H. Two (RANGEVIEW)	45.44	
	N.H. Three (HOMESTEAD)	<u>38.28</u>	
	Total Residential	115.62	77.80% (6)
	(3) Convenience Commercial (C-L)	9.73	6.54
3. OPEN SPACE/PUBLIC			
	Parks/Landscape Nodes		
	N.H. One (CORNER CREEK)	3.878	
	N.H. Two (RANGEVIEW)	4.060	
	N.H. Three (HOMESTEAD)	<u>3.878</u>	
	(4) Public Facility Sites	11.816	7.95
	(5) Peripheral Open Space	7.811	5.26
	Total Open Space	<u>3.633</u>	<u>2.45</u>
		23.26	15.66
	TOTAL LAND USE	148.61 ac	100.00%

NOTE: The beneficial open space could be assumed as the total of public facility sites and parks and landscape nodes, or 19.627 acres. The Cottonwood Park population is projected to be 1780. A common standard for open space is 5 acres/1,000 population. This standard would yield a required open space of 8.90 acres. This is more than met by the area of parks and landscape nodes which total 11.816 acres.

FOOTNOTES

- (1) Toe of South Gros Ventre Butte (NE property corner) could be readily counted in open space but is not.
- (2) Acreages are gross including streets, but do not include parks and landscape nodes.
- (3) Cottonwood Corner (17.54 ac) is planned for an elementary school, other public and recreational facilities, commercial, and high density housing. It is divided in this table into two elements: elementary school 7.811 ac + commercial 9.73 = 17.54 ac.
- (4) See note (3).
- (5) Peripheral open space within site, chiefly at NE corner and N.H. entrances.
- (6) All percentages are based on the net site area.
- (7) Surface water drainage and stormwater retention are discussed in a separate section.

DENSITY TABLE

1. NET SITE AREA 148.61 ac —

2. RESIDENTIAL DEVELOPMENT

TYPE	PHASE I		%	NET DEN	DWELLING UNITS / NET DENSITIES						TOTALS	%	NET DEN
	DU	AC			NH (1)		NH (2)		NH (3)				
					DU	AC	DU	AC	DU	AC			
SF	17	3.21	11.64	5.30	43	7.04	56	9.37	59	9.35	158	25.76	6.13
DX	10	1.05	6.84	9.52	16	1.74	16	5.06	12	1.37	44	8.17	5.39
CL	27	4.13	18.50	6.54	69	10.56	93	15.16	87	13.55	249	39.27	6.34
TH	28	3.68	19.12	7.60	44	5.51	72	8.73	64	7.24	180	21.48	8.38
- AP	64	3.33	43.84	19.21	64	3.42	60	2.79	48	3.13	172	9.34	18.42
	146	15.40	99.94	9.48	236	28.27	297	41.11	270	34.64	803	104.02	8.93
											(1)	(2)	(3)

(1) Total dwelling units

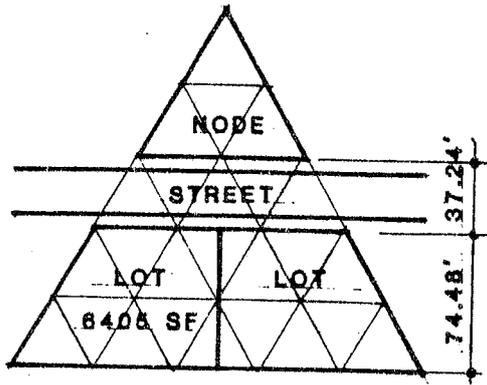
(2) Net residential acreage excluding roads and open space

(3) Average net residential density

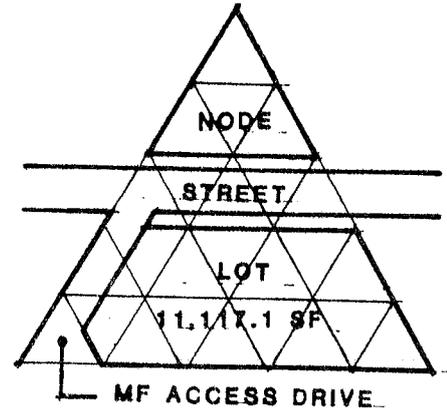
(4) NH (1) CORNER CREEK

NH (2) RANGEVIEW

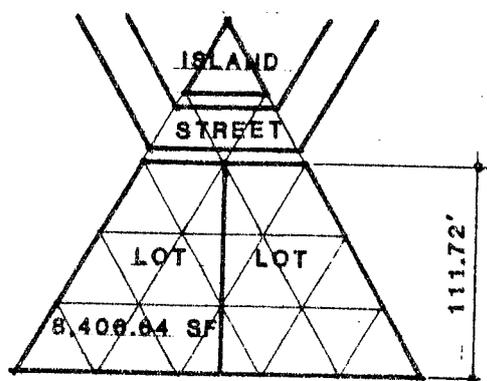
NH (3) HOMESTEAD



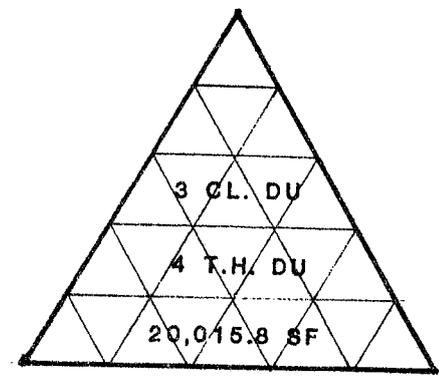
SINGLE FAMILY LOTS ON LOOP ROAD



DUPLEX LOT

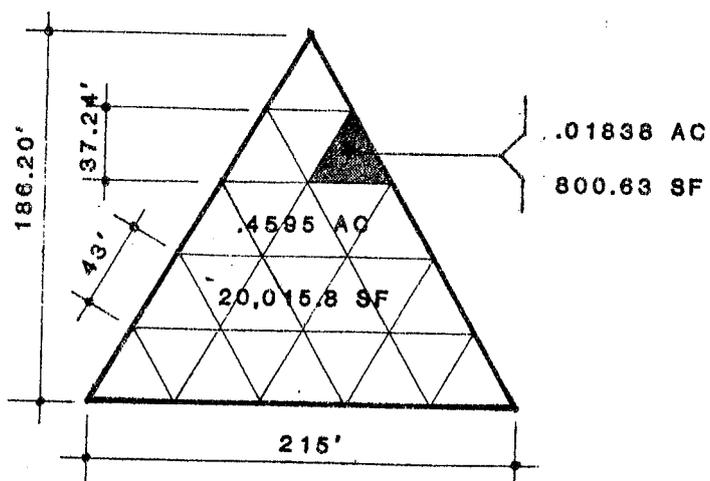


SINGLE FAMILY LOTS ON COURT



MULTI-FAMILY LOTS

TYPICAL LOT AREAS



GEOMETRY

SITE GEOMETRY



DWELLING UNITS / GROSS DENSITIES

	TOTAL DU	TOTAL AC(1)	DENSITY
PHASE I	146	20.12	7.26
N.H. (1)	236	31.90	7.40
N.H. (2)	297	45.44	6.54
N.H. (3)	270	38.28	7.05
TOTALS	803	115.62	7.0 (1)

(1) Average residential density including roads, but not including parks and open space = 7 du/ac.

(2) N.H. (1) CORNER CREEK N.H. (2) RANGEVIEW N.H. (3) HOMESTEAD

DENSITY COMPARISON WITH TOWN

With the assistance of the Town planning staff we have analyzed the Town densities which should provide a helpful comparative basis for review.

The Town Land Use Map indicates that there are 341.70 acres of developed residential land, and, including permits through June, 1982, there are 2,199 dwelling units. This yields an actual net density of 6.435 dwelling units/acre. Figures for gross density are not available, but would be significantly less because of the small blocks prevalent in the older portions of town.

The Town population in the 1980 census was 4,504 and the total number of dwelling units was 2,074. This yields an average family unit of 2.17 persons per household. This number would seem a more appropriate multiplier than the County equivalent as there are fewer second homes within the Town.

Cottonwood Park projects a total 803 dwelling units, which would yield a population of 1767 if a multiplier of 2.20 is used as a basis.

TOWN DENSITIES BY ZONING DISTRICT

DISTRICT	DU/AC	NOTE:
LR-1	2	Densities are based on a standard Town block
SR-1	2.5	400' x 320' composed of
MR-2	7.97	(16) 50' x 150' lots and
MR-4	15.95	a 20' alley.

IMPERVIOUS SURFACES

IMPERVIOUS SURFACE TABLE IN ACRES

SURFACE	PHASE I	NH (1)	NH (2)	NH (3)	COTT. COR	TOTALS
ROADS	1.44	2.66	3.09	3.04		8.79
(2) DRIVEWAYS	3.07	4.73	6.14	5.63	(3)	16.50
(3) BUILDINGS	3.55	7.22	9.54	8.86		25.62
(4) PATHWAYS	.44	.71	.33	.33		1.37
MISC.	.20	.77	.92	.73		2.42
TOTAL IMPV.	8.70	16.09	20.02	18.59	8.34	63.04
TOTAL N.H.	20.68	35.78	49.49	42.15	17.54	148.61 (1)
% IMPV.	42	45	40.5	44.10	47.5	42.42 (2)

(1) Net site area within peripheral rights-of-way and east property line. Includes 3.633 acres of peripheral open space (Land Use Table) not otherwise reflected in areas in Table.

(2) About three acres of open space at toe of South Gros Ventre Butte is not included in calculations, but would reduce impervious percentage by another percentage point if included.

(2a) Increased parking standards can be expected to create difficulty in meeting the 40% impervious standard for the RPJ.

(3) Cottonwood Corner has not been planned in detail at this time. For the purpose of this exercise, we have used the following program.

Public Facility (School) Site	7.810 ac
assume: Building 60,000 sf	
60 car pkg. 27,000	
= 1.99 ac. impv; use	2.50
Open Space	<u>5.31</u>
Convenience Commercial Site (C-L)	9.73 ac
max. impv. (60%)	5.84
required open space	<u>3.89</u>
Total Impervious	8.34
Total Open Space	9.20
Total Cottonwood Corner	<u>17.54 ac</u>

SCHOOLS

The effect of Cottonwood Park on the Teton County School District has been carefully studied, and three areas of concern identified: overall impact on the system through increased enrollments; the immediate relationships with the High School Site, increased traffic, and the possible need to modify access and parking systems; and provision for new sites for future schools required by long-range growth. We will address each of these issues.

It is commonly assumed that new housing development produces a direct multiplier resulting in increased school enrollment. This is true only in proportion to community growth, for affordable housing development in the local market responds instead to existing community employment opportunities. Our goal is to improve affordable housing opportunities in the local market rather than induce population growth.

However, school enrollment and population data for 1980 produces the following projections, which may be interpreted in a variety of ways.

households in county	4,225
total district enrollment	1,717
total pupil generation factor	0.40
projected du, Cottonwood Park	803
projected pupils, Cottonwood Park	321
elementary (K-6) enrollment	953
elementary generation factor	.226
projected elementary pupils, Cottonwood Park	181
total projected RPJ du	2,200
projected elementary pupils, RPJ year 2000 and ?	200

The enclosed letter from Thomas F. Cusack, Superintendent of Schools, expresses the District's concern for possible adverse effects development of Cottonwood Park and the High School Road arterial might have on the High School site. We

have responded to these concerns by preparing a site plan which indicates both existing and modified conditions. First stage road development would use the existing drive south of the existing island. This would be the northernmost intrusion on the site, and future arterial improvements would be located south of the cottonwoods on Porter Estate property. The cottonwoods would be retained in a median strip between dual traffic lanes. The site plan does show the addition of turning lanes and recommends that the eastern access become one-way-in while the western access would be two-way. Perhaps not of immediate concern to the District is the future improvement of circulation patterns as expressed on Transportation Plan A and the elimination of cul-de-sac congestion. Student safety is an important concern both on and off site.

Finally, the projections indicate the long range need for elementary and perhaps secondary schools in the RPJ area. The possible connector to Highway 22 shown in the Original Concept Plan would offer flexibility in enrollment districting. While the District has given some consideration to building an elementary school on the High School site, it seems preferable to us to locate the school closer to the center of gravity of the RPJ, and preserve the High School site for other uses. If the Cottonwood Park pathway system is extended throughout the RPJ, an elementary site, as indicated on the Master Plan (1" = 100'), in Cottonwood Corner would provide pedestrian access for all students without busing.

