AGENDA
Hailey Planning and Zoning Commission
Monday, May 20, 2024
5:30 p.m.

Hailey Planning and Zoning Meetings are open to the public, in person, and by electronic means when available. The city strives to make the meeting available virtually but cannot guarantee access due to platform failure, internet interruptions or other potential technological malfunctions. Participants may join our meeting virtually by the following means:

Join on your computer, mobile app, or room device.
Click here to join the meeting
Meeting ID: 249 576 139 181
Passcode: Ge6Z7Q
Download Teams | Join on the web

Or call in (audio only)
+1 469-206-8535,,602369677# United States, Dallas
Phone Conference ID: 602 369 677#

Call to Order

- Public Comment for items not on the Agenda.

Consent Agenda

- **CA 1** Motion to approve Meeting Minutes dated May 6, 2024. **ACTION ITEM**

Public Hearing

- **PH 1** Consideration of a Design Review Application by Holly McCloud for the construction of a new 2,389 square foot single family residence to be located at 216 S. 4th Avenue (Lots 19 & 20, Block 104, Hailey Townsite) within the General Residential (GR) and Townsite Overlay (TO) Zoning Districts. **ACTION ITEM**

- **PH 2** Consideration of a Stream Alteration Application, submitted by the Wood River Land Trust and the City of Hailey, for Heagle Park Floodplain Restoration, adjacent to Heagle Park and located at 1151 War Eagle Dr (Della View Sub Tl 4057a & Tl 4057b Park & Sewer Sites Easement W/ Idaho Power Co), within the Flood Hazard (FH) Overlay. **ACTION ITEM**

- **PH 3** Consideration of a Design Review Application submitted by Idaho Lumber & Ace Hardware, represented by Mark Gasenica, for the construction of a new 3,090 square foot addition, to be located at 921 Airport Way (Lot 7, Block 1, Friedman Park), within the Light Industrial (LI) Zoning District. **ACTION ITEM**

115 South Main Street Hailey, Idaho 83333 (208) 788-9815

Staff Reports and Discussion

- **SR 1** Discussion of building activity, upcoming projects, and zoning code changes.
- **SR 2** Discussion: Next Planning and Zoning Meeting:
    - June 3, 2024:
        - DR Cueva
        - Discussion of potential amendments
    - June 17, 2024:
        -

115 South Main Street Hailey, Idaho 83333 (208) 788-9815

Return to Agenda

Meeting Minutes
Hailey Planning and Zoning Commission
Monday, May 6, 2024
5:30 p.m.

Hailey Planning and Zoning Meetings are open to the public, in person, and by electronic means when available. The city strives to make the meeting available virtually but cannot guarantee access due to platform failure, internet interruptions or other potential technological malfunctions. Participants may join our meeting virtually by the following means:

Join on your computer, mobile app, or room device.
Click here to join the meeting
Meeting ID: 249 576 139 181
Passcode: Ge6Z7Q
Download Teams | Join on the web

Or call in (audio only)
+1 469-206-8535,,602369677# United States, Dallas
Phone Conference ID: 602 369 677#

Present
Commission: Dan Smith, Janet Fugate, Sage Sauerbrey, Jordan Fitzgerald, Owen Scanlon
Staff: Robyn Davis, Emily Rodrigue, Ashley Dyer, Jessie Parker

5:31:12 PM **Call to Order**

- Public Comment for items not on the Agenda.

5:32:32 PM **Consent Agenda**

- **CA 1** Motion to approve Meeting Minutes dated April 15, 2024. **ACTION ITEM**

- **CA 2** Motion to approve the Findings of Fact, Conclusions of Law, and Decision recommending denial of a Design Review Application by Rezone Application submitted by St. Charles Borromeo Catholic Church (Roman Catholic Diocese), represented by The Land Group, proposing to rezone Lots 3-10, Block 21, Townsite (311 South 1st Ave) from Transitional (TN) to Business (B), and located within the Townsite Overlay (TO) Zoning Districts. **ACTION ITEM**

5:32:55 PM **Scanlon motion to approve CA 1 & CA 2. Fritzgerald seconded. Sauerbrey abstained. 4-0 in Favor.**

Public Hearing

- 5:33:29 PM **PH 1** Consideration of a Design Review Application by Eric Cueva, represented by Youdall Architecture, for an 877 square foot detached garage addition as

well as a new 579 square foot Accessory Dwelling Unit (ADU) located above the addition. This project is located at 504 S. Main Street (Lots S20' of 12 All of 13 & 14, Block 9, Hailey Townsite) Business (B), Downtown Residential Overlay (DRO) and Townsite Overlay (TO) Zoning Districts. **ACTION ITEM**

5:33:50 PM Rodrigue introduced application, noting this project presents a nonconforming use, that the project will be continued on record tonight. Rodrigue summarized requirements that applicant will need to do prior to next hearing.

5:35:03 PM Matt Youdall, architect, noted project location on three lots, and proposed addition. Youdall explained proposed garage/adu location using site plan and applicants plans for future of the site for applicants roofing business. Youdall summarized proposed materials to be used, using elevation plan. Chair Fugate noted they do require actual samples. Youdall confirmed, and continued to explain materials to be used. Youdall pointed out noted reason why building is facing north south due to Idaho Power easement requirements.

5:40:13 PM Sauerbrey asked for clarification on projects non-conforming use. Rodrigue explained nonconforming use is as single-family and with the addition of the garage/adu it would be considered an expansion of the nonconforming use. Sauerbrey conforming, and that the solution would be for a business structure to be the primary use. Davis clarified how the single-family home is grandfathered in and summarized what the applicant can develop. Davis confirmed would request a full revised site plan be brought forward for the commission to review.

5:44:27 PM Youdall expressed concern of adu size based off roofing structure which is smaller. Fitzgerald asked what the permitted use would be that the strutur3e would be under. Scanlon expressed concern of use permitted based off re-roofing business. Davis asked Youdall to explain what the applicant's intent of the commercial use. Youdall summarized proposed business use including manufacturing and fabrication as well as an office component. Davis confirmed will have applicant clarify when bring back. Discussion continued of use.

5:50:31 PM Smith noted code requirement of office off main and parking in rear.

5:51:07 PM Scanlon asked if addressing the application. Commission discussed providing suggestions for future hearing. Smith expressed concern of building on lot line. Smith suggested relocation of structures to make appear as more of a business/retail situation, and parking in rear.

5:53:25 PM Youdall explained ingress/egress of adu, vehicle access for roofing company and parking in front.

5:54:34 PM Fitzgerald expressed concern of adu not being secondary/subordinate, referred to snow storage brought up in staff report, and concern of guard railings. Fitzgerald asked to see a site plan with just what is being proposed or to at least have the buildings in future to be labeled as future.

5:56:44 PM Scanlon asked what the slope on the ramp. Youdall asked about keeping some access off main street. Staff and commission explained reasoning's why curb cut is required to be

moved. Smith provided some suggestions on where business structures and parking should be. Smith summarized believes reconsideration of site layout is in order.

6:00:50 PM Chair Fugate reminded applicant to keep in mind of uses are permitted within the Business district. Commission reviewed elevations, and provided suggestions for east and west elevations.

6:04:00 PM Youdall asked if were to add a showroom element to structure. Chair Fugate explained that still needs to keep in mind permitted uses. Commissioners explained that there are certain activities allowed and certain ones not permitted within the business district.

6:05:48 PM Scanlon noted that retaining walls above certain height are required to heave a guard rail, also provided some ideas of where a guard rail is not required. Scanlon suggested doing something more transparent then white fence. Scanlon asked why removing one tree and if had thought it through. Scanlon expressed concern of gaps between cables on guard rail on second floor of garage/adu. Scanlon asked for applicant to designate energy saving measures.

6:08:33 PM Saurbrey asked if incorporate a store room, if will need to include ada requirements. Scanlon stated yes if for client use. Sauerbrey stated it seems there are a fair amount of single-family homes in the business district, suggesting consideration of allowing ADUs with these single family homes due to the housing crisis.

6:10:45 PM Smith noted a few incorrect call outs on A7.

6:11:33 PM Chair Fugate opened public comment.

6:12:06 PM Bonnie Lazarinne, 520 S Main, biggest concern is the property line and that it appears that the building is proposed right on the property line. Wondering about the zoning regulations for that area. Lazarinne also expressed concern of tenant of lack of privacy based off balcony design.

6:14:08 PM Chair Fugate closed public comment.

6:14:39 PM Youdall summarized zoning regulations, and that has approximately 18 inch setback from property line. Youdall stated the terrace looks towards the south.

6:15:47 PM Fitzgerald added that maybe this should be changed to allow for ADUs, but that all the bulk requirements such as setbacks would need to be replaced. Fitzgerald believes this would be a larger code amendment. Smith suggested discussing this at brain storming meeting in June.

Discussion took place on when to continue the application to the next available public hearing.

6:20:18 PM Smith motion to continue the public hearing to June 3rd, 2024. Scanlon seconded. All in Favor.

- **PH 2** 6:20:50 PM Consideration of a Design Review Preapplication submitted by Macintosh Holdings, LLC, represented by Erinn Bliss with Bliss Architecture, for the construction of a new 6,390 square foot multifamily townhome development project located at 637 S. River Street (AM Lot 2A Block 1, Maple Subdivision). The development consists of two (2), three story, multifamily buildings, which includes six (6) dwelling units in total.
-

6:21:17 PM Dyer introduced project and turned floor to applicant team.

6:21:48 PM Errin Bliss, architect, introduced himself and property owner Leo McIntosh. Bliss summarized project location, proposed site plan, that applicant is requesting to do in lieu fee in place of the typical river street section. Bliss summarized proposed building designs – covered parking, bike storage and parking, floor plans, elevations and proposed materials to be used. Bliss noted these were called townhomes, but that they will be apartments for rent at market rate.

6:28:08 PM Sauerbrey asked where running mechanicals. Bliss noted no cooling and all electric for heating with no duct work. Sauerbrey suggested incentives out there for efficient heating suggesting mini splits. Bliss does not think mini splits are within the budget. Sauerbrey highly encouraged applicant to discuss with staff. Sauerbrey asked about covered parking vs. garages. Bliss explained it is a cost issue, but that could change. Sauerbrey suggested something with a garage would be more appealing to renters.

6:31:17 PM Smith agrees with Sauerbrey comment about heating, suggesting utilizing something more efficient. Smith asked about thought process of removing one parking space for bike storage. Bliss explained reasoning was needing bike space and snow storage. Smith suggested idea of moving bike and snow storage. Smith noted it would be nice to see some amenities. Smith asked about material for accent color. Bliss explained that applicant understands that wood will change in the future and require maintenance. Smith complimented palette overall, curious about other commissioners thoughts on east/west elevations. Chair Fugate suggested additional wood on those sides might do the trick.

6:37:31 PM Fitzgerald asked if considered using access to the north as their access; understands its not on their property but curious if there was coordination. Bliss explained thought had crossed his mind but they did not pursue that route. Fitzgerald likes the materials, design, colors but that it is still really one big block.

6:39:49 PM Scanlon complimented design. Scanlon asked about lot coverage at 42%. Discussion ensued regarding lot coverage.

6:45:28 PM Chair Fugate hopes applicant does further research in the heating and include some type of amenities. Chair Fugate complimented design as well, though thinks if could add some light wood to end portions facing east and west and consider garages.

6:47:06 PM Sauerbrey stated would like to see the sidewalk extend so it is easy to connect to at future point. Bliss noted gravel pathway proposed and concern of extending due to plowing. Bliss stated thought was that would just access sidewalk via sidewalk. Sauerbrey explained that he

would really like to see extend to at least the property line if not extend so it will be much easier for future planning. Smith agrees.

6:50:56 PM Chair Fugate opened public comment.

6:51:18 PM Justin Seagraves, curious if can find out how many city lots this property is.

6:52:31 PM Erin Sweeney, thinks nice idea, likes all the new apartments going in, not a big fan of the gray, thinks make sense to have bike storage closer to front, agrees with comments about baseboards. Sweeney curious about the role of the community and influencing orientation of building on lots and use of solar.

6:56:44 PM Mark Mac, new owner of building to the west of this this property, this is a very large building in small sight. Thinks it is a very massive building next to modest buildings. This is very close to their property. Does not mitigate any transitions between neighbors. Expressed concern of design and tenants looking at driveway. Encourages architect to think of more creative way on how the units can be laid out on the site. Agrees with comments of previous guest who commented on gray blackness, does not think it is a good trend. Expressed concerns of heating.

7:02:23 PM Chair Fugate closed public comment.

7:02:34 PM Staff and applicant confirmed this is just one lot.

7:03:07 PM Bliss explained the drawings are conceptual as this is a pre-app and will be submitting a full landscape plan. Bliss noted existing and proposed fencing. Bliss explained reasoning behind color choice.

7:04:35 PM Chair Fugate summarized commissioners role, that always encourages solar but limited by what can require. Sauerbrey referenced bill passed last July that prohibits local governments from requiring more then what the state code requires. Chair Fugate added that staff has also been trying to come up with incentives to help encourage. Sauerbrey recommended community housing.

7:07:44 PM Chair Fugate asked if Bliss has other questions or comments. Bliss stated no. Smith confirmed that there will be landscape/screening.

7:08:47 PM Scanlon added referenced comments about garages and house on crutches, and code section XXXX. Scanlon thinks if at least brought the end walls down to the ground would like more like the neighborhood. Scanlon suggested modification to trapezoid windows, as it looks like the 6 houses are sad. Smith noted that to go to 40% lot coverage will need garages. Sauerbrey noted PUD as an alternative route.

Fitzgerald stated if does not convert to garages, people will actually park there and not store items. Commission and staff discussed bicycle storage requirements. Fitzgerald suggested brown in place of gray, and to explore option of sharing driveway to the north.

No motion.

Administrative Review (No Action)

- **AR 1** Accessory Dwelling Unit (ADU) Application by Brant Tanner, for a new 870 square foot Accessory Dwelling Unit, to be located at 140 Sunbeam Street (Lot 13, Block 2, Sunbeam Subdivision Phase I) within the Limited Residential (LR-1) Zoning District.

Staff Reports and Discussion

- **SR 1** Discussion of building activity, upcoming projects, and zoning code changes.
- **SR 2** Discussion: Next Planning and Zoning Meeting:
    - May 20, 2024:
        - Stream Alteration near Heagle Park
        - DR McCloud
        - DR Idaho Lumber

7:15:42 PM Davis summarized upcoming meeting items.

7:17:11 PM Davis provided update on Hailey Comprehensive Plan Update.

7:19:12 PM **Sauerbrey motion to adjourn. Smith seconded. All in Favor.**

Return to Agenda

STAFF REPORT
Hailey Planning and Zoning Commission
Regular Meeting of May 20, 2024

To: Hailey Planning and Zoning Commission
From: Ashley Dyer, Community Development City Planner

Overview: Consideration of a Design Review Application by Holly McCloud, represented by bldg. collective architecture, for the construction of a new 2,389 square foot single-family residence to be located at 216 S. 4th Avenue (Lots 19 & 20, Block 104, Hailey Townsite) within the Limited Residential (LR-1) and Townsite Overlay (TO) Zoning Districts.

Hearing: May 20, 2024

Applicant: Holly McCloud
Location: 216 S. 4th Avenue- Lots 19 & 20 Block 104- Townsite
Zoning/Size: Limited Residential (LR-1) and Townsite Overlay (TO); Total Lot Area: 5,990 square feet.

Notice: Notice for the May 20, 2024, public hearing was published in the Idaho Mountain Express and mailed to property owners within 300 feet on May 1, 2024.

Application/Project Proposal: The Applicant is proposing the construction of a new 2,389 square foot single-family residence, which includes 1,989 square feet of livable space and 391 square feet of attached garage space. The project is to be located at 216 S. 4th Avenue (Lots 19 & 20, Block 104, Hailey Townsite) within the Limited Residential (LR-1) General and Townsite Overlay (TO) Zoning Districts.

Procedural History: The Design Review Application was submitted on April 10, 2024, and certified complete on April 16, 2024. A public hearing will be held on May 20, 2024, in the Council Chambers and virtually via Microsoft Teams.

On February 5, 2024, the P&Z Commission heard the Design Review Preapplication for 216 S. 4th Avenue and came to the determination vehicular access to and from the site, as outlined via the alley access guidelines in Hailey's Municipal Code, can be achieved through thoughtful design and shared resources, like that of the many other garage additions and single-family residences in the Townsite (TO) District. The Commission requested that the Applicant return for the full Design Review with another design, where vehicular access would be from the alley, not the primary street.

General Requirements for all Design Review Applications				
Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**City Code**	**City Standards and *Staff Comments***

☒	☐	☐	**17.06.050**	**Complete Application**
☒	☐	☐	**Department Comments**	**Engineering:** *No comments*
				Life/Safety: *No comments*
				Water and Sewer: *Sewer: The lot has an existing sewer stub; they must locate and connect to it. It will also need to be inspected by the Wastewater Division upon connection prior to backfilling.* *Water: The proposed meter vault will be in a drivable area; the Applicant will need to install a metal collar, and the proposed landscaping hedge cannot restrict access to it. The Applicant will need to protect the City's meter vault during construction, the proposed material storage is right over the meter vault location and will need to be relocated to ensure the protection of the City's meter vault.* *These items have been made Conditions of Approval.*
				Building: *No comments*
				Streets: *No comments*
☐	☐	☒	**17.08A Signs**	**17.08A Signs: The applicant is hereby advised that a sign permit is required for any signage exceeding four square feet in sign area. Approval of signage areas or signage plan in Design Review does not constitute approval of a sign permit.**
			Staff Comments	*N/A, as signage is prohibited in residential zones.*
☒	☐	☐	**17.09.040 On-site Parking Req.**	**See Section 17.09.040 for applicable code.** **17.09.040 Single-Family Dwellings: two (2) spaces minimum, six (6) spaces maximum**
			Staff Comments	*The Hailey Municipal Code requires a minimum of two (2) parking spaces for single-family residential dwellings. The proposed residence includes a two-car garage onsite, with vehicular access via the existing alley. Parking requirements for the proposed residence have been met.*
☒	☐	☐	**17.08C.040 Outdoor Lighting Standards**	**17.08C.040 General Standards** **a. All exterior lighting shall be designed, located and lamped in order to prevent:** **1. Overlighting;** **2. Energy waste;** **3. Glare;** **4. Light Trespass;** **5. Skyglow.** **b. All non-essential exterior commercial and residential lighting is encouraged to be turned off after business hours and/or when not in use. Lights on a timer are encouraged. Sensor activated lights are encouraged to replace existing lighting that is desired for security purposes.** **c. Canopy lights, such as service station lighting shall be fully recessed or fully shielded so as to ensure that no light source is visible from or causes glare on public rights of way or adjacent properties.**

				d. Area lights. All area lights are encouraged to be eighty-five (85) degree full cut-off type luminaires. **e. Idaho Power shall not install any luminaires after the effective date of this Article that lights the public right of way without first receiving approval for any such application by the Lighting Administrator.**
			Staff Comments	*The Applicant will install Dark Sky compliant fixtures; downcast and low wattage fixtures are proposed for the front and rear of the home as well as the interior courtyard space.*
☒	☐	☐	**Bulk Requirements**	**Zoning District: Limited Residential (LR-1) and Townsite Overlay (TO) Zoning Districts:** - **Maximum Building Height: 30 feet** - **Front Yard Setback: 12 feet*** - **Side Yard Setbacks: Fifteen percent (15%) of lot width, or ten feet (10'), whichever is less** - **Rear Yard Setback: 6 feet*** - **Lot Coverage: 40 %** **** No townhouse units are proposed with this project.***
			Staff Comments	*Setbacks, building height, and lot coverage are proposed as follows:* - *Maximum Building Height: 18'-6" feet; proposed Building Height:* - *Front Yard Setback: 12 feet* - *Side Yard Setbacks: 7.5 feet (which is 15% of lot width)* - *Rear/ alley Setback: 6 feet* - *Lot Coverage: 39.9%= 2,389 square feet* *All setback, building height, and lot coverage requirements have been met.*
☐?	☐	☐	**17.06.070(A)1 Street Improvements Required**	**Sidewalks and drainage improvements are required in all zoning districts, except as otherwise provided herein.**
			Staff Comments	*There is an existing sidewalk that runs along the property frontage of 4th Avenue that needs replacement and/or repair. The Applicant can either pay a sidewalk in-lieu fee or replace the existing sidewalk along the property's frontage. An in-lieu payment or sidewalk replacement shall occur prior to issuance of a Certificate of Occupancy. This has been made a Condition of Approval.* *Additionally, the Applicant is proposing to add two (2) Syringa Reticulata 2" caliper trees along the sidewalk and within the public ROW. Permissions from the City's Street Department shall be obtained via an Encroachment Permit prior to issuance of a Building Permit. Further ROW additions include irrigation, and other landscaping. This has also been made a Condition of Approval.* *Lastly, prior to any public right-of-way landscaping or tree plantings, the Hailey Tree Committee shall review and approve the public ROW landscaping plan. This has been made a Condition of Approval.*
☒	☐	☐	**17.06.070(B) Required Water System Improvements**	**In the Townsite Overlay District, any proposal for new construction or addition of a garage accessing from the alley, where water main lines within the alley are less than six feet (6') deep, the developer shall install insulating material (blue board insulation or similar material) for each and**

				every individual water service line and main line between and including the subject property and the nearest public street, as recommended by the city engineer. (Ord. 1191, 2015)
			Staff Comments	*The Applicant is proposing the construction of a new single-family home that will be accessed off the alleyway. Insulating the water service line and main line within the alley has been made a Condition of Approval.*

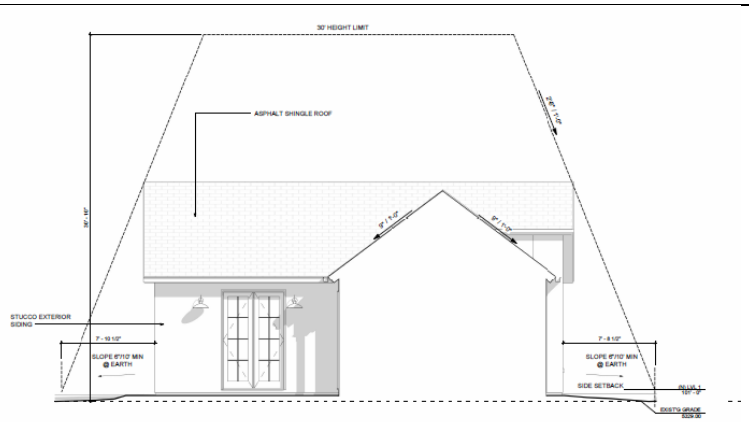
Design Review Guidelines for Residential Buildings in the Townsite Overlay District (TO).

Compliant		**Standards and Staff Comments**		
Yes	**No**	**N/A**	**City Code**	**City Standards and *Staff Comments***
☒	☐	☐	**17.06.090(C)1**	**1) Site Planning**
				Guideline: The pattern created by the Old Hailey town grid should be respected in all site planning decisions.
			Staff Comments	*In 2020 the Applicant applied for and was approved to Demolish the existing structure on the property, a Demolition permit was issued on February 21, 2021- city issued permit #20-240.* *The lot is existing and located in the old Hailey grid, the property respects the old Townsite grid pattern, while allowing for a creative and thoughtful building design.* 
☒	☐	☐		**Guideline: Site planning for new development and redevelopment shall address the following:** • **scale and massing of new buildings consistent with the surrounding neighborhood;** • **building orientation that respects the established grid pattern of Old Hailey;** • **clearly visible front entrances;** • **use of alleys as the preferred access for secondary uses and automobile access;** • **adequate storage for recreational vehicles;**

				• **yards and open spaces;** • **solar access on the site and on adjacent properties where feasible, and where such decisions do not conflict with other Design Guidelines;** • **snow storage appropriate for the property;** • **Underground utilities for new dwelling units.**
			Staff Comments	• *The scale of the proposed residence is consistent with the scale and massing of buildings in the surrounding neighborhood.* • *The front façade and entrance are clearly visible and will face Fourth Avenue, which includes a welcoming front entry on the street façade, as is typical in Old Hailey.* • *The south and west facades, which are the most visible from the street, have roof parapets that help break up the walls.* • *The new single-family residence is accessed via the existing alley.* • *No recreational vehicle storage has been delineated onsite.* • *The proposed residence will span the entire lot with a proposed courtyard and outdoor spaces including garden beds.* • *No passive solar design or solar energy collection devices are proposed at this time.* • *Snow storage has been identified on the site plan and is sufficient for the site.* • *Utilities are existing and are located underground. Any and all new utilities to service the proposed residence will be located underground.*
☒	☐	☐		**Guideline: The use of energy-conserving designs that are compatible with the character of Old Hailey are encouraged. The visual impacts of passive and active solar designs should be balanced with other visual concerns outlined in these Design Guidelines.**
			Staff Comments	*The design intent of the proposed residence is to complement that of the surrounding area, while retaining the character of Old Hailey. The proposed design has a covered entry, and several windows, of various sizes and shapes are proposed throughout.* *No passive solar design or solar energy collection devices are proposed at this time. The client may rough in for photovoltaic panels, which would be installed almost flush with the south facing house roof.*
☒	☐	☐	**17.06.090(C)2**	**2. Bulk Requirements (Mass and Scale, Height, Setbacks)**
				Guideline: The perceived mass of larger buildings shall be diminished by the design.
			Staff Comments	*The building mass is reduced through architectural elements like an interior courtyard, projecting bays that break up the rooflines/wall planes. The nested front gable element further diminished the scale of the structure through a clearly established hierarchy of roof forms.* *Additionally, this single-story structure only reaches a max height of 18.5 feet from existing grade, well below the height limit of 30 feet.*

				
☒	☐	☐	**17.06.090(C)3**	**3. Architectural Character**
			17.06.090(C)3a	**a. General**
				Guideline: New buildings should be respectful of the past, but may offer new interpretations of old styles, such that they are seen as reflecting the era in which they are built.
			Staff Comments	*A covered entry porch and traditional exterior materials/colors nicely integrate into the surrounding area. The gabled roof forms with 9:12 pitches, bracketed portico entry, and overall scale reinterpret traditional*  *Old Hailey architectural styles in a compatible yet contemporary manner. The divided lite windows and accompanying sills are reminiscent of traditional building styles in the area.*
☒	☐	☐	**17.06.090(C)3b**	**b. Building Orientation**
				Guideline: The front entry of the primary structure shall be clearly identified such that it is visible and inviting from the street.

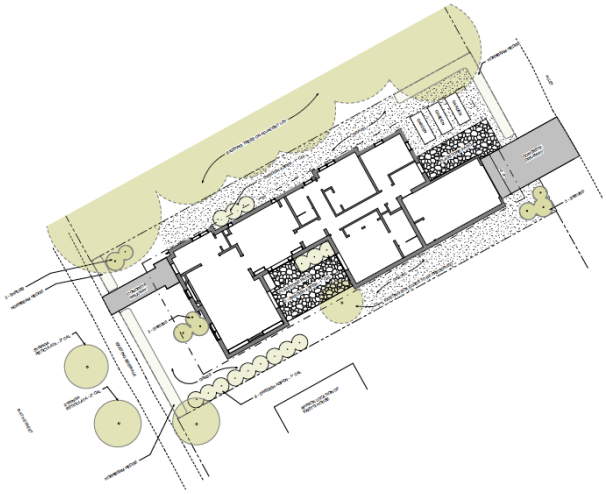
			Staff Comments	*The proposed home orients to the street in a similar manner to adjoining properties. The proposed single-family residence will be accessed from the alley, as is typical in Old Hailey. A covered porch along the front façade and over the front entry is proposed, which is prominent, visible, and inviting from Fourth Avenue.*
☒	☐	☐		**Guideline: Buildings shall be oriented to respect the existing grid pattern. Aligning the front wall plane to the street is generally the preferred building orientation.**
			Staff Comments	*The lot is existing and respects the Old Hailey Townsite grid pattern. A covered porch along the front façade, and over the front entry is proposed, which is prominent and inviting from Fourth Avenue.*
☒	☐	☐	**17.06.090(C)3c**	**c. Building Form**
				Guideline: The use of building forms traditionally found in Old Hailey is encouraged. Forms that help to reduce the perceived scale of buildings shall be incorporated into the design.
			Staff Comments	*A covered front porch, and various-sized windows reduces the massing of the building and breaks up the roofline. The house is composed of intersecting rectangular elements with gabled roofs at a 9:12 historical pitch, the building form incorporates traditional shapes while avoiding long, unbroken planes. The low-pitch garage roof is minimized at the rear, facing the alley.*
☒	☐	☐	**17.06.090(C)3d**	**d. Roof Form**
				Guideline: Roof forms shall define the entry to the building, breaking up the perceived mass of larger buildings, and to diminish garages where applicable.
			Staff Comments	*The south and west facades of the house are the most visible from 4th Avenue, the proposed covered front porch helps to break up the building frontage. The garage is located to the rear of the property and not visible from 4th Avenue.*
☒	☐	☐	**17.06.090(C)3d**	**Guideline: Roof pitch and style shall be designed to meet snow storage needs for the site.** • **Roof pitch materials and style shall retain snow on the roof, or allow snow to shed safely onto the property, and away from pedestrian travel areas.** • **Designs should avoid locating drip lines over key pedestrian routes.** • **Where setbacks are less than ten feet, special attention shall be given to the roof form to ensure that snow does not shed onto adjacent properties.**
			Staff Comments	*The south and west facades of the house are the most visible from 4th Avenue, with the 9:12 primary roof pitch, designed for proper snow shedding away from circulation areas. The asphalt shingle roofing will retain snow, so it does not shed into the alley.*

				
☒	☐	☐	**17.06.090(C)3d**	**Guideline: The use of roof forms, roof pitch, ridge length and roof materials that are similar to those traditionally found in the neighborhood are encouraged.**
			Staff Comments	*The house utilizes a primary 9:12 pitch as well as the front porch which is similar to adjoining properties.*
☒	☐	☐	**17.06.090(C)3d**	**Guideline: The roof pitch of a new building should be compatible with those found traditionally in the surrounding neighborhood.**
			Staff Comments	*The proposed roof pitch is 9:12, which complements other roof pitches in the area and is designed for proper snow shedding away from circulation areas.*
☒	☐	☐	**17.06.090(C)3e**	**e. Wall Planes**
				Guideline: Primary wall planes should be parallel to the front lot line.
			Staff Comments	*The new single family residence orients to the street in a similar manner to adjoining properties, with its primary façade and front porch facing 4th Avenue and approximately parallel to the front lot line.*
☒	☐	☐	**17.06.090(C)3e**	**Guideline: Wall planes shall be proportional to the site and shall respect the scale of the surrounding neighborhood.**
			Staff Comments	*Primary wall planes are parallel to the lot line and the gable ends also run parallel to the street and front lot line.*
☒	☐	☐	**17.06.090(C)3e**	**Guideline: The use of pop-outs to break up longer wall planes is encouraged.**
			Staff Comments	*The Applicant proposed several elements to help break up longer wall planes with projecting bays, and a pattern of traditional window openings which provide scale and interest.*
☒	☐	☐	**17.06.090(C)3f**	**f. Windows**
				Guideline: Windows facing streets are encouraged to be of a traditional size, scale and proportion.
			Staff Comments	*Facing the street, the windows incorporate traditional proportions and patterning. The windows use divided lites and sills to maintain a traditional appearance.*
☒	☐	☐	**17.06.090(C)3f**	**Guideline: Windows on side lot lines adjacent to other buildings should be carefully planned to respect the privacy of neighbors.**

			Staff Comments	*The window placement considers preserving privacy for neighboring properties.*
☐	☐	☒	**17.06.090(C)3g**	**g. Decks and Balconies**
				Guideline: Decks and balconies shall be in scale with the building and the neighborhood.
			Staff Comments	*While no decks/balconies are proposed, there are small entry porticos and an inward-facing courtyard to provide private outdoor spaces.*
☐	☐	☒	**17.06.090(C)3g**	**Guideline: Decks and balconies should be designed with the privacy of neighbors in mind when possible.**
			Staff Comments	*N/A- No decks/balconies are proposed. An inward-facing courtyard to provide private outdoor spaces is proposed.*
☒	☐	☐	**17.06.090(C)3h**	**h. Building Materials and Finishes**
				Guideline: Materials and colors shall be selected to avoid the look of large, flat walls. The use of texture and detailing to reduce the perceived scale of large walls is encouraged.
			Staff Comments	*The proposed residence will complement that of the surrounding neighborhood. The project utilizes an off-white stucco siding with traditional detailing like wood bracket porticos which subtly resemble traditional detailing.* 
☒	☐	☐	**17.06.090(C)3h**	**Guideline: Large wall planes shall incorporate more than one material or color to break up the mass of the wall plane.**
			Staff Comments	*The largest wall plane is broken up by a covered front entry, and the roof pitch both reduce the mass of the building. The roof form and exterior colors encourage human scale and are complementary to the surrounding area. The Applicant is proposing off White Stucco siding.*
☒	☐	☐	**17.06.090(C)3i**	**i. Ornamentation and Architectural Detailing**
				Guideline: Architectural detailing shall be incorporated into the front wall plane of buildings.
			Staff Comments	*Simple detailing is proposed with a covered front entry and porch with detailing such as wood bracket porticos, and an off-white stucco siding, which subtly resemble traditional detailing.*

☒	☐	☐	**17.06.090(C)3i**	**Guideline: The use of porches, windows, stoops, shutters, trim detailing and other ornamentation that is reminiscent of the historic nature of Old Hailey is encouraged.**
			Staff Comments	*The proposed residence aligns with the nature and character of Old Hailey. The south and west facades of the house are most visible with traditional detailing like wood bracket porticos and black clad aluminum windows and doors,*
☒	☐	☐	**17.06.090(C)3i**	**Guideline: Architectural details and ornamentation on buildings should be compatible with the scale and pattern of the neighborhood.**
			Staff Comments	*Please refer to Section 17.06.090(C)3i for further information.*
☒	☐	☐	**17.06.090(C)4**	**4. Circulation and Parking**
				Guideline: Safety for pedestrians shall be given high priority in site planning, particularly with respect to parking, vehicular circulation and snow storage issues.
			Staff Comments	*Pedestrian access to the house will continue to be provided in front of the house from 4th Avenue, while vehicular traffic will be accessed off the alley.*
☒	☐	☐	**17.06.090(C)4**	**Guideline: The visual impacts of on-site parking visible from the street shall be minimized.**
			Staff Comments	*Adequate parking has been provided and is located in the garage off the alley.*
☒	☐	☐	**17.06.090(C)4**	**Guideline: As a general rule, garages and parking should be accessed from the alley side of the property and not the street side.**
			Staff Comments	*The Applicant is proposing vehicular access through the alleyway for the single-family residence.*
☒	☐	☐	**17.06.090(C)4**	**Guideline: Detached garages accessed from alleys are strongly encouraged.**
			Staff Comments	*The garage is proposed to be attached and accessed off the alleyway.*
☐	☐	☒	**17.06.090(C)4**	**Guideline: When garages must be planned on the street side, garage doors shall be set back and remain subordinate to the front wall plane.**
			Staff Comments	*N/A, as the garage will have access from the existing alley.*
☐	☐	☒	**17.06.090(C)4**	**Guideline: When garages and/or parking must be planned on the street side, parking areas are preferred to be one car in width. When curb cuts must be planned, they should be shared or minimized.**
			Staff Comments	*N/A, as the garage will have access from the existing alley.*
☐	☐	☒	**17.06.090(C)4**	**Guideline: Off-street parking space for recreational vehicles should be developed as part of the overall site planning.**
			Staff Comments	*There is no parking for recreational vehicles being proposed, however the Applicant mentioned that there is an opportunity for recreational vehicle parking on the alley side of the lot.*
			17.06.090(C)5	**5. Alleys**

☒	☐	☐		**Guideline: Alleys shall be retained in site planning. Lot lines generally shall not be modified in ways that eliminate alley access to properties.**
			Staff Comments	*The alley is existing and will be utilized for access to onsite parking.*
☒	☐	☐	**17.06.090(C)5**	**Guideline: Alleys are the preferred location for utilities, vehicular access to garages, storage areas (including recreational vehicles) and accessory buildings. Design and placement of accessory buildings that access off of alleys is encouraged.**
			Staff Comments	*Utilities are located underground within the existing alley. Any additional utilities and/or building infrastructure will be located underground within the existing alley.*
☒	☐	☐	**17.06.090(C)5**	**Guideline: Generally, the driving surface of alleys within Limited Residential and General Residential may remain a dust-free gravel surface, but should be paved within Business, Limited Business, and Transitional. The remainder of the city alley should be managed for noxious weed control, particularly after construction activity.**
			Staff Comments	*The parcel is located within the Limited Residential (LR-1) and Townsite Overlay (TO) Zoning Districts. The existing alley that services the residence is of a dust-free gravel, and if noxious weeds are present on the site, the Developer shall control according to State Law.*
☒	☐	☐	**17.06.090(C)5**	**Guideline: Landscaping and other design elements adjacent to alleys should be kept simple and respect the functional nature of the area and the pedestrian activity that occurs.**
			Staff Comments	*The proposed landscaping for the rear/alley of the site is minimal with 3 shrubs and a Hornbeam hedge along the alley property line. Nothing proposed will interfere with pedestrian or vehicular traffic.*
☐	☐	☒	**17.06.090(C)6**	**6. Accessory Structures**
				Guideline: Accessory buildings shall appear subordinate to the main building on the property in terms of size, location and function.
			Staff Comments	*N/A, there are no accessory structures proposed on the site.*
☐	☐	☒	**17.06.090(C)6**	**Guideline: In general, accessory structures shall be located to the rear of the lot and off of the alley unless found to be impractical.**
			Staff Comments	*N/A, there are no accessory structures proposed on the site.*
☒	☐	☐	**17.06.090(C)7**	**7. Snow Storage**
				Guideline: All projects shall be required to provide 25% snow storage on the site.
			Staff Comments	*The Applicant is proposing 130 SF of onsite snow storage which exceeds the required 25% amount. Additionally, there is onsite snow storage proposed for both sides of the pedestrian circulation area (front walkway), an area near the proposed courtyard along the southern side of the site, and along the proposed vehicular circulation area (driveway) at the rear of the site.*
☒	☐	☐	**17.06.090(C)7**	**Guideline: A snow storage plan shall be developed for every project showing:** • **Where snow is stored, key pedestrian routes and clear vision triangles.**

				• **Consideration given to the impacts on adjacent properties when planning snow storage areas.**
			Staff Comments	*Snow storage areas are near the pedestrian and vehicle circulation areas on the site. The proposed locations should not have any impact on neighboring sites.*
☒	☐	☐	**17.06.090(C)8**	**8. Existing Mature Trees and Landscaping**
				Guideline: Existing mature trees shall be shown on the site plan, with notations regarding retention, removal or relocation. Unless shown to be infeasible, a site shall be carefully planned to incorporate existing mature trees on private property into the final design plan.
			Staff Comments	*There is an existing Box Elder tree located on the southern side of the lot that will be preserved and incorporated into the new courtyard.*
☒	☐	☐	**17.06.090(C)8**	**Guideline: Attention shall be given to other significant landscape features which may be present on the site. Mature shrubs, flower beds and other significant landscape features shall be shown on the site plan and be incorporated into the site plan where feasible.**
			Staff Comments	*Landscaping includes xeriscaping elements such as gravel and drought resistant plants, including:* • *9- Swedish Aspen 1" caliper - along Southern property border* • *3- Swedish Aspen 1" caliper - along Northern side* • *3- Swedish Aspen 1" caliper – Near the proposed Courtyard area* • *2- Syringa Reticula 2" caliper –along 4th Avenue/ existing sidewalk* • *Shrubs- Applicant should address the species chosen.* • *Hornbeam hedge along the front and rear of the site* • *3- Garden Beds* 
☒	☐	☐	**17.06.090(C)8**	**Guideline: Noxious weeds shall be controlled according to State Law.**
			Staff Comments	*If noxious weeds are present on the site, the Developer shall control according to State Law.*
			17.06.090(C)9	**9. Fences and Walls**

☐	☐	☒		**Guideline: Fences and walls that abut public streets and sidewalks should be designed to include fence types that provide some transparency, lower heights and clearly marked gates.**
			Staff Comments	*No new fence is proposed with the Design Review Application; however, the Applicant mentioned that any new fence will be constructed as a low picket fence with wrought iron or something similar. The new fence will need to be approved via a Fence Permit Application, which has been made a Condition of Approval.*
☐	☐	☒	**17.06.090(C)9**	**Guideline: Retaining walls shall be in scale to the streetscape.**
			Staff Comments	*N/A, as none are proposed.*
☐	☐	☒	**17.06.090(C)10**	**10. Historic Structures**
				General Guidelines: Any alteration to the exterior of a Historic Structure requiring design review approval shall meet the following guidelines: • **The alteration should be congruous with the historical, architectural, archeological, educational or cultural aspects of other Historic Structures within the Townsite Overlay District, especially those originally constructed in the same Period of Significance.** • **The alteration shall be contributing to the Townsite Overlay District. Adaptive re-use of Historic Structures is supported while maintaining the architectural integrity of the original structure.**
			Staff Comments	*N/A. The structure that was demolished in 2021 was not listed as a historical structure.*
☐	☐	☒	**17.06.090(C)10**	**Specific Guidelines. Any alteration to the exterior of a Historic Structure requiring design review approval shall meet the following specific guidelines:** • **The design features of repairs and remodels including the general streetscape, materials, windows, doors, porches, and roofs shall not diminish the integrity of the original structure.** • **New additions should be designed to be recognizable as a product of their own Period of Significance with the following guidelines related to the historical nature of the original structure:** ~ **The addition should not destroy or obscure important architectural features of the original building and/or the primary façade;** ~ **Exterior materials that are compatible with the original building materials should be selected;** ~ **The size and scale of the addition should be compatible with the original building, with the addition appearing subordinate to the primary building;** ~ **The visual impact of the addition should be minimized from the street;** ~ **The mass and scale of the rooftop on the addition should appear subordinate to the rooftop on the original building, and should avoid breaking the roof line of the original building;** ~ **The roof form and slope of the roof on the addition should be in character with the original building;** ~ **The relationship of wall planes to the street and to interior lots should be preserved with new additions.**
			Staff Comments	*N/A. The structure that was demolished in 2021 was not listed as a historical structure.*

17.06.060 Criteria.

A. The Commission or Hearing Examiner shall determine the following before approval is given:
1. **The project does not jeopardize the health, safety or welfare of the public.**
2. **The project conforms to the applicable specifications outlined in the Design Review Guidelines, as set forth herein, applicable requirements of the Zoning Title, and City Standards.**

B. Conditions. The Commission or Hearing Examiner may impose any condition deemed necessary. The Commission or Hearing Examiner may also condition approval of a project with subsequent review and/or approval by the Administrator or Planning Staff. Conditions which may be attached include, but are not limited to those which will:
1. **Ensure compliance with applicable standards and guidelines.**
2. **Require conformity to approved plans and specifications.**
3. **Require security for compliance with the terms of the approval.**
4. **Minimize adverse impact on other development.**
5. **Control the sequence, timing and duration of development.**
6. **Assure that development and landscaping are maintained properly.**
7. **Require more restrictive standards than those generally found in the Zoning Title.**

C. Security. The applicant may, in lieu of actual construction of any required or approved improvement, provide to the City such security as may be acceptable to the City, in a form and in an amount equal to the cost of the engineering or design, materials and installation of the improvements not previously installed by the applicant, plus fifty percent (50%), which security shall fully secure and guarantee completion of the required improvements within a period of one (1) year from the date the security is provided.
1. **If any extension of the one-year period is granted by the City, each additional year, or portion of each additional year, shall require an additional twenty percent (20%) to be added to the amount of the original security initially provided.**
   In the event the improvements are not completely installed within one (1) year, or upon the expiration of any approved extension, the City may, but is not obligated, to apply the security to the completion of the improvements and complete construction of the improvements.

The following Conditions are suggested for approval of this Application:

a) All applicable Fire Department and Building Department requirements shall be met.
b) Any change in use or occupancy type from that approved at time of issuance of Building Permit may require additional improvements and/or approvals. Additional parking may also be required upon subsequent change in use, in conformance with Hailey's Municipal Code at the time of the new use.
c) All City infrastructure requirements shall be met. Detailed plans for all infrastructure to be installed or improved at or adjacent to the site shall be submitted for Department Head approval and shall meet City Standards where required. The following shall be met:

i. Existing water and sewer services shall be utilized. Inspections by City Staff shall be conducted prior to burial. All connections and infrastructure installation shall comply with City Standards.

ii. The Applicant shall install a metal collar over the City's meter vault, and the proposed landscaping hedge cannot restrict access to said vault. The Applicant shall further protect the City's meter vault during construction. Per the plans, the proposed material storage is located over the meter vault location. The material storage shall be relocated elsewhere onsite to ensure the protection of the City's meter vault.

d) The project shall be constructed in accordance with the Application or as modified by the Findings of Fact, Conclusions of Law, and Decision.

e) All new and existing exterior lighting shall comply with the Outdoor Lighting requirements according to 17.08C.

f) Except as otherwise provided, all the required improvements shall be constructed and completed, or sufficient security provided as approved by the City Attorney, before a Certificate of Occupancy can be issued.

g) This Design Review approval is for the date the Findings of Fact are signed. The Planning & Zoning Administrator has the authority to approve minor modifications to this project prior to, and for the duration of a valid Building Permit.

h) Construction staging and storage shall not be within the City Right-of-Way. All construction impacts shall occur within the property boundary.

i) All utilities shall be located underground, consistent with 17.06.080(A)3h.

j) Any and all existing trees and mature landscaping, noted to be retained, shall be protected throughout the construction process.

k) For improvements within the public right-of-way, an Encroachment Permit shall be submitted and approved prior to the landscaping and tree plantings, and irrigation installation.

l) Prior to street tree plantings, the Hailey Tree Committee shall review and approve the proposed public right-of-way landscaping plan.

m) All water main lines within the alley that are less than six (6) feet deep, shall be insulated with material (blue board insulation or similar material) for each and every individual water service line and main line between and including the subject property and the nearest public street, as recommended by the City Engineer.

n) All new fencing proposed shall be approved via a Fence Permit Application. There is an existing sidewalk that runs along the property frontage of 4th Avenue that needs replacement and/or repair. The Applicant shall either pay a sidewalk in-lieu fee or replace the existing sidewalk along the property's frontage. An in-lieu payment or sidewalk replacement shall occur prior to issuance of a Certificate of Occupancy.

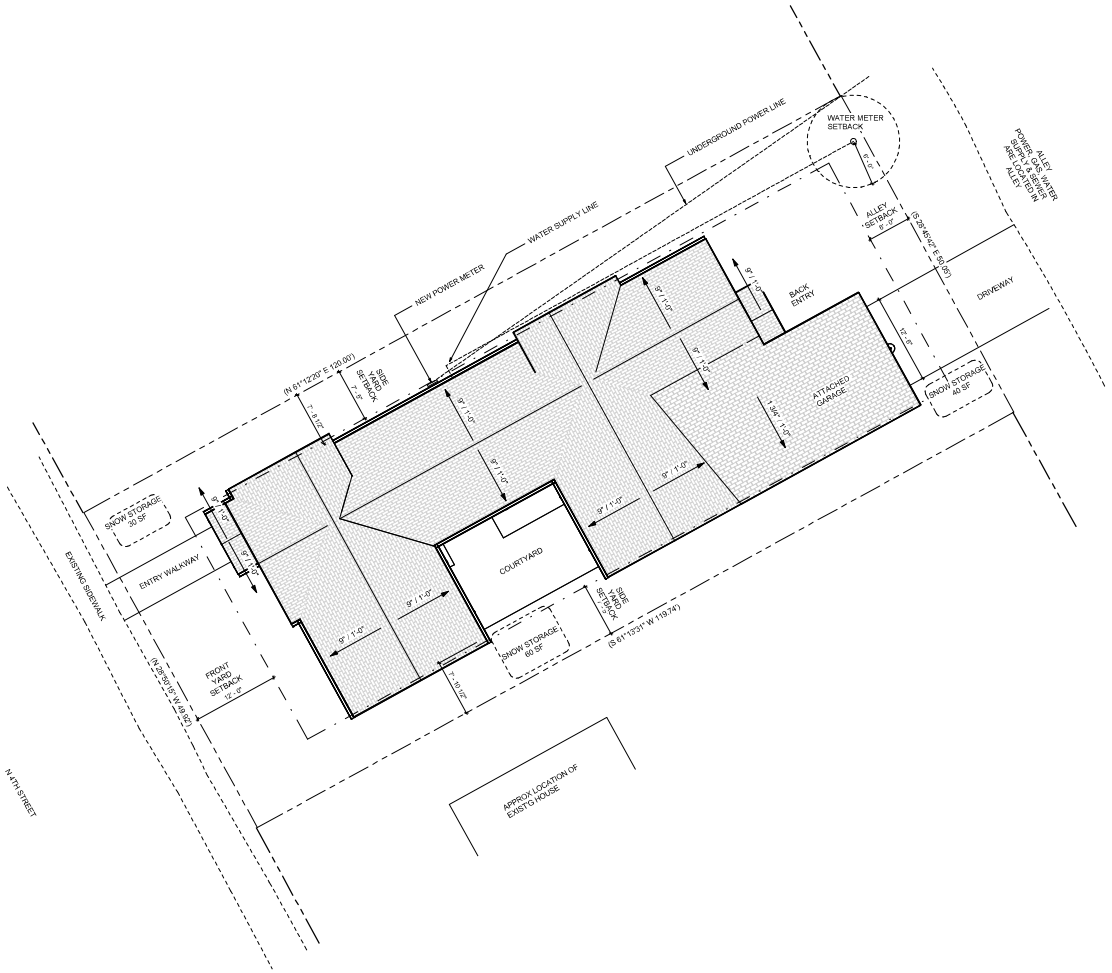
Motion Language:

Approval: Motion to approve this Design Review Application by Holly McCloud for the construction of a new 2,389 square foot single family residence to be located at 216 S. 4th Avenue (Lots 19 & 20, Block 104, Hailey Townsite) within the Limited Residential (LR-1) and Townsite Overlay Zoning Districts., finding that the project does not jeopardize the health, safety or welfare of the public and the project

conforms to the applicable specifications outlined in the Design Review Guidelines, applicable requirements of the Zoning Title, and City Standards, provided conditions (a) through (n) are met.

Denial: Motion to deny the Design Review Application by Holly McCloud for the construction of a new 2,389 square foot single family residence to be located at 216 S. 4th Avenue (Lots 19 & 20, Block 104, Hailey Townsite) within the Limited Residential (LR-1) and Townsite Overlay Zoning Districts, finding that _____ [the Commission should cite which standards are not met and provide the reason why each identified standard is not met].

Continuation: Motion to continue the public hearing to _____ [Commission should specify a date].



2 216 N 4TH STREET SITE PLAN
1/8" = 1'-0"

SHEET INDEX

		DESIGN REVIEW
PR1.0	SITE PLAN	•
PR1.1	SURVEY	•
PR1.2	LANDSCAPE	•
PR1.3	RENDERINGS	•
PR1.4	CONSTRUCTION STAGING PLAN	•
PR1.5	EXTERIOR LIGHTING PLAN	•
A2.1	FLOOR PLAN	•
A2.2	ROOF PLAN	•
A3.0	BUILDING ELEVATIONS	•
A3.1	BUILDING ELEVATIONS	•

PROJECT INFORMATION

OWNER:	HOLLY MCCLOUD
PROJECT ADDRESS:	216 S 4TH AVENUE, HAILEY, ID 83333
LEGAL DESCRIPTION:	HAILEY TOWNSITE, LOTS 19 & 20, BLOCK 104

BUILDING INFORMATION NOTES
ZONING: LIMITED RESIDENTIAL 1 (LR1), TOWNSITE OVERLAY (TO)

BUILDING OCCUPANCY	R-3
BUILDING CONSTRUCTION TYPE	VB
PROPERTY SIZE (MEASURED)	5,990 SF
MAXIMUM TOTAL LOT COVERAGE ALLOWED	2,396 SF
MAXIMUM LOT COVERAGE PERCENT ALLOWED	40%
EXISTING TOTAL LOT COVERAGE	0 SF / 0%
PROPOSED TOTAL LOT COVERAGE	2,389 SF / 39.9%
OFF STREET PARKING:	

CODE INFORMATION

APPLICABLE CODES, AS ADOPTED & AMENDED BY THE CITY OF HAILEY:

2018 INTERNATIONAL RESIDENTIAL CODE
2018 INTERNATIONAL ENERGY CONSERVATION CODE, AS AMENDED BY THE STATE OF IDAHO
2018 INTERNATIONAL FIRE CODE
CITY OF HAILEY BUILD BETTER AMENDMENTS
CITY OF HAILEY MUNICIPAL CODE, TITLE 17, ZONING REGULATIONS

Blaine County GIS

1 VICINITY MAP
12" = 1'-0"

bldg. collective
architecture + interior design

2872 Bluff Street
Boulder, CO 80301

305 Indian Creek Road
Hailey, ID 83333

303.357.1364
info@bldgcollective.com
bldgcollective.com

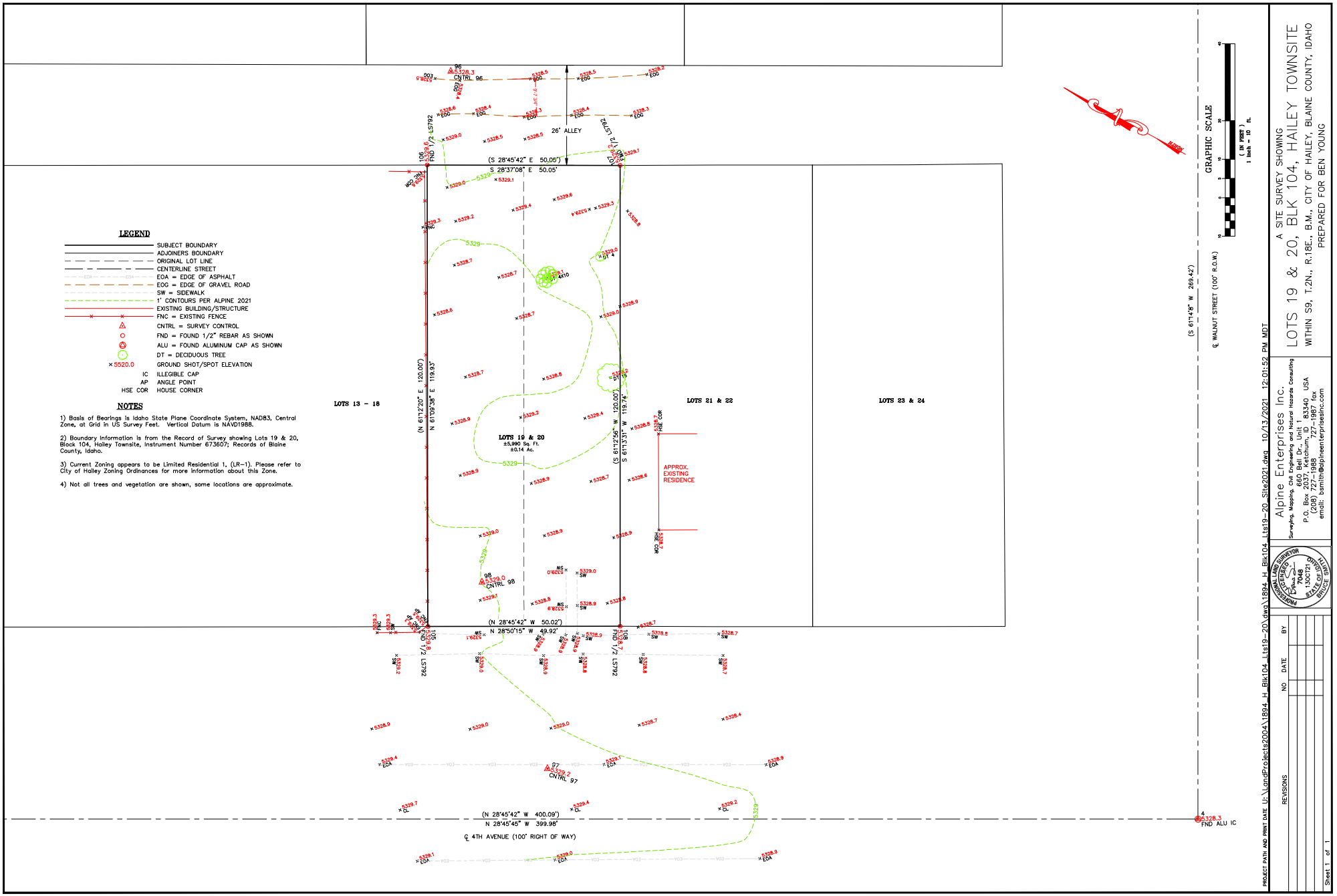
McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333

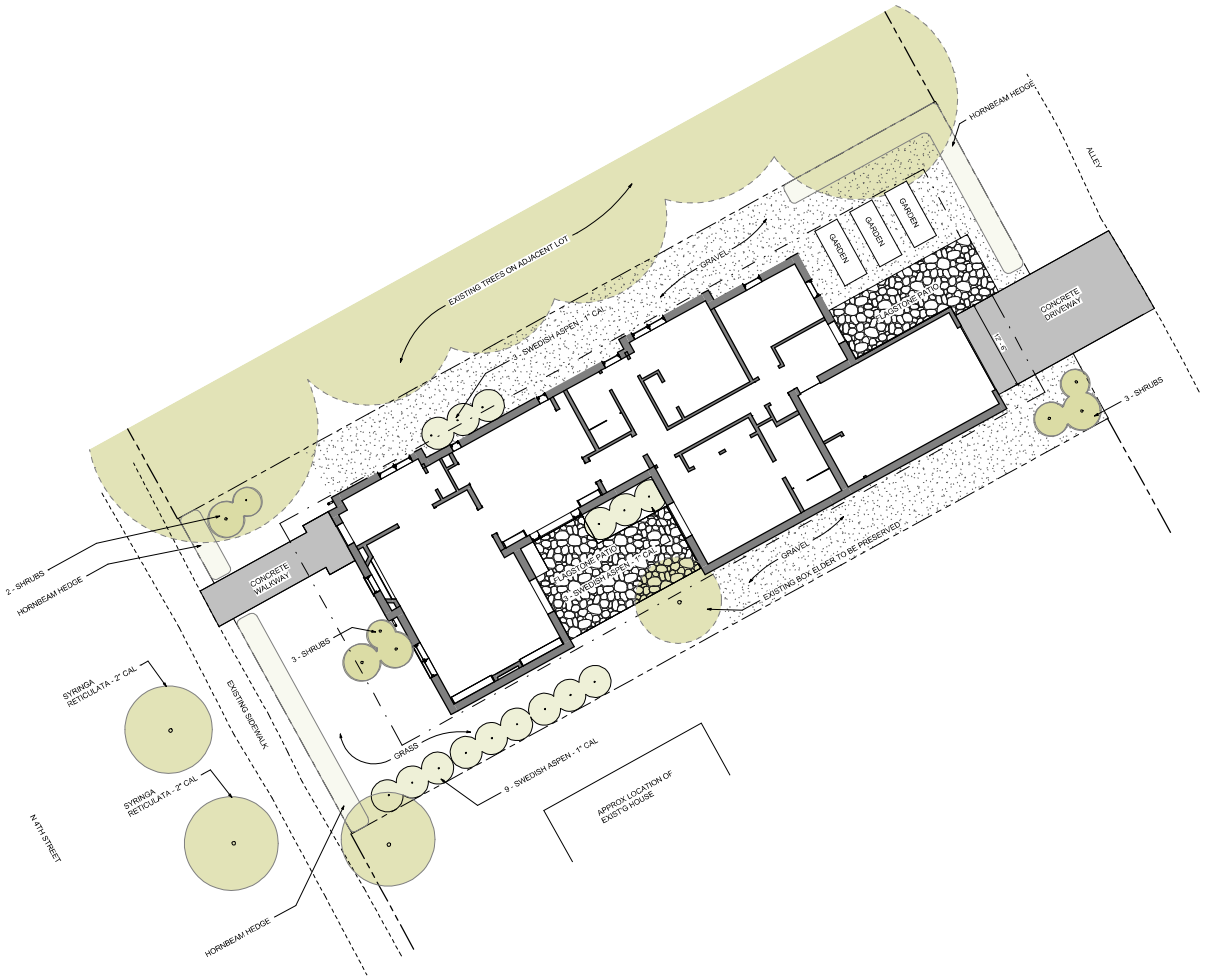
LICENSED ARCHITECT AR - 100307
STEVEN PERCE STATE OF IDAHO

McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333

SITE PLAN

PR1.0


LEGEND
SUBJECT BOUNDARY
ADJOINERS BOUNDARY
ORIGINAL LOT LINE
CENTERLINE STREET
EOA = EDGE OF ASPHALT
EOG = EDGE OF GRAVEL ROAD
SW = SIDEWALK
1' CONTOURS PER ALPINE 2021
EXISTING BUILDING/STRUCTURE
FNC = EXISTING FENCE
CNTRL = SURVEY CONTROL
FND = FOUND 1/2" REBAR AS SHOWN
ALU = FOUND ALUMINUM CAP AS SHOWN
DT = DECIDUOUS TREE
5520.0 GROUND SHOT/SPOT ELEVATION
IC ILLEGIBLE CAP
AP ANGLE POINT
HSE COR HOUSE CORNER
NOTES
1) Basis of Bearings is Idaho State Plane Coordinate System, NAD83, Central Zone, at Grid in US Survey Feet. Vertical Datum is NAVD1988.
2) Boundary Information is from the Record of Survey showing Lots 19 & 20, Block 104, Hailey Townsite, Instrument Number 673607; Records of Blaine County, Idaho.
3) Current Zoning appears to be Limited Residential 1, (LR-1). Please refer to City of Hailey Zoning Ordinances for more information about this Zone.
4) Not all trees and vegetation are shown, some locations are approximate.
LOTS 13 - 18
LOTS 21 & 22
LOTS 23 & 24
LOTS 19 & 20
±5,990 Sq. Ft.
±0.14 Ac.
26' ALLEY
(S 28°45'42" E 50.05')
S 28°37'08" E 50.05'
(N 61°12'20" E 120.00')
N 61°09'38" E 119.93'
(S 61°12'56" W 120.00')
S 61°13'31" W 119.74'
APPROX. EXISTING RESIDENCE
(N 28°45'42" W 50.02')
N 28°50'15" W 49.92'
(N 28°45'42" W 400.09')
N 28°45'45" W 399.98'
℄ 4TH AVENUE (100' RIGHT OF WAY)
(S 61°14'8" W 269.42')
℄ WALNUT STREET (100' R.O.W.)
4 FND ALU IC
GRAPHIC SCALE
(IN FEET)
1 inch = 10 ft.
A SITE SURVEY SHOWING
LOTS 19 & 20, BLK 104, HAILEY TOWNSITE
WITHIN S9, T.2N., R.18E., B.M., CITY OF HAILEY, BLAINE COUNTY, IDAHO
PREPARED FOR BEN YOUNG
Alpine Enterprises Inc.
Surveying, Mapping, Civil Engineering and Natural Hazards Consulting
660 Bell Dr., Unit 1, Ketchum, ID 83340 USA
P.O. Box 2037, Ketchum, ID 83340 USA
(208) 727-1988 727-1987 fax
email: bsmith@alpineenterprisesinc.com
PROFESSIONAL LAND SURVEYOR
BRUCE SMITH
No. 13070
STATE OF IDAHO
REVISIONS
NO DATE BY
PROJECT PATH AND PRINT DATE: U:\LandProjects2004\1894_H_Blk104_Lts19-20\dwg\1894_H_Blk104_Lts19-20_Site2021.dwg 10/13/2021 12:01:52 PM MDT
Sheet 1 of 1



50.06 % XERISCAPE

1 LANSCAPE PLAN
1/8" = 1'-0"

bldg.
collective
architecture + interior design

2872 Bluff Street
Boulder, CO 80301

305 Indian Creek Road
Hailey, ID 83333

303.357.1364
info@bldgcollective.com
bldgcollective.com

McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333

LICENSED ARCHITECT AR - 100307
STEVEN PERCE STATE OF IDAHO

McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333

LANDSCAPE

PR1.2

NORTH EAST BACK PERSPECTIVE

COURTYARD PERSPECTIVE

NORTH PERSPECTIVE

SOUTH WEST FRONT PERSPECTIVE

bldg.
collective
architecture + interior design

2872 Bluff Street
Boulder, CO 80301

305 Indian Creek Road
Hailey, ID 83333

303.357.1364
info@bldgcollective.com
bldgcollective.com

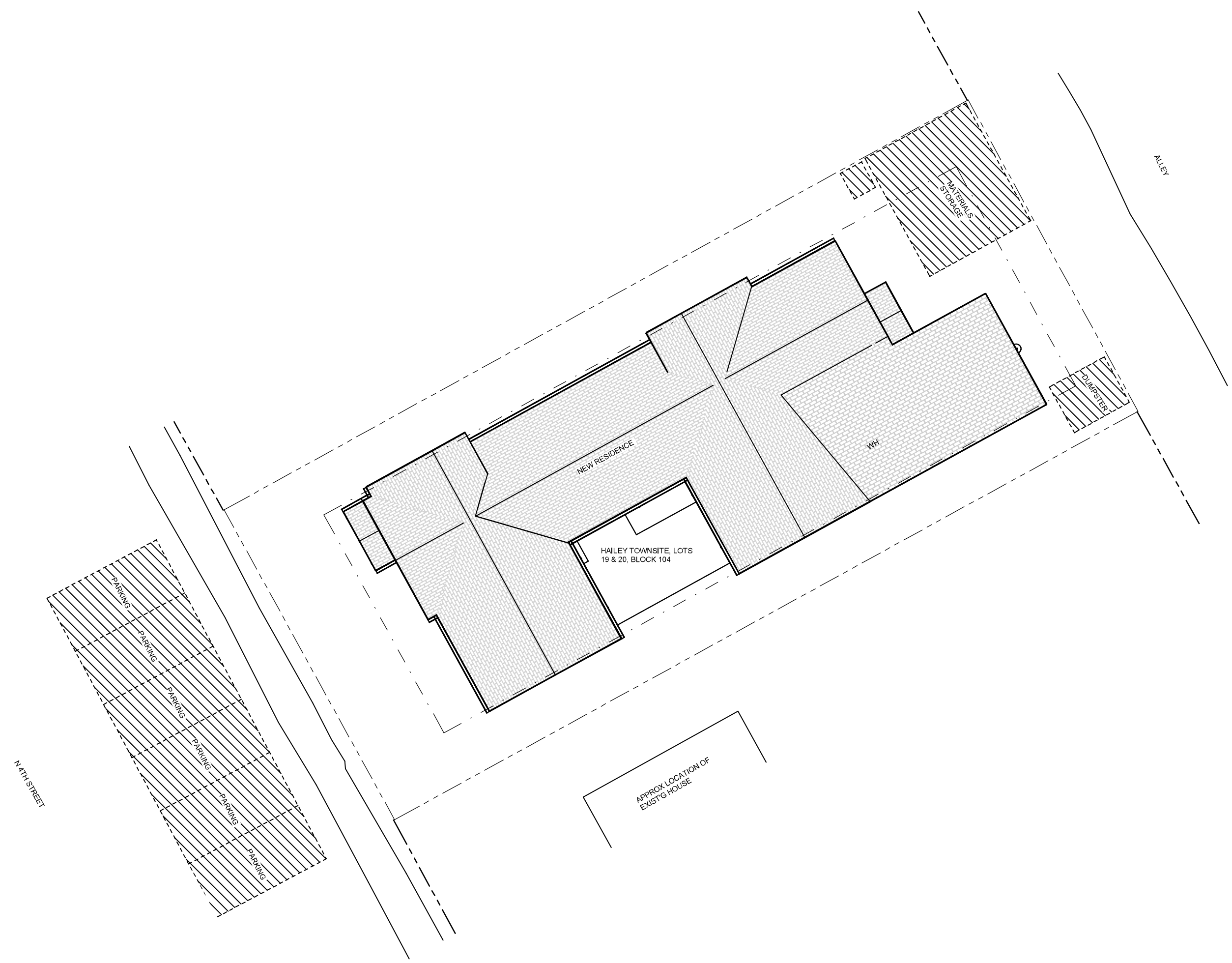
McCLOUD RESIDENCE
216 S 4th St
Hailey,ID 83333

LICENSED ARCHITECT
AR - 984687
STEVEN PERCE
STATE OF IDAHO

McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333

RENDERINGS

PR1.3



1 CONSTRUCTION STAGING PLAN
1/8" = 1'-0"

PRELIMINARY, SUBJECT TO REVIEW BY GENERAL CONTRACTOR WHEN SELECTED

bldg. collective
architecture + interior design

2872 Bluff Street
Boulder, CO 80301

305 Indian Creek Road
Hailey, ID 83333

303.357.1364
info@bldgcollective.com
bldgcollective.com

McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333

LICENSED ARCHITECT
AR - 986937
STEVEN PERCE
STATE OF IDAHO

McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333

CONSTRUCTION STAGING PLAN

PR1.4

VISUAL COMFORT & CO.