Thomas F. Cusack, Superintendent
David L. Dagley, Assistant Superintendent
Teton County School District No. 1
Post Office Box 568
Jackson, Wyoming 83001
(307) 733-2704

January 26, 1983

Corbett Associates Architects
and Planners
Box 1009
Jackson, WY 83001
ATTN: Bob Corbett

Dear Bob:

In recent weeks, we have discussed the potential development of the South Park area and the potential roadway development that would effect the High School property site specifically in the areas of road development, parking, and entrances and exits. In order for the school district to adequately evaluate the effect of a four lane, tree divided roadway, half of which would be on the existing south edge of the school property, I need to have the following information:

1. An accurate delineation of exactly how close to the school the road would protrude onto the school property. I would recommend that the area be staked so that we can have a visual concept of exactly where the roadway would be.
2. An additional marking of where the roadway ditching and/or shoulder or potential curb, gutter and sidewalk would be located in proximity to the school building. This should include any consideration within the north side of the right-of-way for sewerage piping, utilities, or water lines that might necessarily need to have easement through the school property via this right-of-way to the property development west of the High School site.
3. We need an accurate assessment of how much parking space would be lost to the High School in the roadway/right-of-way process.
4. We need plans developed showing how the entrance and exit to the High School Area would be designed, including the ability of school busses to enter and exit from the school site in both an easterly and westerly direction on a four lane, divided roadway.

We need, through the marking of the roadway and right-of-way to be able to determine the effect of this change on current school property including the new sprinkling system, playfield area,

RECEIVED

JAN 31 1983

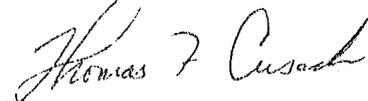
CORBETT ASSOCIATES

and existing school sanitary waste line that are currently in place on the southeast edge of the school site. We will need this information to determine the cost impact to the district should we choose to approve the roadway on the current school site.

6. We would also need to know the compensation that would be offered by the county and/or the developer to compensate for the parking lot loss, and the other modifications that might be necessary as enumerated in item number five as a result of the school district's agreeing to participate in this project.

The Teton County School District is anxious to work cooperatively with the county and with local developers in the planning phases for the development of the South Park area and specifically the sites adjacent to our current High School. With the information requested above, I feel that we can evaluate the effect that a major roadway immediately adjacent to, and partially incorporated on, the current school site would have on the operation of our High School. Depending on the timeline with which you would like to work through this proposed roadway plan, I would recommend that you respond to the above request by March 1, 1983. If further clarification of our needs, or further information that you feel would be helpful to us in a decision making process is available, please contact us at your convenience. Within this timeline, the Board of Education could conceivably address this issue at its regular meeting on March 10, 1983. I presume that this time frame would be in keeping with your proposal timelines.

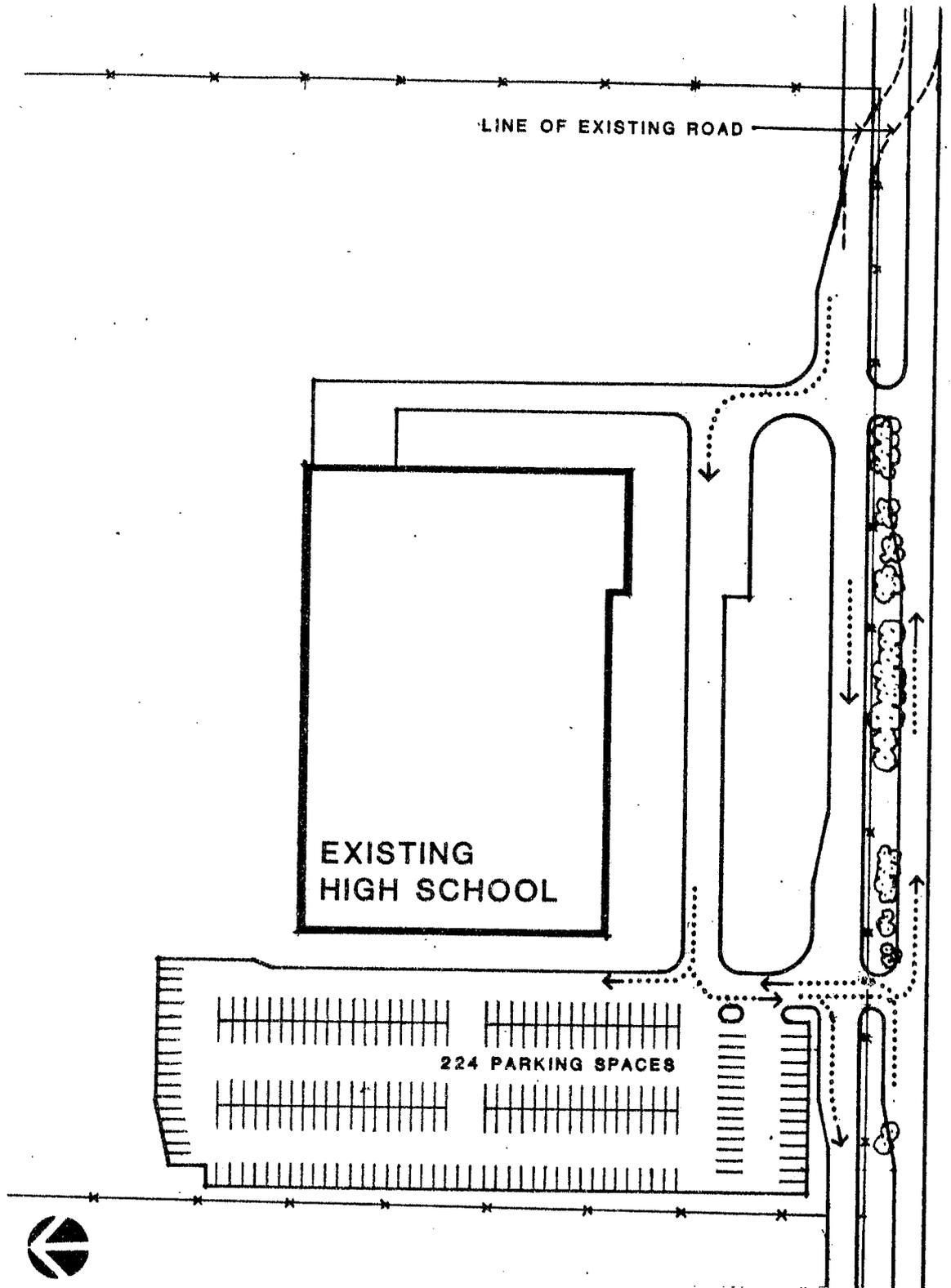
Sincerely,



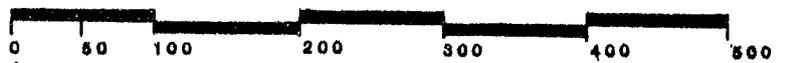
Thomas F. Cusack
Superintendent

TFC/jem

cc: Jorgensen Engineering, Pete Jorgensen



HIGH SCHOOL SITE DEVELOPMENT



DATE 7 FEBRUARY 1983

OWNERS HENRY OLIVER III & CHARLES OLIVER II

PLANNERS CORBETT/ASSOCIATES

803 1008 86 EAST BROADWAY JACKSON WYOMING 83001 / 307-733-3170

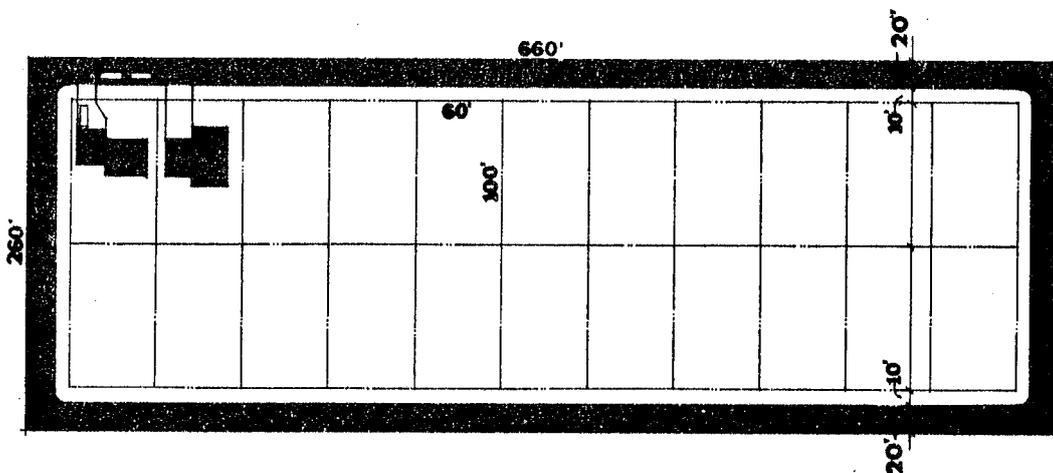
TETON COUNTY, WYOMIN'

PUBLIC ROADS & PRIVATE DRIVES

Arterial routes bound the site on the north and west, and a new route is proposed along the south. These routes and our Transportation Plans are presented in the Site Description section. This section will be limited to a discussion of internal site circulation.

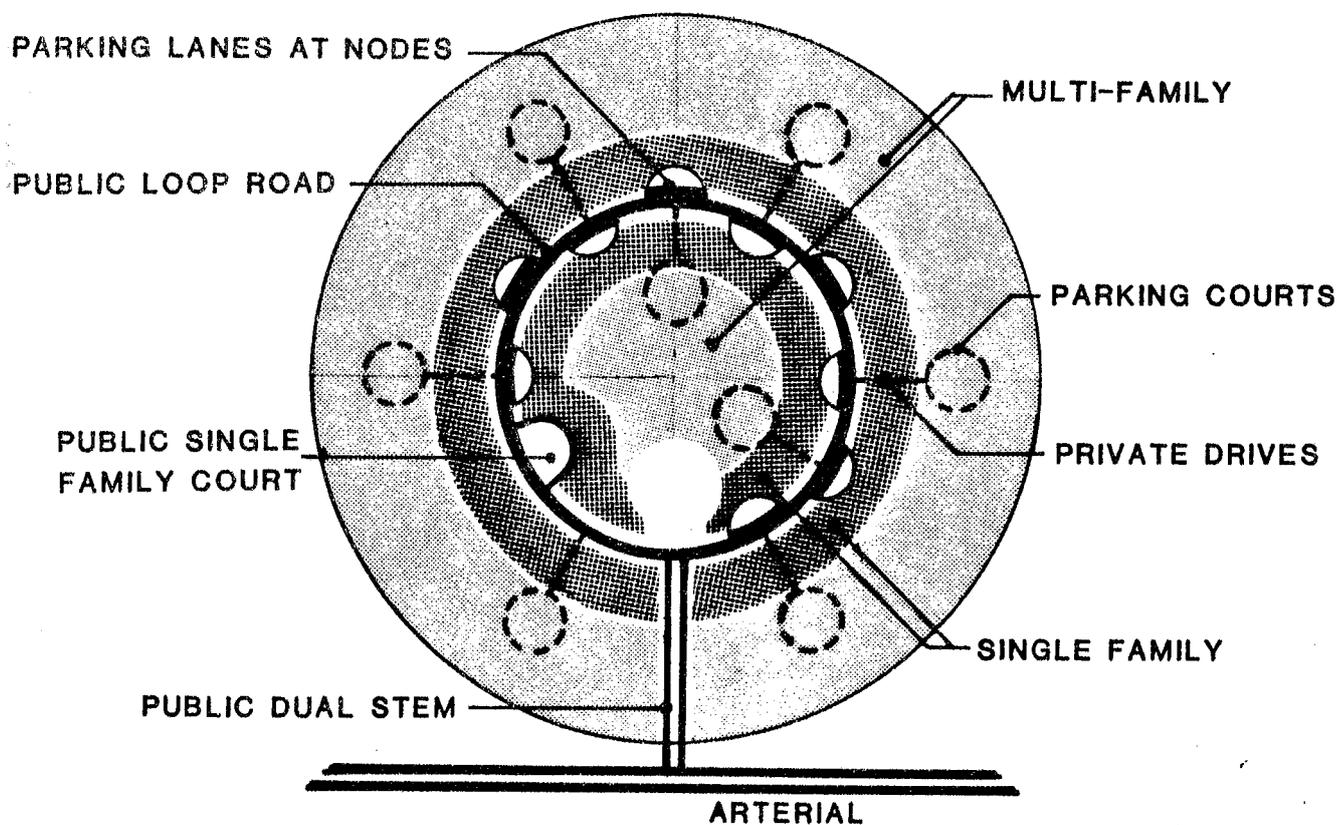
If we are to achieve our goals for affordable housing, we must take positive actions or we pay them only lip service. We have thoroughly studied both conventional and alternative road systems in a search for increased efficiency and reduced improvement and maintenance costs. And improved safety. One generally thinks of roads as exclusively 'public'. But upon reflection, there is general use of private drives, driveways, and car storage areas. This differentiation is an important one.