8837401-71: Extra Large One Light Outdoor Wall Lantern

Dimensions:

Diameter: 16.0"
Width: 16.0"
Height: 15.0"
Weight: 4.07 lbs.
Extends: 24'
Extends Max: 30'
Wire: 6.5" (color;Black/White)
Mounting Proc.: Cap Nuts
Connection: Mounted To Box

Bulbs:

1 - Medium A19 75.0w Max. 120v Not included

Features:

- Dark Sky friendly. Designed to emit no light above the 90° horizontal plane. Photometry unavailable.
- Easily converts to LED with optional replacement lamps
- Meets Title 24 energy efficiency standards
- Title 24 compliant if used with Joint Appendix (JA8) approved light bulbs listed in the California Energy Commission Appliance database.

Material List:

1 Body - Aluminum - Antique Bronze

Safety Listing:

Safety Listed for Wet Locations

Instruction Sheets:

Trilingual (English, Spanish, and French) (990W8_37401-BRL)

Collection: Barn Light

Gooseneck Lights make great accents to any commercial lighting plan or residential garage entry, machine shed, or patio

To customize your look, a 6" extender is included with every fixture.

Dark sky compliant

Available in four sizes and three finishes

Wet Rated

UPC #:785652069475

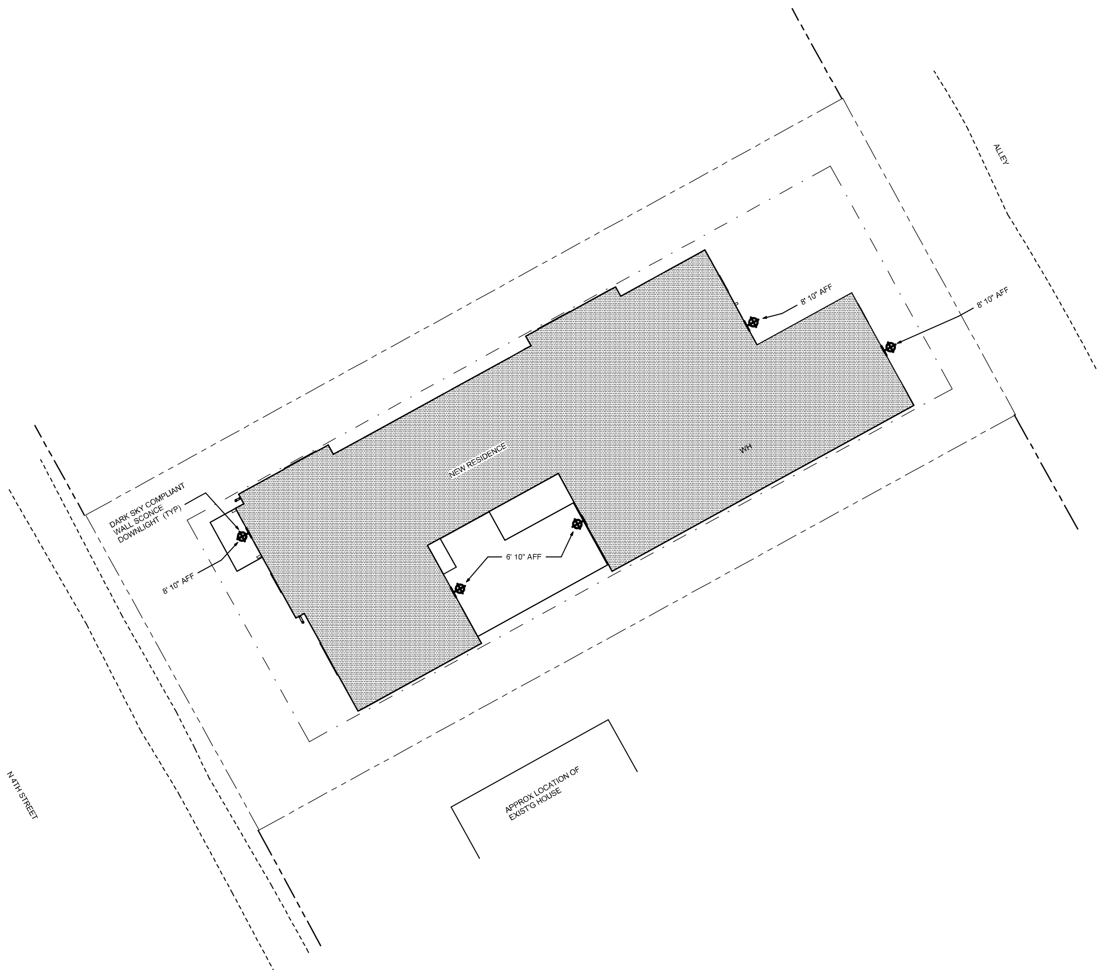
Finish: Antique Bronze (71)

Backplate / Canopy Details:

Type	Height / Length	Width	Depth	Diameter	Outlet Box Up	Outlet Box Down
Back Plate			1.25	5.0	5.88	9.12

Shipping Information:

Package Type	Product #	Quantity	UPC	Length	Width	Height	Cube	Weight	Frt. Class	UPS Ship
Individual	8537401EN3-12	1	785652069475	23.0	18.5	17.25	4.25	6.7	0	Yes
Master Pack	8837401-71	0	10785652069472							No
NJ Pallet		16		48.0	40.0	75.0	83.33	107.2		No
NV Pallet		16		48.0	40.0	75.0	83.33	107.2		No



EXTERIOR LIGHTING

WALL SOCNCE — BARN LIGHT ONE LIGHT OUTDOOR

1 EXTERIOR LIGHTING PLAN
1/8" = 1'-0"

bldg. collective
architecture + interior design

2872 Bluff Street
Boulder, CO 80301

305 Indian Creek Road
Hailey, ID 83333

303.357.1364
info@bldgcollective.com
bldgcollective.com

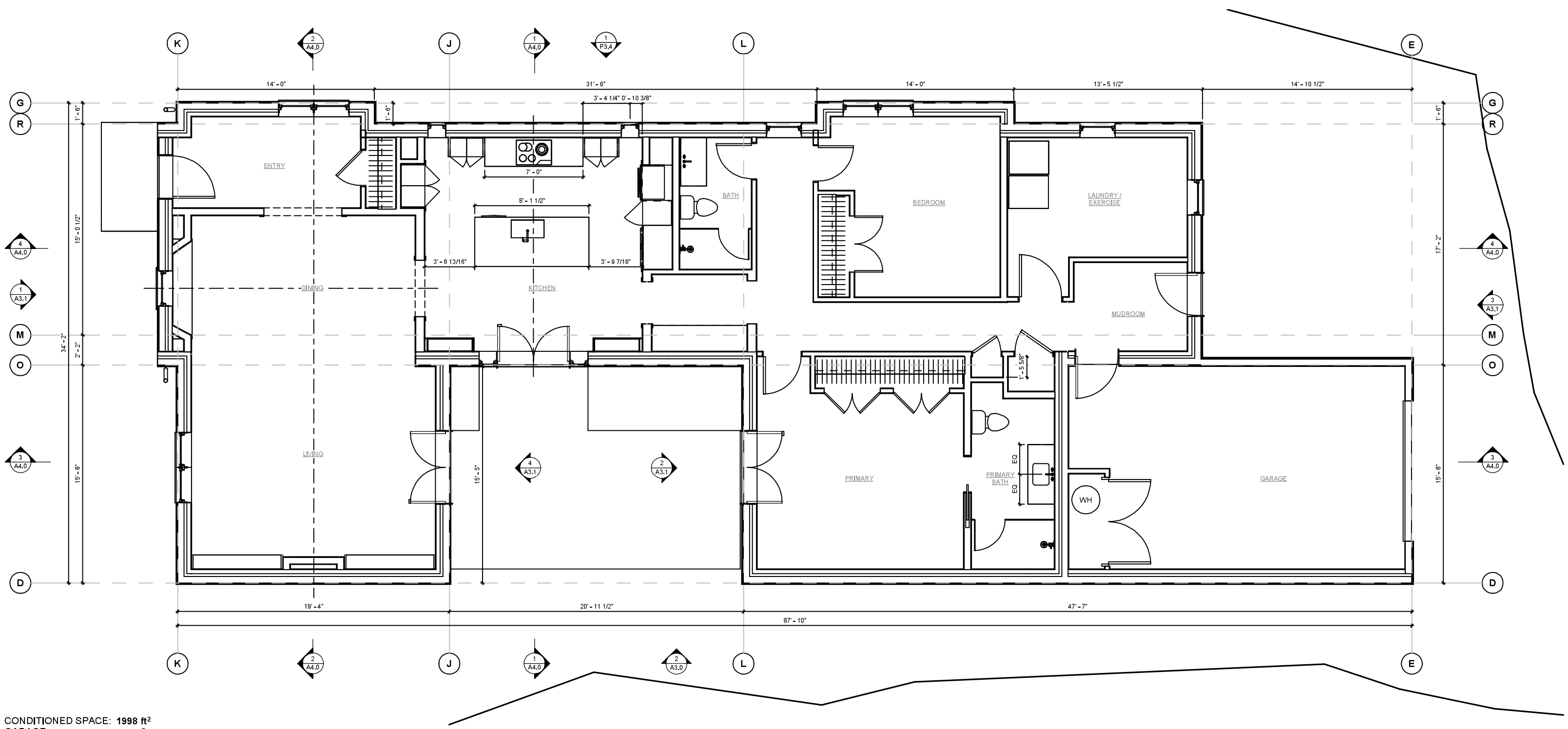
McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333

LICENSED ARCHITECT AR - 986937
STEVEN PERCE
STATE OF IDAHO

McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333

EXTERIOR LIGHTING PLAN

PR1.5



CONDITIONED SPACE: 1998 ft²
GARAGE: 391 ft²
TOTAL AREA: 2389 ft²

1 LEVEL 1
1/4" = 1'-0"

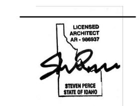
bldg. collective
architecture + interior design

2872 Bluff Street
Boulder, CO 80301

305 Indian Creek Road
Hailey, ID 83333

303.357.1364
info@bldgcollective.com
bldgcollective.com

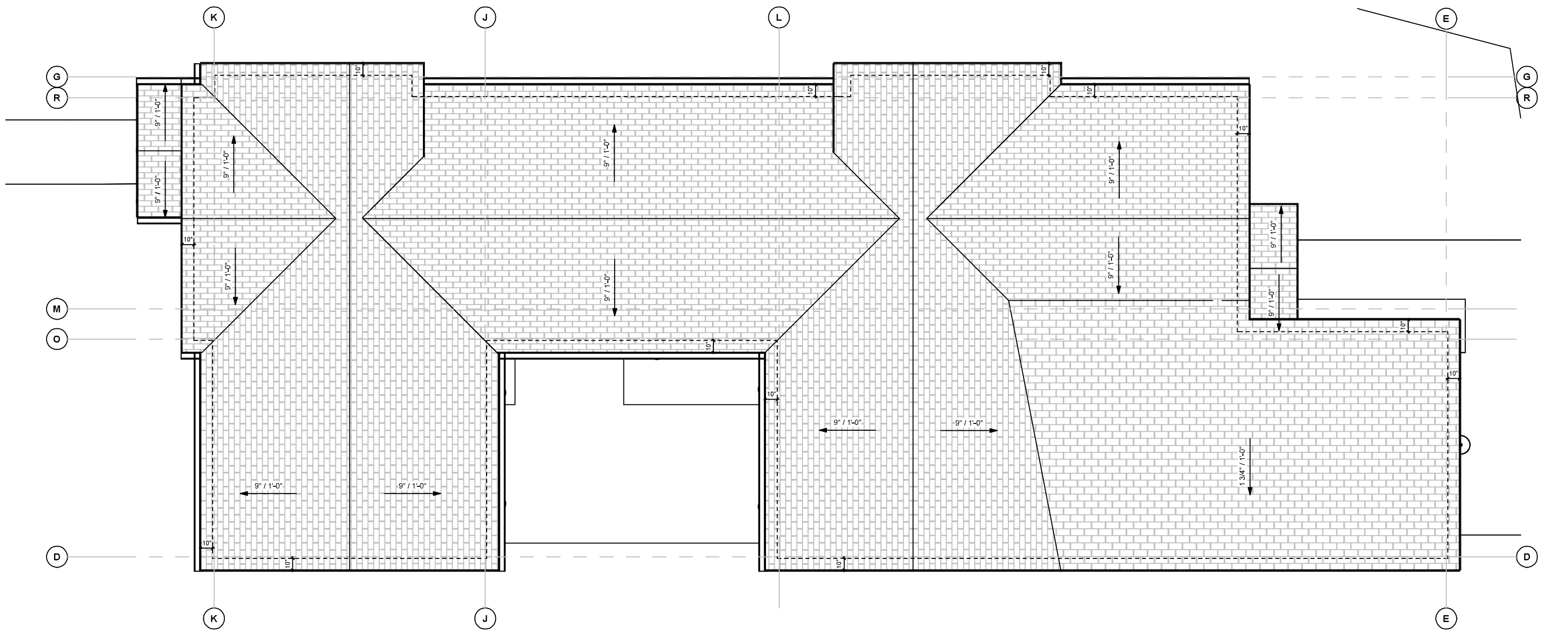
McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333



McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333

FLOOR PLAN

A2.1



1 ROOF PLAN
1/4" = 1'-0"

bldg.
collective
architecture + interior design

2872 Bluff Street
Boulder, CO 80301

305 Indian Creek Road
Hailey, ID 83333

303.357.1364
info@bldgcollective.com
bldgcollective.com

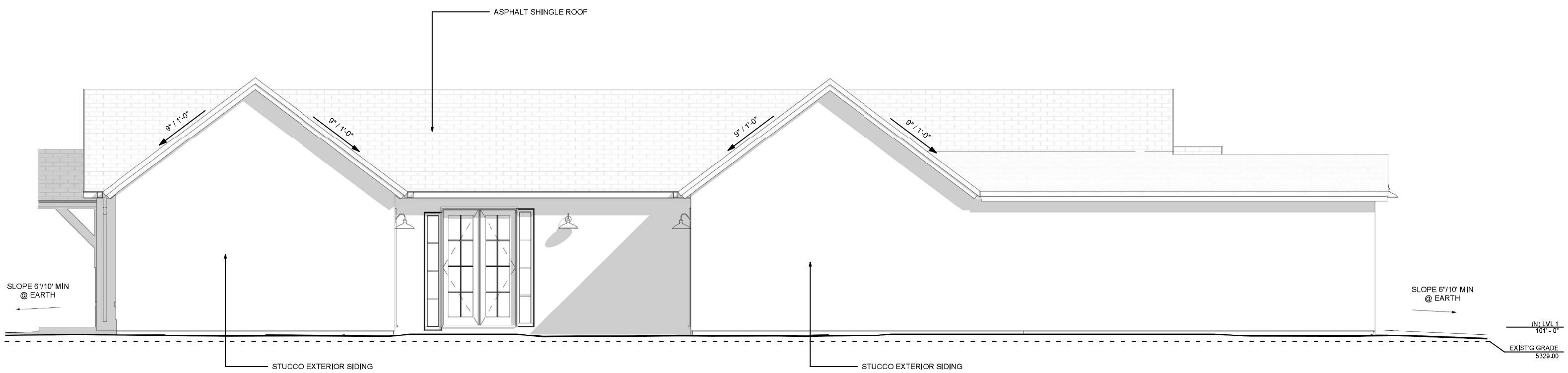
McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333

LICENSED ARCHITECT
AR - 986937
STEVEN PERCE
STATE OF IDAHO

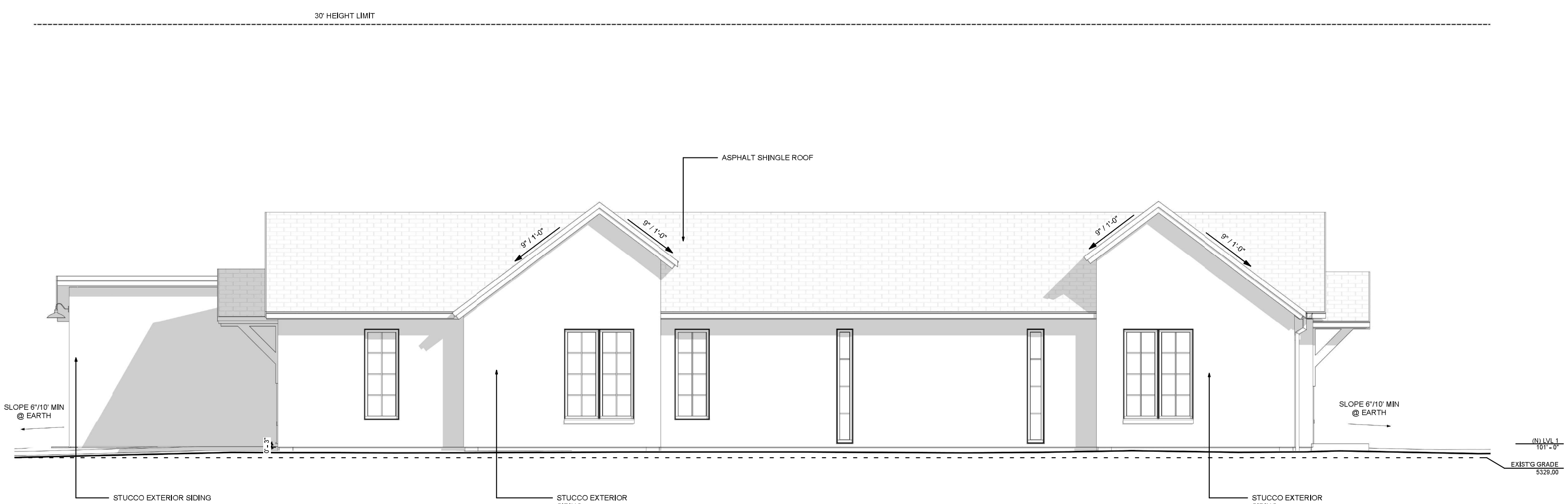
McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333

ROOF PLAN

A2.3



2 SOUTH
1/4" = 1'-0"



1 NORTH
1/4" = 1'-0"

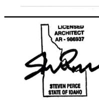
bldg.
collective
architecture + interior design

2872 Bluff Street
Boulder, CO 80301

305 Indian Creek Road
Hailey, ID 83333

303.357.1364
info@bldgcollective.com
bldgcollective.com

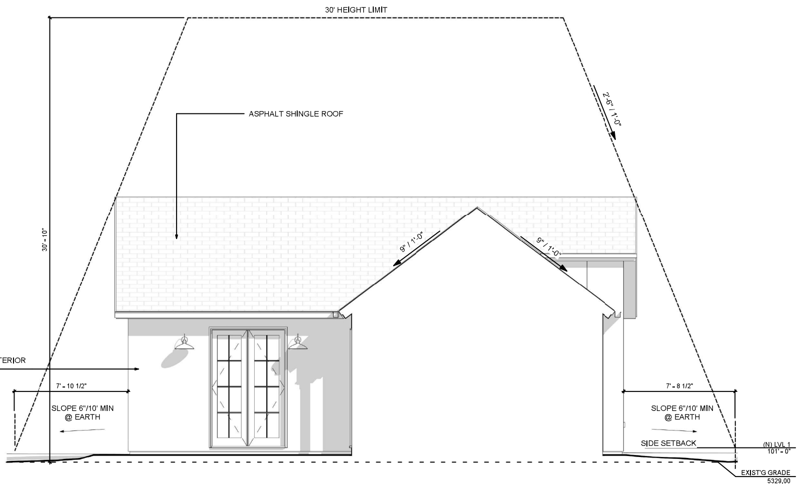
McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333



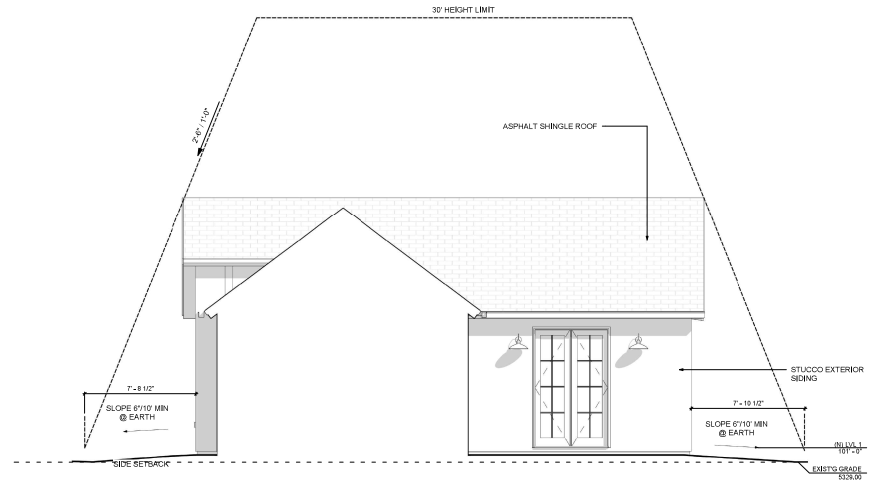
McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333

BUILDING
ELEVATIONS

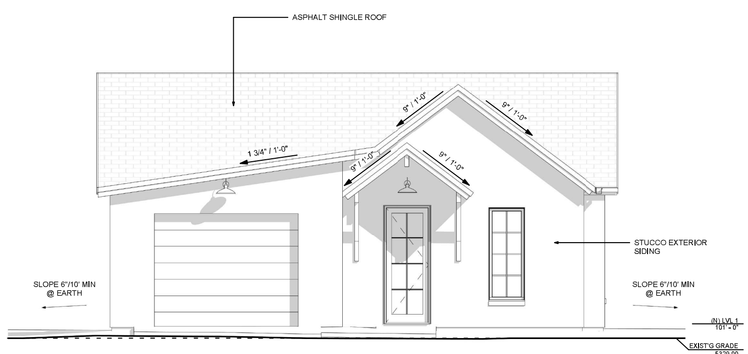
A3.0



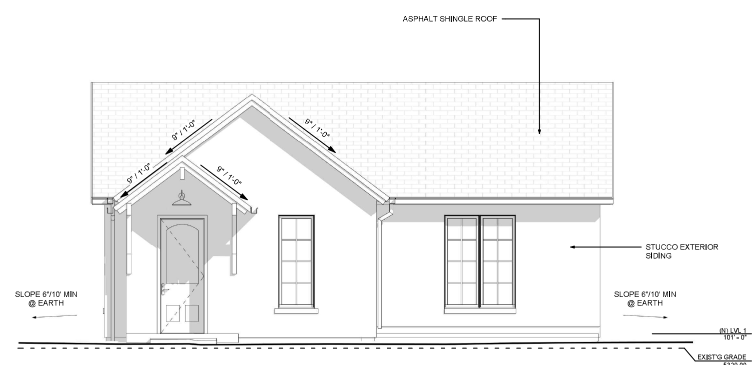
4 COURTYARD- EAST
1/4" = 1'-0"



2 COURTYARD- WEST
1/4" = 1'-0"



3 EAST
1/4" = 1'-0"



1 WEST
1/4" = 1'-0"

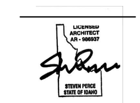
bldg.
collective
architecture + interior design

2872 Bluff Street
Boulder, CO 80301

305 Indian Creek Road
Hailey, ID 83333

303.357.1364
info@bldgcollective.com
bldgcollective.com

McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333



McCLOUD RESIDENCE
216 S 4th St
Hailey, ID 83333

BUILDING ELEVATIONS

A3.1

Return to Agenda

STAFF REPORT
Hailey Planning and Zoning Commission
Regular Meeting of May 20, 2024

To: Hailey Planning and Zoning Commission
From: Ashley Dyer, Community Development City Planner

Overview: Consideration of a Joint Flood Hazard Development Permit and Stream Alteration Permit Application for the Heagle Park Stream Restoration project, located at 2N, 16, Lot 2A, Block 1 Stevens Family Ranch. The proposed project is located in the Special Flood Hazard Area (SFHA) of FIRM Panel 0664E, dated November 26, 2010.

Hearing: May 20, 2024

Background: Cory McCaffrey, River Program Director with the Wood River Land Trust, submitted both a Flood Hazard Development Permit and Stream Alteration Permit for the Heagle Park Stream Alteration project, which completes the Floodplain Restoration Project as outlined herein. The proposed project is located in the Special Flood Hazard Area (SFHA) of FIRM Panel 0664E, dated November 26, 2010.

The project is located near the Della View neighborhood, which experiences flooding during moderate flood events that typically occur during spring snowmelt conditions. While armored with riprap, the streambank has seen significant erosion since 2016 due to small and large flooding events. This on-going bank erosion threatens a City water pump station that is located approximately 300 feet from the river. As a way to mitigate and/or reduce the impacts of future flooding events, this project has been designed to enhance the habitat, and reduce flooding, and flood risk within the Big Wood River.

Specifically, this Project includes the installation of engineered log jam structures, to stabilize the failing bank and improve riparian habitat along the Big Wood River near Hailey's water pump station. The contracted work will also include floodplain benching, revegetation, and side channel grading to improve flood conveyance and in-stream fish habitat. The work requires the installation of timber piles, as well as procurement of logs, boulders, and other project materials. Additionally, there exists two (2) abandoned pipes (approx. 18-inches in diameter) exposed in the active river channel that will be removed and disposed of as part of this project. Pipes appear to be fiberglass and Corrugated Metal (CMP). The enclosed Basis of Design Report presents the Findings of the site assessment and describes the proposed design plan, as well as the certification of no-rise, or no increase in flood elevation levels in the area. An Engineered No-Rise Elevation Certificate is supporting technical data that stipulates that NO impact or NO changes to the base flood elevations, regulatory floodway elevation, or regulatory floodway widths will occur. Because this project is based upon a "No-Rise" certification and will be lowering the Base Flood Elevation (BFE) along a portion of the Big Wood River, the proposed restoration project is required to submit a Letter of Map Revision (LOMR) once the project is complete.

The City of Hailey and Blane County are currently working with FEMA on the Big Wood PMR that will update the floodplain impacts in the area. In discussion with FEMA, the LOMR process is appropriate where the project is lowering the BFE's. Once approved by FEMA, this LOMR would then be incorporated into the new PMR.

The river and floodplain restoration treatments presented in the attached design plans were developed using standard fluvial geomorphic techniques that have been demonstrated to be successful during recent projects and have a high probability of success within this reach of the Big Wood River. Project benefits include:

- Return area to natural elevation and increase floodplain connectivity.
- Bank stabilization using natural materials.
- Protection of the City of Hailey pump station
- Enhance fish and wildlife habitat.
- Increase flood conveyance through the reach.

Application: The Applicant has obtained all required approvals from Blaine County, the Idaho Department of Water Resources, and the US Army Corps of Engineers. The final step in the process is for the review and approval by the Hailey Planning and Zoning Commission prior to the commencement of site preparation and remedial work. As a Condition of Approval, all requirements of the approvals noted above shall be met by the Applicant. Further review and recommendations by City Staff are noted herein.

Title 17: Zoning Regulations, Chapter 17.04: Establishment, Purposes and Uses within Zoning Districts, Article J: Flood Hazard Overlay District (FH)

17.04J.060. Standards for Development in the Special Flood Hazard Area

Substantial Improvement/Damage Determination: The proposed project is a Stream Alteration project and is not subject to substantial improvement/damage regulations.

Has criteria been met?	Standard	Evaluation
A. General Standards		
Yes	1. All new construction, substantial improvements, and development, including manufactured homes and accessory buildings, shall be designed (or modified) and adequately anchored to prevent flotation, collapse, and lateral movement of the structure, all new construction and substantial improvements shall be designed with engineered foundations and all development shall be reasonably safe from flooding.	The development proposed consists of the installation of engineered log jam structures, to stabilize a failing bank and improve riparian habitat along the Big Wood River near Hailey, Idaho. The work requires the installation of timber piles, as well as procurement of logs, boulders, and other project materials. No construction is proposed, and the topography will remain unaltered once the rock material has been replaced.
N/A	2. All new construction, substantial improvements, and development shall be constructed with materials and utility equipment resistant to flood damage in accordance with the Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, and available from the Federal Emergency Management Agency.	The river and floodplain restoration treatments presented in the attached design plans were developed using standard fluvial geomorphic techniques that have been demonstrated to be successful during recent projects and have a high probability of success within this reach of the Big Wood River. No construction nor utility work is proposed.

Yes	3. All new construction, substantial improvements, and development shall be constructed by methods and practices that minimize flood damages.	The development proposed consists of the installation of engineered log jam structures, to stabilize a failing bank and improve riparian habitat along the Big Wood River near Hailey, Idaho. No construction is proposed, and the topography will remain unaltered once the rock material has been replaced. The applicant has proposed a plan to limit damage to existing riparian vegetation and to reseed and replant as necessary to any disturbed areas.
N/A	4. All new and replacement electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding to the flood protection elevation, except as provided for in Sections 17.04J.060.A.7 and 17.04J.060.B.4 Additions/Improvements below. These include, but are not limited to, HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric/gas meter panels/boxes, utility/cable boxes, hot water heaters, and electric outlets/switches.	No utility work is proposed.
N/A	5. Any proposed water supply and sanitation system shall prevent disease, contamination, and unsanitary conditions as follows: a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwater into the system. b. All new and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwater into the systems and discharges from the systems into floodwaters. c. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.	No water supply and sanitation system work are proposed.
N/A	6. A fully enclosed area, of new construction and substantially improved structures, which is below the lowest floor shall: a. be constructed entirely of flood resistant materials at least to the flood protection elevation; and b. include, in Zones A, AE, AH, AO, and A1-30, flood openings to automatically equalize hydrostatic flood forces on walls by	No building construction is proposed.

	allowing for the entry and exit of floodwaters. To meet this requirement, the openings must either be certified by a professional engineer or architect or meet or exceed the following minimum design criteria: i. A minimum of two flood openings on different sides of each enclosed area subject to flooding; ii. The total net area of all flood openings must be at least one (1) square inch for each square foot of enclosed area subject to flooding or per engineered flood opening requirements; iii. If a building has more than one enclosed area, each enclosed area must have flood openings to allow floodwaters to automatically enter and exit; iv. The bottom of all required flood openings shall be no higher than one (1) foot above the interior or exterior adjacent grade, but only the net area of the flood opening below the base flood elevation may contribute to the required opening size; v. Flood openings may be equipped with screens, louvers, or other coverings or devices, provided they permit the automatic flow of floodwaters in both directions; and vi. Enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require flood openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires flood openings as outlined above.	
N/A	7. Nothing in this ordinance shall prevent the repair, reconstruction, or replacement of a building or structure existing on the effective date of this ordinance and located totally or partially within the floodway, flood fringe area, or stream setback, provided there is no additional encroachment below the flood protection elevation in the floodway, flood fringe area, or stream setback, and provided that such repair, reconstruction, or replacement meets all of the other requirements of this ordinance.	No building construction is proposed.

N/A	8. New solid waste disposal facilities and sites, hazardous waste management facilities, salvage yards, and chemical storage facilities shall not be permitted in the special flood hazard area, except by variance as specified in Section 17.04J.050.E.9. A structure or tank for chemical or fuel storage incidental to an allowed use or to the operation of a water treatment plant or wastewater treatment facility may be located in a special flood hazard area only if the structure or tank is either elevated or floodproofed to at least the flood protection elevation and certified in accordance with the provisions of Section 17.04J.050.C.3, Certification Requirements.	No solid waste proposal facility is proposed.
Yes	9. The proposed development shall cause no significant danger to life and property due to increased flood heights or velocities; no materials may be swept onto other lands or downstream to the injury of others and the proposed development shall be reasonably safe from flooding.	The development proposed will improve the channel conveyance through an existing side channel located along the west valley wall. The project includes the installation of engineered log jam structures, to stabilize a failing bank, improve riparian habitat along the Big Wood River, and provide multi-objective actions to protect the pump station, reduce local flood depths, and enhance fish habitat.
Yes	10. The proposed location shall represent the safest location on the subject property for the proposed use.	The proposed alteration project encompasses approximately 1,500 lineal feet of the river where the Big Wood River passes through the Della View Subdivision. Currently, the left streambank is armored with riprap, but the rock is failing, and the streambank has been experiencing significant erosion since 2016. The on-going bank erosion threatens a City water pump station that is located approximately 300 feet from the river.
Yes	11. Safe access to the property shall be available in times of a base flood for ordinary and emergency vehicles.	The proposed project maintains safe access to the property by using the existing vehicular access (public right-of-way) along War Eagle Drive.
Yes	12. Inherent natural characteristics of the watercourses shall be preserved.	The natural characteristics of the Big Wood River will be enhanced with this proposed restoration project.
Yes	13. Existing riparian vegetation and wildlife habitat along the stream bank and within the required one hundred foot (100') riparian setback shall be preserved.	The Applicant has proposed a plan to limit damage to existing riparian vegetation and to reseed and replant as necessary to any disturbed areas.