We first examined conventional development systems. The diagram below shows a typical arrangement for affordable housing. For more expensive housing it is generally distorted with curves. It is justified and accepted because of its inherent simplicity and presumed efficiency.



CONVENTIONAL DEVELOPMENT SYSTEM

The roadway system which we have developed for Cottonwood Park is also a simple one. Basically there is a looped public road accessed by a divided stem. There are also a few public residential courts, which are not cul-de-sacs as they have two entrances and are far wider and easier to turn within (150' diam.). Single family is the only housing accessed directly from public streets. All multi-family housing is reached by private driveways, and all parking is in private areas. This produces a significant decrease in the length of public streets required for a given number of dwelling units. In this scheme public streets are, in effect, double-loaded twice. They are double-loaded with single family housing on each side, and then double loaded again with multi-family housing to the rear of the single family housing. The system is diagrammed below.



PUBLIC ROADS & PRIVATE DRIVES

The two systems may be compared as follows:

COMPARISON OF PUBLIC /
PRIVATE ROADWAY SYSTEMS

	conventional system	cottonwood park (av. of 3 N.H.)
typical lot	6,000 sf	6,405 sf (1)
total lots	20	268
total area	3.94 ac	127.42 ac
density (du/ac)	5.08	6.30
total public road area (C/L for conventional)	35,200 sf	127,631 sf
public road area/du	1,760 sf	476.35 sf
length of public road	1,660 ft	4,763.33
length of public road/du	41.5 lin.ft	17.77 lin.ft
no. public (on-street) parking stalls/du	2.8	0.26 (1)
no. private (off-street) parking stalls	2.0	4.00 (2)
private (off-street) parking area/du	400 sf	895.06 sf
total pavement area/du	2,160 sf	1,371.40 sf
cy snow 3 ft deep to plow & store/du	196 cy	52.92 cy

(1) guest parking at landscape nodes

(2) given for single family, others vary - see parking

Whenever reduced road widths or parking standards are proposed, three questions are invariably raised. Where will we put the snow? Where will people park when someone has a party? How will the fire and garbage trucks get around?

As the table above shows, the proposed public road system for Cottonwood Park would dramatically reduce the amount of snow to plow and store by two thirds. The merits of the Town Ordinance prohibiting over-night on-street parking during the plowing season has led us to the reasonable conclusion that what works at night in winter ought to work in the day and summer as well.

On-street guest parking is permitted only in parking lanes at landscape nodes in each neighborhood. The lanes are distributed throughout the neighborhoods so that there is never more than one intervening lot to pass from a lane to any home and they are conveniently close to multi-family access drives. Cottonwood Park

welcomes parties. In a switch on conventional parking controls we would suggest that there would be no need for 'No Parking' signs but that permitted guest parking lanes be designated, 'Parking Lane'. To clarify our proposal: there would be no on-street parking except in designated parking lanes located at the landscape nodes. Neighborhoods average ten lanes with seven cars per lane.

All solid waste collection would occur at a central shelter which is an integral element of the Corner Store in each neighborhood. We have conferred with Pete Peters who is enthusiastic about the concept and reports that it is functioning well at the Rafter J. He has also checked our turning radii.

Fire trucks would pass the lighted sign and resident directory of every multi-family group while making a single revolution of the loop road in each neighborhood. We are exploring the possibility of installing a 'fire signal light' in the entrance signs to direct equipment to the proper drive and prevent mistaken driveway entry and the confusion it might cause.

ROAD STANDARDS

1. Public Roads
 - a. Neighborhood Loop
24' wide: (2) 12 ft. traffic lanes
r.o.w.: 37.24' wide
 - b. Parking Lanes
8' wide (added to Neighborhood Loop at each landscape node)
r.o.w.: 37.24' + 10' = 47.24'
 - c. Divided Stem
(2) 16' wide one way + 8' wide median
r.o.w.: 50' (+ turning lanes at arterial)
 - d. Residential Court
24' wide: (1) 16' traffic lane + (1) 8' parking lane

2. Private Drives
 - a. Townhouse, Cluster
18' wide" (2) 9 ft. traffic lanes
r.o.w.: 18.62'
 - b. Parking Courts
vary

The concept for Public Roads & Private Drives offers a number of advantages to local government.

1. Total paving areas have been reduced by 1/3 which reduces environmental impact, and ultimately, housing costs.
2. Ratios of public and private responsibility are nearly inversed. Conventional systems are 80% public, 20% private. The Cottonwood system is 35% public, 65% private.
3. The Cottonwood system would have significantly reduced long term maintenance costs. Snow removal quantities are less than 1/3 of conventional.
4. Safety has been improved. There are no cross intersections, and no need for stop signs except at the arterial entrance. And every child can walk to either the High School or future Elementary without needing to cross more than two intervening streets. Cross walks will be lighted, signed, and permanently designated by a change in pavement material. Narrow roads are safer to cross than wide ones.

PARKING

Existing Town and County residential parking standards require two off-street spaces per single family residence. Town multi-family standards require (2) spaces per unit plus an additional space for units of three bedrooms and larger. County multi-family standards have a (2.5) space per unit basis, but also require (1.5) spaces/bedroom (whichever is greater). A three bedroom multi-family unit in town requires (3) spaces, and (4.5) spaces in the county. While one assumes that the lower off-street requirement of (2) spaces for single-family assumes on-street parking, neither standard gives on-street parking requirements. If by now you are as confused as we are, perhaps you will consider our suggested standards.

RESIDENTIAL TYPE	PRIVATE PARKING SPACES
Apartments	
Efficiency	2
(1) BR	2
(2) BR	3
(3) BR	3
Townhouses/Grouped Garages	
(2) BR	3
(3) BR	3
Townhouses/Attached Garages	
(2) BR	4
(3) BR	4
Single Family	4

Residential parking would be of two types, enclosed and open. Every residential unit, of any type, will be required to have a minimum of one roofed parking space. Roofed apartment parking is provided in parking sheds, with individual lockable storage areas at the rear, but garage doors are omitted to encourage their parking use. Townhouses with grouped garages have (3) stall row garages,

with party walls, and common motor courts with designated parking. Townhouses with attached garages have individual driveways and private parking. Standards for single family parking are the same as for townhouses. Single family houses on residential courts would have on-street parking around the central islands.

Non-residential parking within neighborhoods is limited to the Corner Store common facilities. The parking as shown exceeds both Town and County standards.

PATHWAY SYSTEM

In conventional residential development concepts, "side"-walks are usually adjacent to rolled curbs and may be thought of as a system of street edge embroidery. It is assumed that the most appealing and shortest pedestrian routes are concurrent with vehicular ones, although both experience and common sense demonstrate otherwise.

The pathway concept for Cottonwood Park recognizes the pedestrian's natural urge to minimize his energy output by taking the shortest route, or shortcut if an established route is not available. The pathway system is hierarchical in the same manner as roadway systems.

Arterial pathways interconnect all neighborhood centers and extend to Cottonwood Corner and the future elementary school to the northwest, and the high school to the southeast. Arterial pathways are surfaced and of varying widths in response to pedestrian flow, but have an average eight foot width to assure comfortable bicycling. Arterials never occur on street edges.

Collector pathways link apartments and townhouse groups to arterials and provide secondary circulation within parks. Collectors occasionally edge streets as sidewalks when such routes are shortest and most convenient. Collectors are also surfaced and of varying widths, but have an average five foot width.

Minor pathways link residential units to parking and collector pathways. Minor pathways are similarly surfaced and variable, but average three and a half feet in width.

Special materials are under study for crosswalk surfacing to provide permanent differentiation of vehicular and pedestrian circulation. Materials are available for cross-county ski crossings. Pathway systems will have measured distances indicated at key intervals as an aid to joggers and walkers.

UTILITY SYSTEMS

Reductions in site development costs are essential to our goal of affordable housing. For the past several years we have invested considerable research effort in a search for increased system efficiency. By reducing utility network lengths and eliminating unnecessary features through thoughtful network design, it is possible to reduce utility costs as dramatically as we have previously demonstrated in road design. Savings can be accomplished with no loss in quality and can be expected for long term maintenance as well as first cost.

The geometric system of equilateral triangulation which underlays the Cottonwood concept, and which has all but disappeared from view in the Phase One Master Plan, is the key to system efficiency. The geometry offers alternative routes at each triangle interstice so that utility networks are free to select the shortest one - just as pedestrians take shortcuts, for the diagonal is obviously shorter than the two sides.

We have visited with each local utility to discuss the Cottonwood utility systems concept and to learn their location preference, access problems, maintenance frequency, and operating experience. This effort has produced some interesting in-sights. Electrical and communications utilities have the biggest maintenance problems. Cables have short life-spans and require frequent maintenance and/or replacement. Telephone, TV cable, and power personnel get along well to the point of happily sharing the same ditch. Sewer systems are quite different from any other as they are the only ones to flow downhill, and

they are the only system not improved by looping. An optimum sewer system is dendritic, like a tree - with twigs to branches, to trunk, to ground. LP Gas has the lowest maintenance frequency, but one is well advised to keep it far from electric cable to avoid dramatic interaction. As we all know, water and sewer lines freeze, and more readily if installed beneath roads.

Unusually detailed study has been given to utility distribution and collection systems for this stage of design because efficient and cost-effective systems will require unusual easement patterns. We believe that it will prove helpful to have this clearly understood. Please refer to the Utility Diagrams.

The following paragraphs briefly outline the key design features of each utility system.

Water System:

The master plan water system proposes the continuation of two 12 inch mains from the Town system along easterly portions of both the north and south boundaries of the proposed development. Supply within the development will be through interlooped 8 inch lines with six inch spurs to service the major cluster complexes. With domestic demand evenly dispersed throughout the area and no major water user anticipated, fire demand remains the principle factor controlling line size.

Total average daily domestic demand at the site was calculated in accordance with parameters presented in Table 2 and is estimated at 250,000 gpd. Peak hour demand depending upon the amount of irrigation that takes place is estimated at 1,000,000 to 1,200,000 gpd. See discussion in Water Rights for potential for reduced demand.

Additional storage is anticipated to serve the proposed development and other development in the area. The actual volume of storage required must be evaluated in conjunction with the complete Jackson distribution system. Storage required for the proposed development is estimated at between 150,000 to 300,000 gallons depending upon the rate and volume of fire flow required.

In the event that the Town system is not available at the time the first phase is constructed, an interim system is planned. The system would include a well capable of supplying an instantaneous demand of 100 gpm and an elevated storage tank with a capacity of about 30,000 gallons to supply minimal fire flow requirements. The well would be located in the park area of the first phase and the elevated storage tank located on the hill in the northeast corner of the site. As an alternative to the elevated storage tanks, hydropneumatic pressure tanks may be used along with a high capacity well capable of supplying a minimum of 250 gpm.

DESIGN FACTORS USED FOR WATER

<u>Category</u>	<u>Occupancy</u>	<u>(gpd/c) Unit Loading</u>	<u>(gpd) Total per unit</u>	<u>No. of Units</u>	<u>Total (gpd) per Category</u>
Single					
Family	3.5	120	420	158	66,360
Duplex	3.0	100	300	44	13,200
Cluster	2.75	100	275	249	68,475
Townhouse	2.75	100	275	180	49,500
Apartment	2.75	80	220	162	35,640
TOTAL				793	233,165
<u>Additional Sources</u>					
Retail Space					5,500
Elementary School, 500 students					13,500
ESTIMATED TOTAL Average Daily Flow					252,165 gpd

Sewerage Collection System:

The sewerage system master plan is designed to service all parcels within the proposed development and provide for an interceptor route which will service undeveloped land located to the northwest. Approximately one quarter of the site located in the southwest corner must be lifted into the main collection line. All wastewater will exit the property on the southeast corner and flow along a route at the southern end of the present high school site directly into the existing 30 inch interceptor line which flows through South Park.

Preliminary design factors used in sizing the sewer lines is shown in Table 1. A peaking factor of 3.5 (peak flow = 3.5 x average flow) was included in the line sizing. Depending largely upon the quantities generated on surrounding properties, a 15 inch interceptor is planned through the property with an 18 inch line continuing from the southeast corner to the Town's interceptor. The remaining lines are planned to be 8 inch with the exception of a 6 inch force main and 10 inch gravity line along the southern boundary. Cost proration policies for off-site users will need to be agreed upon.

Average daily flows served by the sewage lift station located in the southwest corner is estimated at 60,000 gpd with peak values in the range of 200,000 - 240,000 gpd. Total average flow from the project is estimated at 240,000 gpd with peak flows of 700,000 gpd to 850,000 gpd.

DESIGN FACTORS USED FOR SEWER

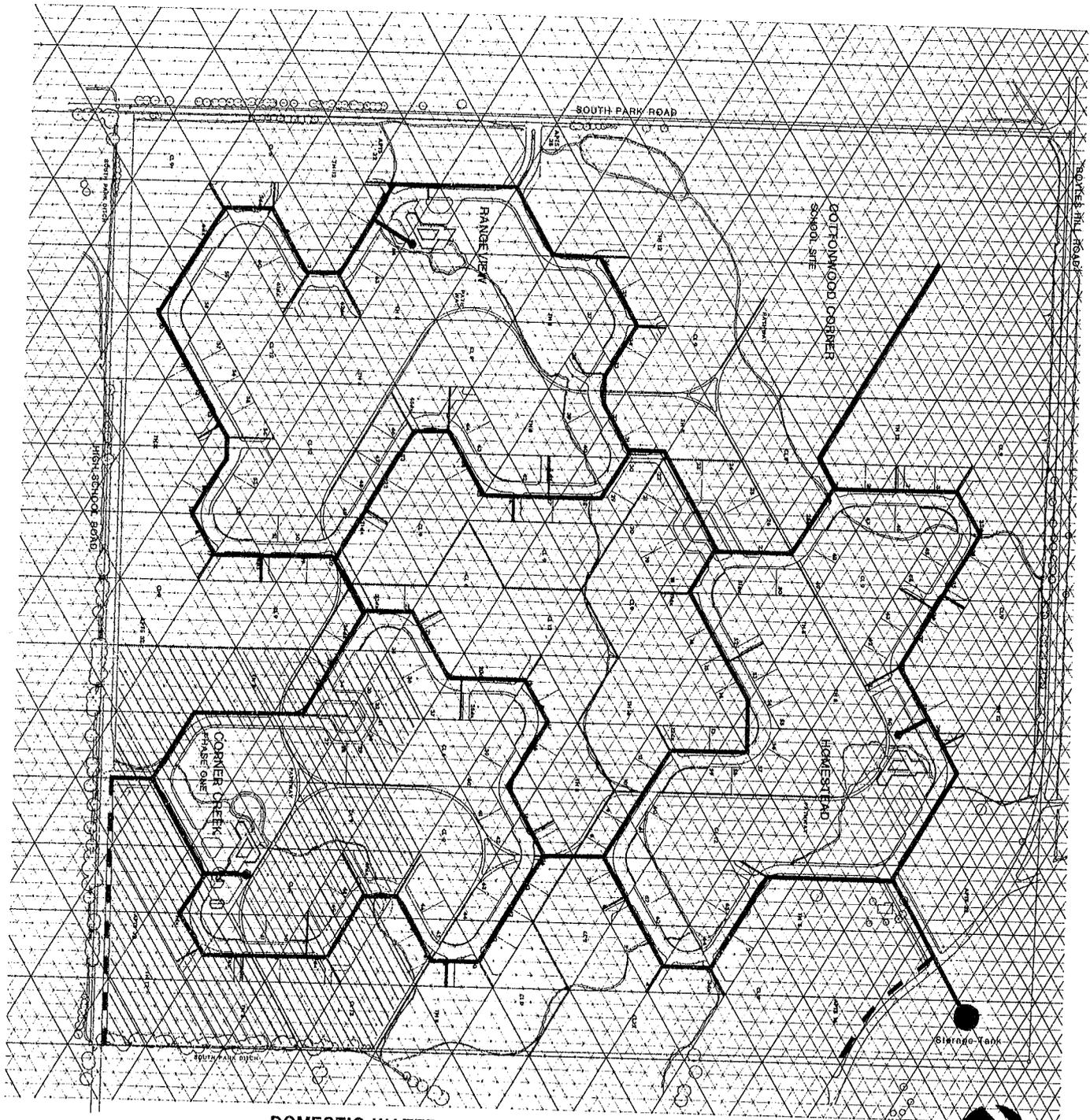
<u>Category</u>	<u>Occupancy</u>	<u>Unit Load (gpd/c)</u>	<u>Total per Unit (gpd)</u>	<u>No. of Units</u>	<u>Total (gpd) per Category</u>
Single Family	3.5	100	350	158	55,300
Duplex	3.0	100	300	44	13,200
Clusters	2.75	100	375	249	68,475
Townhouse	2.75	100	275	180	49,500
Apartment	2.75	80	220	162	35,640
TOTAL				793	222,115
<u>Additional Sources</u>					
Retail Space					4,500
Elementary School, 500 students					12,000
ESTIMATED TOTAL					238,615
Average Daily Flow					

Electrical / Communications Systems:

Adequate capacity exists within the LVPL Co, Jackson Hole Cable TV, and Mountain Bell systems to adequately service the project. Lower Valley would extend along the High School Road from the existing South Park line, but with other development in the RPJ they anticipate the need for an additional substation, probably near the junction of the proposed connector road to Highway 22. Both telephone and TV lines would also extend along the High School Road indicating its potential as a utility corridor as well as an arterial road.

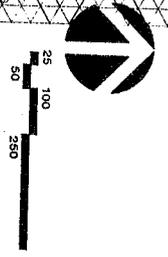
Vangas, Inc.

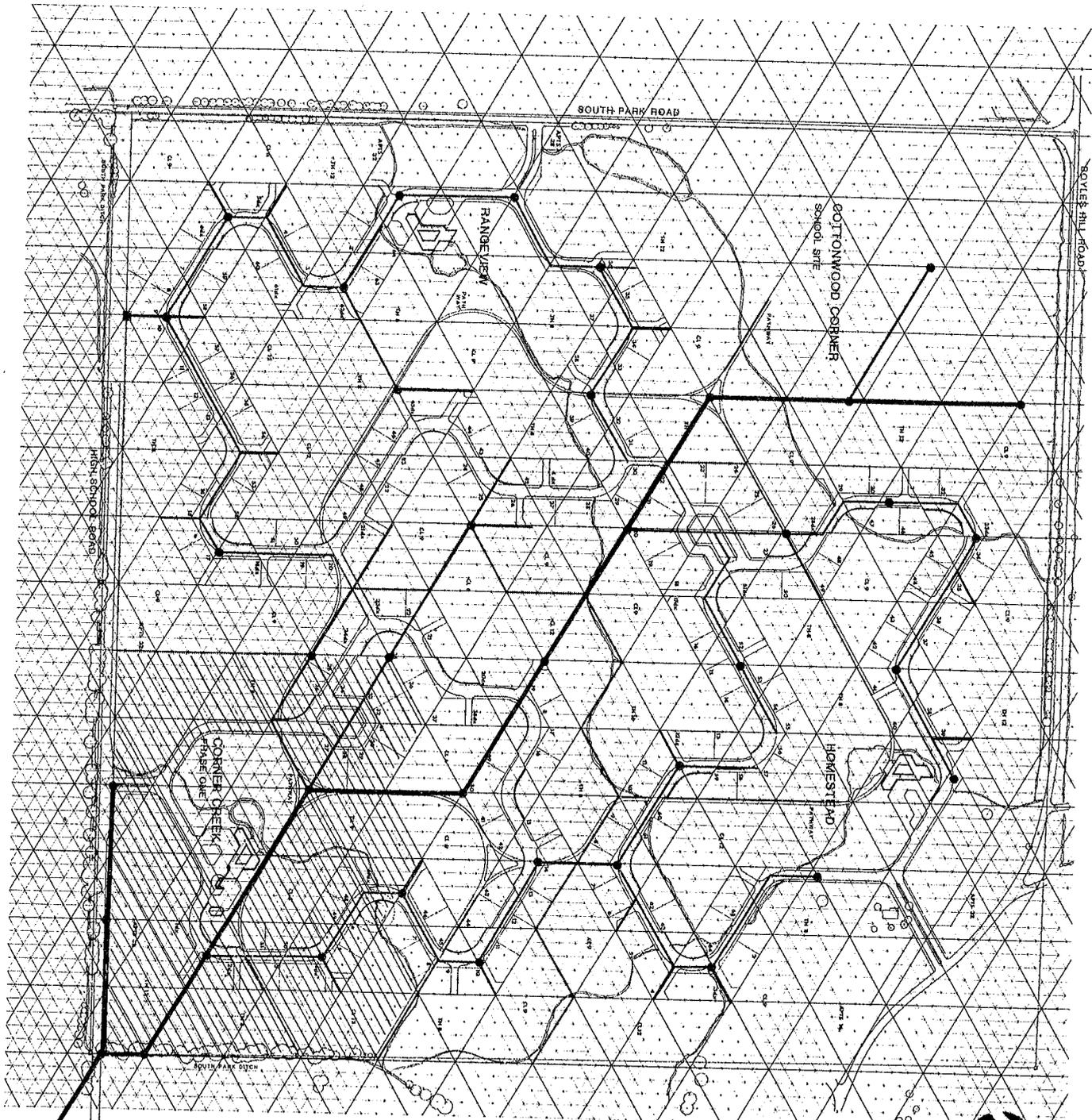
Perhaps the surprise amongst the utilities results from the recommendation of Energy Research & Design Associates that we give serious consideration to installation of a gas distribution system because of its suitability as an energy source for back-up systems for active solar energy installations. The potential for common active solar systems is discussed at length in the next section of the report. ERDA also projects future energy costs for LP gas to be lower than for electricity. Vangas is enthusiastic about extending their system to service Cottonwood Park and is similar to Lower Valley's attitude during their early expansion into electric heating, which is certainly no longer the case.



**DOMESTIC WATER
DIAGRAM**

- LEGEND**
- — — — — 12" Supply Line
 - — — — — 8" Supply Line
 - — — — — 6" Supply Line
 - Well





**SANITARY SEWER
DIAGRAM**

LEGEND

-  16" Sewer Line
-  10" Sewer Line
-  6" Sewer Line
-  6" Pressure Line
-  Manhole
-  Lift Station