Yes	14. New landscaping shall include plantings that are low growing and have dense root systems to stabilize stream banks and to repair any damage previously done to riparian vegetation.	The proposed plantings include reseeding with native grasses and installation of "willow brush trenches" consisting of black cottonwood, willow bundle.
Yes	15. Any chemicals or other toxic materials that could cause contamination of surface waters or groundwater, or that could be injurious to public health, safety, and welfare, shall be located at the flood protection elevation and stored in a manner that prevents their release in the event of a flood.	The proposed project includes the removal of two (2) abandoned pipes (approx. 18-inches in diameter) that are exposed in the active river channel. The pipes will be removed and disposed of as part of this project. Pipes appear to be fiberglass and Corrugated Metal (CMP). As a Condition of Approval, any chemicals or other toxic materials that could cause contamination of surface waters or groundwater, or that could be injurious to public health, safety, and welfare, shall be located at the flood protection elevation and stored in a manner that prevents their release in the event of a flood.
N/A	16. When a structure is partially located in a special flood hazard area, the entire structure shall meet the requirements for new construction and substantial improvements.	The proposed project does not involve any structures.
N/A	17. When a structure is located in multiple flood hazard zones or in a flood hazard risk zone with multiple base flood elevations, the provisions for the more restrictive flood hazard risk zone and the highest base flood elevation (BFE) shall apply.	The proposed project does not involve any structures.
Yes	18. Fill is prohibited in the SFHA, including construction of buildings on fill, unless compensatory storage is provided so that the total amount of fill placed on the site does not exceed the amount excavated from the site. Placement of fill necessary to satisfy drainage requirements of the building code shall be allowed if determined necessary by the floodplain administrator. However, any placement of fill must be evaluated by the floodplain administrator to ensure that it does not have adverse impact on neighboring properties. This includes not giving City of Hailey approval when asked by FEMA to review Conditional Letters or Letters of Map Revision (CLOMR-F or LOMR-F) unless they meet the above requirements.	The project engineer submitted a No-Rise Certificate for any fill in the SFHA.
B. Specific Standards		

N/A	1. Residential Construction. New construction and substantial improvements shall have the top of the lowest floor, including basement, elevated no lower than the flood protection elevation, as defined in Section 17.04J.020, DEFINITIONS of this ordinance.	No residential construction is proposed.
N/A	2. Non-Residential Construction. New construction and substantial improvements, of any commercial, industrial, or other non-residential structure shall have the top of the lowest floor, including basement, elevated no lower than the flood protection elevation, as defined in Section 17.04J.020, DEFINITIONS of this ordinance. Structures located in Zones A, AE, AH, AO, and A1-30 may be floodproofed to the flood protection elevation in lieu of elevation provided that all areas of the structure, together with attendant utility and sanitary facilities, below the flood protection elevation are watertight with walls substantially impermeable to the passage of water, using structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. For AH and AO Zones, the floodproofing elevation shall be in accordance with Section 17.04J.060.F.2. A registered professional engineer or architect shall certify that the floodproofing standards of this subsection are satisfied. Such certification shall be provided to the floodplain administrator as set forth in Section 17.04J.050.C.3, Certification Requirements, along with the operational plan and the inspection and maintenance plan.	No construction of a non-residential structure is proposed.
N/A	3. Manufactured Homes. This section applies to placement of all new manufactured homes in the jurisdiction. a. New and replacement manufactured homes shall be elevated so that the lowest floor of the manufactured home is no lower than the flood protection elevation, as defined in Section 17.04J.020, DEFINITIONS of this ordinance. b. Manufactured homes shall be securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement, by a certified engineered foundation system. c. All enclosures or skirting below the lowest floor shall meet the requirements of Section 17.04J.060.A.6.	No manufactured homes are proposed.

	d. An evacuation plan must be developed for evacuation of all residents of all new, substantially improved, or substantially damaged manufactured home parks or subdivisions located within flood prone areas. This plan shall be filed with and approved by the floodplain administrator and the local emergency management coordinator.	
N/A	4. Additions/Improvements. a. Additions and/or improvements to pre-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are: i. not a substantial improvement - the addition and/or improvements must be designed to minimize flood damages and must not be any more non-conforming than the existing structure; or ii. a substantial improvement - both the existing structure and the addition and/or improvements must comply with the standards for new construction. b. Additions to post-FIRM structures that are a substantial improvement with no modifications to the existing structure other than a standard door in the common wall shall require only the addition to comply with the standards for new construction. c. Additions and/or improvements to post-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are: i. not a substantial improvement - the addition and/or improvements only must comply with the standards for new construction; or ii. a substantial improvement - both the existing structure and the addition and/or improvements must comply with the standards for new construction. d. Repairs to post-FIRM structures when the repairs in combination with any additions/improvements to the existing structure are: i. not a substantial improvement - the repairs only must comply with the standards for new construction in place at the time of original construction; or	No addition to an existing structure is proposed.

	ii. a substantial improvement - both the repairs to the existing structure and the addition and/or improvements must comply with the standards for new construction. e. Any combination of repair, reconstruction, rehabilitation, addition, or improvement of a building or structure taking place during a one (1) year period, the cumulative cost of which equals or exceeds fifty percent (50%) of the market value of the structure before the improvement or repair is started, must comply with the standards for new construction. For each building or structure, the one (1) year period begins on the date of the first improvement or repair of that building or structure subsequent to the effective date of this ordinance. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the actual repair work performed. The requirement does not, however, include either: i. Any project for improvement of a building required to correct existing health, sanitary, or safety code violations identified by the building official and that are the minimum necessary to assume safe living conditions; or ii. Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.	
N/A	5. Recreational Vehicles. Recreational vehicles shall be either: a. Temporary Placement i. Be on site for fewer than 180 consecutive days and be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities, and has no permanently attached additions); or b. Permanent Placement. i. Recreational vehicles that do not meet the limitations of temporary placement shall meet all the requirements for new construction, as set forth in Section 17.04J.060.A, General Standards.	No recreational vehicles are proposed.

N/A	6. Temporary Non-Residential Structures. Prior to the issuance of a floodplain development permit for a temporary structure, the applicant must submit to the floodplain administrator a plan for the removal of such structure(s) in the event of a flash flood or other type of flood warning notification. The following information shall be submitted in writing to the floodplain administrator for review and written approval: a. A specified time period for which the temporary use will be permitted. Time specified may not exceed six (6) months, renewable up to one (1) year; b. The name, address, and phone number of the individual responsible for the removal of the temporary structure; c. The time frame prior to the event at which a structure will be removed (i.e., immediately upon flood warning notification); d. A copy of the contract or other suitable instrument with the entity responsible for physical removal of the structure; and e. Designation, accompanied by documentation, of a location outside the special flood hazard area, to which the temporary structure will be moved.	No temporary non-residential structures are proposed.
N/A	7. Accessory Structures that do not Include Living Space. When such accessory structures (sheds, detached garages, etc.) are to be placed within a special flood hazard area, elevation or floodproofing certifications are required for all accessory structures in accordance with Section 17.04J.050.C.3, Certification Requirements, and the following criteria shall be met: a. Accessory structure shall not be used for human habitation (including working, sleeping, living, cooking, or restroom areas); b. Accessory structure shall be designed to have low flood damage potential; c. Accessory structure shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters; d. Accessory structure shall be firmly anchored in accordance with the provisions of Section 17.04J.060.A.1; e. All service facilities, such as electrical, shall be installed in accordance with the provisions of Section 17.04J.060.A.4; and f. Flood openings to facilitate automatic equalization of hydrostatic flood forces shall	No accessory structures are proposed.

	be provided below flood protection elevation in conformance with the provisions of Section 17.04J.060.A.6.b. If said accessory structure has a footprint less than two hundred (200) square feet and satisfies the criteria outlined in a - f above, it is not required to meet the elevation or floodproofing standards of Section 17.04J.060.B.2, Non-Residential Construction.	
N/A	8. Tanks. When gas and liquid storage tanks are to be placed within a special flood hazard area, the following criteria shall be met: a. Underground tanks in flood hazard areas shall be anchored to prevent flotation, collapse, or lateral movement resulting from hydrodynamic and hydrostatic loads during conditions of the base flood, including the effects of buoyancy (assuming the tank is empty); b. Elevated above-ground tanks, in flood hazard areas shall be attached to and elevated to or above the flood protection elevation on a supporting structure that is designed to prevent flotation, collapse, or lateral movement during conditions of the base flood. Tank-supporting structures shall meet the foundation requirements of the applicable flood hazard area; c. Not elevated above-ground tanks, that do not meet the elevation requirements of Section 17.04J.060.B.2 of this ordinance shall be permitted in flood hazard areas provided the tanks are anchored or otherwise designed and constructed to prevent flotation, collapse or lateral movement resulting from hydrodynamic and hydrostatic loads during conditions of the design flood, including the effects of buoyancy assuming the tank is empty and the effects of flood-borne debris. d. Tank inlets, fill openings, outlets and vents shall be: i. At or above the flood protection elevation or fitted with covers designed to prevent the inflow of floodwater or outflow of the contents of the tanks during conditions of the base flood; and ii. Anchored to prevent lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the base flood.	No tanks are proposed.

N/A	9. Construction of Below-Grade Crawlspace. a. The interior grade of a crawlspace must not be more than two (2) feet below the exterior lowest adjacent grade (LAG). b. The height of the below-grade crawlspace, measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall, must not exceed four (4) feet at any point. c. There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace. The enclosed area should be drained within a reasonable time after a flood event. d. The velocity of floodwaters at the site should not exceed five (5) feet per second for any crawlspace.	No crawlspace is proposed.
N/A	10. Other Development in the Flood Fringe. a. Fences in the flood fringe: that have the potential to block the passage of floodwaters, such as stockade fences and tightly spaced wire mesh fences, shall be open below the base flood elevation to allow the free passage of floodwaters. Minimum two-inch (2") mesh shall be allowed below the base flood elevation if necessary to prevent the passage of pets and children. Seasonal removal of fencing mesh is encouraged. Fences are prohibited in the floodway. b. Floodplain development permit applications for fences shall be processed through the fence permit review process and shall be subject only to the fence permit application fee. All provisions of Chapter 17.04J, Flood Hazard Overlay District (FH) shall apply in addition to the provisions of Chapter 17.08, Article A, Fences, Signs.	No fences are proposed.
N/A	11. Subdivision plats. Flood zones. All subdivision proposals shall: a. Be consistent with the need to minimize flood damage and determined to be reasonably safe from flooding. b. Have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage. c. Have adequate drainage provided to reduce exposure to flood hazards. d. Minimize flood damage, to the extent possible, through design criteria, such as requiring building envelopes, minimizing the	No subdivision is proposed.

	size of building envelopes, locating building envelopes in the safest locations, reducing the number and size of encroachments in the floodplain and providing unobstructed passage of floodwaters. e. Include the mapped flood hazard zones from the effective FIRM shown on the preliminary plat. f. Have received all necessary permits from those governmental agencies for which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 USC 1334. g. Provide a note on the final plat documenting the current flood zone in which the property or properties are located. The boundary line must be drawn on the plat in situations where two or more flood zones intersect over the property or properties being surveyed. h. Include the following notes on each subdivision plat: FEMA FIRM panel(s): #160xxxxxC, & 160xxxxxE, etc. FIRM effective date(s): mm/dd/year Flood Zone(s): Zone X, Zone A, Zone AE, A Zone AO, Zone, AH, Zone D, etc. Base Flood Elevation(s): AE ____.0 ft., etc. Flood Zones are subject to change by FEMA & all land within a floodway or floodplain is regulated by _____ chapter/section of the City/County Code.	
N/A	12. Critical Facilities. Critical Facilities, where permitted, shall be constructed at a three-foot (3') flood protection elevation (FPE).	No critical facilities are proposed.
17.04J.070 City Issued Stream Alteration Permit		
Standards: No Stream Alteration Permit shall be issued unless the Commission finds adequate evidence that the following mandatory requirements have been met:		
Yes	a. The Applicant agrees to obtain and abide by all necessary permits from the Army Corps of Engineers, from the Idaho Department of Water Resources, and compliance with sections 9 and 10 of the Endangered Species Act, if applicable.	All necessary permits have been applied for from the required State and Federal Agencies.
Yes	b. The Stream Alteration desired will not involve placing an encroachment, structure, fill, deposit, obstruction, storage of materials or storage of equipment in the floodway unless certification by a registered engineer is provided demonstrating that such alteration will not result in any increase in flood levels during occurrence of a 100-year flood.	The Applicant submitted an Engineered No-Rise Certificate supporting the Stream Alteration project.

Yes	c. The Stream Alteration desired will not materially increase the area of the Floodplain and Floodway Subdistricts.	The proposed Stream Alteration project will not increase the floodplain or the floodway. By improving the side channel and multi-objective restoration actions, the local flood depths will be reduced.
Yes	d. No property of another person will be adversely affected by the proposed stream alteration whether such property is adjacent to, upstream or downstream from the proposed stream alteration.	The proposed project will not have adverse effects on adjoining properties. The primary purpose of this project is to provide restoration actions to protect the pump station, reduce local flood depths, and enhance fish habitat.
Yes	e. The Stream Alteration does not jeopardize the City's participation in the National Flood Insurance Program.	All necessary permits have been obtained and all adjoining properties and communities have been notified.
Yes	f. Adjacent communities, the U.S. Army Corps of Engineers and the Idaho Department of Water Resources stream channel alteration program must be notified prior to any alteration or relocation of a water source. Evidence of notification must be submitted to the Floodplain Administrator and to the Federal Emergency Management Agency.	All necessary State and Federal agencies have been notified.
Yes	g. The Applicant shall be responsible for providing the necessary maintenance for the altered or relocated portion of the watercourse so that the flood carrying capacity will not be diminished.	The altered or relocated watercourse will have the same or greater capacity as the original watercourse. Additionally, once the alteration is made, the capacity of the altered or relocated watercourse must be maintained over time. The Wood River Land Trust will establish objectives for the long term, recognize that ecosystems are dynamic, and that change is inevitable, and deal with uncertainty by using adaptive approaches to restoration. The Wood River Land Trust will further implement the Restoration Effectiveness Monitoring Program for three (3) years following project completion to ensure long-term success.

17.06.060 Criteria.

A. The Commission or Hearing Examiner shall determine the following before approval is given:

1. **The project does not jeopardize the health, safety, or welfare of the public.**
2. **The project conforms to the applicable specifications outlined in the Design Review Guidelines, as set forth herein, applicable requirements of the Zoning Title, and City Standards.**

B. Conditions. The Commission or Hearing Examiner may impose any condition deemed necessary. The Commission or Hearing Examiner may also condition approval of a project with subsequent review and/or approval by the Administrator or Planning Staff. Conditions which may be attached include, but are not limited to those which will:

1. **Ensure compliance with applicable standards and guidelines.**
2. **Require conformity to approved plans and specifications.**
3. **Require security for compliance with the terms of the approval.**
4. **Minimize adverse impact on other development.**
5. **Control the sequence, timing, and duration of development.**
6. **Assure that development and landscaping are maintained properly.**
7. **Require more restrictive standards than those generally found in the Zoning Title.**

C. Security. The applicant may, in lieu of actual construction of any required or approved improvement, provide to the City such security as may be acceptable to the City, in a form and in an amount equal to the cost of the engineering or design, materials and installation of the improvements not previously installed by the applicant, plus fifty percent (50%), which security shall fully secure and guarantee completion of the required improvements within a period of one (1) year from the date the security is provided.

1. **If any extension of the one-year period is granted by the City, each additional year, or portion of each additional year, shall require an additional twenty percent (20%) to be added to the amount of the original security initially provided.**
2. **In the event the improvements are not completely installed within one (1) year, or upon the expiration of any approved extension, the City may, but is not obligated, to apply the security to the completion of the improvements and complete construction of the improvements.**

The following Conditions of Approval are suggested to be placed on approval of this Application:

1. All requirements of permits issued by State and Federal Departments; Blaine County, the Idaho Department of Water Resources, and the US Army Corps of Engineers shall be met; including requiring the project to be built to Idaho Department of Water Resources, Army Corps of Engineers, and/or City of Hailey Standard Specifications and Standard Drawings.
2. Issuance of all required and necessary Federal and State permits (e.g., 404 permits).
3. Any chemicals or other toxic materials that could cause contamination of surface waters or groundwater, or that could be injurious to public health, safety, and welfare, shall be located at the flood protection elevation and stored in a manner that prevents their release in the event of a flood.
4. Any altered or relocated portion of said watercourse shall be maintained by the Applicant so that the flood carrying capacity is not diminished.
5. The Applicant Shall submit a Letter of Map Revision (LOMR) with FEMA once the restoration project is complete.
6. The proposed Alteration project timeline for the project is from July 16, 2024, with a projected end date of 21 days, which would be August 6, 2024. Any and all reseeding efforts shall be completed within this timeline.
7. Wherever possible, the Applicant shall complete work at times of lowest water.
8. Wherever possible, all work shall be completed with appropriate construction equipment.
9. A registered engineer shall certify, in writing, that the work has been completed according to the City requirements and stipulations.
10. The Applicant shall preserve the existing vegetation, revegetation or placement of fish or wildlife enhancement features as best as possible.

Motion Language:

Approval: Motion to approve the Joint Flood Hazard Development Permit and Stream Alteration Permit Application for the Heagle Park Stream Restoration project, located at 2N, 16, Lot 2A, Block 1, Stevens Family Ranch. The proposed project is located in the Special Flood Hazard Area (SFHA) of FIRM Panel 0664E, dated November 26, 2010, finding that the project does not jeopardize the health, safety or welfare of the public and the project conforms to the applicable specifications outlined in Title 17: Flood Hazard Development Review Guidelines, applicable requirements of the Flood Hazard Overlay District (FH), and City Standards, provided conditions (1) through (10) are met.

Denial: Motion to deny the Joint Flood Hazard Development Permit and Stream Alteration Permit Application for the Heagle Park Stream Restoration project, located at 2N, 16, Lot 2A, Block 1 Stevens Family Ranch. The proposed project is located in the Special Flood Hazard Area (SFHA) of FIRM Panel 0664E, dated November 26, 2010. finding that _____ [the Commission should cite which standards are not met and provide the reason why each identified standard is not met].

Continuation: Motion to continue the public hearing to _____ [Commission should specify a date].

Building Permit # ___-_____
FHDP Permit # ___-_____

Flood Hazard Development Permit Application

Project Name: Heagle Park Floodplain Restoration Project

Owner Name: Wood River Land Trust Phone: 208 788 3947 Email: info@woodriverlandtrust.org

Street Address of Property: 43.50607, -114.31251

Legal Description of Property: Subdivision Stevens Family Ranch Lot(s) 2A, Block 1,

Existing building gross sq. ft. (if applicable) _____ Proposed addition or new construction sq. ft. _____

Description of Work: Streambank restoration, floodplain benching, revegetation, and excavating an inlet to the side channel along Della Mountain to improve habitat and flood conveyance capacity.

Zoning: ☐A ☐B ☐GR ☐LR-1 ☐LR-2 ☐TN ☐LB ☐LI ☐TI ☐SCI-I ☐SCI-SO ☒RGB ☐NB

Property Owner Consent:
By signature hereon, the property owner acknowledges that City officials and/or employees may, in the performance of their functions, enter upon the property to inspect, post legal notices, and/or other standard activities in the course of processing this application, pursuant to Idaho Code §67-6507. The property owner is also hereby notified that members of the Planning and Zoning Commission and City Council are required to generally disclose the content of any *ex parte* discussion (outside the hearing) with any person, including the property owner or representative, regarding this application.

Property Owner's Signature: _____Date: _____ / _____ / _____

DESCRIPTION OF DEVELOPMENT:

☐ New Construction
☐ Addition or Improvements
☐ Accessory Structure or Use
☒ Watercourse Alteration
☐ Subdivision
☐ Remodel
☐ Repair

☒ Excavation
☐ Fill
☒ Grading
☐ Fence
☐ Other_____

The proposed development is located in the: ☒ Floodway ☒ 100-year Floodplain

Base Flood Elevation: 5279 feet

Value of Construction: NA

FOR CITY USE ONLY **Fees:** *Cost of additional noticing, recording fees, and other direct costs will also be assessed.*

☐ Substantial Impact	$ 450.00
☐ Non-Substantial Impact	$ 100.00
☐ Subdivision	$ 300.00
☐ Review Assess Document (R.A.D)	$ 300.00
Publication cost	$ 50.00
Mailing (# of addresses _____) x (_____ *postage + .15 paper, envelope & label)*	$ _____
Total Due	$ _____

REQUIRED SUBMITTALS:

x Plans drawn to scale showing.
x The existing contours with intervals of one foot (1') or less of the elevation of the entire property.
x The proposed contours with intervals of one foot (1') or less of the elevation of the entire property, Base Flood Elevation.
x the location, dimensions, and elevations of the proposed improvements, including buildings, structures, fill, drainage facilities, driveways and streets.
x If flood-proofing is proposed, Certification by a registered professional engineer that the flood-proofing methods meet the flood hazard reduction provisions of Hailey Zoning Ordinance Section 4.10.
x A description of the extent to which any watercourse would be altered or relocated.
x All required and necessary federal and state permits, including studies and mitigation plans for wetlands (e.g., 404 permits).
x For work in the Floodway Sub-district, No-Rise Certification from a registered professional engineer that Encroachments, including fill, new construction, substantial improvements, and other development do not result in any increase in flood levels during the occurrence of a Flood (4.10.8.C.13)
x FEMA Elevation Certificate completed by a registered Professional Engineer or Land Surveyor for any building construction.
City of Hailey Floodplain Foundation Detail, if applicable.

PERMIT REVIEW PROCEDURE:

A Flood Hazard Development Permit shall be obtained before any site alteration, construction or development begins within or upon any area located within the Floodplain Sub-District. All applications for a Flood Hazard Development Permit for a subdivision shall be evaluated and approved or denied by the Commission and Council. All other Flood Hazard Development Permit applications shall be evaluated and approved or denied by the Flood Hazard Development Permit Board. The Board shall consist of the Floodplain Administrator, the City Engineer, and the Building Official.

City of Hailey – Floodplain Subdistrict Use Regulations

Uses in the floodplain subdistrict are limited to the following:

A. Permitted Uses:
    1. Open space and recreational uses, provided the uses do not involve development, and
    2. River restoration projects provided a stream alteration permit is issued.
B. Permit Required: Uses requiring a flood hazard development permit:
    1. Any development,
    2. Subdivisions, and
    3. Accessory structures affixed to the ground, e.g., Tiny Homes on Wheels.
C. Prohibited Uses:
    1. Any use not mentioned herein that is susceptible to flood damage from the base flood or that could potentially cause flood damage from such a flood to other property.
    2. RVs and ATVs stored or kept outdoors on any property more than one hundred eight (180) consecutive days; RVs and ATVs or other vehicles must be fully licensed and ready for highway use.
D. Bulk Requirements: For other supplementary location and bulk regulations, see Chapter 17-07 of this title.
    1. Minimum Lot Size: Twenty Thousand (20,000 square feet for buildable lots. No minimum lot size for unbuildable lots. All land laying within the floodway subdistrict shall not be included in determining lot size.
    2. Minimum Lot Width: Seventy-five feet (75').
    3. Minimum Front Yard Setback: Twenty-five feet (25').
    4. Minimum Side and Rear Yard Setback: The setback from the adjacent property line shall be one foot (1') for every two feet (2') of building height for all portions of the building exceeding twenty feet (20') in height; however, no side or rear yard shall be less than ten feet (10').
    5. Riparian Setback: Unless otherwise provided for herein, all permanent buildings and structures in the flood hazard overlay district shall have a one hundred foot (100') wide riparian setback from the mean high-water mark of the Big Wood River. Removal of live vegetation or excavation within the riparian setback is prohibited, except for any tree that has been recommended for removal by a certified arborist, in writing, because the tree has been found to potentially endanger the resident(s) of the property on which it is located or any member of the public, or has become hazardous to any street, alley or other public right of way or public utility, or because the removal of a tree would substantially improve the health of other trees on the property. Pruning of trees and planting of riparian trees, shrubs, ground cover within the riparian setback are allowed; provided, however, that all plantings conform to the condition set forth in subsection 17.04J.080 D8 of this article. Where the application of the one-hundred-foot (100') riparian setback and other applicable setbacks will result in a building site of one thousand (1000) square feet; provided, however, the riparian setback shall not be less than fifty feet (50'). (Ord. 1191, 2015)

119 E. Bullion Street
Hailey, Idaho 83333
Phone: 208.788.3947

WoodRiverLandTrust.org
Federal ID: 82-0474191

Date: **March 25, 2024**

Code Compliance Specialist/Floodplain Manager for Blaine County
Land Use and Building Services
219 1st Ave. South, Suite 208
Hailey Idaho 83333
pzcounter@co.blaine.id.us.

Subject: **Big Wood River, Heagle Park Floodplain Restoration Project, Stream Alteration Permit**

Dear Floodplain Manager,
This letter and accompanying materials are provided as the application package for a Stream Alteration Permit to complete the Heagle Park Floodplain Restoration Project.

The Project includes the installation of engineered log jam structures, to stabilize a failing bank and improve riparian habitat along the Big Wood River near Hailey, Idaho. The contracted work will also include floodplain benching, revegetation, and side channel grading to improve flood conveyance and in-stream fish habitat. The work requires the installation of timber piles, as well as procurement of logs, boulders, and other project materials. Additionally, there exists (2) two abandoned pipes (approx. 18-inch diameter) exposed in the active river channel that will be removed and disposed as part of this project. Pipes appear to be fiberglass and Corrugated Metal (CMP). The enclosed Basis of Design Report presents the findings of the site assessment and describes the proposed design plan, as well as the certification of no-rise.

Project benefits include:
- Return area to natural elevation and increase floodplain connectivity
- Bank stabilization using natural materials
- Protection of the City of Hailey pump station
- Enhance fish and wildlife habitat
- Increase flood conveyance through the reach

The river and floodplain restoration treatments presented in the attached design plans were developed using standard fluvial geomorphic techniques that have been demonstrated to be successful during recent projects and have a high probability of success within this reach of the Big Wood River. Please review the materials and let me know if you have any questions about the proposed treatments. Thank you for your time in review of this application for a stream alteration permit.

Sincerely,

Cory McCaffrey
River Program Director
Wood River Land Trust

Land Use & Building Services
Stream Alteration Permit Application

219 1st Avenue South, Suite 208 Hailey, ID 83333
(208) 788-5570

Permit Application Number _____

Applicant or Permittee	Property Owner Name Wood River Land Trust	Owner Mailing Address 119 E. Bullion St. Hailey, ID 83333	Phone 208-788-3947	Email Address info@woodriverlandtrust.org
	Engineer/Agent Name & Company Greg Woloveke / Environmental Science Associates	Engineer/Agent Mailing Address 2081 Alaskan Way Suite 200	Phone 541 840 0807	Email Address gwoloveke@esassoc.com
	Primary Contact Name (if different than owner/agent) Cory McCaffrey	Company Wood River Land Trust	Phone 208-788-3947	Email Address cory@woodriverlandtrust.org

Property & Project Info	Physical Address or Vicinity of Project 43.50607, -114.31251		Legal Description (Township, Section, Lot, Block, Sub) 2N, 16, Lot 2A, Block 1, Stevens Family Ranch
	Name of Adjacent Stream Big Wood River	Projected Start Date July 16, 2024	Project Duration 21 days
	Contractor Name and Company TBD	Contractor Phone Number	Contract Email (if available)

Please provide a short narrative of the proposed project and equipment to be utilized **including access route to site**:

The Project includes the installation of engineered log jam structures to stabilize a failing bank and improve riparian habitat along the Big Wood River near Hailey, Idaho. The contracted work will also include floodplain benching and side channel grading to promote increased flood conveyance and flood storage. The work requires the installation of timber piles, as well as procurement of logs, boulders, and other project materials. Additionally, there exists (2) two abandoned pipes (approx. 18-inch diameter) exposed in the active river channel that will be removed and disposed as part of this project. Pipes appear to be fiberglass and Corrugated Metal (CMP). Access to the work site will be through a small access road off of War Eagle Drive that is owned by the City of Hailey. Equipment may include various excavators, skid steers, and dump trucks.

Owner or Authorized Representative's Signature	Date
X	

ACKNOWLEDGMENTS

The undersigned certifies that (s)he is the owner or authorized representative of the land in question and that (s)he has filled in this application to the best of his/her knowledge, and that (s)he agrees to comply with all county codes and state laws, as amended, regulating properties in Blaine County, Idaho. The applicant agrees in the event of a dispute concerning the interpretation or enforcement of the conditional use permit in which the County of Blaine is the prevailing party to pay reasonable attorney's fees and costs, including fees and costs of appeal for the County of Blaine.

The undersigned grants permission to County Personnel to inspect any property which is the subject of this application until such time as all condition(s) of approval attached to the application(s) have been satisfied.

Internal Use Only

Date Application Filed _____/_____/_____

Required Fee $600.00 Paid on_____

Refundable Notice Board Fee: $50.00 Paid on_____

Surrounding Landowner Notices
Current Postage + .15¢ ea x _____ =_____ Paid on_____

Total:_____ Receipt #_____

Note: Additional engineering and consultant fees are calculated based on the time spent by County hired private consultants and their staff to review various projects. These fees are to be paid in full upon receipt and prior to scheduling an applicant's public hearing. The applicant will be billed.

Include the following with your application: (*Include as applicable, additional information may be requested for review*)

☑ Application Fee ($600.00)

☑ Refundable Board Fee ($50.00)

☑ Surrounding Landowner Notices (Current postage + .15¢ ea)

☑ A cross section of the area to be altered, if requested by County Engineer, showing the stream channel, floodway limit lines, elevation of land areas adjacent to base flood elevations according to the Flood Insurance Study.

☑ Map showing names of property owners, including private road owners, on both sides of the stream, 300 feet upstream and 1,000 feet downstream from the proposed work site. Names and addresses of these landowners typed on mailing labels.

☑ A copy of completed Joint Application for Permit U. S. Army Corps of Engineers (COE), Idaho Department of Water Resources (IDWR), and Idaho Department of Lands (IDL) including color photographs of project area.

☑ Plan of sufficient scale (no less than 1" = 500') showing: (1) location of the lot in relation to the stream channel, floodway and floodplain, (2) existing overflow channels, and (3) impact and access to, through, and existing condition of riparian areas, including a plan for re-vegetation. Special attention should be made to items 5, 6, 8, 9, and 10 in the Joint COE, IDWR & IDL application.

☑ A statement to address potential beneficial and adverse impacts of the project, including the areas upstream, downstream and across the stream. In addition, the application shall include a written statement by a licensed engineer that the project will have no adverse impact or that such impacts have been identified and mitigated to the maximum extent feasible.

☑ Certification from an Idaho Registered Engineer that as a result of this project the fill proposed to be placed within the FEMA-defined floodway will not increase the base flood elevation upstream or downstream. (Refer to §9-17-11D.3 of Blaine County Zoning Ordinance).

☑ Review and address the evaluation standards by which the County will review and decide upon the application. Said standards are contained in Zoning Ordinance, Chapter 17, §9-17-11D.1-6 and are listed below on this form.

☑ Five (5) copies of all application materials.

☐ Other_____

_____

Criteria For Evaluation: The applicant shall show that the criteria of Blaine County Code, Title 9, Chapter 17 has been satisfied. The commission or the board shall consider other requirements specified in Chapter 17, as well as the following:

1. The applicant has applied for permits from COE and IDWR. If the watercourse runs through neighboring city, they shall be sent a copy of the application, at the direction of the Administrator, to notify them of possible stream alterations. Copy shall be sent if the project is within one thousand feet (1,000') downstream or one mile upstream.

2. The proposed stream alteration shall have no adverse impact on the property of another person or entity, including the areas upstream, downstream and across the steam. No adverse impact means that the proposed use or activity will not have any deleterious impacts in terms of increased flood peaks, flood stage, flood velocity, erosion and sedimentation, or water quality or those impacts that have been identified and mitigated to the maximum extent feasible.

3. The stream alteration desired will not involve placing an encroachment, structure, fill, deposit, obstruction, storage of materials or equipment in the floodway, all of which are prohibited by subsection 9 17 5B3 of this Chapter, unless certification by a registered engineer is provided and accepted by the County Engineer, demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the 100-year flood discharge and other standards of this Section are met.

4. The stream alteration desired shall not have any adverse impacts or go against the stated purposes of the Floodplain Management District (Section 9-17-2) and the Stream Alteration Permit program (subsection 9-17-11A of this Chapter).

5. The proposed application (use) does not conflict with the local public interest, i.e., the affairs of the people in the area directly affected by the proposed use. This includes, but is not limited to, property values, fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, water quality or an impact upon a locally important factor. The burden of proof always rests with the applicant.

6. The following extraordinary circumstances may favor the granting of a stream alteration permit:
   a. If the river tries to change to a channel outside of the floodway.
   b. If the viability of the irrigation structure or water delivery system is threatened.
   c. If a road or bridge which provides access to homes or businesses is threatened.
   d. If an existing home or building envelope in a platted subdivision is threatened.
   e. If severe erosion or severe sedimentation of land is threatened.
   f. If a public facility (sewer plant/school etc.) or other use which would affect the chemical quality of the river is threatened.

February 27, 2024

US Army Corps of Engineers
720 E. Park Blvd. Suite 245
Boise, Idaho 83712

Aaron Golart
Idaho Department of Water Resources
322 East Front Street
Boise, Idaho 83720

Subject: Heagle Park Floodplain Restoration Project

Dear Army Corps and IDWR,
The Wood River Land Trust has partnered with the City of Hailey and Flood Control District No. 9 to seek authorization for a floodplain enhancement and bank stabilization project located on the Big Wood River. The project area straddles Hailey City limits and Blaine County.

The Project includes the installation of engineered log jam structures, to stabilize a failing bank and improve riparian habitat along the Big Wood River near Hailey, Idaho. The contracted work will also include floodplain benching, revegetation, and side channel grading to improve flood conveyance and in-stream fish habitat. The work requires the installation of timber piles, as well as procurement of logs, boulders, and other project materials. Additionally, there exists (2) two abandoned pipes (approx. 18-inch diameter) exposed in the active river channel that will be removed and disposed as part of this project. Pipes appear to be fiberglass and Corrugated Metal (CMP). The enclosed design drawings depict the treatment specifics and quantities.

No fill material would be placed within the Ordinary High Water Mark of the Big Wood River for this project. Project activities would not result in any permanent wetland impacts. Construction is scheduled for late summer or fall of 2024.

Please review the enclosed materials, which include the permit application, basis of design report, and design plans. Please let me know if you have questions regarding the proposed activities.

Sincerely,

Cory McCaffrey
cory@woodriverlandtrust.org

JOINT APPLICATION FOR PERMITS

U.S. ARMY CORPS OF ENGINEERS - IDAHO DEPARTMENT OF WATER RESOURCES - IDAHO DEPARTMENT OF LANDS

Authorities: The Department of Army Corps of Engineers (Corps), Idaho Department of Water Resources (IDWR), and Idaho Department of Lands (IDL) established a joint process for activities impacting jurisdictional waterways that require review and/or approval of both the Corps and State of Idaho. Department of Army permits are required by Section 10 of the Rivers & Harbors Act of 1899 for any structure(s) or work in or affecting navigable waters of the United States and by Section 404 of the Clean Water Act for the discharge of dredged or fill materials into waters of the United States, including adjacent wetlands. State permits are required under the State of Idaho, Stream Protection Act (Title 42, Chapter 38, Idaho Code and Lake Protection Act (Section 58, Chapter 13 et seq., Idaho Code). In addition the information will be used to determine compliance with Section 401 of the Clean Water Act by the appropriate State, Tribal or Federal entity.