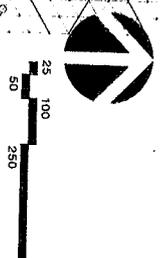


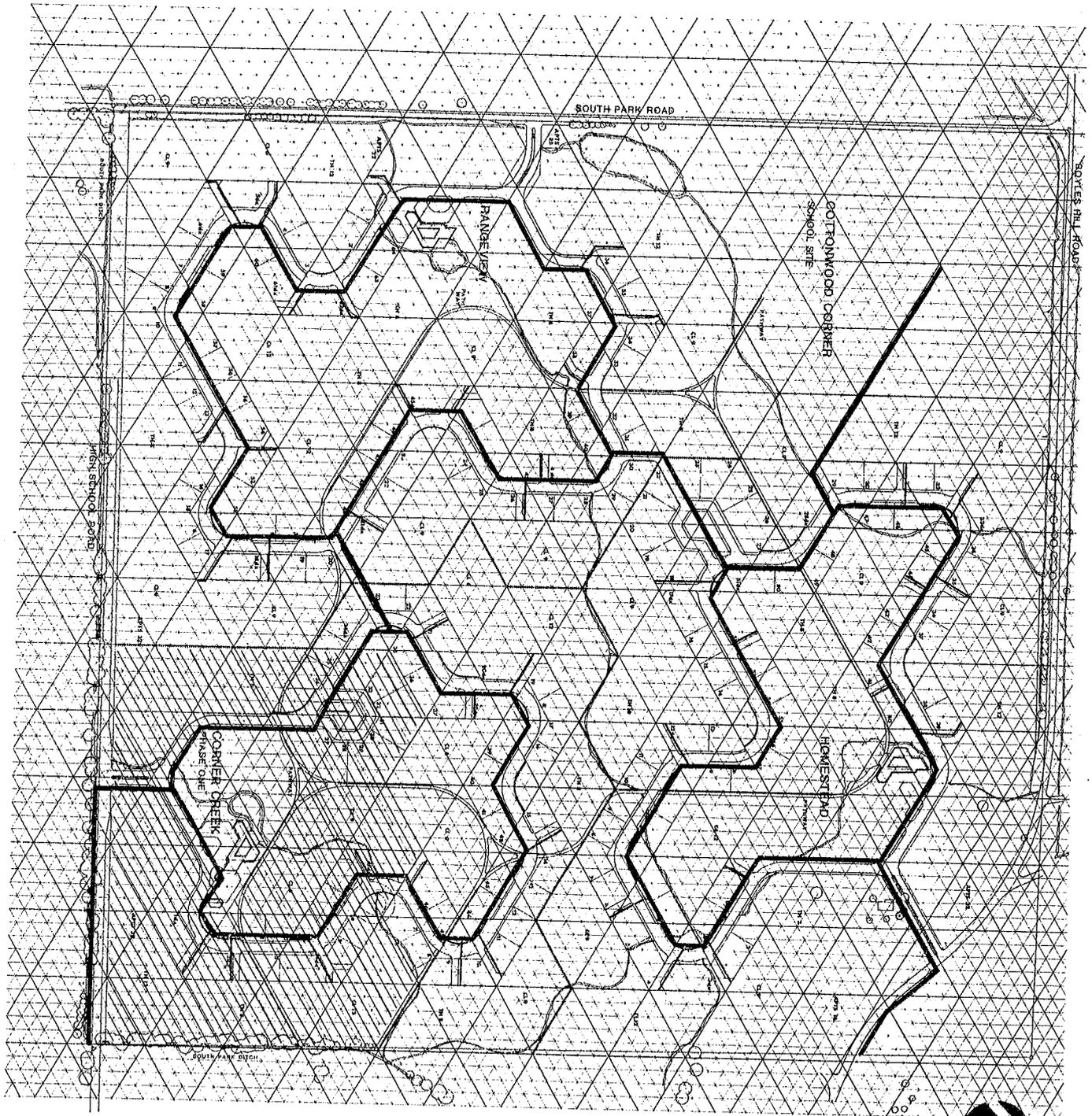
DATE: 7 FEBRUARY 1983

OWNERS: HENRY OLIVER III & CHARLES OLIVER II

PLANNERS: CORBETT/ASSOCIATES
BOX 1009 46 EAST BROADWAY JACKSON WYOMING 83001 307-733 3170

TETON COUNTY, WYOM

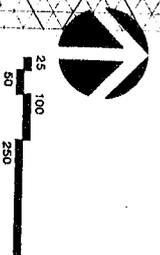




ELECTRICAL & COMMUNICATIONS DIAGRAM

LEGEND

-  Primary Service
-  Secondary Service
-  Telephone and Cable Television

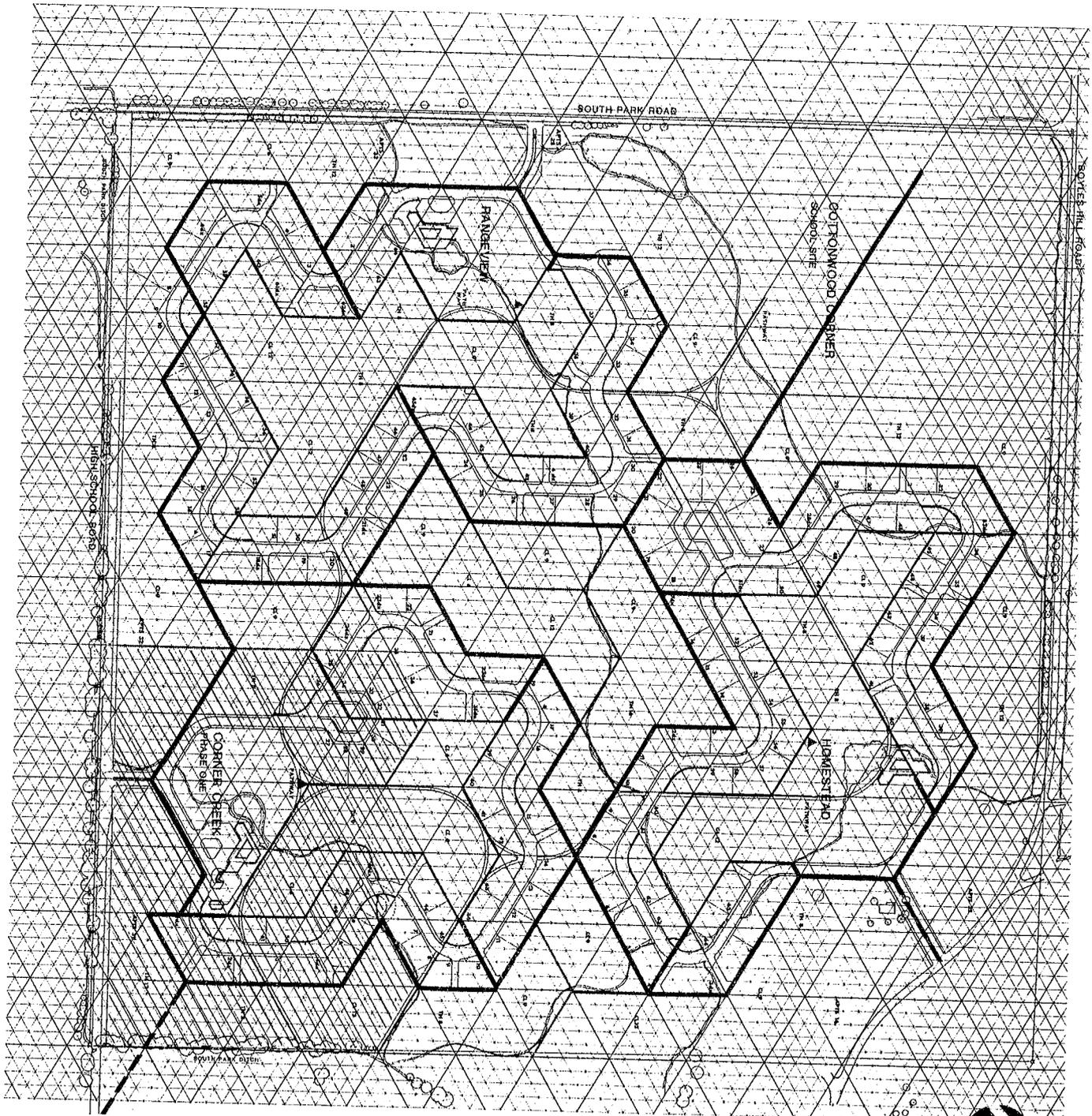


DATE: 7 FEBRUARY 1983

OWNERS: HENRY OLIVER III & CHARLES OLIVER II

PLANNERS: CORBETT/ASSOCIATES
 P.O. BOX 1009 86 EAST BROADWAY JACKSON WYOMING 83201 307 734 9170

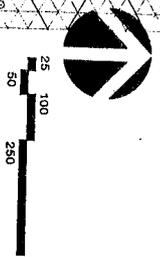
TETON COUNTY, WYOMI*



**L. P. GAS
DIAGRAM**

LEGEND

-  4" Mains
-  3" Loops
-  2" Loops
-  Active Hydronic Backup Boiler



DATE: 7 FEBRUARY 1983

OWNERS: HENRY OLIVER III & CHARLES OLIVER II

PLANNERS: CORBETT ASSOCIATES
 BOX 1009, 86 EAST BRICK AVE., JACKSON, WYOMING 83301 307-735-3176

TETON COUNTY, WYOM.

ENERGY & RESOURCE CONSERVATION

The Olivers have directed that all available conservation and alternative energy strategies are to be carefully evaluated for feasibility and application potential in Cottonwood Park. Long term operating costs are now given full consideration by lenders as a basic factor in determining the home buyer's ability to meet his monthly housing budget. Also, super-insulation and alternative systems are now financible as basic elements of construction cost.

Discussion has included the pollution problem in Jackson Hole caused by wood smoke. A few similar areas, such as Vail, restrict new fireplace construction. There is certainly merit in applying combustion efficiency standards when wood burning appliances are selected as the alternative energy source.

This area of project design was of sufficient importance to warrant the retention of special consultants to analyze the project in detail. Energy Research & Design Associates have been retained for this service, and their full report follows as an integral part of this section. In the interest of brevity, calculations and diagrams which form the basis for their projections have been omitted.

Resource conservation is the underlying key to constructing affordable housing. Effective and efficient use of both labor and materials is vital if costs are to be reduced while maintaining quality. The choice between cheapening conventional systems and discovering more efficient new systems should be easy to make.



P.O. Box 3177 • Jackson, Wyoming 83001
(307) 733-8018 or (307) 733-2924

ON JANUARY 26, 1983 ENERGY RESEARCH AND DESIGN ASSOCIATES (E.R.D.A.) WAS CONTRACTED BY CORBETT AND ASSOCIATES, ARCHITECTS TO STUDY THE ENERGY USE PATTERNS OF A PROPOSED PLANNED UNIT DEVELOPMENT, HEREINAFTER REFERRED TO COTTONWOOD PARK, IN TETON COUNTY, WYOMING, AND MAKE RECOMMENDATIONS TOWARDS ECONOMICALLY REDUCING ENERGY COSTS PER DWELLING UNIT CONSISTENT WITH THE ARCHITECT'S PHILOSOPHIES AND DESIGN CONCEPTS.

CRITICAL CONSTRAINTS APPLIED TOWARD THIS STUDY WERE A PREIMPOSED ORIENTATION OF THE DWELLING UNITS ON THE SITE PLAN, THE ARCHITECT/DEVELOPERS DESIRE TO PRE-MANUFACTURE MOST DWELLING UNITS AT A POSSIBLE DISTANT FACILITY AND SHIP THEM TO THE SITE, AND ECONOMICALLY FEASIBLE OPTIONS THAT WOULD KEEP THE COST PER DWELLING UNIT WITHIN THE REACH OF MANY LOCAL RESIDENTS.

E.R.D.A. INVESTIGATED SEVERAL POSSIBLE APPROACHES TO SOUND ENERGY MANAGEMENT WITHIN THESE CONSTRAINTS

ENERGY CONSERVATION AND PASSIVE SOLAR OPTIONS

IN ORDER TO EVALUATE THE AUXILIARY ENERGY REQUIREMENTS OF INDIVIDUAL UNITS AS A FUNCTION OF ENERGY CONSERVATION MEASURES AND ORIENTATION, WE CREATED A HYPOTHETICAL UNIT OF 900 FT² FLOOR AREA. THIS APPROACH ALLOWS FOR A COMPARATIVE ANALYSIS OF ENERGY CONSUMPTION FOR SPACE HEATING AS CONSERVATION AND PASSIVE SOLAR STRATEGIES ARE INTRODUCED. IT IS NOT AN ATTEMPT TO PREDICT ACTUAL ENERGY CONSUMPTION PER SQUARE FOOT OF OCCUPIED SPACE AS MANY VARIABLES WHICH ULTIMATELY EFFECT THE AVERAGE CONSUMPTION ARE YET TO BE DETERMINED. THE HYPOTHETICAL UNIT IS ESSENTIALLY A BOX WITH 30' SIDES AND 8' CEILING HEIGHT. IT IS ASSUMED TO BE OVER A CRAWL SPACE, HAVE 12% OF THE FLOOR AREA OR 108 SQUARE FEET OF WINDOW AREA AND 2 DOORS.

THE FHA MINIMUM STANDARD UNIT IS CONSTRUCTED WITH 2 x 6 EXTERIOR STUDS AT 2 FT. O.C. AND R19 FIBERGLASS BATT INSULATION. ADDITIONAL R VALUE FOR PLYWOOD SHEATHING, INTERIOR GYPSUM BOARD, EXTERIOR SIDING, AND AIR FILMS IS NOT INCLUDED SINCE IT IS CONSTANT FOR ALL VARIATIONS. TWO DOUBLE GLAZED WINDOWS ARE ENTERED, ONE IN THE EAST WALL AND ONE IN THE WEST WALL, AND ARE CONSIDERED TO BE NON-SOLAR FOR THIS EXAMPLE EVEN THOUGH EAST AND WEST WINDOWS DO EXPERIENCE ENERGY GAINS AS WELL AS LOSSES.