Joint Application: Information provided on this application will be used in evaluating the proposed activities. Disclosure of requested information is voluntary. Failure to supply the requested information may delay processing and issuance of the appropriate permit or authorization. **Applicant will need to send a completed application, along with one (1) set of legible, black and white (8½"x11"), reproducible drawings that illustrate the location and character of the proposed project / activities to both the Corps and the State of Idaho.**

See Instruction Guide for assistance with Application. Accurate submission of requested information can prevent delays in reviewing and permitting your application. Drawings including vicinity maps, plan-view and section-view drawings must be submitted on 8-1/2 x 11 papers.

Do not start work until you have received all required permits from both the Corps and the State of Idaho

FOR AGENCY USE ONLY			
USACE NWW-	Date Received:	☐ Incomplete Application Returned	Date Returned:
Idaho Department of Water Resources No.	Date Received:	☐ Fee Received DATE:	Receipt No.:
Idaho Department of Lands No.	Date Received:	☐ Fee Received DATE:	Receipt No.:

INCOMPLETE APPLICANTS MAY NOT BE PROCESSED

1. **CONTACT INFORMATION - APPLICANT** Required:			2. **CONTACT INFORMATION - AGENT:**		
Name: Dean Hovencamp			Name: Greg Woloveke		
Company: Flood Control District Number 9			Company: Environmental Science Associates		
Mailing Address: PO Box 3181			Mailing Address: 2801 Alaskan Way Suite 200		
City: Hailey	State: Idaho	Zip Code: 83333	City: Seattle	State: WA	Zip Code: 9121
Phone Number *(include area code)*: 504-908-5656	E-mail: bwflood9@gmail.com		Phone Number *(include area code)*: 541 840 0807	E-mail: gwoloveke@esassoc.com	

3. PROJECT NAME or TITLE: Heagle Park Floodplain Restoration Project		4. PROJECT STREET ADDRESS:			
5. PROJECT COUNTY: Blaine	6. PROJECT CITY: Hailey	7. PROJECT ZIP CODE: 83333			8. NEAREST WATERWAY/WATERBODY: Big Wood River
9. TAX PARCEL ID#: RP00541001002A	10. LATITUDE: 43.50607 LONGITUDE: -114.31251	11a. 1/4: SW	11b. 1/4: NE	11c. SECTION: 16	11d. TOWNSHIP: 2N	11e. RANGE: 18E
12a. ESTIMATED START DATE: Jul 15, 2024	12b. ESTIMATED END DATE: Aug 9, 2024	13a. IS PROJECT LOCATED WITHIN ESTABLISHED TRIBAL RESERVATION BOUNDARIES? ☒ NO ☐ YES Tribe:			
13b. IS PROJECT LOCATED IN LISTED ESA AREA? ☒ NO ☐ YES		13c. IS PROJECT LOCATED ON/NEAR HISTORICAL SITE? ☒ NO ☐ YES			

14. DIRECTIONS TO PROJECT SITE: Include vicinity map with legible crossroads, street numbers, names, landmarks.

Travel south from Hailey approximately 0.5 miles on HWY 75, then turn right (west) onto Cedar Street. Travel approximately 0.5 miles and Heagle Park is to the south of Cedar Street. The project area is approximately 0.2 miles south of Heagle Park.

15. PURPOSE and NEED: ☐ Commercial ☐ Industrial ☒ Public ☐ Private ☐ Other

Describe the reason or purpose of your project; include a brief description of the overall project. Continue to Block 16 to detail each work activity and overall project.

A floodplain berm between the Big Wood River and the City of Hailey pump station was historically armored with large rocks so that infrastructure would not be compromised. After a 100-yr flood event, bank armor has failed and he exposed bank is now eroding and deteriorating annually. The project intent is to improve floodplain connectivity, fish and wildlife habitat, and reduce flood hazard risk to the pump station.

16. DETAILED DESCRIPTION OF EACH ACTIVITY WITHIN OVERALL PROJECT. Specifically indicate portions that take place within waters of the United States, including wetlands: Include dimensions; equipment, construction, methods; erosion, sediment and turbidity controls; hydrological changes: general stream/surface water flows, estimated winter/summer flows; borrow sources, disposal locations etc.:

1. 375 lineal feet of rock (riprap) will be removed and salvaged (300 CY) from an eroding streambank using an excavator. Stream banks will be laid back to improve stability and rock will be reinstalled with large wood to prevent further erosion and improve habitat. New riprap will be imported to supplement required rock. Work occurs both upland and within OHW, which will required local isolation to prevent turbidity and exclude fish. 210 CY of rock excavation is estimated in OHW. Salvaged rock will be stockpiled on-site for placement with new riprap. 115 CY of rock will be installed in OHW.
2. Floodplain benching (excavation) will improve floodplain activation, removing between 3- to 4-feet of material (~2,000 cubic yards). Work occurs with an excavator. Dump trucks or morookas will be needed to haul and dispose off-site. This is a temporary impact and will be outside water of the state.
3. Four (4) types of large wood structures are proposed in the design, each anchored by timber piles or buried into the stream bank or ballasted with rock. A total of 39 key pieces of large wood (rootwads) in addition to smaller racking logs and woody slash will be installed. This work will be done with an excavator using a pile driving attachment. Only vibratory pile driving shall be allowed. This work occurs within OHW and work areas will be isolated first. One temporary river crossing is necessary for access. Boulders may attached to chain and used as anchors if pile driving refusal is encountered.
4. Brush trenches are proposed along the toe and regraded slope of the floodplain bench (300 LF). Containerized black cottonwoods will be planted within the new bench surface along with native grass seed. Dormant hardwood cuttings will planted to facilitate native species re-vegetation.
5. A side channel inlet located at the toe of the west valley wall will be cleared of wood and excavated to improve conveyance (300 LF). Approximately 250 cubic yards of earthwork is estimated to be removed from the inlet, requiring one temporary river crossing. Work is within OHW.
6. Abandoned utility pipe is exposed in the river and will be removed. Approximately 170 LF of pipe is estimated for removal and disposal off-site. Work occurs within OHW and will require an excavator. Pipe ends will be cut, capped, and buried in the streambank outside OHW. The work would be done while temporary turbidity control and in place for bank excavation. This is a temporary impact.

17. DESCRIBE ALTERNATIVES CONSIDERED to AVOID or MEASURES TAKEN to MINIMIZE and/ or COMPENSATE for IMPACTS to WATERS of the UNITED STATES, INCLUDING WETLANDS: See Instruction Guide for specific details.

The proposed project provides a dual benefit to protect critical infrastructure while improving riverine and floodplain habitat conditions. A no action alternative was considered but did not provide opportunity for enhancing fluvial or floodplain conditions due to historical channel impairment, and hence was dismissed.

The purpose of this action is to encourage conveyance through the side channel and reduce likelihood of future blockage. This work occurs within OHW.

18. PROPOSED MITIGATION STATEMENT or PLAN: If you believe a mitigation plan is not needed, provide a statement and your reasoning why a mitigation plan is NOT required. Or, attach a copy of your proposed mitigation plan.

The need for mitigation is not necessary, as the project will result in net benefits to the river system by improving floodplain and flood channel connectivity, and by holistically improving riverine and floodplain habitat conditions.

19. TYPE and QUANTITY of MATERIAL(S) to be discharged below the ordinary high water mark and/or wetlands:

Dirt or Topsoil:	0	cubic yards
Dredged Material:	0	cubic yards
Clean Sand:	0	cubic yards
Clay:	0	cubic yards
Gravel, Rock, or Stone:	0	cubic yards
Concrete:	0	cubic yards
Other (describe):		cubic yards
Other (describe:		cubic yards
TOTAL:	0	cubic yards

20. TYPE and QUANTITY of impacts to waters of the United States, including wetlands:

Filling:	0.02	acres	1,000	sq ft.	115	cubic yards
Backfill & Bedding:	0	acres	0	sq ft.	0	cubic yards
Land Clearing:	0.23	acres	10,000	sq ft.	0	cubic yards
Dredging:	0	acres	0	sq ft.	0	cubic yards
Flooding:	0	acres	0	sq ft.	0	cubic yards
Excavation:	0.11	acres	4,875	sq ft.	460	cubic yards
Draining:	0	acres	0	sq ft.	0	cubic yards
Other: Wood (Fill)	0.18	acres	7,800	sq ft.	125	cubic yards
TOTALS:	0.54	acres	23,675	sq ft.	700	cubic yards

21. HAVE ANY WORK ACTIVITIES STARTED ON THIS PROJECT? ☒ NO ☐ YES If yes, describe ALL work that has occurred including dates.

22. LIST ALL PREVIOUSLY ISSUED PERMIT AUTHORIZATIONS:

None

23. ☐ YES, Alteration(s) are located on Public Trust Lands, Administered by Idaho Department of Lands

24. SIZE AND FLOW CAPACITY OF BRIDGE/CULVERT and DRAINAGE AREA SERVED: N/A Square Miles

25. IS PROJECT LOCATED IN A MAPPED FLOODWAY? ☐ NO ☒ YES If yes, contact the floodplain administrator in the local government jsrisdiction in which the project is located. A Floodplain Development permit and a No-rise Certification may be required.

26a WATER QUALITY CERTIFICATION: Pursuant to the Clean Water Act, anyone who wishes to discharge dredge or fill material into the waters of the United States, either on private or public property, must obtain a Section 401 Water Quality Certification (WQC) from the appropriate water quality certifying government entity.
See Instruction Guide for further clarification and all contact information.

The following information is requested by IDEQ and/or EPA concerning the proposed impacts to water quality and anti-degradation:

☐ NO ☒ YES Is applicant willing to assume that the affected waterbody is high quality?
☒ NO ☐ YES Does applicant have water quality data relevant to determining whether the affected waterbody is high quality or not?
☒ NO ☐ YES Is the applicant willing to collect the data needed to determine whether the affected waterbody is high quality or not?

26b. BEST MANAGEMENT PRACTICTES (BMP's): List the Best Management Practices and describe these practices that you will use to minimize impacts on water quality and anti-degradation of water quality. All feasible alternatives should be considered - treatment or otherwise. Select an alternative which will minimize degrading water quality

This is a restoration project whose primary purpose is to restore aquatic habitat. Numerous methods will be employed to avoid and minimize temporary impacts to the aquatic environment:

Timing. Construction impacts to Big Wood River will be minimized by working during summer low flow. Work within the active channel will be completed during the approved in-water work window (July 16 – March 14) to avoid or minimize potential impacts to federally listed species project area.

Isolation. Construction of these log jams will include work isolation as needed and minimize compaction within the channel. The side channel will be isolated from any areas that have water during construction. Fish exclusion and work area isolation will minimize adverse impacts to the existing aquatic environment. The contractor may choose to implement a temporary stream bypass as part of the work. Isolation method include silt curtains, sheet pile, bladders, super sacks, eco-blocks, or other synthetic barrier.

Excavation limits. Installation of ELJs will be accomplished using the least amount of excavation required. A tracked excavator will be used to excavate and place construction materials, and will not drag or pull material along the river bed. All equipment will be stored in upland

Through the 401 Certification process, water quality certification will stipulate minimum management practices needed to prevent degradation.

27. LIST EACH IMPACT to stream, river, lake, reservoir, including shoreline: Attach site map with each impact location.

Activity	Name of Water Body	Intermittent Perennial	Description of Impact and Dimensions	Impact Length Linear Feet
Bank Stabilization	Big Wood River	Perennial	Excavate and remove historic bank armoring	375
Large Wood Install	Big Wood River	Perennial	Install 4 Types of Engineered Log Jam Structures	465
Side Channel Excavation	Big Wood River	Perennial	Excavate ephemeral side channel to increase flood conveyanc	300
Brush Trenches	Big Wood River	Perennial	Install brush trenches on floodplain channel margins	300
			TOTAL STREAM IMPACTS (Linear Feet):	1,440

28. LIST EACH WETLAND IMPACT include mechanized clearing, fill excavation, flood, drainage, etc. Attach site map with each impact location.

Activity	Wetland Type: Emergent, Forested, Scrub/Shrub	Distance to Water Body (linear ft)	Description of Impact Purpose: road crossing, compound, culvert, etc.	Impact Length (acres, square ft linear ft
none				
			TOTAL WETLAND IMPACTS (Square Feet):	

29. ADJACENT PROPERTY OWNERS NOTIFICATION REQUIREM: Provide contact information of ALL adjacent property owners below.

Name: City of Hailey Mailing Address: 115 Main Street South, Suite H City: Hailey State: ID Zip Code: 83333 Phone Number (include area code): 208-788-4221 E-mail:	Name: Wood River Land Trust Mailing Address: 119 E. Bullion Street City: Hailey State: ID Zip Code: 83333 Phone Number (include area code): 208-788-3947 E-mail:
Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:
Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:
Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:

30. SIGNATURES: STATEMENT OF AUTHORIAZATION / CERTIFICATION OF AGENT / ACCESS

Application is hereby made for permit, or permits, to authorize the work described in this application and all supporting documentation. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein; or am acting as the duly authorized agent of the applicant (Block 2). I hereby grant the agencies to which this application is made, the right to access/come upon the above-described location(s) to inspect the proposed and completed work/activities.

Signature of Applicant: [signature] *Date:* 12/15/23

Signature of Agent: gregory woloveke *Date:* 12/11/2023

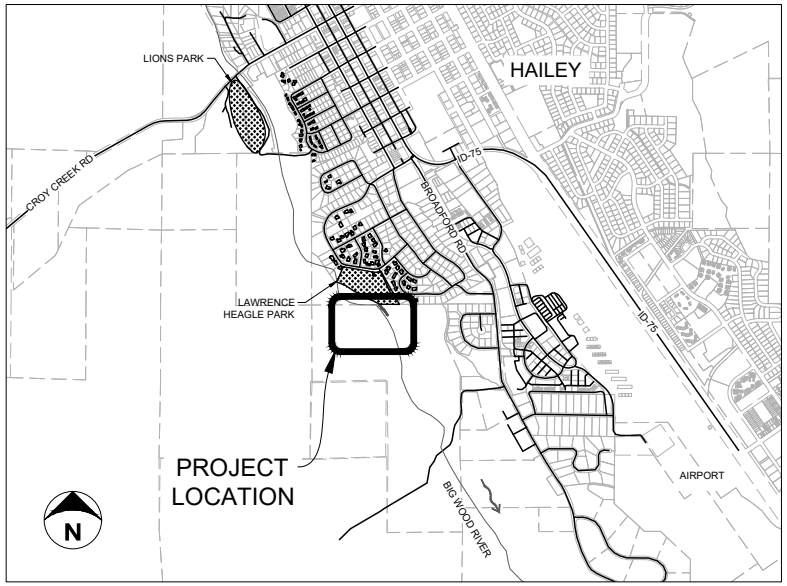
This application must be signed by the person who desires to undertake the proposed activity AND signed by a duly authorized agent (see Block 1, 2, 30). Further, 18 USC Section 1001 provides that: "*Whoever, in any manner within the jurisdiction of any department of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both*".

WOOD RIVER LAND TRUST
HEAGLE PARK FLOODPLAIN RESTORATION

100% DESIGN CONSTRUCTION BID SET - JANUARY 2024

PROJECT LOCATION: HAILEY, ID

SHEET LIST TABLE	
SHEET NUMBER	SHEET NAME
G-1	COVER SHEET
G-2	NOTES, LEGEND, AND ABBREVIATIONS
G-3	EXISTING SITE CONDITIONS
C-1	SITE PLAN OVERVIEW
C-2	LEVEE REMOVAL PLAN AND PROFILE
C-3	LEVEE REMOVAL SECTIONS
C-4	SIDE CHANNEL PLAN AND PROFILE
C-5	COVE CANAL WOOD PLACEMENT
C-6	SIDE CHANNEL SECTIONS
C-7	DETAIL - TESC AND SITE ACCESS
C-8	DETAIL - TYPE 1 APEX ELJ
C-9	LAYERING - TYPE 1 APEX ELJ
C-10	DETAIL - TYPE 2 ALCOVE ELJ
C-11	LAYERING - TYPE 2 ALCOVE ELJ
C-12	DETAIL - TYPE 3 SIDE CHANNEL ELJ
C-14	DETAIL - TYPE 4 FLOOD FENCE ELJ
C-15	DETAIL - LOG JAM HARDWARE
C-16	DETAIL - SUGGESTED WATER MANAGEMENT
L-1	PLANTING PLAN
L-2	PLANTING DETAILS AND NOTES



VICINITY MAP

SCALE: 1" = 1000'

PROJECT TEAM

PROJECT SPONSOR:

CORY MCCAFFREY
WOOD RIVER LAND TRUST
119 E BULLION STREET
HAILEY, ID 83333
OFFICE: (208) 788-9073

PROJECT DIRECTOR:

JON AMBROSE
ENVIRONMENTAL SCIENCE ASSOCIATES
2801 ALASKAN WAY, SUITE 200
SEATTLE, WA 98121

ENGINEER / PROJECT MANAGER:

GREG WOLOVEKE, PE
ENVIRONMENTAL SCIENCE ASSOCIATES
2801 ALASKAN WAY, SUITE 200
SEATTLE, WA 98121

ESA
2801 ALASKAN WAY,
SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP

PROFESSIONAL ENGINEER LICENSED P-22651 STATE OF IDAHO GREG WOLOVEKE 1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME

BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION

HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED
DRAWN
CHECKED
IN CHARGE

PROJECT NUMBER D202201234

ISSUE DATE 01/15/24

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE

COVER SHEET

SHEET NUMBER

G-1

SHEET 1 OF 21

GENERAL NOTES:

1. THESE PLANS HAVE BEEN PREPARED FOR THE EXCLUSIVE USE OF THE WOOD RIVER LAND TRUST (WRLT) AND THEIR AUTHORIZED AGENTS, HEREAFTER REFERRED TO AS "SPONSOR" OR "CONTRACT REPRESENTATIVE". THE "CONTRACTOR", OR THEIR SUBCONTRACTOR, IS THE PARTY SELECTED TO CONSTRUCT THE PROJECT.

2. ENVIRONMENTAL SCIENCE ASSOCIATES (ESA), HEREAFTER REFERRED TO AS "ENGINEER" IS RESPONSIBLE FOR THE PREPARATION OF THESE ORIGINAL PLANS AND ASSOCIATED SPECIFICATIONS; AND WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGE, OR USE, OF THESE PLANS WHICH INCLUDES ALTERATION, DELETION, OR EDITING OF THIS DOCUMENT WITHOUT EXPLICIT WRITTEN PERMISSION FROM THE ENGINEER. ANY OTHER UNAUTHORIZED USE OF THIS DOCUMENT IS PROHIBITED.

3. MINOR MODIFICATIONS ARE EXPECTED TO SUIT JOB SITE DIMENSIONS OR CONDITIONS. SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK. THE OWNER, ENGINEER, AND APPROPRIATE REGULATORY AGENCIES SHALL BE NOTIFIED OF ANY OWNER-AUTHORIZED CHANGE RESULTING IN MORE THAN A 10% DESIGN CHANGE OF PROPOSED FOOTPRINT OR THAT SIGNIFICANTLY AFFECTS THE INTENDED BENEFIT OR FUNCTION OF A PROJECT ELEMENT.

4. THE LOCATION OF ALL FEATURES SHOWN IS APPROXIMATE. FINAL LOCATIONS SHALL BE FLAGGED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND APPROVED BY THE SPONSOR OR ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.

5. THE CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; AND FURTHER AGREES THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS IN ACCORDANCE WITH THE PROVISIONS OUTLINED BY THE PROJECT CONTRACT SPECIFICATIONS.

6. ALL IMPROVEMENTS SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF THE OWNER. IMPROVEMENT CONSTRUCTION SHALL COMPLY WITH THESE PLANS AND THE CONTRACT PROVISIONS. ALL REFERENCES TO THE "STANDARD SPECIFICATIONS" SHALL MEAN THE IDAHO STATE DEPARTMENT OF TRANSPORTATION (IDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, CURRENT EDITION. CONSTRUCTION NOT SPECIFIED ON THESE PLANS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR IS OBLIGATED TO BE FAMILIAR WITH APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS NOT DISCUSSED IN THE GENERAL NOTES. THE CONTRACT SPECIAL PROVISIONS SHALL SUPERSEDE THOSE OF THE STANDARD SPECIFICATIONS WHERE DISCREPANCIES OCCUR.

7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTOR(S) TO EXAMINE THE PROJECT SITE PRIOR TO THE OPENING OF BID PROPOSALS. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED, SUCH AS THE NATURE AND LOCATION OF THE WORK; AND THE GENERAL AND LOCAL CONDITIONS, PARTICULARLY THOSE AFFECTING THE AVAILABILITY OF TRANSPORTATION, THE DISPOSAL, HANDLING, AND STORAGE OF MATERIALS, AVAILABILITY OF LABOR, WATER, ELECTRICITY, ROADS, THE UNCERTAINTIES OF WEATHER, THE CONDITIONS OF THE GROUND, SURFACE AND SUBSURFACE MATERIALS, GROUNDWATER, THE EQUIPMENT AND FACILITIES NEEDED FOR AND DURING THE PERFORMANCE OF THE WORK, AND THE COSTS THEREOF. ANY FAILURE BY THE CONTRACTOR AND SUBCONTRACTOR(S) TO ACQUAINT THEMSELVES WITH ALL THE AVAILABLE INFORMATION WILL NOT RELIEVE THE CONTRACTOR AND SUBCONTRACTOR(S) FROM RESPONSIBILITY FOR PROPERLY ESTIMATING THE DIFFICULTY AND COST OF SUCCESSFULLY PERFORMING THE WORK.

8. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND CONTRACT DOCUMENTS AND FOR ALL SUBMITTALS REQUIRED TO THE OWNER FOR REVIEW AND ACCEPTANCE.

PERMIT NOTES:

1. EVERY REASONABLE EFFORT SHALL BE MADE TO CONDUCT THE ACTIVITIES SHOWN IN THESE PLANS, IN A MANNER THAT MINIMIZES THE ADVERSE IMPACT ON WATER QUALITY, FISH AND WILDLIFE, AND THE NATURAL ENVIRONMENT.

2. ALL WORK SHALL BE IN COMPLIANCE WITH PERMIT CONDITIONS ISSUED BY PERTINENT REGULATORY AGENCIES IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE COPIES OF ALL PERMITS ON THE JOB SITE, UNDERSTAND AND COMPLY WITH ALL PERMIT CONDITIONS.

3. ALL WORK THAT DISTURBS THE SUBSTRATE. BANK, OR SHORE OF A WATERS OF THE STATE THAT CONTAINS FISH LIFE SHALL BE CONDUCTED ONLY DURING THE WORK PERIOD FOR THAT WATERBODY AS ALLOWED BY RELEVANT HYDRAULIC WORK PERMITS. THOSE PORTIONS OF THE PROJECT WORK THAT OCCUR OUTSIDE OR ABOVE THE ORDINARY HIGH WATER MARK (ABOVE THE USAGE JURISDICTIONAL LINE) ARE NOT SUBJECT TO THE WORK PERIODS DESCRIBED ABOVE UNLESS SPECIFIED IN THE RELEVANT PERMITS.

4. ALL ACTIVITIES THAT INVOLVE WORK ADJACENT TO, OR WITHIN THE WETTED CHANNEL SHALL AT ALL TIMES REMAIN CONSISTENT WITH ALL APPLICABLE WATER QUALITY STANDARDS AND MANAGEMENT PRACTICES ESTABLISHED PURSUANT TO THE CLEAN WATER ACT OR PURSUANT TO APPLICABLE STATE AND LOCAL LAW.

5. IF AT ANY TIME, AS A RESULT OF PROJECT ACTIVITIES. FISH ARE OBSERVED IN DISTRESS, A FISH KILL OCCURS, OR WATER QUALITY PROBLEMS DEVELOP (INCLUDING EQUIPMENT LEAKS OR SPILLS), OPERATIONS SHALL CEASE AND THE OWNER SHALL BE NOTIFIED IMMEDIATELY.

SURVEY NOTES:

1. UNLESS NOTED OTHERWISE ON THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION.

2. THE CONTRACTOR SHALL MAINTAIN A SET OF PLANS ON THE JOB SHOWING "AS-CONSTRUCTED" CHANGES MADE TO DATE. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUPPLY TO OWNER A SET OF PLANS, MARKED UP TO THE SATISFACTION OF THE OWNER, REFLECTING THE AS-CONSTRUCTED MODIFICATIONS.

3. ELEVATIONS SHOWN ON THE PLANS FOR TOE OF SLOPE, TOPS OF BANKS, THALWEG, GRADE CONTROLS, ETC. ARE BASED UPON THE TOPOGRAPHIC INFORMATION SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL NECESSARY SURFACE ELEVATIONS IN THE FIELD AND NOTIFY THE OWNER OF ANY DISCREPANCIES, WHICH MIGHT AFFECT PROPER ORIENTATION OF THE NEW FACILITIES BEFORE BREAKING GROUND AND PRIOR TO FACILITY INSTALLATION. THE OWNER SHALL BE CONTACTED IN THE EVENT ELEVATIONS ARE INCORRECT SO THAT THE PROPER ADJUSTMENTS CAN BE MADE BY ENGINEER PRIOR TO THE INSTALLATION OF THE FACILITIES, AS SET FORTH IN THE SPECIAL PROVISIONS.

TESC NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ALL TEMPORARY EROSION CONTROL MEASURES. THE EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PERFORMANCE OF THE TEMPORARY EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT.

2. A SEDIMENT AND EROSION CONTROL PLAN SHALL BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED FOR APPROVAL BY OWNER AND/OR THE ENGINEER BEFORE ANY CONSTRUCTION MAY BEGIN. THE SEDIMENT AND EROSION CONTROL PLAN WILL IDENTIFY BEST MANAGEMENT PRACTICES TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.

3. ACTIVITIES SHALL BE DESIGNED AND CONSTRUCTED TO AVOID AND MINIMIZE ADVERSE IMPACTS TO STATE ANO FEDERAL WATERS TO THE MAXIMUM EXTENT PRACTICAL THROUGH THE USE OF PRACTICAL ALTERNATIVES. ALTERNATIVES THAT SHALL BE CONSIDERED INCLUDE THOSE THAT MINIMIZE THE NUMBER AND EXTENT OF IN-WATER WORK AND EQUIPMENT CROSSINGS OF WETTED CHANNELS.

4. AT NO TIME SHALL SEDIMENT-LADEN WATER BE DISCHARGED OR PUMPED DIRECTLY INTO THE SUBJECT RIVER, STREAM, OR WETLAND. WATER SHALL BE DISCHARGED IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN THE PROJECT PERMITS AND/OR SPECIFICATIONS.

5. IF HIGH WATER LEVEL CONDITIONS THAT CAUSE SILTATION OR EROSION ARE ENCOUNTERED DURING CONSTRUCTION, WORK SHALL STOP UNTIL THE WATER LEVEL SUBSIDES.

6. PERMIT CONDITIONS CONTAIN SPECIFIC REQUIREMENTS FOR THE CONTROL OF EROSION AND TURBIDITY FROM PROJECT OPERATIONS. TURBIDITY WILL BE MONITORED ON A FREQUENT BASIS BY THE PROJECT MANAGEMENT AND INSPECTION STAFF ON-SITE. TURBIDITY AMOUNTS IN EXCESS OF THE PERMITTED CONCENTRATIONS AND/OR DURATIONS WILL CAUSE WORK TO BE STOPPED UNTIL IMPROVED PRACTICES ARE IN EFFECT AND THE PROBLEMS CONTROLLED. THE CONTRACTORIS COMPLETELY RESPONSIBLE FOR ANY PROJECT DELAYS THAT OCCUR BY NATURE OF THIS FAILURE TO ADEQUATELY CONTAIN SEDIMENT ON-SITE.

7. CONTRACTOR SHALL LIMIT MACHINERY MOVEMENT TO CONSTRUCTION AREAS DEFINED ON SITE PLAN OR IDENTIFIED AS ACCEPTABLE BY THE ENGINEER OR OWNER.

8. ALL EXTERNAL GREASE AND OIL SHALL BE PRESSURE-WASHED OFF EQUIPMENT PRIOR TO MOBILIZATION TO THE SITE.

9. ALL EQUIPMENT OPERATING BELOW OHWM SHALL UTILIZE READILY BIODEGRADABLE VEGETABLE-BASED HYDRAULIC FLUIDS PER THE CONTRACT PROVISIONS.

10. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT NO PETROLEUM PRODUCTS, HYDRAULIC FLUID, SEDIMENTS, SEDIMENT-LADEN WATER, CHEMICALS, OR ANY OTHER TOXIC OR DELETERIOUS MATERIALS ARE ALLOWED TO ENTER OR LEACH INTO THE SUBJECT RIVER, STREAM, OR WETLAND.

11. THE CONTRACTOR SHALL HAVE AN EMERGENCY SPILL KIT ONSITE AT ALL TIMES.

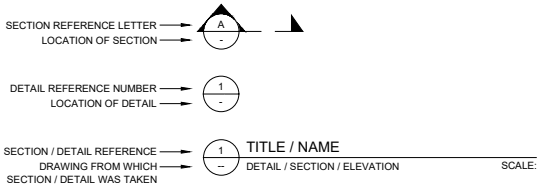
12. NO TREES OR WETLAND VEGETATION SHALL BE REMOVED UNLESS THEY ARE SHOWN AND NOTED TO BE REMOVED ON THE PLANS OR AS DIRECTLY SPECIFIED ON-SITE BY THE CONTRACTING OFFICER. ALL TREES CONFLICTING WITH GRADING SHALL BE REMOVED. NO GRADING SHALL TAKE PLACE WITHIN THE DRIP LINE OF TREES NOT TO BE REMOVED UNLESS OTHERWISE APPROVED.

13. FOLLOWING CONSTRUCTION, SITE RESTORATION WILL INCLUDE SEEDING TO ESTABLISH LONG-TERM EROSION PROTECTION MEASURES. EQUIPMENT AND EXCESS SUPPLIES WILL BE REMOVED AND THE WORK AREA WILL BE CLEANED. MAINTENANCE ACTIVITIES FOR THE NEWLY CONSTRUCTED RESTORATION PROJECTS ARE ANTICIPATED TO OCCUR PERIODICALLY.

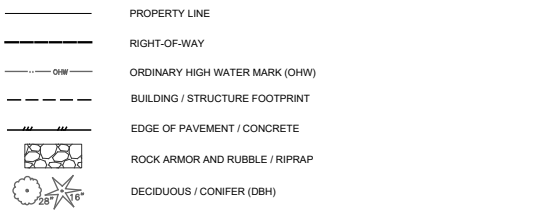
ABBREVIATIONS

APPROX	APPROXIMATE	N	NORTH
BMP	BEST MANAGEMENT PRACTICE	NAD83	NORTH AMERICAN DATUM 1983
CF	CUBIC FEET	NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
CL	CENTERLINE	NIC	NOT IN CONTRACT
CMP	CORRUGATED METAL PIPE	NTS	NOT TO SCALE
CY	CUBIC YARD	OC	ON CENTER
DBH	DIAMETER BREAST HEIGHT	PIP	PROTECT IN PLACE
DIA	DIAMETER	PR	PROPOSED
DEM	DIGITAL ELEVATION MODEL	PREP	PREPARTION
DEMO	DEMOLITION	SF	SQUARE FEET
EG	EXISTING GRADE	STA	STATION
ELEV	ELEVATION	TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
ELJ	ENGINEERED LOG JAM (ELJ)	TOB	TOP OF BANK
EX	EXISTING	TYP	TYPICAL
FT	FEET	USACE	US ARMY CORPS OF ENGINEERS
FG	FINISHED GRADE	USGS	US GEOLOGIC SURVEY
IDT	IDAHO DEPARTMENT OF TRANSPORTATION	VIF	VERIFY IN FIELD
IE	INVERT ELEVATION	WQ	WATER QUALITY
LF	LINEAR FEET	XH:1V	HORIZONTAL: VERTICAL
LS	LUMP SUM		
MAX	MAXIMUM		
MIN	MINIMUM		

NOTE / DETAIL REFERENCING



LEGEND - EXISTING CONDITIONS



WOOD MATERIAL SCHEDULE - PROJECT TOTAL

MATERIAL ID	LENGTH	DIAMETER (DBH)	ROOTWAD	BRANCHES	TOTAL # PIECES
KEY LOG	20' - 30'	12" - 18"	YES	NO	34
KEY LOG	30' - 40'	12" - 18"	YES	NO	5
LOG	25' - 30'	8" - 12"	NO	NO	7
ROUGHNESS TREE	15' - 25'	8" - 12"	YES	YES	21
RACKING LOG	5' - 10'	4" - 8"	OPTIONAL	OPTIONAL	140
WOODY SLASH	< 10'	< 4"	NO	OPTIONAL	100 CY
TIMBER PILE	25'	12"	NO	NO	28

ESA
2801 ALASKAN WAY,
SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP

PROFESSIONAL ENGINEERS LICENSED P-22651 STATE OF IDAHO GREG WOLOVSKE 1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	XXX
DRAWN	XXX
CHECKED	XXX
IN CHARGE	XXX ### ###
PROJECT NUMBER	D202201234
ISSUE DATE	01/15/24

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

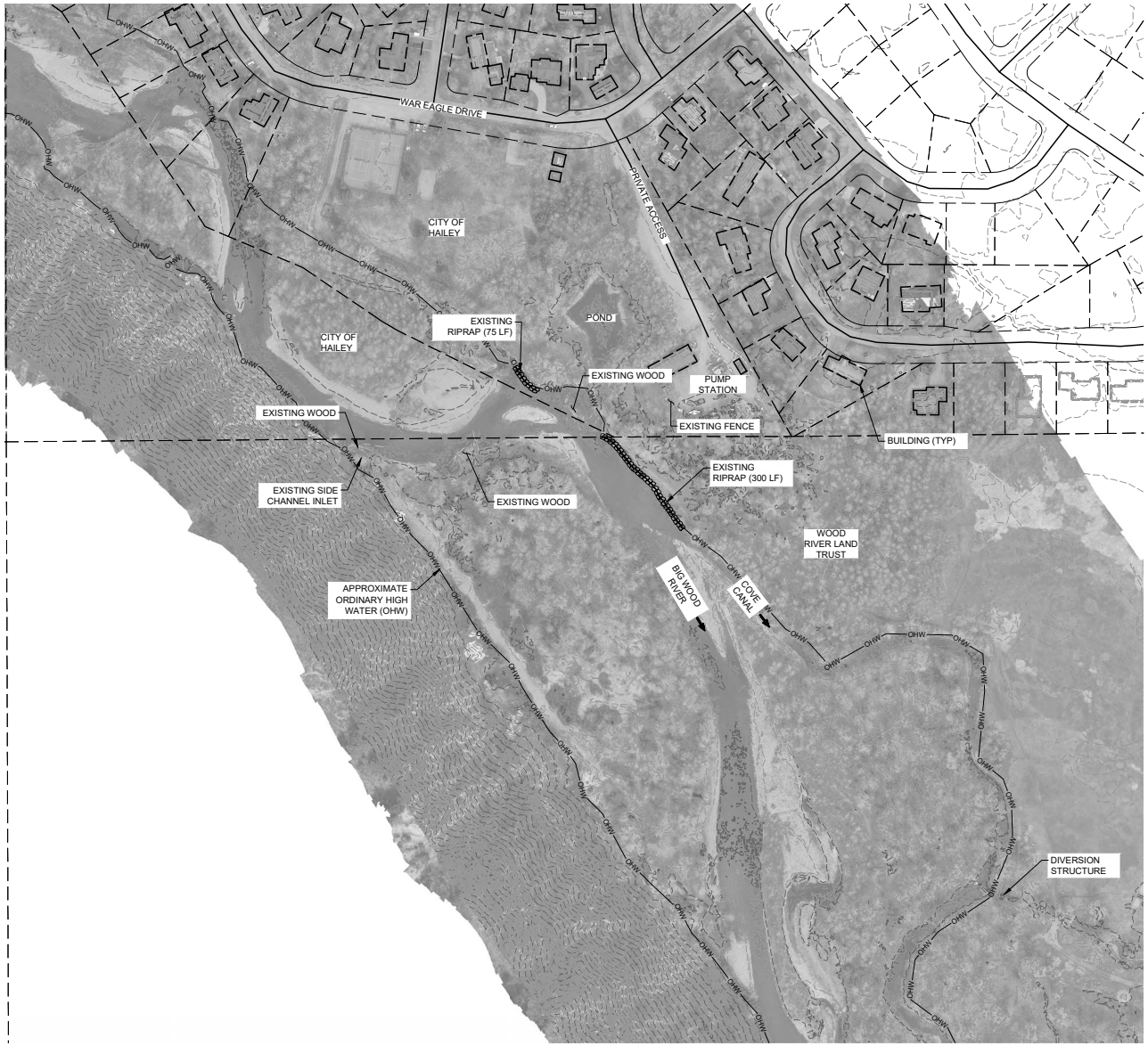
PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE
NOTES, LEGEND, AND ABBREVIATIONS

SHEET NUMBER
G-2

SHEET 2 OF 21

FILE: P:\01 CAD\2022xxxx\D2022O1234.00 - Big Wood River Heagle Park\DWG\G-2 CONSTRUCTION NOTES.dwg PLOT DATE: 1/21/2024 3:48:05 PM PLOTTED BY: GREG WOLOVSKE



GENERAL NOTES

1. NO TOPOGRAPHIC SURVEY WAS PERFORMED AS PART OF THIS PROJECT.
2. EXISTING TOPOGRAPHY IS BASED ON 2019 LIDAR AND 2022 ORTHO-PHOTOGRAMMETRY. TERRAIN DATA IS THEREFORE APPROXIMATE. RIVERBED AND BANK CONDITIONS CHANGE FREQUENTLY AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ACTUAL CONDITIONS AND NOTIFYING THE ENGINEER TO ANY PROPOSED CHANGES TO PERFORM THE WORK AS REQUIRED BY THE PLANS AND SPECIFICATIONS.
3. PARCEL LINES ARE PROVIDED BY BLAINE COUNTY GIS DATABASE AND ARE APPROXIMATE.
4. THE LOCATIONS OF TREES, BUILDINGS, CREEK CHANNEL, AND ALL OTHER SITE FEATURES SHOWN ARE APPROXIMATE AND NOT COMPREHENSIVE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING SITE CONDITIONS AND NOTIFYING THE ENGINEER BEFORE ANY CHANGE OF WORK.
5. EXISTING UNDERGROUND UTILITY LOCATIONS HAVE NOT BEEN IDENTIFIED AS PART OF THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ANY UTILITIES THAT MAY BE PRESENT PRIOR TO CONSTRUCTION AND PROTECT UTILITIES FOR THE DURATION OF CONSTRUCTION.
6. THE WORK LIMITS ARE LIMITED TO THE CITY OF HAILEY AND WRLT LOTS. NO EQUIPMENT OR WORK IS PERMITTED OUTSIDE THESE TAX LOTS. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING TAX LOT BOUNDARIES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PRIVATE PROPERTY, AT NO EXPENSE TO THE OWNER OR OWNER'S REPRESENTATIVES.
8. GROUND DISTURBANCE SHALL BE LIMITED TO THE AREA WITHIN THE GRADING DAYLIGHT LINES, HAUL ROADS, AND STAGING AREAS DEPICTED IN THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF ALL AREAS DISTURBED AT NO ADDITIONAL EXPENSE TO THE OWNER.
9. THE EXTENTS OF EXISTING RIPRAP MAY VARY WITH ON-GOING EROSION AND CHANGING RIVER CONDITIONS.

1"=100' SCALE 100 50 0 100 200 FEET

N

ESA
2801 ALASKAN WAY,
SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP
PROFESSIONAL ENGINEER LICENSED P-22651 STATE OF IDAHO GREG WOLOVEKE
1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	XXX
DRAWN	XXX
CHECKED	XXX
IN CHARGE	XXX ### ###
PROJECT NUMBER	D202201234
ISSUE DATE	01/15/24

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

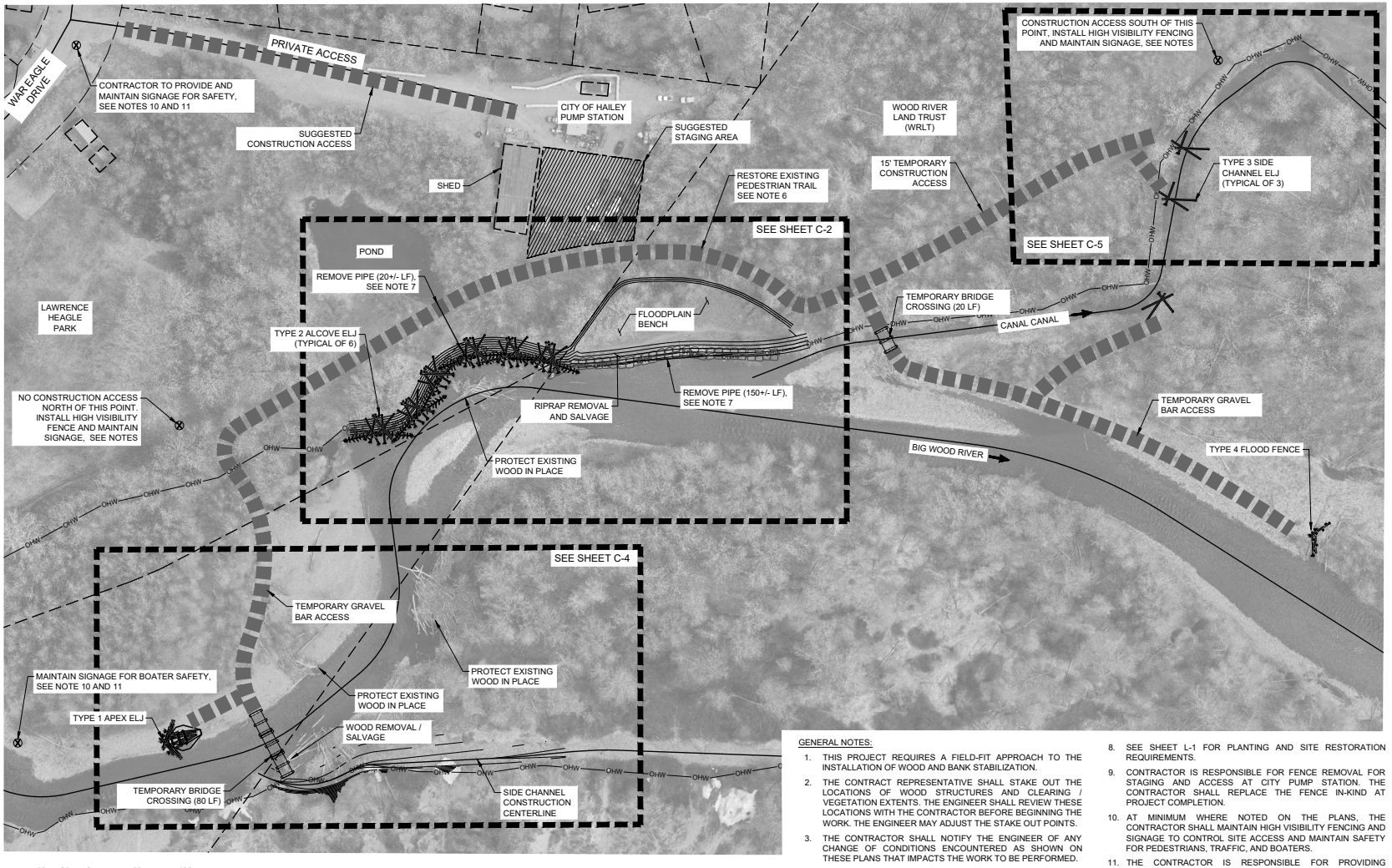
PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE
EXISTING SITE CONDITIONS

SHEET NUMBER
G-3

SHEET 3 OF 21

FILE: P:\01 CAD\2022xxxx\D2022201234.00 - Big Wood River Heagle Park\DWG\G-3 EXISTING SITE CONDITIONS.dwg PLOT DATE: 1/21/2024 3:48:40 PM PLOTTED BY: GREG WOLOVEKE



1"=50' SCALE 50 25 0 50 100 FEET

N

LEGEND:

⊗ PUBLIC SAFETY SIGNAGE. CONTRACTOR IS RESPONSIBLE FOR PROVIDING WHERE NOTED, OR OTHERWISE RESPONSIBLE FOR MAINTAINING IN PLACE FOR THE DURATION OF CONSTRUCTION. SEE NOTES 10 AND 11.

GENERAL NOTES:

1. THIS PROJECT REQUIRES A FIELD-FIT APPROACH TO THE INSTALLATION OF WOOD AND BANK STABILIZATION.
2. THE CONTRACT REPRESENTATIVE SHALL STAKE OUT THE LOCATIONS OF WOOD STRUCTURES AND CLEARING / VEGETATION EXTENTS. THE ENGINEER SHALL REVIEW THESE LOCATIONS WITH THE CONTRACTOR BEFORE BEGINNING THE WORK. THE ENGINEER MAY ADJUST THE STAKE OUT POINTS.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CHANGE OF CONDITIONS ENCOUNTERED AS SHOWN ON THESE PLANS THAT IMPACTS THE WORK TO BE PERFORMED.
4. THE ENGINEER MAY REMOVE WORK FROM THE CONTRACT.
5. THE ENGINEER MAY REQUEST THE CONTRACTOR TO ADJUST THE LOCATION, ORIENTATION, AND MATERIAL QUANTITIES ASSOCIATED WITH LARGE WOOD STRUCTURES DURING THE INSTALLATION.
6. A 6-FOOT WIDE TRAIL SHALL BE CLEARED AND COMPACTED FOR MAINTAIN PEDESTRIAN ACCESS. THE TRAIL ALIGNMENT SHALL BE AS SHOWN ON SHEET L-1.
7. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF PIPE WHERE EXPOSED WITHIN STREAMBED. BURY REMAINING PIPE WITHIN STREAMBANK.
8. SEE SHEET L-1 FOR PLANTING AND SITE RESTORATION REQUIREMENTS.
9. CONTRACTOR IS RESPONSIBLE FOR FENCE REMOVAL FOR STAGING AND ACCESS AT CITY PUMP STATION. THE CONTRACTOR SHALL REPLACE THE FENCE IN-KIND AT PROJECT COMPLETION.
10. AT MINIMUM WHERE NOTED ON THE PLANS, THE CONTRACTOR SHALL MAINTAIN HIGH VISIBILITY FENCING AND SIGNAGE TO CONTROL SITE ACCESS AND MAINTAIN SAFETY FOR PEDESTRIANS, TRAFFIC, AND BOATERS.
11. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SIGNAGE AT WAR EAGLE DRIVE AND THE PRIVATE ACCESS ROAD. WRLT SHALL PROVIDE BOATER SAFETY AND TRAIL SIGNAGE.
12. STAGING AREAS SHOWN ARE SUGGESTED AND APPROXIMATE. THE CONTRACTOR MAY PROPOSE ALTERNATIVE STAGING. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING, MAINTAINING, AND REPAIRING STAGING AND ACCESS IN-KIND AT THE COMPLETION OF CONSTRUCTION.
13. THE CONTRACT REPRESENTATIVE HAS IDENTIFIED SOURCES FOR ROCK AND WOOD. SEE CONTRACT DOCUMENTS.

ESA
2801 ALASKAN WAY, SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP

PROFESSIONAL ENGINEER LICENSED STATE OF IDAHO GREG WOLOVEKE P-22651 1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER HEAGLE PARK FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED
DRAWN
CHECKED
IN CHARGE

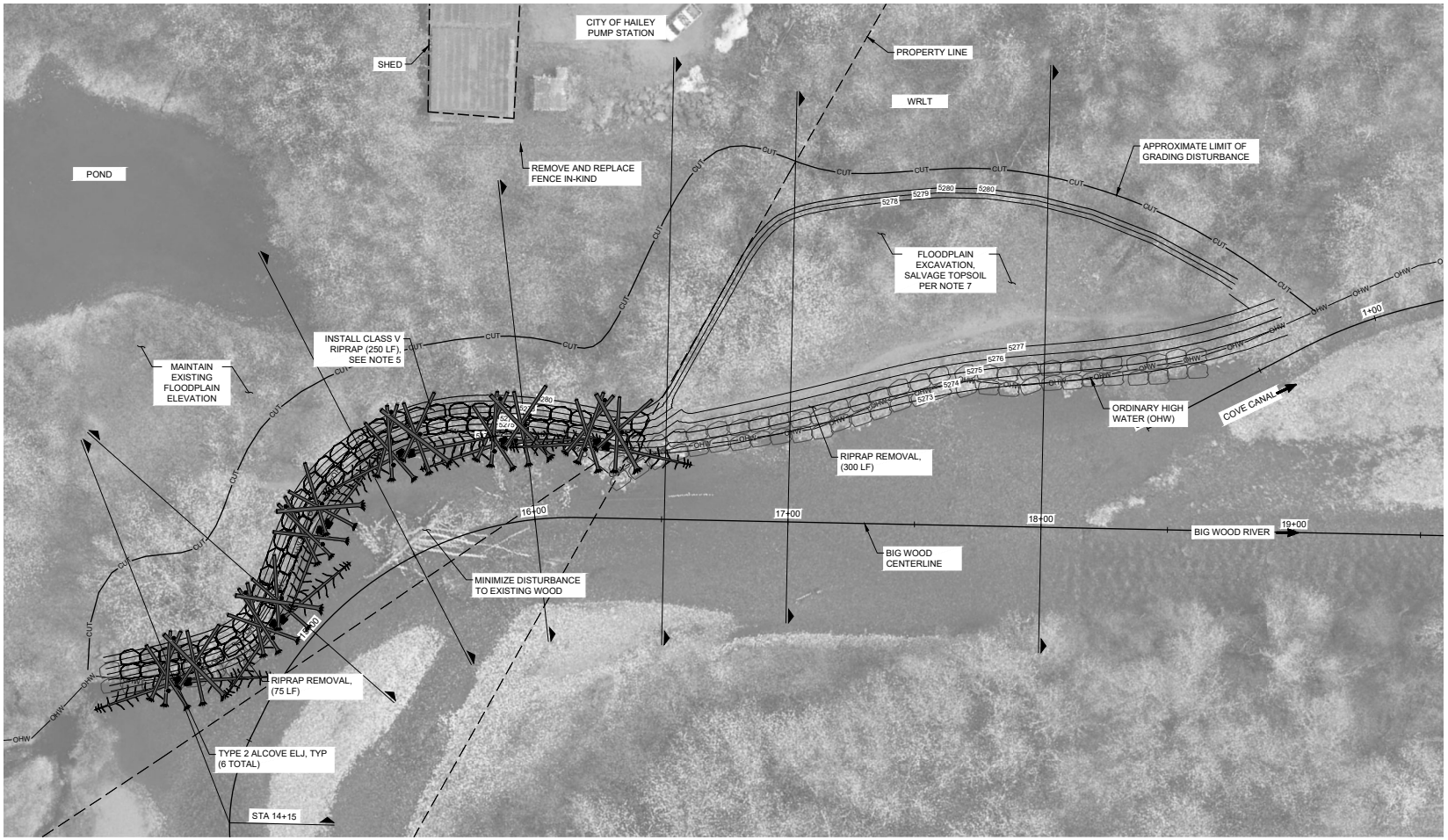
PROJECT NUMBER D202201234
ISSUE DATE 01/15/24
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE
SITE PLAN OVERVIEW

SHEET NUMBER
C-1

SHEET 4 OF 21



GENERAL NOTES:

1. SEE SHEET C-10 FOR ALCOVE ENHANCEMENT WOOD STRUCTURES (TYPE 1 AND TYPE 2).
2. ALL RIPRAP SHALL MEET THE REQUIREMENTS OF CLASS V PER THE 2022 SUPPLEMENT OF THE 2018 IDAHO STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
3. THE ENGINEER SHALL APPROVE RIPRAP SALVAGED ON-SITE AS BASED ON A VISUAL INSPECTION. THE APPROVED QUANTITY WILL BE DEDUCTED FROM THE TOTAL CONTRACT QUANTITY ON A VOLUME BASIS. THE 460 TONS OF CLASS V RIPRAP IS THE TOTAL QUANTITY OF RIPRAP NEEDED FOR THE PROJECT, REGARDLESS OF SALVAGE.
4. THE ENGINEER HAS ESTIMATED APPROXIMATELY 100 - 200 CY (140 - 280 TONS) OF RIPRAP TO BE REMOVED AND SALVAGED OVER A LENGTH OF 375 FEET. THE ESTIMATION ASSUMES A TOTAL THICKNESS OF 24-INCHES, BUT THE ACTUAL VOLUME IS UNKNOWN AND MAY VARY.
5. THERE SHALL BE NO HAUL OF EXISTING RIPRAP. EXISTING RIPRAP SHALL BE SALVAGED AND INCORPORATED WITH IMPORTED RIPRAP TO FORM A MINIMUM 36-INCH THICK BLANKET AS DEPICTED IN THESE PLANS. THE FINAL GRADATION SHALL MEET THE REQUIREMENTS OF RIPRAP CLASS V.
6. RIPRAP SHALL BE INSTALLED AT THE FACE OF ALCOVE JAM STRUCTURES AS SHOWN ON SHEET C-3 AND C-10.
7. THE CONTRACTOR SHALL STRIP THE UPPER 6" OF TOPSOIL AND STOCKPILE SEPARATELY FOR SALVAGE WITH RIPARIAN PLANTING ON SHEET L-1.
8. ANY ADDITIONAL OR EXTRA RIPRAP BROUGHT ON-SITE MAY BE BURIED PER THE DIRECTION OF THE CONTRACT REPRESENTATIVE.

TABLE - CLASS V RIPRAP

PERCENT ROCK EQUAL TO OR SMALLER	RANGE OF INTERMEDIATE DIMENSIONS (INCHES)
100	36.0
85	23 - 28
50	17 - 21
15	11 - 16

1"=20' SCALE 20 10 0 20 40 FEET

ESA
2801 ALASKAN WAY,
SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP
PROFESSIONAL ENGINEER LICENSED STATE OF IDAHO GREG WOLOVEKE P-22651
1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS
#	DATE	DESCRIPTION

DESIGNED
DRAWN
CHECKED
IN CHARGE

PROJECT NUMBER D202201234
ISSUE DATE 01/15/24
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

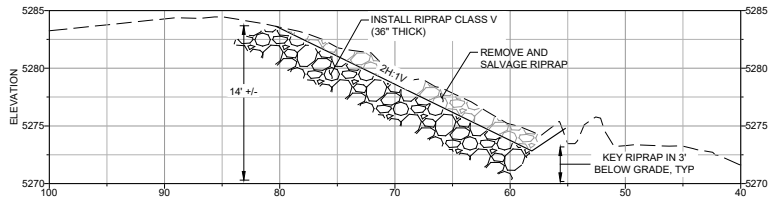
PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE
LEVEE REMOVAL PLAN AND PROFILE

SHEET NUMBER
C-2

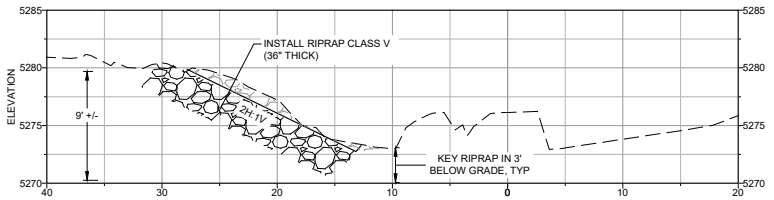
SHEET 5 OF 21

FILE: P:\01 CAD\2022xxxx\D2022201234.00 - Big Wood River Heagle Park\DWG\C-3 LEVEE REMOVAL SECTION AND PROFILE.dwg PLOT DATE: 1/21/2024 3:49:48 PM PLOTTED BY: GREG.WOLOVEKE



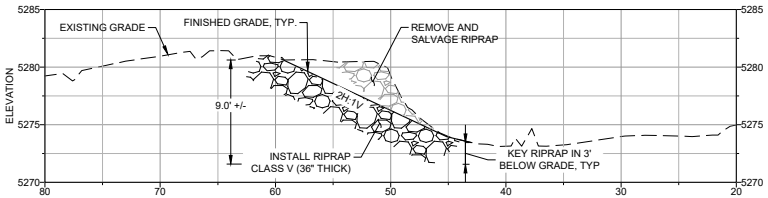
SECTION - STATION 14+15

SCALE: 1"=5'



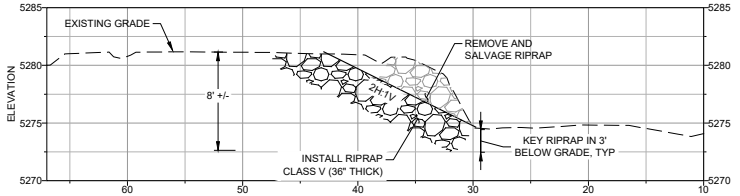
SECTION - STATION 15+00

SCALE: 1"=5'



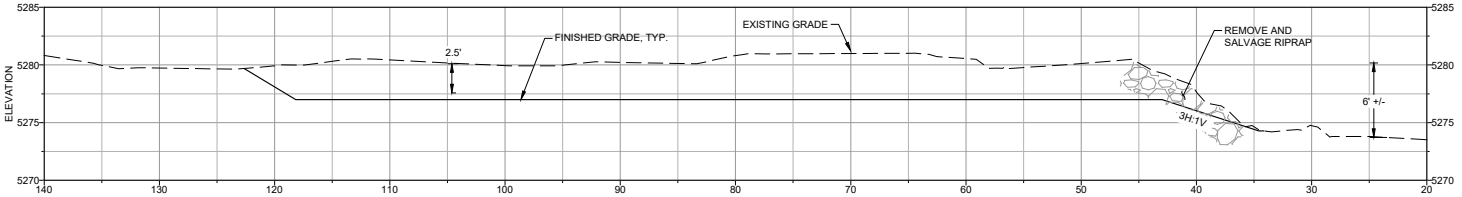
SECTION - STATION 15+50

SCALE: 1"=5'



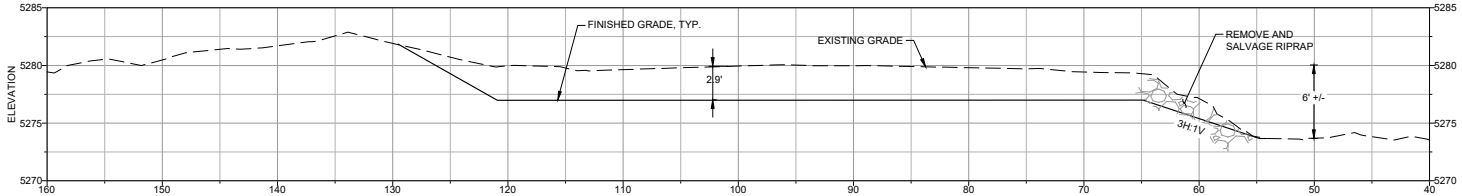
SECTION - STATION 16+00

SCALE: 1"=5'



SECTION - STATION 17+00

SCALE: 1"=5'



SECTION - STATION 18+00

SCALE: 1"=5'

GENERAL NOTES:

1. CROSS SECTIONS ARE ORIENTED LOOKING DOWNSTREAM (LEFT TO RIGHT).
2. ELJ STRUCTURES ARE NOT SHOWN IN SECTIONS FOR CLARITY. INSTALL TYPE 2 ALCOVE ELJS PER PLANS AND DETAILS.
3. ACTUAL EXTENTS AND THICKNESS OF EXISTING RIPRAP WILL VARY.
4. SEE SHEET L-1 FOR PLANTING REQUIREMENTS.

ESA
2801 ALASKAN WAY,
SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP

PROFESSIONAL ENGINEER LICENSED STATE OF IDAHO GREG WOLOVEKE P-22651

1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME

BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION

HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	XXX
DRAWN	XXX
CHECKED	XXX
IN CHARGE	XXX ### ###
PROJECT NUMBER	D202201234
ISSUE DATE	01/15/24

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
100% CONSTRUCTION DOCUMENTATION

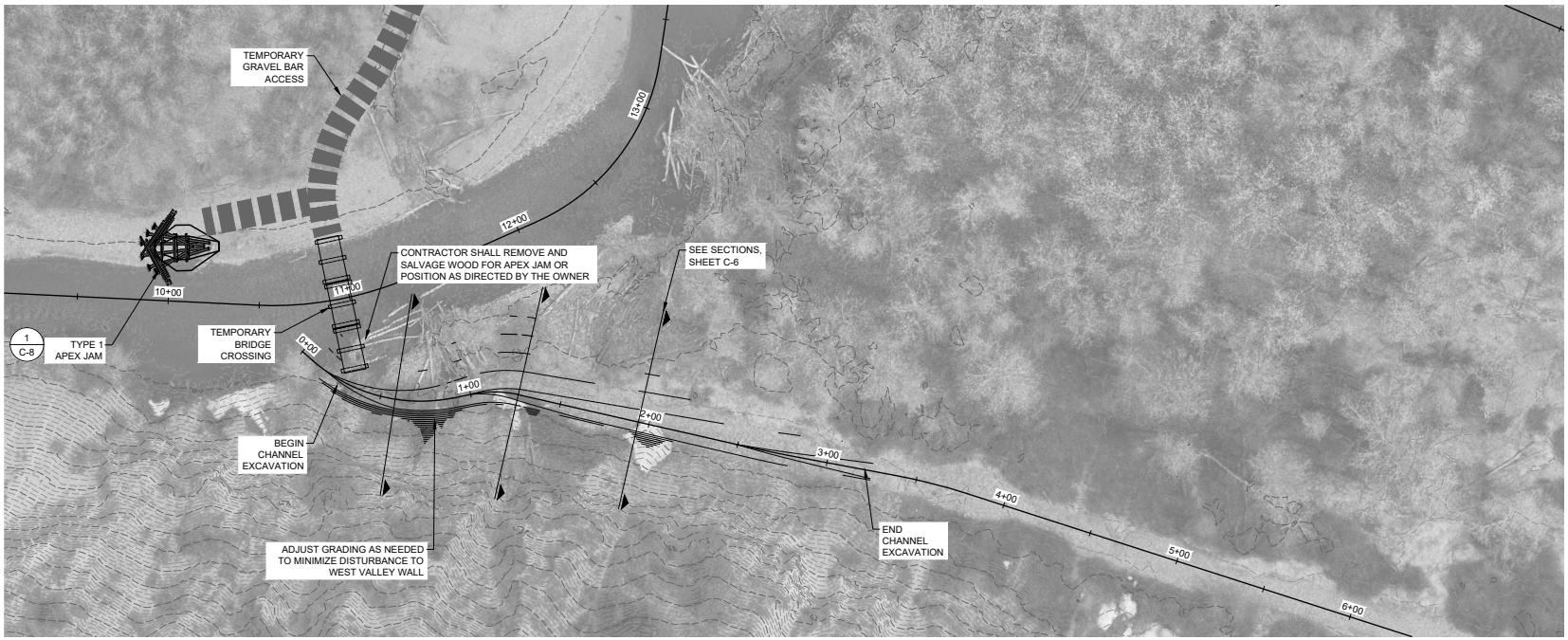
SHEET TITLE

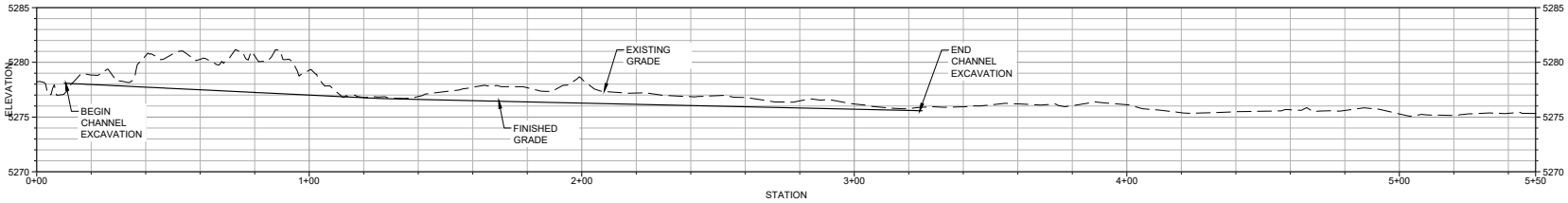
LEVEE REMOVAL SECTIONS

SHEET NUMBER

C-3

SHEET 6 OF 21





GENERAL NOTES:

1. THE OWNER SHALL DIRECT THE PLACEMENT OF EXCAVATED MATERIALS AND/OR WOOD REMOVED FROM THE SIDE CHANNEL.
2. SIDE CHANNEL GRADING MAY BE FIELD-ADJUSTED. ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION WILL VARY.

1"=30' SCALE 30 15 0 30 60 FEET

N

ESA
2801 ALASKAN WAY,
SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP
PROFESSIONAL ENGINEER LICENSED STATE OF IDAHO GREG WOLOVEKE
P-22651
1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	XXX
DRAWN	XXX
CHECKED	XXX
IN CHARGE	XXX ### ###
PROJECT NUMBER	D202201234
ISSUE DATE	01/15/24

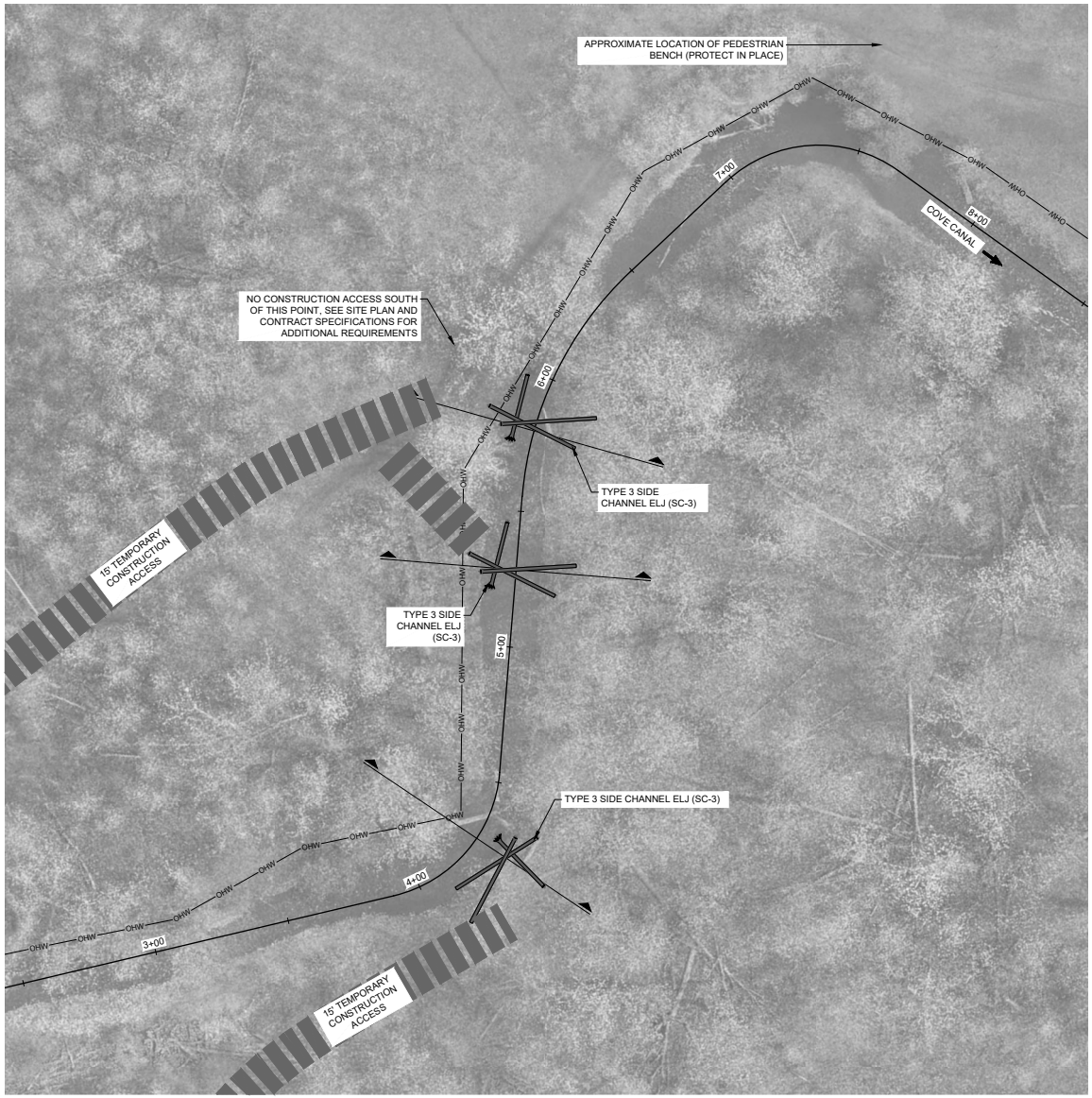
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE
SIDE CHANNEL PLAN AND PROFILE

SHEET NUMBER
C-4

SHEET 7 OF 21



GENERAL NOTES:

1. THE ENGINEER WILL STAKE-OUT THE LOCATION OF EACH TYPE 3 SIDE CHANNEL ELJS IN THE FIELD AND REVIEW WITH THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. PLACE OF WOOD AS PART FOR TYPE 3 ELJ MAY BE DIRECTED BY THE ENGINEER, CHANGING THE LOCATION AND ORIENTATION OF LOGS TO FIELD-FIT AND ACCOMMODATE LOCAL VARYING CONDITIONS.
3. ACCESS TO ELJS SHALL MINIMIZE THE DISTURBANCE TO ALL VEGETATION AND ACCESS TRAILS.
4. THE CONTRACTOR SHALL RESTORE THE ACCESS TRAIL AS PART OF SITE RESTORATION AND PLANTING, SEE SHEET L-1
5. TEMPORARY CONSTRUCTION ACCESS SHALL FOLLOW THE EXISTING PEDESTRIAN TRAIL, UNLESS APPROVED OTHERWISE BY THE OWNER.
6. SEE COVE CANAL SECTIONS ON SHEET C-6.