	<u>MBTU</u>	<u>BTU/FT² - DD</u>
MINIMUM STANDARD	54.9	6.14
CONSERVATION UPGRADE	37.7	4.22
SUN - TEMPERED	28.0	3.13

WE PROJECT THE INCREASED CONSTRUCTION COST FOR THE CONSERVATION UPGRADE TO BE APPROXIMATELY \$1700.00. AT A 12% INTEREST RATE ON A 30 YEAR MORTGAGE, THE INCREASE IN MONTHLY PAYMENT WILL BE \$17.50. AVOIDED ENERGY COST IN THE FIRST YEAR IS \$15.00 PER MONTH AVERAGE. IF A CONSERVATIVE ENERGY INFLATION RATE OF 10% IS ASSUMED, AVOIDED ENERGY COST WILL EXCEED THE INCREASE IN MORTGAGE PAYMENT IN THE THIRD YEAR.

SUN-TEMPERING IN ACTUAL UNITS WILL BE DETERMINED BY ORIENTATION OF WINDOW AREA. THERMAL STORAGE CAPACITY PROVIDED BY THE GYPSUM BOARD AND NORMAL FURNISHINGS WILL ALLOW A SOUTH FACING GLAZED AREA TO FLOOR AREA RATIO OF 10% WITHOUT OVERHEATING THE LIVING SPACE. SOUTH FACING IS DEFINED AS TRUE SOUTH $\pm 30^{\circ}$. ORIENTATION OF GLAZED AREA BEYOND THIS LIMIT WILL PRECLUDE A SIGNIFICANT CONTRIBUTION FROM SOLAR ENERGY.

IN CONCLUSION, BUILDING DESIGN AND CONSTRUCTION TECHNIQUES BEYOND FHA MINIMUM REQUIREMENTS FOR INSULATION LEVELS AND WINDOW GLAZING, AND REDUCED AIR INFILTRATION RATES ARE A COST EFFECTIVE DWELLING OPTION FOR COTTON-

NEIGHBORHOOD ENERGY CENTERS

ANOTHER APPROACH INVESTIGATED FOR REDUCING ENERGY CONSUMPTION IN THE COTTONWOODS DEVELOPMENT DWELLING UNITS WERE THE CREATION OF NEIGHBORHOOD ENERGY CENTERS. THESE CENTERS ARE CONCEPTUALIZED AS ACTIVE HYDRONIC SOLAR HEATING UNITS WITH DEMAND PROPANE BOILERS PROVIDING BACKUP ENERGY SUPPLY. DWELLING UNITS ARE CONNECTED BY A RING MAIN HYDRONIC LINE WITH INDIVIDUAL INPUT/OUTPUT LINES FOR EACH DWELLING UNIT. THE ENERGY CENTER PROVIDES BOTH SPACE HEATING AND DOMESTIC HOT WATER HEATING THROUGH AN OPEN LOOP ARRANGEMENT. MAKEUP WATER FOR DOMESTIC HOT WATER IS SUPPLIED DIRECTLY TO THE ENERGY CENTER.

THE SPACE HEATING DESIGN FOR THE DWELLING UNITS IS A LOW TEMPERATURE FORCED AIR SYSTEM. DUCT DESIGN IS SIMILAR TO STANDARD PRE-MANUFACTURED HOUSING UNITS, WITH A CENTRAL TRUNK SUPPLY LINE AND BRANCHES TO HEATED AREAS. RETURN AIR TO THE SYSTEM IS PROVIDED IN A CENTRALLY LOCATED AREA. A HYDRONIC COIL IS INSTALLED IN THE SUPPLY TRUNK AND HEATED WATER FROM THE ENERGY CENTER IS PUMPED THROUGH THE COIL AT A UNIFORM RATE. TEMPERATURE AVERAGES OF WATER IN THE COIL RANGE FROM 125°F TO 135°F. A THERMOSTAT AND POTENTIOMETER CONTROL A VARIABLE SPEED BLOWER, FORCING AIR THROUGH THE COIL AT

FRACTION FOR SPACE HEATING AND DHW OF APPROXIMATELY 30 - 40%, DEPENDING UPON THE AZIMUTH ORIENTATION AND COLLECTOR TILT ANGLE. THIS APPROACH OPTIMIZES DOLLARS INVESTED IN SOLAR HEATING BY ELIMINATING THE POTENTIAL FOR EXCESS ENERGY COLLECTION DURING SUMMER MONTHS.

THE BENEFITS OF THE ENERGY CENTER APPROACH ARE MANY AND ARE LISTED BELOW. NO PRIORITY IS ASSIGNED TO THEIR ORDER LISTED.

1. STANDBY ENERGY LOSSES ASSOCIATED WITH THE DHW STORAGE TANK APPROACH IN CONVENTIONAL INDIVIDUAL DWELLING UNITS ARE ELIMINATED. SAVINGS OF UP TO 2×10^6 BTU/YR/DWELLING UNIT WILL BE REALIZED.

2. OVERALL PLANT FACILITIES COST PER DWELLING UNIT FOR SPACE HEATING AND DOMESTIC HOT WATER HEATING IS REDUCED. AVERAGE COST OF HEATING AND DOMESTIC HOT WATER PLANT PER DWELLING UNIT WOULD BE APPROXIMATELY \$1200.00 IN A CONVENTIONAL DESIGN APPROACH.

THE ENERGY CENTER CONCEPT COST FOR SPACE HEATING AND DOMESTIC HOT WATER IS APPROXIMATELY \$3800.00/UNIT AND INCLUDES ALL SPACE AND DOMESTIC HOT WATER HEATING, AND PROVIDES A 30% MINIMUM INCREASE IN EFFICIENCY

THE DWELLING UNITS AT AN ACCELERATED RATE, PROVIDING FURTHER ECONOMIC BENEFITS TO OWNERS OF THE CENTERS. THIS MAKES AN ESPECIALLY ATTRACTIVE PACKAGE TO INVESTORS PURCHASING APARTMENT COMPLEXES.

5. THE ENERGY CENTERS WILL ADD SUBSTANTIALLY TO THE RESALE VALUE OF THE DWELLING UNITS SINCE THE FEDERAL TAX CREDIT WILL HAVE ALREADY BEEN ASSUMED BY THE FIRST OWNER AND REPLACEMENT COSTS WILL ACCELERATE AS ENERGY COSTS ACCELERATE AND DEMAND FOR SOLAR HEATING INCREASES.

6. JACKSON AND TETON COUNTY ALREADY SUFFER AN IMPRESSIVE AMOUNT OF AIR POLLUTION IN WINTER MONTHS DUE TO WOOD BURNING APPLIANCES, AS HAS JUST BEEN DOCUMENTED BY THE WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY. IT IS FORESEEABLE THAT WOOD BURNING RESTRICTIONS MAY BE SELF IMPOSED ON THIS COMMUNITY AS IT CONTINUES TO GROW IN POPULATION. THE CENTRAL ENERGY FACILITY CONCEPT, AS PROPOSED, REDUCES THE ENERGY CONSUMPTION AND RESULTING UTILITY BILLS, PERHAPS PRECLUDING THE NECESSITY TO INSTALL WOOD BURNING APPLIANCES. FURTHERMORE, SHOULD THE OWNERS GROUP OF THE ENERGY CENTER DESIRE TO BURN WOOD AS AN ALTERNATIVE, WOOD FIRE BOILER SYSTEMS COULD BE RETROFITTED TO THE ENERGY CENTER, REDUCING THE PER UNIT COST OF WOOD BURNING APPLIANCES AND MINIMIZING THE RESULTING POLLUTION.

ANOTHER DRAWBACK TO THIS CONCEPT IS THE ENERGY LOSSES ASSOCIATED WITH DISTRIBUTION LINES FROM THE ENERGY CENTER. THESE HYDRONIC DISTRIBUTION LINES HAVE BEEN SHOWN IN A SIMILAR SYSTEM IN CALGARY, ALBERTA, CANADA TO LOOSE APPROXIMATELY 10 BTU'S PER HOUR/LINEAL FT. OF LINE OR APPROXIMATELY 50 MBTU PER SYSTEM AS MIGHT CONCEPTUALLY SERVE A 12 UNIT CLUSTER COMPLEX.

IN CONCLUSION, THE NEIGHBORHOOD ENERGY CENTER CONCEPT WAS INVESTIGATED AS AN ALTERNATIVE APPROACH TO CONVENTIONAL ENERGY SUPPLY TO A PUD. IN THIS PRELIMINARY INVESTIGATION THIS APPEARS TO BE A VERY COST EFFECTIVE CONCEPT TO REDUCING ENERGY CONSUMPTION FOR CLUSTERED RESIDENTIAL UNITS AND SMALL SCALE COMMERCIAL BUILDINGS. THE CENTER PROVIDES ECONOMIC BENEFITS TO DEVELOPERS, RENTERS, DWELLING OWNERS, AND THE COMMUNITY AS A WHOLE. ONCE THE THERMAL PARAMETERS ARE OUTLINED FOR THE DWELLING UNITS, FURTHER INVESTIGATION SHOULD BE DEVOTED TO THE NEIGHBORHOOD ENERGY CENTER CONCEPT.

ATTACHMENTS

FOLLOWING ARE COMPUTER PRINTOUTS OF HEAT LOSS ANALYSIS FOR THE HYPOTHETICAL BUILDING MODELS GENERATED FOR INVESTIGATION, AND A CROSS SECTIONAL VIEW OF A NEIGHBORHOOD ENERGY CENTER MODULE.

THE SPACE REQUIREMENTS OF THE NEIGHBORHOOD ENERGY CENTER MODULES AS PRESENTLY CONCEIVED, WOULD BE ONE - 4' WIDE MODULE PER DWELLING UNIT. MODULES WOULD BE DIVIDED SO AS TO a). KEEP THE MINIMUM RING PIPE RUN FROM ENERGY CENTER TO DWELLING UNITS AND BACK AT LESS THAN 650 FT.; b). ORIENT THE ENERGY CENTERS SO THAT THEY ARE WITHIN 30° OF TRUE SOUTH AND UTILIZE EXISTING STRUCTURES WHERE- EVER POSSIBLE; AND c). LOCATE THE ENERGY CENTERS SO THAT THEY SERVE A DEFINED SUB NEIGHBORHOOD AS ONE UNIT AND DO NOT INCLUDE DWELLING UNITS IN OTHER SUB NEIGHBORHOODS.

THE ATTACHED BLUE-LINE HAS BEEN RED PENCILED DEFINING APPROXIMATE LOCATIONS OF ENERGY CENTERS AND THE SUB NEIGHBORHOOD GROUPS THAT THEY SERVE.

ARCHITECTURAL DESIGN

Our primary goal in architectural design is to achieve the sense of a cohesive neighborhood while offering adequate variety to maintain visual interest. Because our goal is for cohesive neighborhood design rather than outstanding architectural examples, we believe the best method for three dimensional presentation would be a neighborhood model because buildings can be viewed contextually, rather than individually as in elevational drawings.

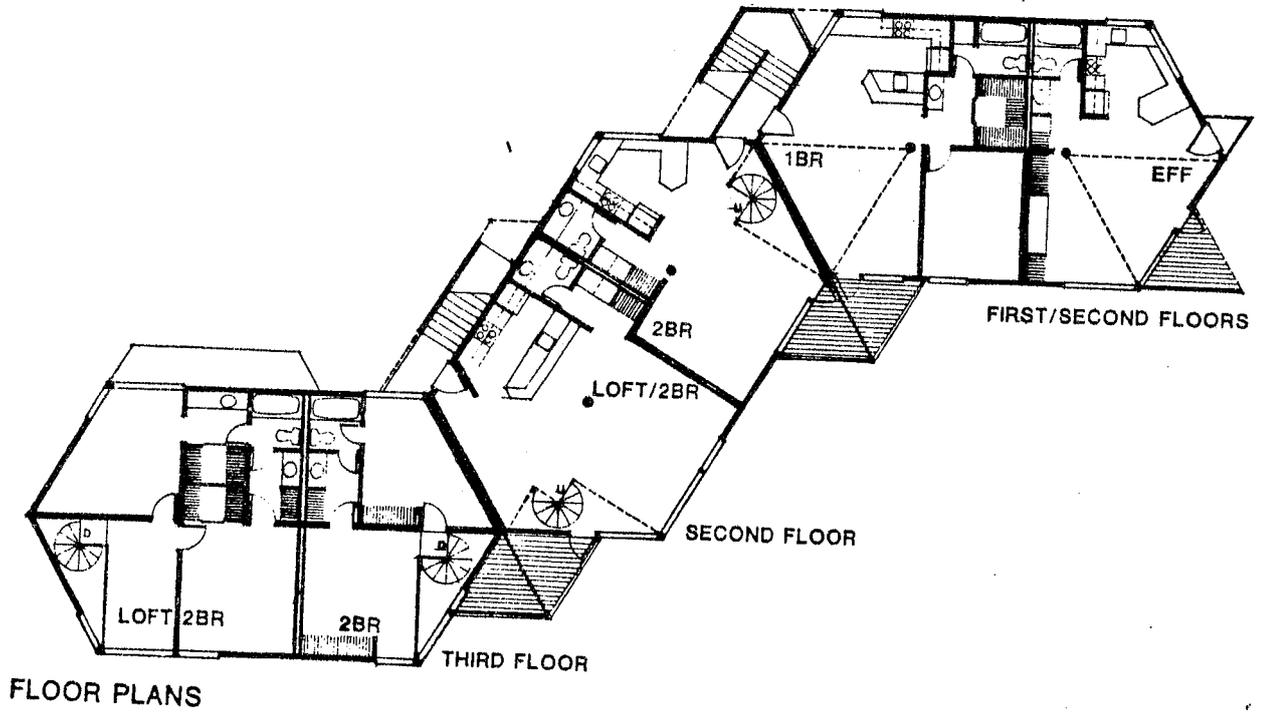
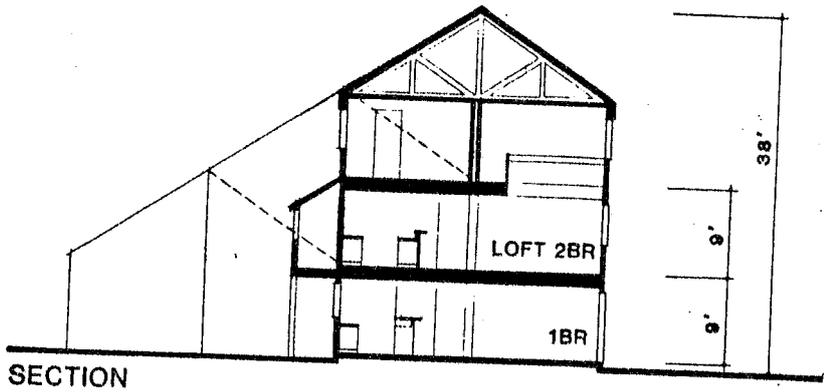
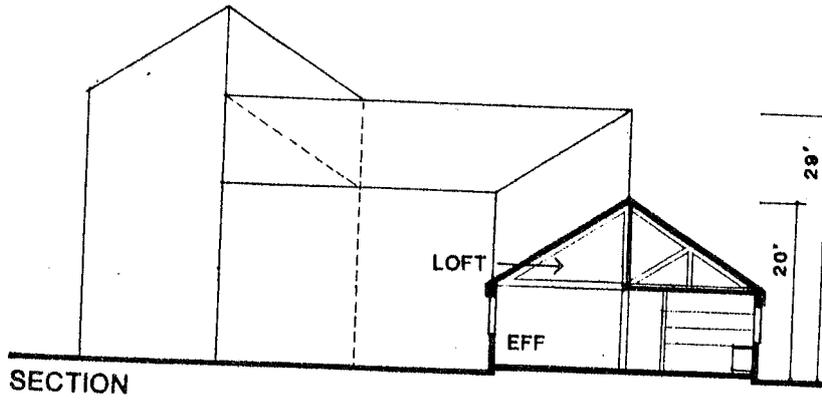
There are a number of additional architectural values on which we would like to touch. We feel that spaces between buildings, because they are common visual property, are more important than the spaces within them. Sensitive site placement and massing of buildings is necessary to achieve this goal, and an on-going as-built master site plan which would depict all constructed buildings and their spatial relationships to each other would be an invaluable tool in assessing the appropriate fit of proposed structures. To offer maximum freedom for this process we would propose a minimum of formal site placement standards, and these would consist largely of maintaining essential utility and circulation easements. An example of problems caused by formalized standards are the conflicts we have had with county standards, which require the variance requests made at the end of this report.

Orientation for passive solar design responses is an important consideration although we obviously do not feel it is essential that every house face due south. To assure solar access for every house both structural and landscape improvements will require appropriate controls.

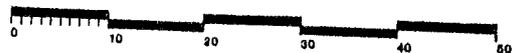
Cottonwood Park, with the guidance of Energy Design & Research Associates, will develop its own standards for thermal efficiency and energy conservation which will be more restrictive than those of any national or building code agency. The Olivers feel that such considerations are consistent with the goal for affordable housing when long term operating costs are properly factored.

Innovative cost-effective production techniques and their savings potentials will be examined and carefully evaluated. While no decisions have yet been made, most preliminary multi-family designs would permit either modular or on-site construction. However in either case, designs will be developed by competent professionals rather than in-house personnel. We strongly feel that construction techniques need not influence design quality. Competition in the market place may render the final decision on this matter.

The Olivers are intensely interested in a creative approach to controls systems which assure not only initial quality and appropriate designs, but high levels for long term maintenance as well. They have repeatedly stressed their concern that they are responsible for the appearance of Cottonwood Park not only at the beginning, but throughout the development process as well. A clearly expressed value system and contented property owners are the best assurance of long term project success.



TYPICAL APARTMENTS

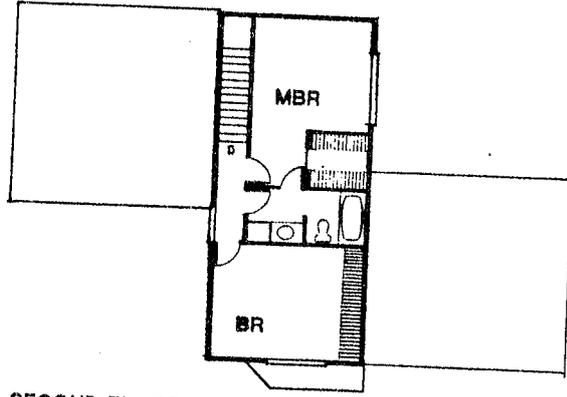


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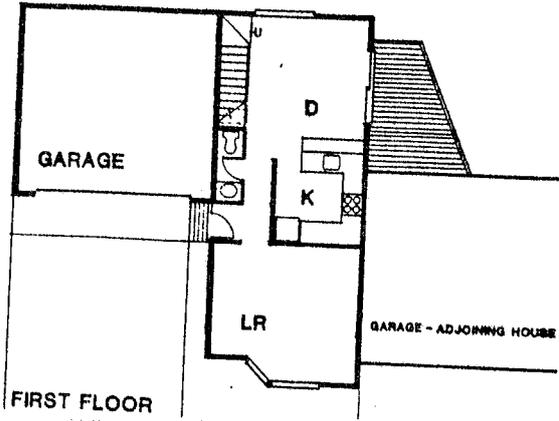
OWNERS: HENRY OLIVER III & CHARLES OLIVER II

PLANNERS: CORBETT/ASSOCIATES
 BOX 1009 86 EAST BROADWAY JACKSON, WYOMING 83001 / 307-753-5170

TETON COUNTY, WYOMI*

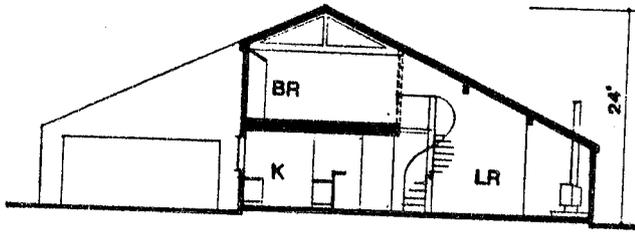


SECOND FLOOR

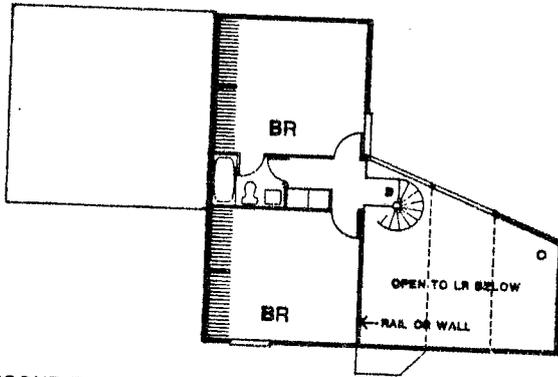


FIRST FLOOR

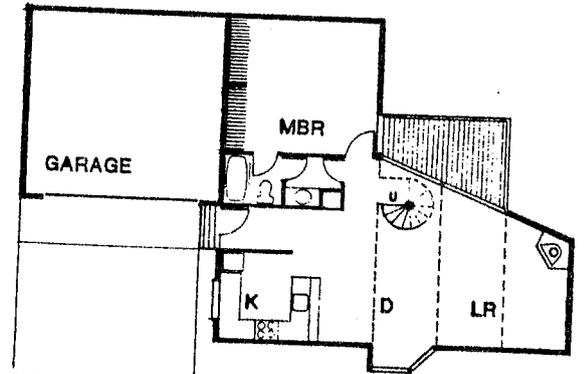
2BR HOUSE TYPE



SECTION



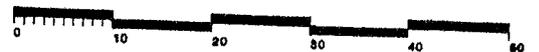
SECOND FLOOR



FIRST FLOOR

3BR HOUSE TYPE

TOWN HOUSES

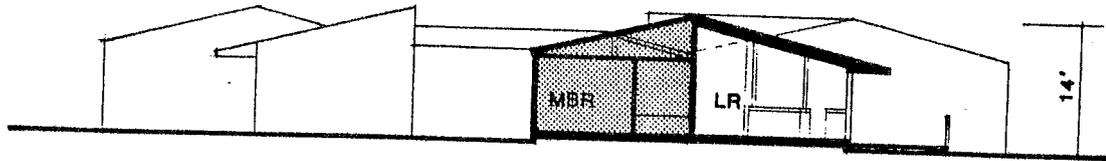


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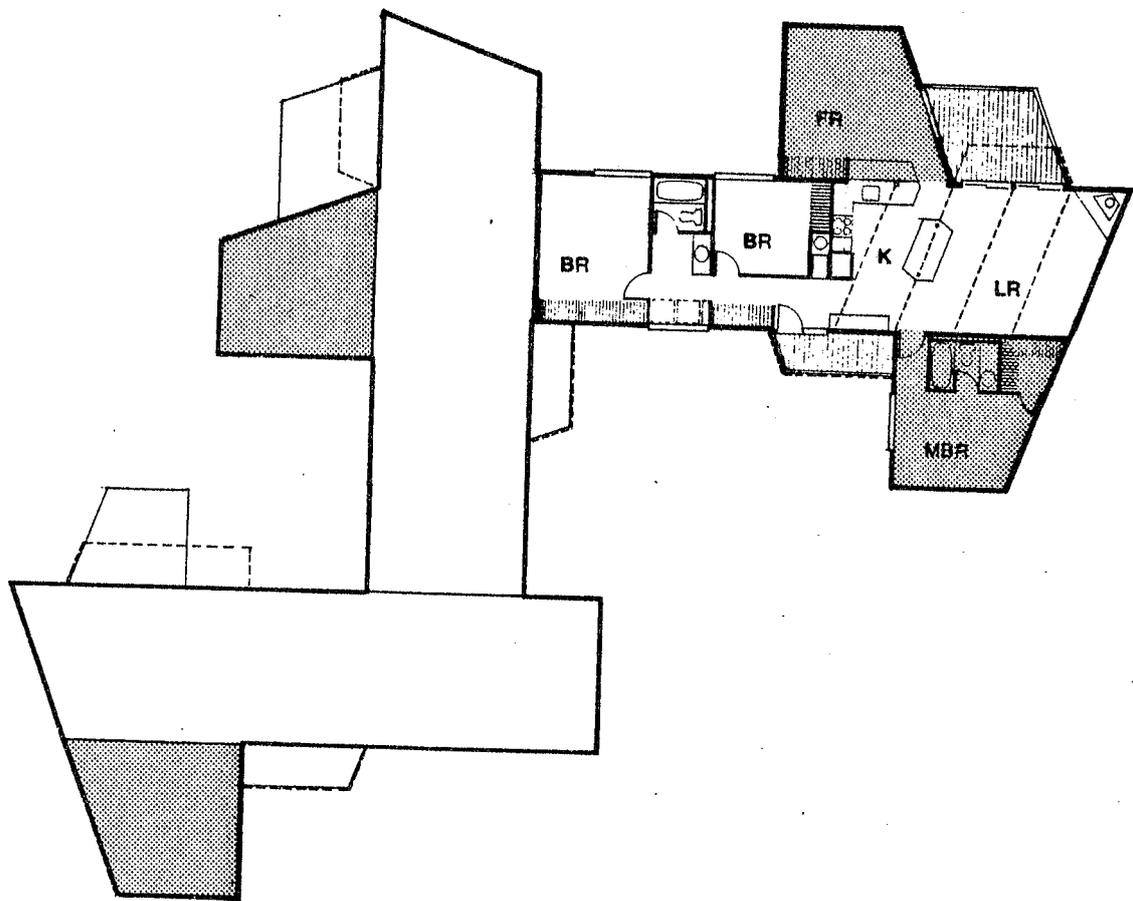
OWNERS: HENRY OLIVER III & CHARLES OLIVER II

PLANNERS: CORBETT/ASSOCIATES
BOX 109 / 86 EAST BROADWAY / JACKSON, WYOMING 83001 / 307-733-3170

TETON COUNTY, WYOMING

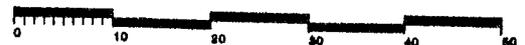


SECTION



FIRST FLOOR

CLUSTER HOUSES



DATE: 7 FEBRUARY 1983

OWNERS: HENRY OLIVER III & CHARLES OLIVER II

PLANNERS: CORBETT/ASSOCIATES
 BOX 1000 - 66 EAST BROADWAY JACKSON, WYOMING 83001 307-733-3170

TETON COUNTY, WYOMI'

LANDSCAPING

The Existing Site Plan indicates mature cottonwood stands on the southern and eastern boundaries. We have surveyed and tabulated these trees as to location, diameter, and height. The tallest trees are over eighty feet high. Their importance to the project is clearly expressed in the selection of the project name, Cottonwood Park. Every precaution will be taken for their care and preservation.