1"=20' SCALE 20 10 0 20 40 FEET

ESA
2801 ALASKAN WAY,
SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP

PROFESSIONAL ENGINEER LICENSED STATE OF IDAHO GREG WOLOVEKE P-22651 1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	GW
DRAWN	GW
CHECKED	JA
IN CHARGE	JA

PROJECT NUMBER D202201234

ISSUE DATE 01/15/24

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

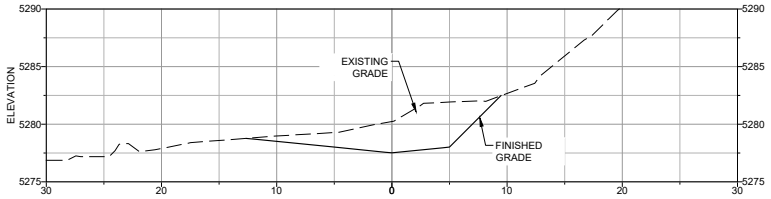
PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE
COVE CANAL WOOD PLACEMENT

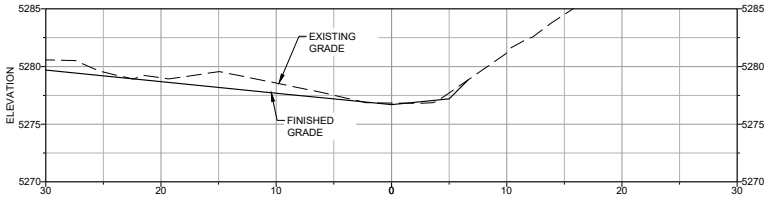
SHEET NUMBER
C-5

SHEET 8 OF 21

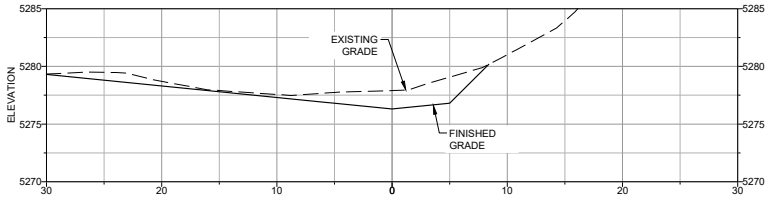
Alignment - Side Channel - STA 0+58



Alignment - Side Channel - STA 1+26



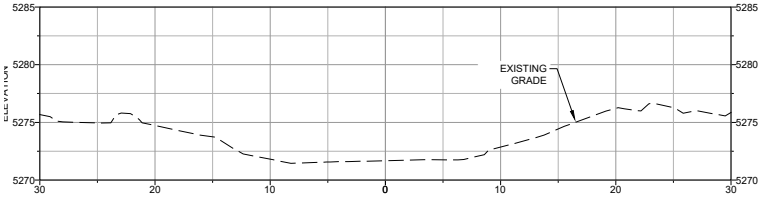
Alignment - Side Channel - STA 1+94



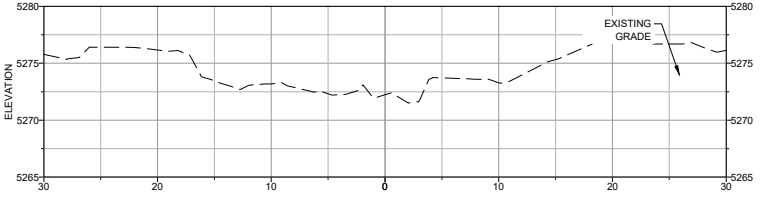
SIDE CHANNEL NOTES:

1. CROSS SECTIONS ARE ORIENTED LOOKING DOWNSTREAM (LEFT TO RIGHT).
2. EXISTING TOPOGRAPHY IS BASED ON LIDAR AND PHOTOGRAMMETRY. ACTUAL CONDITIONS MAY VARY.
3. THE CONTRACTOR SHALL ADJUST GRADING AS NEEDED TO MINIMIZE DISTURBANCE TO THE WEST VALLEY WALL.

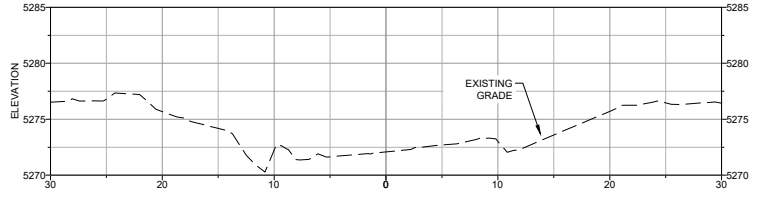
Canal Alignment - STA 5+28



Canal Alignment - STA 4+28



Canal Alignment - STA 5+80



CANAL ALIGNMENT NOTES:

1. CROSS SECTIONS ARE ORIENTED LOOKING DOWNSTREAM (LEFT TO RIGHT).
2. EXISTING TOPOGRAPHY IS BASED ON LIDAR AND PHOTOGRAMMETRY. ACTUAL CONDITIONS MAY VARY.
3. TYPE 3 SIDE CHANNEL ELJS ARE NOT SHOWN FOR CLARITY. SECTIONS ARE PROVIDED TO DESCRIBE GENERAL TOPOGRAPHY.

ESA
2801 ALASKAN WAY,
SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP

PROFESSIONAL ENGINEER LICENSED STATE OF IDAHO GREG WOLOVEKE P-22651 1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	XXX
DRAWN	XXX
CHECKED	XXX
IN CHARGE	XXX ### ###
PROJECT NUMBER	D202201234
ISSUE DATE	01/15/24

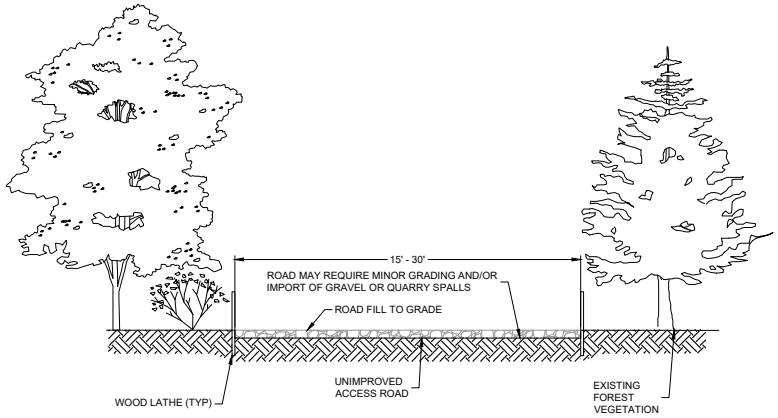
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE
SIDE CHANNEL SECTIONS

SHEET NUMBER
C-6

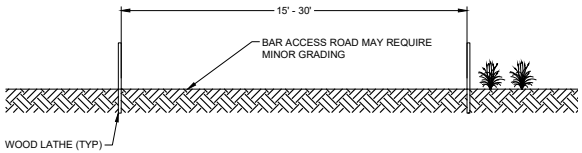
SHEET 9 OF 21



1 / -- TEMPORARY ACCESS ROAD DETAIL 1" = 5'

NOTES

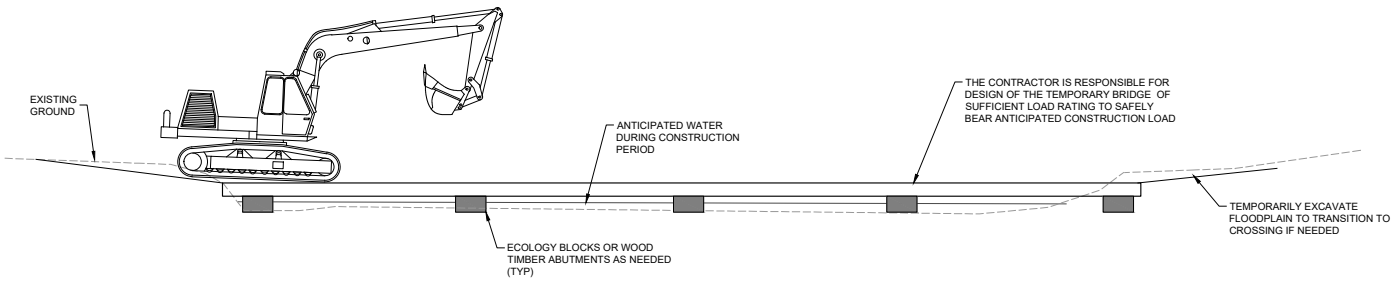
1. CLEARED ACCESS ROADS TO BE ROUTED TO MINIMIZE VEGETATION DISTURBANCE AND FOREST CLEARING.
2. CONTRACTOR SHALL MARK CLEARING LIMITS WITH FLAGGING. CLEARING LIMITS TO BE APPROVED BY ENGINEER PRIOR TO ANY CLEARING ACTIVITIES.
3. ANY TREES GREATER THAN 18" SHALL BE REMOVED W/ ROOTWADS INTACT AND STOCKPILED FOR USE IN LOGJAM CONSTRUCTION.
4. TREES AND SHRUBS WITH 6" - 18" SHALL BE STOCKPILED FOR USE AS RACKING MATERIAL IN LOGJAM CONSTRUCTION.
5. REMAINDER OF VEGETATION AND ORGANIC SOIL SHALL BE GRUBBED, STOCKPILED AND BROADCASTED ON ROAD ALIGNMENT FOLLOWING TERMINATION OF WORK.
6. ACCESS ROAD SHALL BE MAINTAINED BY MINOR GRADING AND IMPORTATION OF WOOD CHIPS, GRAVEL AND/OR QUARRY SPALLS.
7. CLEARED ACCESS ROAD SHALL BE SCARIFIED AND DECONSTRUCTED TO PREVENT FUTURE ACCESS AT THE TERMINATION OF WORK.
8. QUARRY SPALLS SHALL BE UNDERLAIN WITH A GEOTEXTILE AND REMOVED AT TERMINATION OF WORK IF UTILIZED.



2 / -- TEMPORARY GRAVEL BAR ACCESS DETAIL 1" = 5'

NOTES

1. GRAVEL BAR ACCESS ROADS TO BE ROUTED TO MINIMIZE VEGETATION DISTURBANCES. RIPARIAN VEGETATION THAT MUST BE CLEARED FOR ACCESS SHALL NOT BE GRUBBED.
2. THE ENGINEER SHALL STAKE SUGGESTED GRAVEL BAR ACCESS AND REVIEW WITH THE CONTRACTOR.
3. EQUIPMENT SHALL OPERATE ONLY WITHIN STAKED BAR ACCESS ROAD ALIGNMENT OR OTHER DEFINED PROJECT AREAS.
4. BAR ACCESS ROAD SHALL BE SCARIFIED AT TERMINATION OF WORK.



3 / -- TEMPORARY BRIDGE CROSSING DETAIL 1" = 5'

NOTES

1. CONTRACTOR TO DESIGN TEMPORARY BRIDGE. THE DETAIL PROVIDED IS SUGGESTED. THE CONTRACTOR IS RESPONSIBLE FOR CROSSING THE RIVER AND MEETING THE CONDITIONS OF PERMITS.
2. CROSSING SHALL BEAR ON HIGH BANKS WITH SUFFICIENT BEARING CAPACITY TO PREVENT SLOUGHING OR COLLAPSE OF BANKS.
3. CONCRETE ECOLOGY BLOCKS OR WOOD ABUTMENTS MAY BE USED TO SUPPORT ENDS OF TEMPORARY CROSSING AS NEEDED.
4. CROSSING IS SUGGESTED TO BE CONSTRUCTED FROM LOGS, RAIL CAR BEDS OR APPROVED EQUAL AND DECKED WITH STEEL SHEET, WOOD LAGGING OR APPROVED EQUAL.
5. IF COFFERDAMS ARE USED TO NARROW THE CROSSING, CHANNEL WIDTH SHALL NOT BE REDUCED BY MORE THAN 40 PERCENT.
6. CROSSING LENGTH AND REQUIRED MATERIALS WILL VARY PER CROSSING.

ESA
2801 ALASKAN WAY,
SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP
PROFESSIONAL ENGINEER LICENSED STATE OF IDAHO GREG WOLOVEKE
P-22651
1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	XXX
DRAWN	XXX
CHECKED	XXX
IN CHARGE	XXX ### ###
PROJECT NUMBER	D202201234
ISSUE DATE	01/15/24

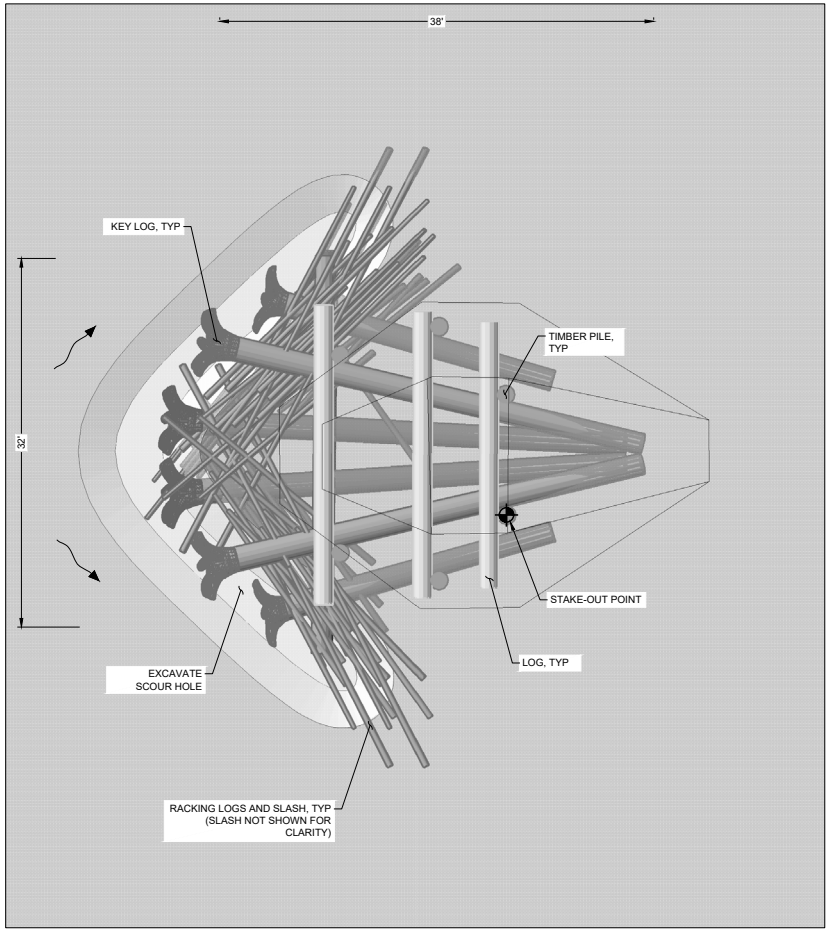
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
100% CONSTRUCTION DOCUMENTATION

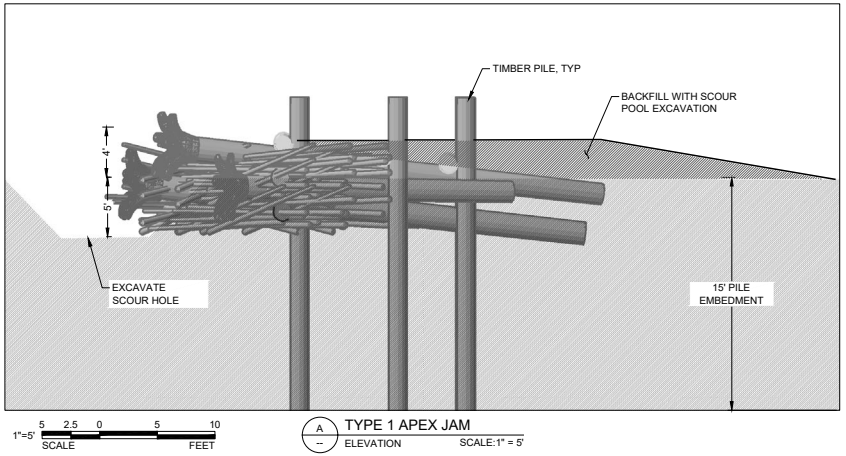
SHEET TITLE
DETAIL - TESC AND SITE ACCESS

SHEET NUMBER
C-7

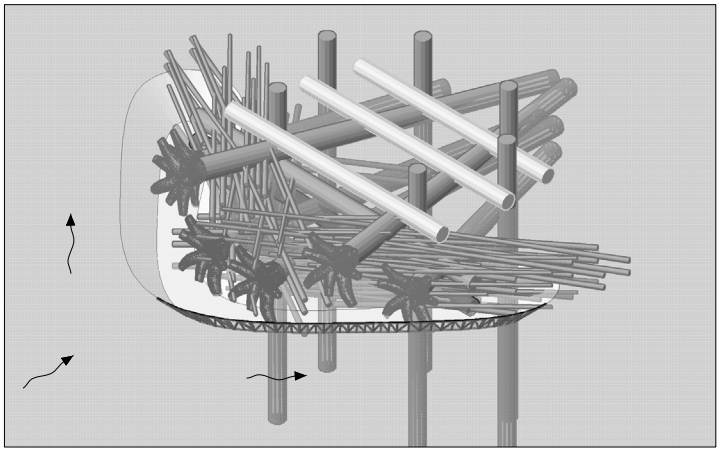
SHEET 10 OF 21



1 -- TYPE 1 APEX JAM
PLAN VIEW SCALE: 1" = 5'



A -- TYPE 1 APEX JAM
ELEVATION SCALE:1" = 5'



ISOMETRIC VIEW
SCALE: NTS

TYPE 1 APEX JAM - MATERIAL SCHEDULE			
MATERIAL ID	DIAMETER (IN)	LENGTH (FT)	QUANTITY PER STRUCTURE
KEY LOG	12" - 15"	30 - 40	6
LOG	9" - 12"	30	5
TIMBER PILE	12"	20	6
RACKING LOGS	4" - 8"	20 - 40	50
WOODY SLASH	--	--	40 CY
HARDWARE CONNECTION	--	--	6

NOTES

1. THE ENGINEER MAY FIELD DIRECT AND ADJUST ADJUST LOG PLACEMENT.
2. TIMBER PILES SHALL BE STAKED OUT. SEE LAYERING PLANS FOR OFFSETS.
3. ALL PILES SHALL BE ROUND, UNTREATED DOUGLAS FIR. PIES SHALL BE FREE OF DEFECTS, CRACKS, AND SPLITTING AT TIME DRIVING.
4. THE CONTRACTOR SHALL USE VIBRATORY PILE DRIVING. THE ENGINEER MAY APPROVE ALTERNATIVE ANCHORING IF PILE DRIVING CAN BE DEMONSTRATED TO NOT BE FEASIBLE.
5. THE EXTENTS OF THE CONSTRUCTED SCOUR POOL IS APPROXIMATE AND MAY BE FIELD DIRECTED BY THE CONTRACT REPRESENTATIVE. EXCAVATED ALLUVIUM SHALL BE USED AS BACKFILL IN THE LEE OF THE STRUCTURE.
6. THE LOCATION OF THE STRUCTURE SHOWN IS APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BY THE CONTRACT REPRESENTATIVE.
7. CONNECT PILES TO LOGS AT THE LOCATIONS INDICATED ON THE PLANS.

ESA
2801 ALASKAN WAY,
SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP
PROFESSIONAL ENGINEER LICENSED STATE OF WASHINGTON GREG WOLOVEKE
P-22651
1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS
#	DATE	DESCRIPTION

DESIGNED	XXX
DRAWN	XXX
CHECKED	XXX
IN CHARGE	XXX ### ###
PROJECT NUMBER	D202201234
ISSUE DATE	01/15/24

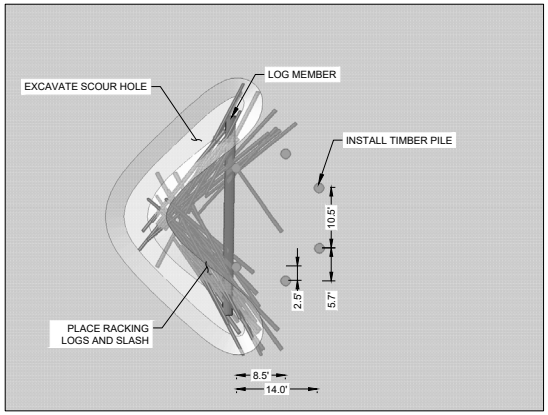
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE
DETAIL - TYPE 1 APEX ELJ

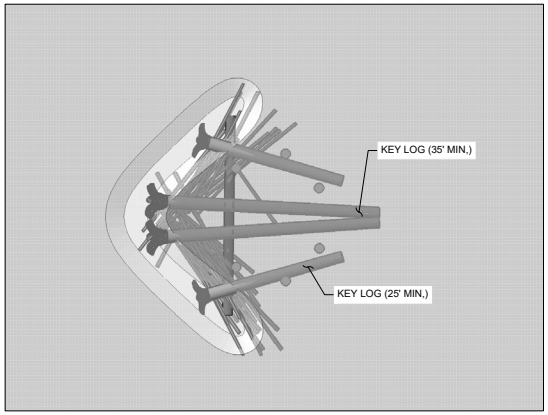
SHEET NUMBER
C-8

SHEET 11 OF 21



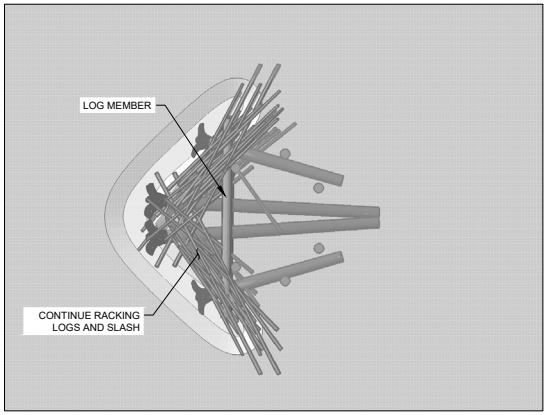
LAYER 0

1. OVER-EXCAVATE SCOUR POOL AND STRUCTURE FOUNDATION. STOCKPILE MATERIAL FOR RE-USE.
2. INSTALL 6 TIMBER PILES.
3. PLACE ONE THIRD OF SLASH AND RACKING LOGS IN SCOUR HOLE AS DEPICTED.
4. PLACE LOG MEMBER OVER TOP, RESTING AGAINST FROM OF PILES



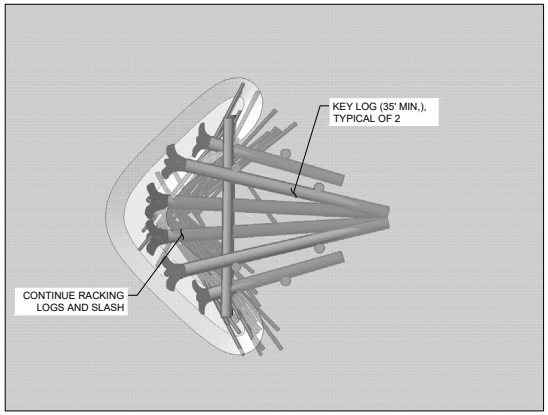
LAYER 1

1. PLACE FOUR KEY LOGS.
2. BEGIN BACKFILLING LEE OF STRUCTURE.



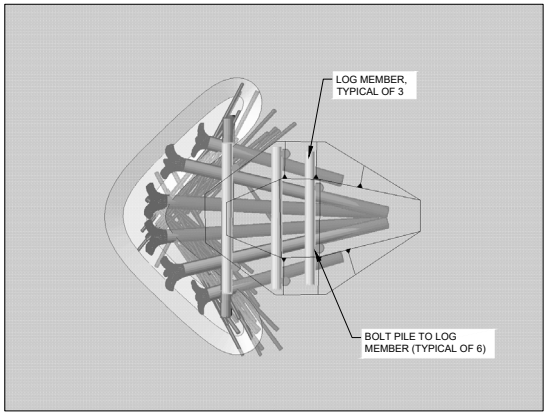
LAYER 2

1. PLACE ONE THIRD OF SLASH AND RACKING LOGS IN FRONT OF STRUCTURE.
2. PLACE LOG MEMBER RESTING AGAINST FRONT OF PILES.
3. CONTINUE BACKFILLING LEE OF STRUCTURE.



LAYER 3

1. PLACE 2 KEY LOGS.
2. PLACE ONE THIRD OF SLASH AND RACKING LOGS IN FRONT OF STRUCTURE.
3. CONTINUE BACKFILLING LEE OF STRUCTURE.



LAYER 4

1. PLACE 3 LOGS AS SHOWN AND BOLT TO PILES. EACH LOG IS BOLTED TWICE AS IT RESTS AGAINST 2 PILES).
2. FINISH BACKFILLING LEE OF STRUCTURE.

ESA
2801 ALASKAN WAY,
SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP

PROFESSIONAL ENGINEER LICENSED STATE OF IDAHO GREG WOLOVEKE P-22651

1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME

BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION

HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	XXX
DRAWN	XXX
CHECKED	XXX
IN CHARGE	XXX ### ###
PROJECT NUMBER	D202201234
ISSUE DATE	01/15/24

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE

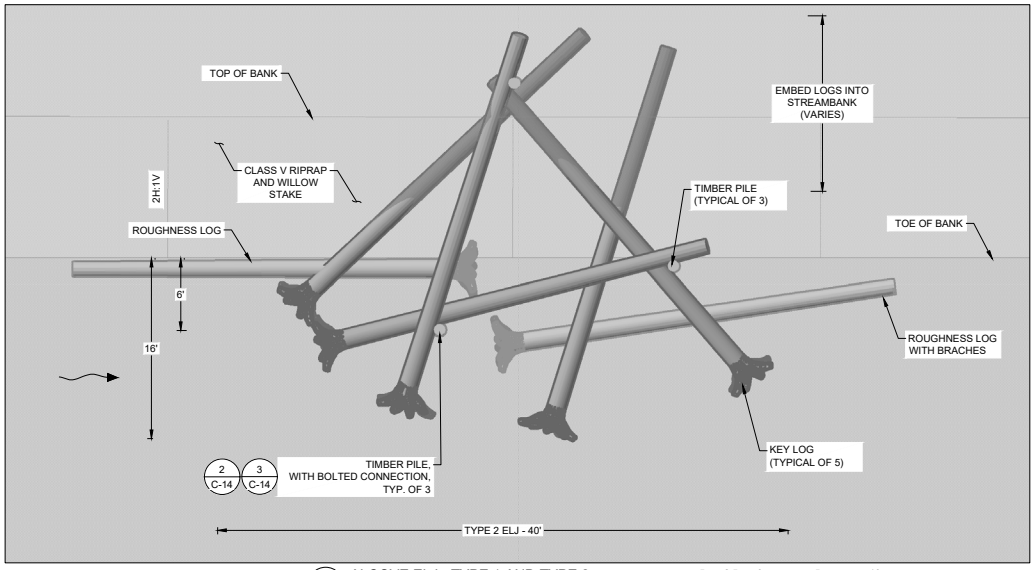
LAYERING - TYPE 1
APEX ELJ

SHEET NUMBER

C-9

SHEET 12 OF 21

FILE: P:\01 CAD\2022xxxx\D2022201234.00 - Big Wood River Heagle Park\DWG\TYPE 1 APEX ELJ DETAIL.dwg PLOT DATE: 12/1/2024 3:52:37 PM, PLOTTED BY: GREG WOLOVEKE



1 ALCOVE ELJ - TYPE 1 AND TYPE 2
PLAN SCALE: 1"= 5'

1"=5' 5 2.5 0 5 10
SCALE FEET

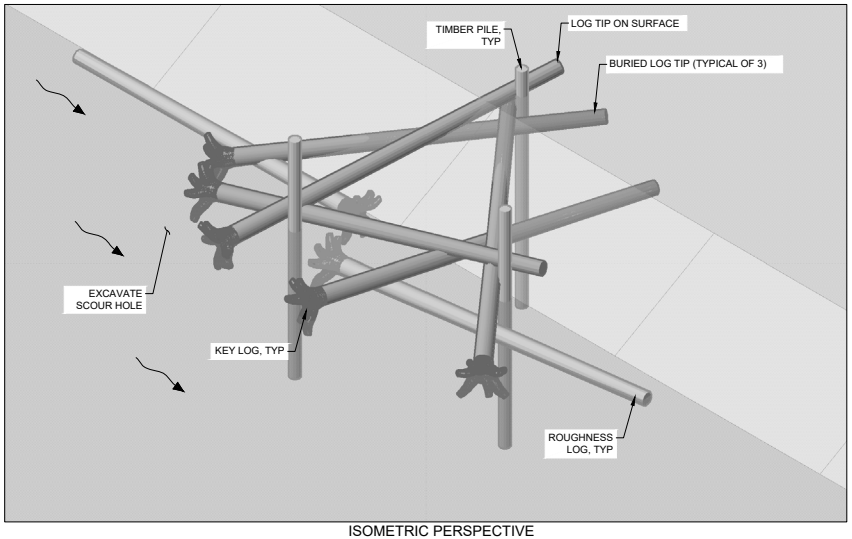
MATERIAL SCHEDULE - TYPE 2 ALCOVE ELJ			
MATERIAL ID	DIAMETER (IN)	LENGTH (FT)	QUANTITY PER STRUCTURE
KEY LOG	9 - 15	30 - 35	5
ROUGHNESS LOG	9 - 12	30 - 35	2
TIMBER PILE	12	25	3
RACKING LOG	4 - 8	5 - 15	15
WOODY SLASH	< 4	N/A	10 CY
HARDWARE CONNECTION	--	--	3

NOTES:

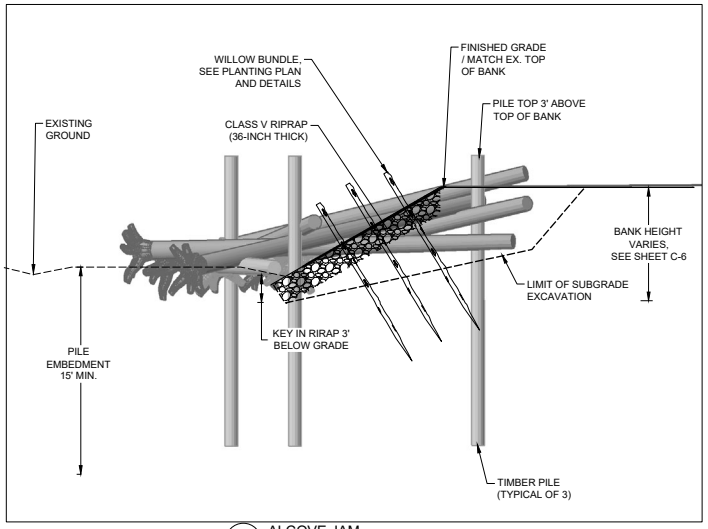
1. TIMBER PILES SHALL BE STAKED OUT. SEE LAYERING PLAN FOR OFFSETS.
2. THE ENGINEER MAY DIRECT THE CONTRACTOR TO FIELD-FIT THE PLACEMENT AND ORIENTATION OF LOGS.
3. THE CONTRACT SHALL SEQUENCE LOG PLACEMENT WITH INSTALLATION OF CLASS V RIPRAP AND WILLOW BUNDLES.
4. CONTRACTOR SHALL EXCAVATE HOLES SO ROOTWADS ARE EMBEDDED APPROXIMATELY 50 PERCENT THEIR DIAMETER.
5. THE CONTRACTOR SHALL SEQUENCE PLACEMENT OF LOGS WITH ADDITIONAL RACKING LOGS AND SLASH AS INDICATED IN THE MATERIAL SCHEDULE. THE GOAL IS TO CREATE A MATRIX OF WOODY MATERIAL.

PILE LOG NOTES:

1. PILE LOGS WILL BE VIBRATED INTO THE STREAMBED TO THE MINIMUM LENGTH LISTED BELOW THE THALWEG. NOTIFY ENGINEER IF REFUSAL IS MET.
2. THE ENGINEER MAY REQUEST THE CONTRACTOR TO ADJUST OR REPOSITION AND RE-DRIVE PILE LOGS IF NECESSARY TO ACHIEVE THE DESIRED EMBEDMENT AT NO ADDITIONAL COST TO THE OWNER.
3. ENDS OF PILE LOGS MAY BE SHARPENED WITH CHAINSAW PRIOR TO DRIVING INTO SUBGRADE OR A METAL PILE DRIVING CAP MAY BE USED.
4. THE CONTRACTOR SHALL BEAR ALL COSTS FOR DAMAGED OR BROKEN PILES DURING INSTALLATION.
5. THE ENGINEER MAY APPROVE THE INSTALLATION OF BOULDER COLLARS AS A SUBSTITUTE FOR PILES. SEE DETAIL 3 / SHEET C-14 FOR BOULDER COLLAR TYPICAL DETAIL AND REQUIREMENTS. BOULDER COLLARS SHALL BE USED AT THE RATIO OF 2 BOULDER COLLARS PER PILE.
6. BOLTED CONNECTIONS SHALL BE INSTALLED TO CONNECT THE FINAL (TOP) KEY LOG TO THE PILE.