The Phase One Master Plan for Corner Creek indicates the existing cottonwoods, proposed trees, ponds, creeks, and ground covers. The landscape concept reinforces open spaces created by building groupings so that movement within the neighborhood will be through a sequence of varying spaces rather than through linear avenues. Property lines are ignored to achieve this goal, and all plantings, including single family, will be made according to a neighborhood master landscape plan.

As heavy snow accumulation and drifting are common through the winter season of Jackson Hole, Wyoming, the planting scheme reflects these considerations; yet, strong emphasis is placed on achieving definition, separation and enhancement of outdoor living spaces. Groupings of both evergreen and deciduous trees establish windbreaks to deter drifting snow in winter, reduce heating requirements and provide form and privacy to living spaces. Repeated evergreen groupings of spruce, fir and pine across the site break the winter southwesterly and westerly wind and drifting snow; while deciduous groupings of aspen, birch, cottonwood and willow provide shade and wind buffering in summer and contribute to the seasonal beauty of the site. Smaller deciduous flowering trees and shrubs: alder, osier dogwood, plum, cherry and smaller evergreens such as juniper planted

near building entrances and private outdoor spaces direct pedestrian scale circulation and screen private spaces. Overall planting schemes simulate natural Wyoming settings with groupings of particular species. Groves of aspen against a background of spruce or fir and stands of cottonwood and willow along a stream are appropriate elements of the Wyoming landscape and compatible with the planting scheme for this site.

PLANTING SELECTIONS

Evergreen trees for windbreaks, screening and snow drift reduction:

ABIES CONCOLOR	White Fir
PICEA ENGELMANII	Engelman Spruce
PICEA PUNGENS	Blue Spruce
PSEUDOTSUGA	Douglas Fir

Decorative evergreen trees and shrubs:

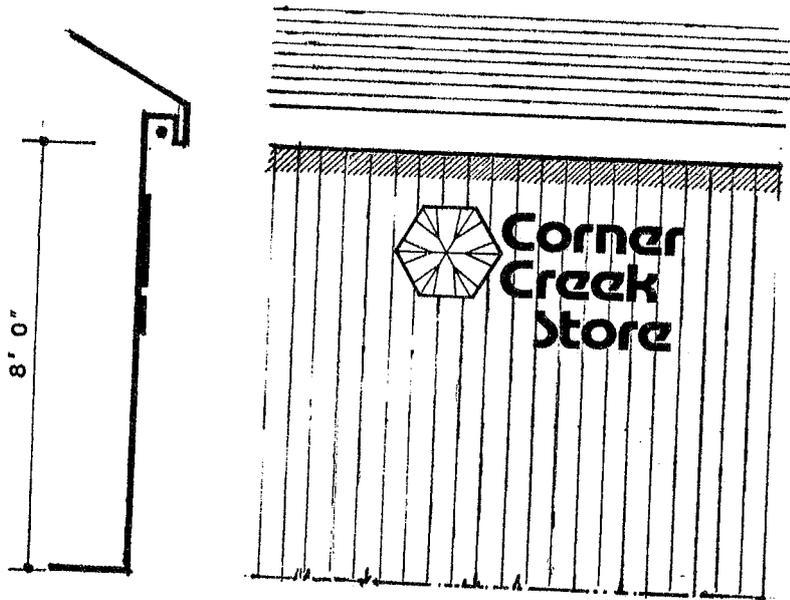
PINUS PONDEROSA	Ponderosa Pine
PINUS CONTORTA	Lodgepole Pine
JUNIPERUS SCORPULORUM	Rocky Mountain Juniper
JUNIPERUS COMMUNIS	Common Juniper

Large deciduous trees for shade, seasonal beauty and summer wind buffering:

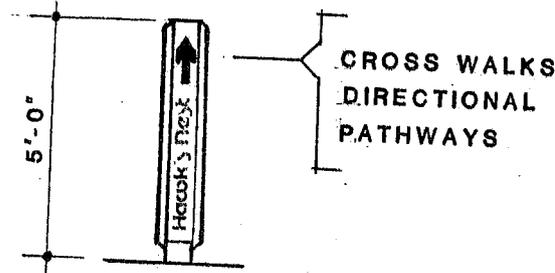
POPULUS TREMULOIDES	Quaking Aspen
POPULUS SARGENTII	Plains Cottonwood
POPULUS ANGUSTIFOLIA	Narrow Leaf Cottonwood
BETULA PAPYRIFERA	Paper Birch
BETULA OCCIDENTALIS	Water Birch
SALIX Sp	Willow

Decorative small deciduous trees and shrubs:

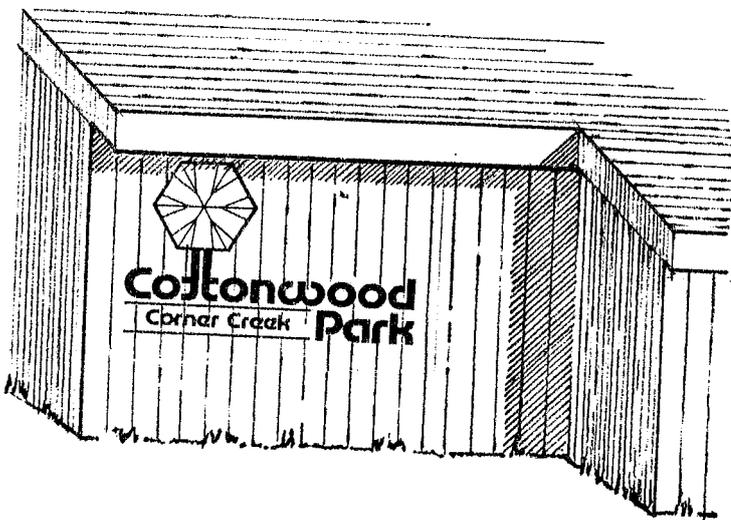
ACER GLABRUM	Rocky Mountain Maple
ALNUS TENUIFOLIA	Thinleaf Alder
CORNUS STOLONIFERA	Red Osier Dogwood
CRATAEGUS DOUGLASII	Black Hawthorn
PRUNUS AMERICANA	American Plum
PRUNUS VIRGINIANA	Chokecherry
VIBURNUM LENTAGO	Nannyberry



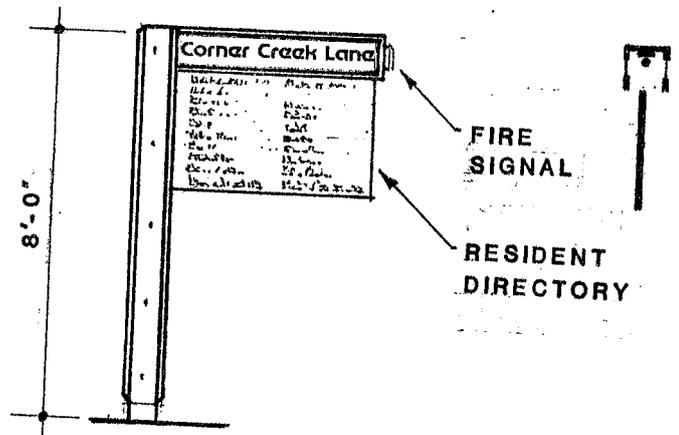
BUILDING SIGN



LANDSCAPE SIGN
& LIGHT FIXTURE



ENTRANCE SIGN



PRIVATE DRIVE SIGN
& STREET LIGHT

LANDSCAPE FURNITURE



COTTONWOOD PARK
COMMUNITY ASSOCIATION

The basic design determinant for Cottonwood Park has been the commitment to reinforce the importance of neighborhood. It is an essential ingredient for creating a place with a happy and rewarding life-style. We have long felt that society has unknowingly permitted the automobile to disperse and destroy the neighborly associations which some of us are old enough to recall from childhood. Neighborhoods are seldom built anymore. We build 'housing' instead. Or 'affordable' housing if we need to justify its poor appearance. Neighbors are not just people who live near each other. It is important to neighborliness that there is a sharing of certain things in common. Sharing fosters communication, and communication rather than affinity is the vital glue which creates neighbors.

The commitment to create neighborhoods, rather than just housing, is easily read in the Cottonwood plan. Neighborhoods are concentric in concept and at the focus is a small park with facilities owned in common. Much like the Jackson Town Square. There are no new ideas.

But one thing remains to make the neighborhood really work. We also have local examples of ones that don't because the one thing was omitted. We need a forum - a somewhat formalized system for communication. A Community Association.

A Community Association could be just a fancy way of referring to restrictive covenants, or a homeowner's association to protect property values. We use the term because it implies something much more positive. A good association

becomes a form of local government. If that government is best which is most local, then a community association should be the best of all. It should be a positive force which protects and fosters community values. A community with a strong sense of values doesn't depreciate and grow old, it only gets better.

Because the Olivers have a strong sense of community values they have retained an experienced consultant to assist in the formulation of the Cottonwood Park Community Association. He is Bob Leary of Raleigh, N.C. He holds master's degrees in City and Regional Planning and Public Administration. He was the planning director in Fairfax County, VA and Ann Arbor, Michigan, and director of the Canadian National Capitol Commission. He currently maintains a private practice in Raleigh and is a visiting professor in the School of Design at North Caroline State University.

We look forward to assisting Bob in the development of an outstanding Association for Cottonwood Park as the design process moves forward.

VARIANCES

We have met with both Town and County officials to discuss jurisdictional authorities and regulation applications. The masterplans and this report have been prepared with careful reference to the regulations of both bodies, but when conflicts have appeared we have elected to follow principles of good planned residential design with the intention of requesting necessary variances. The conflicts which we are aware of, and their basic justifications are listed below. You may well find additional ones. We would welcome the opportunity to meet with both Town and County Planning Directors to discuss all necessary variances and their justifications in detail.

VARIANCE	REGULATION	JUSTIFICATION
1. Setbacks (Exterior)	CMP, Chapter IV Section 19.f, (1)	Planned setbacks vary to create visual interest. Vary from 0 to 150'.
2. Setbacks (Interior)	CMP, Chapter IV Section 19.f, (2)	Planned setbacks vary to create common open spaces.
3. Yards Between Buildings	CMP, Chapter IV Section 19.f, (3)	Reduced to improve design quality.
4. Impervious Surfaces	CMP, Chapter IV Section 20,b.	Exceeds 40% by a small percentage.
5. Building Lengths	CMP, Chapter IV Section 20.b, (2)	Increased to create visual continuity.
6. Building Heights	CMP, Chapter IV Section 21.(c),RPJ-MP	Increased to R-T-M to have variety.
7. Parking	CMP, Chapter IV Section 23 (amended)	Conflict w/Town, See discussion in Report
8. Complete Neighborhood	Jackson Subdivision Regulations. Title 17. Section 17.64. 020.	Plan application for variance to this Section if required.