ISOMETRIC PERSPECTIVE
SCALE: 1"= 5'



A ALCOVE JAM
SCALE: 1"= 5'

ESA
2801 ALASKAN WAY, SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP
PROFESSIONAL ENGINEERS LICENSED STATE OF IDAHO GREG WOLOVEKE
P-22651
1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	XXX
DRAWN	XXX
CHECKED	XXX
IN CHARGE	XXX ### ###
PROJECT NUMBER	D202201234
ISSUE DATE	01/15/24

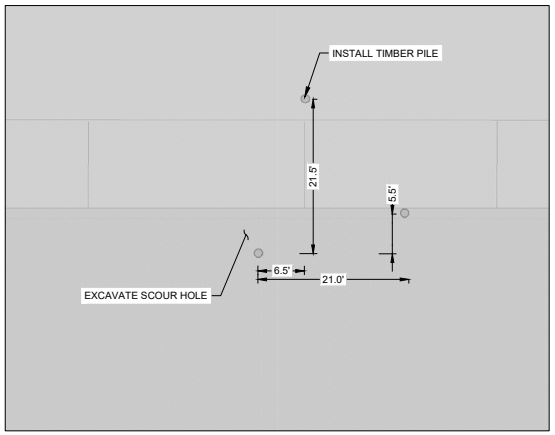
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE
DETAIL - TYPE 2 ALCOVE ELJ

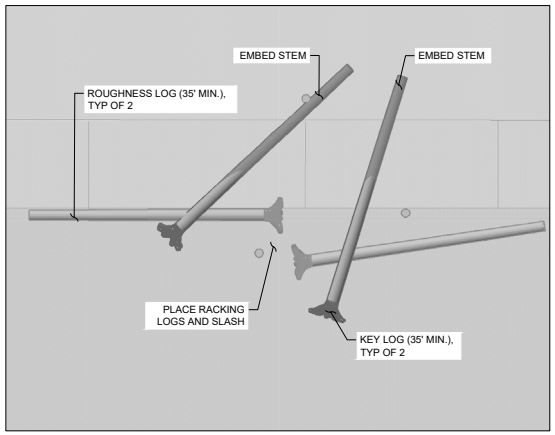
SHEET NUMBER
C-10

SHEET 13 OF 21



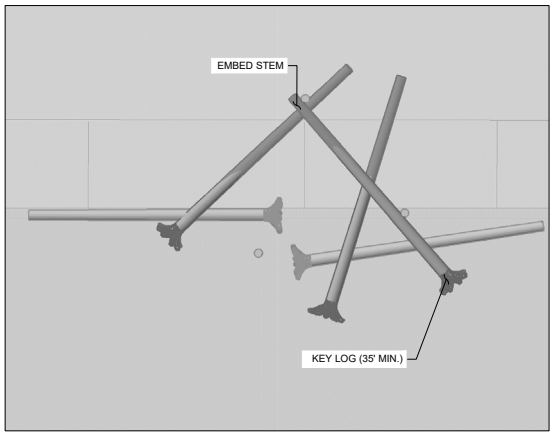
LAYER 0

1. OVER-EXCAVATE SCOUR POOL AND STRUCTURE FOUNDATION. STOCKPILE MATERIAL FOR RE-USE.
2. INSTALL 3 TIMBER PILES.
3. OVER-EXCAVATE TOE OF SLOPE TO KEY IN RIPRAP AS SHOWN IN PROFILE.



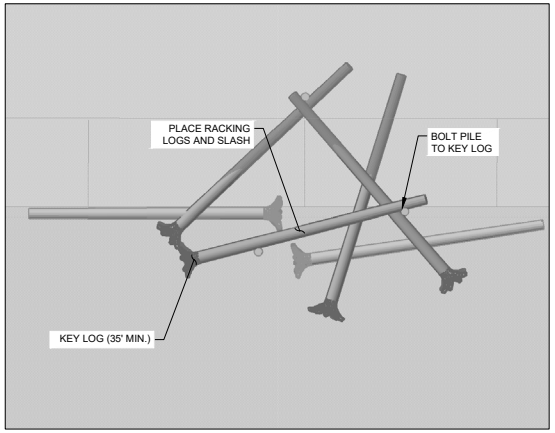
LAYER 1 AND LAYER 2

1. PLACE 2 ROUGHNESS LOGS
2. OVER-EXCAVATE BANK AND PLACE 2 KEY LOGS.
3. CONTINUE RIPRAP INSTALLATION.



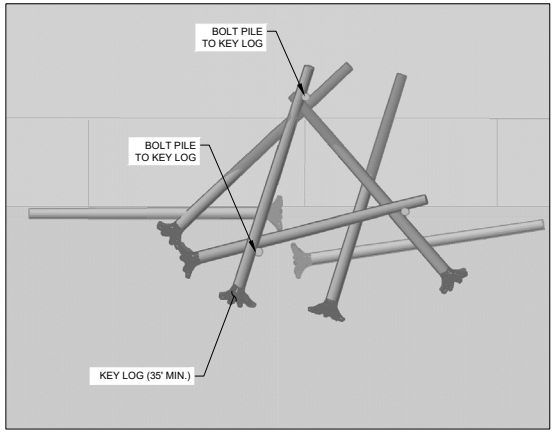
LAYER 2

1. PLACE 2 KEY LOG. LOG TIP LIKELY EMBEDDED IN BANK WITH TIP IN CONTACT WITH KEY LOG 1 PREVIOUSLY SHOWN.
2. CONTINUE RIPRAP INSTALLATION. UP TO TOP OF BANK.



LAYER 3

1. INSTALL KEY LOG IN CONTACT WITH TWO PILES THE LIE WITHIN CHANNEL AND BOLT DOWNSTREAM PILE.



LAYER 4

1. INSTALL KEY LOG IN CONTACT WITH 2 PILES AND BOLT TO EACH PILE (2 BOLTS).

ESA
2801 ALASKAN WAY,
SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP

PROFESSIONAL ENGINEER LICENSED STATE OF IDAHO GREG WOLOVEKE P-22651

1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME

BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION

HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	XXX
DRAWN	XXX
CHECKED	XXX
IN CHARGE	XXX ### ###
PROJECT NUMBER	D202201234
ISSUE DATE	01/15/24

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
100% CONSTRUCTION DOCUMENTATION

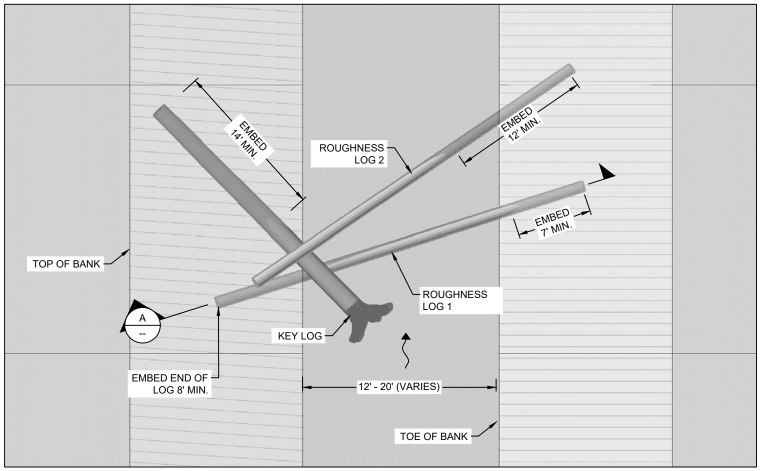
SHEET TITLE

LAYERING - TYPE 2 ALCOVE ELJ

SHEET NUMBER

C-11

SHEET 14 OF 21



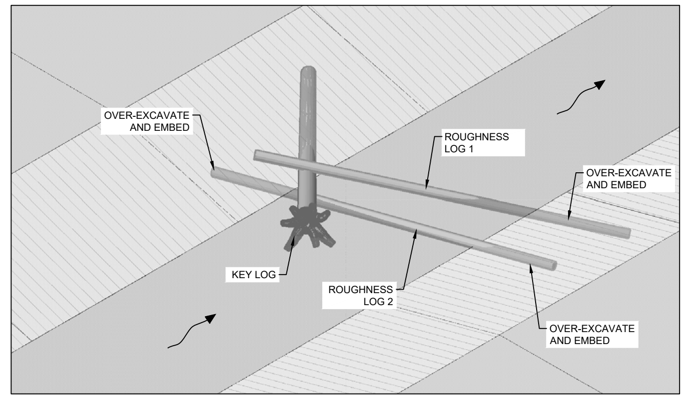
1 SIDE CHANNEL WOOD
PLAN SCALE: 1"= 5'

1"=5' 5 2.5 0 5 10
SCALE FEET

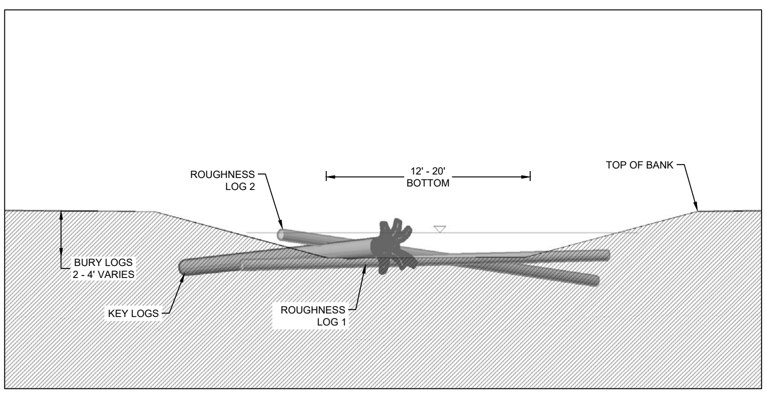
NOTES

1. THE CONTRACTOR SHALL OVER-EXCAVATE STREAMBANKS TO INSTALL LOGS.
2. THE CONTRACTOR SHALL RESTORE BANKS IN-KIND AND SEED.
3. ALL LOGS MAY BE SOURCED FROM ON-SITE CLEARING.

MATERIAL SCHEDULE - TYPE 3 SIDE CHANNEL ELJ			
MATERIAL ID	DIAMETER (IN)	LENGTH (FT)	QUANTITY PER STRUCTURE
KEY LOG	9 - 12	25 - 30	1
ROUGHNESS LOG	9 - 12	25 - 30	2



ISOMETRIC PERSPECTIVE
SCALE: 1"= 5'



A SIDE CHANNEL WOOD
ELEVATION SCALE: 1"= 5'

ESA
2801 ALASKAN WAY, SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP
PROFESSIONAL ENGINEER LICENSED P-22651 STATE OF IDAHO GREG WOLOVEKE
1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER HEAGLE PARK FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	XXX
DRAWN	XXX
CHECKED	XXX
IN CHARGE	XXX ### ###
PROJECT NUMBER	D202201234
ISSUE DATE	01/15/24

SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

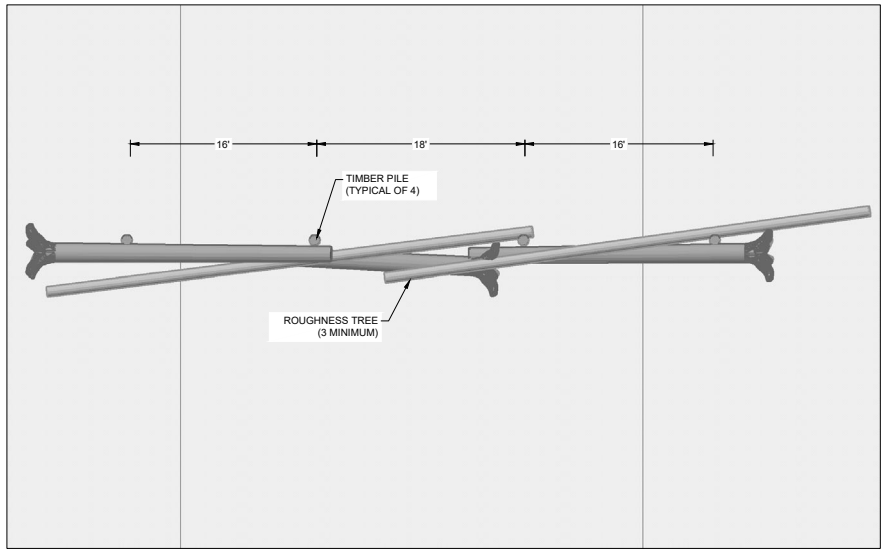
PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE
DETAIL - TYPE 3 SIDE CHANNEL ELJ

SHEET NUMBER
C-12

SHEET 15 OF 21

FILE: P:\01 CAD\2022\xxxxx\D202201234.00 - Big Wood River Heagle Park\DWG\C-X SIDE CHANNEL WOOD.dwg PLOT DATE: 1/21/2024 3:53:07 PM PLOTTED BY: GREG WOLOVEKE



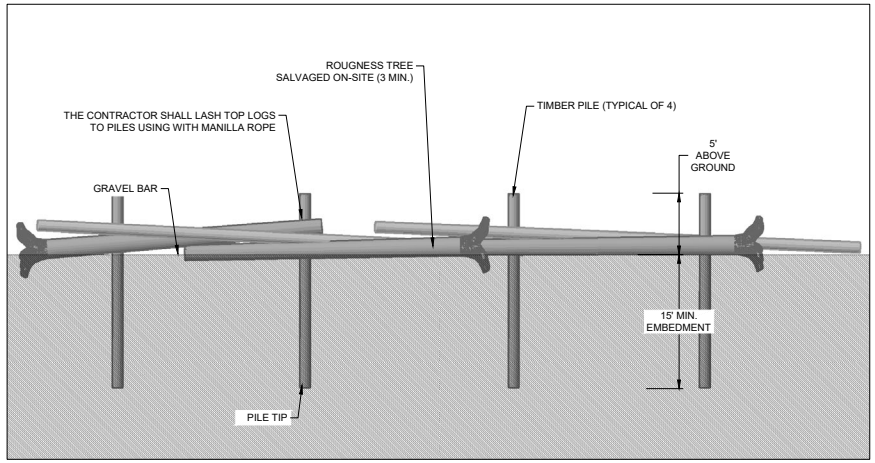
1 FLOOD FENCE
PLAN SCALE: 1"= 5'

1"=5' 5 2.5 0 5 10
SCALE FEET

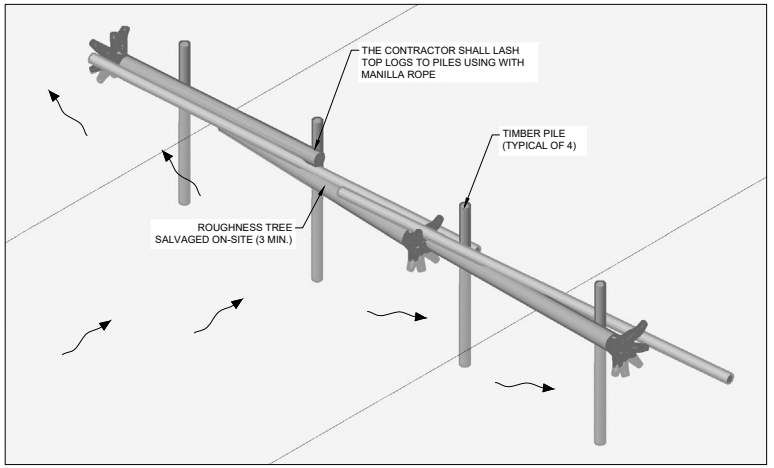
MATERIAL SCHEDULE - TYPE 4 FLOOD FENCE			
MATERIAL ID	DIAMETER (IN)	LENGTH (FT)	QUANTITY PER STRUCTURE
ROUGHNESS TREES (SEE NOTE 1)	9 - 18	20' - 30'	3 MIN.
TIMBER PILE	12	20'	4

NOTES

1. ROUGHNESS TREES SHALL BE SOURCED FROM ON-SITE CLEARING.
2. FLOOD FENCE IS SITUATED TO STABILIZE WOOD RECRUITED TO GRAVEL BAR.
3. IF REFUSAL IS ENCOUNTERED, TIMBER PILES MAY BE SUBSTITUTED FOR 'ROOTWAD POSTS' . THE ENGINEER MAY REQUEST AN ALTERNATIVE EMBEDMENT DEPTH AND LOGS WITH ROOTWADS ARE PREFERRED OVER TIMBER PILES.
4. THE ENGINEER MAY DIRECT THE PLACEMENT OF ROUGHNESS TREES. ADDITIONAL TREES FROM ON-SITE CLEARING MAY BE INCLUDED.
5. VIBRATORY PILE DRIVING SHALL BE THE PREFERRED METHOD FOR TIMBER PILE INSTALLATION.



2 FLOOD FENCE
ELEVATION SCALE: 1"= 5'



ISOMETRIC PERSPECTIVE
SCALE: 1"= 5'

ESA
2801 ALASKAN WAY,
SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP
PROFESSIONAL ENGINEERS LICENSED STATE OF IDAHO GREG WOLOVEKE
P-22651
1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED	XXX
DRAWN	XXX
CHECKED	XXX
IN CHARGE	XXX ### ###
PROJECT NUMBER	D202201234
ISSUE DATE	01/15/24

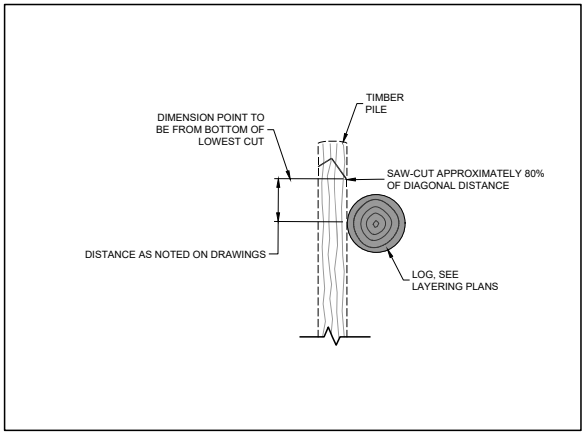
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
100% CONSTRUCTION DOCUMENTATION

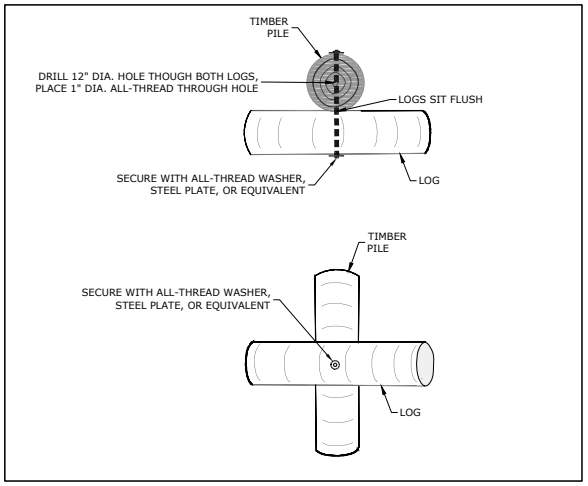
SHEET TITLE
DETAIL - TYPE 4 FLOOD FENCE ELJ

SHEET NUMBER
C-13

SHEET 16 OF 21



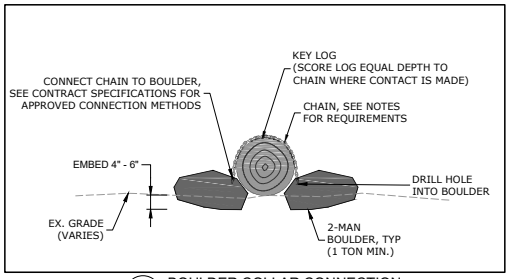
1 -- SAWCUT POST TOP DETAIL — NOT TO SCALE



2 - PIN CONNECTION DETAIL — NOT TO SCALE

NOTES:

1. ALL HARDWARE SHALL BE OF THE QUANTITY AND TYPE SPECIFIED BY THE MANUFACTURER WITH AN EQUAL OR GREATER STRENGTH THAN THE CHAIN BREAKING STRENGTH.



3 -- BOULDER COLLAR CONNECTION DETAIL — SCALE: NOT TO SCALE

CHAIN CONNECTION NOTES:

1. CHAIN SHALL BE 5/16 INCH DIAMETER CARBON WELDED GRADE 43 HIGH-TEST CHAIN WITH A MINIMUM WORKING LOAD LIMIT OF 5,400 POUNDS.
2. SECURE CHAIN TO LOG USING 6-INCH LOGGING STAPLE.
3. INSTALL CHAIN TO EACH LOG WHERE SHOWN IN WOOD STRUCTURE DETAILS.
4. CHAIN LASHING SYSTEM SHALL BE PUT IN TENSION TO 1/4 OF THE CHAIN WORKING LOAD LIMIT. MAINTAIN TENSION IN CHAIN DURING SHACKLING.
5. CHAIN LENGTH REQUIRED FOR EACH CONNECTION WILL VARY BASED ON THE LOG DIAMETER.
6. THE CONTRACTOR MAY SUBMIT ALTERNATIVE CHAIN CONNECTION SYSTEM TO THE PROJECT ENGINEER FOR APPROVAL.

ESA
2801 ALASKAN WAY,
SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP

PROFESSIONAL ENGINEER LICENSED P-22651 STATE OF IDAHO GREG WOLOVEKE 1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED
DRAWN
CHECKED
IN CHARGE

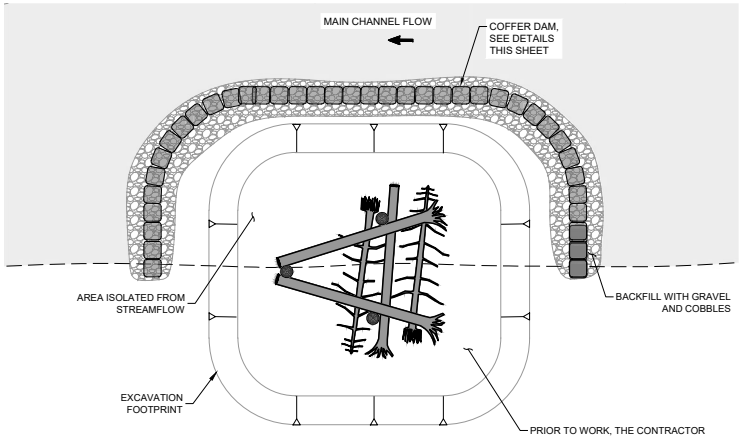
PROJECT NUMBER D202201234
ISSUE DATE 01/15/24
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE
DETAIL - LOG JAM HARDWARE

SHEET NUMBER
C-14

SHEET 17 OF 21



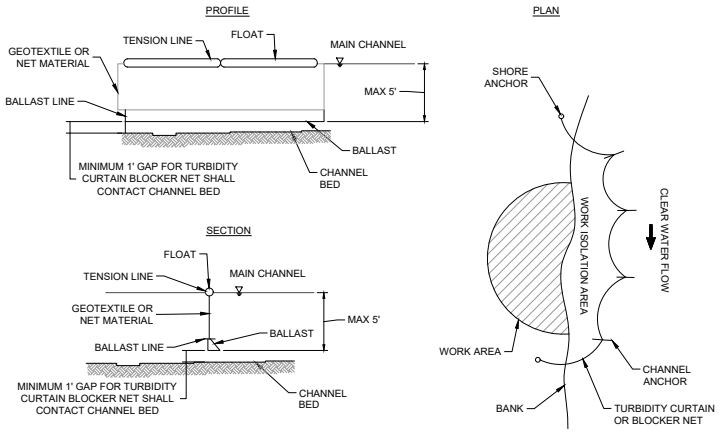
1 / -- COFFER DAM ISOLATION
DETAIL 1" = 20'

NOTES

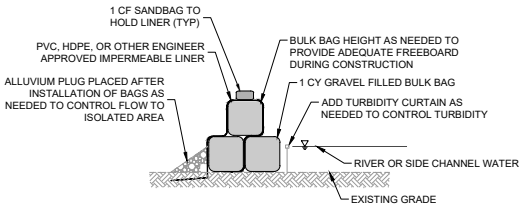
1. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS FOR WORK ISOLATION, INCLUDING THE COFFER DAM EXTENTS AND CONFIGURATION.
2. SAMPLE SITE ISOLATION METHODS LISTED IN THIS TABLE ARE BASED ON ESTIMATED OR CONDITIONS DURING CONSTRUCTIONS. RIVER CONDITIONS AND ARE SUBJECT TO CHANGE BASED ON SITE CONDITIONS AND FLOW AT THE TIME OF CONSTRUCTION. IT IS THE CONTRACTORS RESPONSIBILITY TO DESIGN AND MANAGE WATER MANAGEMENT METHODS TO MEET THE REQUIREMENTS OF ALL PERMITS AND STATE WATER QUALITY REQUIREMENTS.

TURBIDITY CURTAIN AND BLOCK NET NOTES

1. ALL TURBIDITY CURTAINS SHALL BE DISINFECTED BEFORE DEPLOYING IN THE BIG WOOD RIVER.
2. BLOCKER NETS SHALL EXTEND MIN 6" ABOVE THE WATER SURFACE TO PREVENT FISH FROM JUMPING.
3. IN AREAS OF HIGH VELOCITY OR UNEVEN BED, PILE ROCKS ON THE BOTTOM OF THE BLOCKER NET TO SEAL IT TIGHTLY TO THE BED.



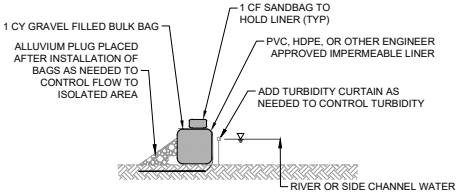
4 / -- TURBIDITY CURTAIN OR BLOCK NET
DETAIL NOT TO SCALE



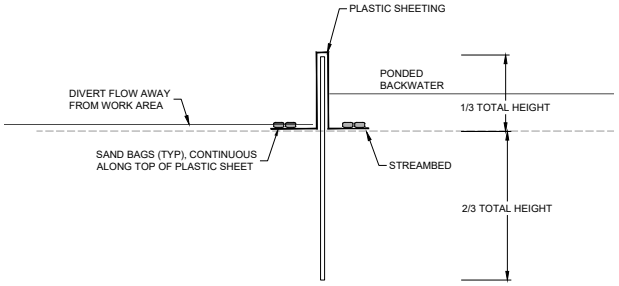
2 / -- EXAMPLE BULK BAG COFFERDAM
DETAIL NOT TO SCALE

NOTES

1. PLACE/REMOVE ALLUVIUM AS LAST/FIRST STEP OF BULK BAG ISOLATION SYSTEM INSTALLATION/REMOVAL.
2. ONLY INSTALL SINGLE BULK BAG ISOLATION WHERE WATER DEPTH EXPECTED TO BE LESS THAN 2 FT. IF GREATER THAN 2 FT, SEE DETAIL 3.
3. TRANSITION LINER FROM EXTERIOR (UPSTREAM END) OF ISOLATION TO INTERIOR OF ISOLATION APPROXIMATELY $\frac{1}{2}$ THE LENGTH OF THE ISOLATION WHERE RIVER WATER INFILTRATION INTO THE WORK AREA TRANSITIONS TO EXFILTRATION.



3 / -- EXAMPLE SINGLE BULK BAG COFFERDAM
DETAIL NOT TO SCALE



4 / -- EXAMPLE OF SHEET PILE COFFER DAM
DETAIL NOT TO SCALE

ESA
2801 ALASKAN WAY, SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP
PROFESSIONAL ENGINEER LICENSED STATE OF IDAHO GREG WOLOVEKE
P-22651
1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED
DRAWN
CHECKED
IN CHARGE

PROJECT NUMBER D202201234
ISSUE DATE 01/15/24
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

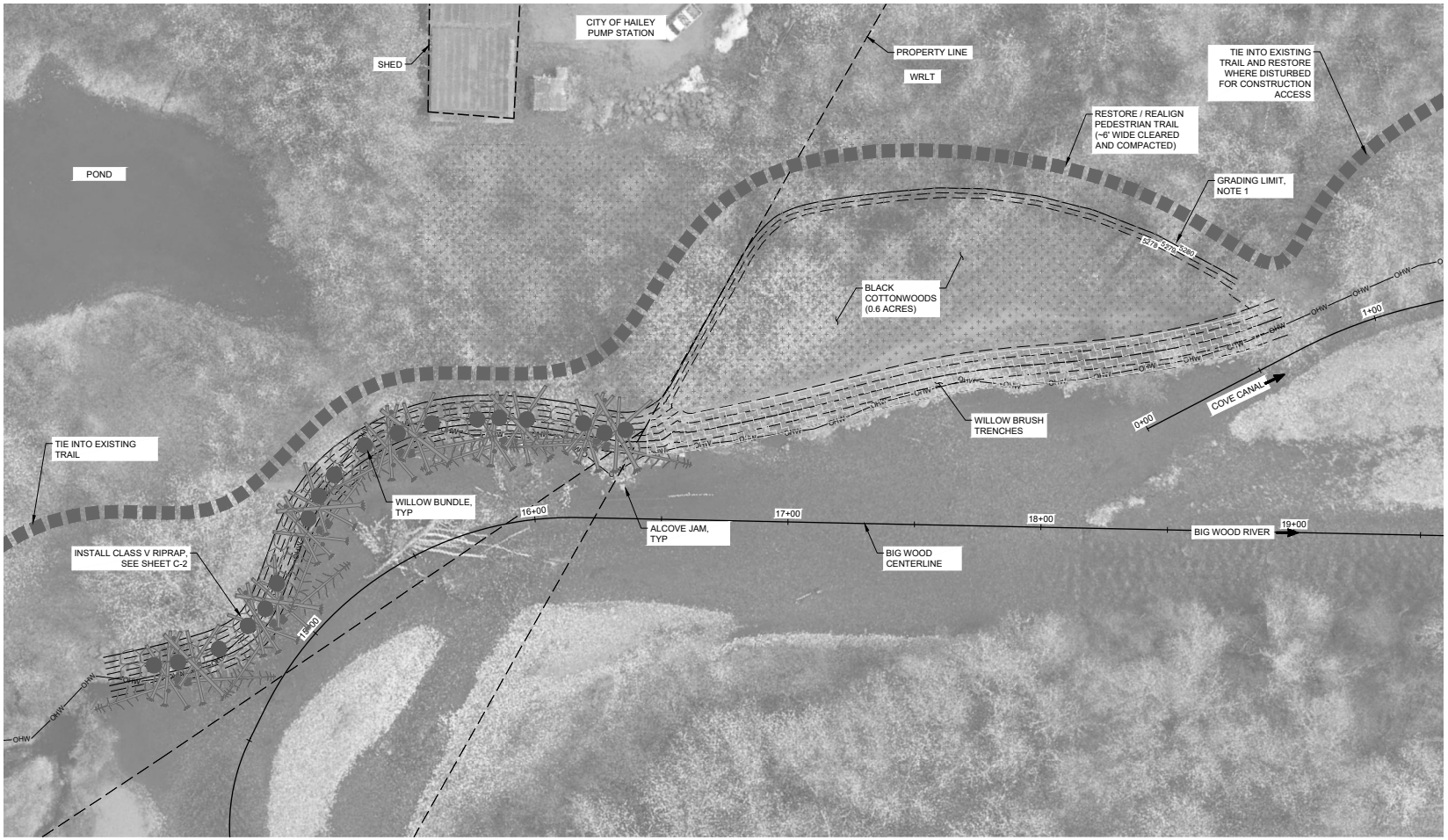
PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE
DETAIL - SUGGESTED WATER MANAGEMENT

SHEET NUMBER
C-15

SHEET 18 OF 21

FILE: P:\01 CAD\2022xxxx\D2022201234.00 - Big Wood River Heagle Park\DWG\ESC-2 SUGGESTED WATER MANAGEMENT DETAILS.dwg PLOT DATE: 1/21/2024 3:53:38 PM PLOTTED BY: GREG WOLOVEKE



GENERAL NOTES:

1. SEE LEVEE REMOVAL SHEETS C-2 AND C-3 FOR BANK GRADING.
2. SEE PLANTING SCHEDULES ON THIS SHEET FOR QUANTITIES AND SPACING.
3. SEE SHEET L-2 FOR PLANTING NOTES AND DETAILS.

PLANTING AND SITE RESTORATION NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DECOMPACTION OF SOILS FOLLOWING ALL GRADING AND WOOD INSTALLATION WORK. AT MINIMUM, THE CONTRACTOR SHALL DECOMPACT ALL AREAS WITHIN THE PROJECT LIMITS THAT HAS BEEN TRACKED BY EQUIPMENT, NOT LIMITED TO ACCESS, STAGING, GRADING, AND COTTONWOOD PLANTING AREAS SHOWN ON THE PLANS.
2. COTTONWOODS AND LIVESTAKES SHALL BE SUPPLIED BY WOOD RIVER LAND TRUST. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION.
3. COTTONWOOD PLANTING SHALL BE PERFORMED BY WRLT.
4. WLRT MAY DIRECT THE RE-GRADING OF THE PEDESTRIAN TRAIL.
5. TOPSOIL THAT IS STRIPPED AND STOCKPILED DURING EARTHWORK SHALL BE INCORPORATED (PRIORITIZED) WITH CONTAIN PLANTINGS.

LIVE STAKE QUANTITIES				
PLANTING ITEMS	SPACING	QUANTITY	CUTTINGS PER TREATMENT	TOTAL # CUTTINGS
BRUSH TRENCHES	500 SQFT	65	10	650
WILLOW BUNDLES	3 BUNDLES PER ALCOVE ELJ	18	3	54

UPLAND PLANTING QUANTITIES (PLANTING BY WRLT)				
PLANTING ITEMS	UNITS	QTY	SIZE	SPACING AVERAGE (FT O.C.)
BLACK COTTONWOOD	EACH	100	5-GAL MIN.	15

1"=20' SCALE 20 10 0 20 40 FEET

SITE RESTORATION AND PLANTING LEGEND:

- EXISTING PARCEL BOUNDARY
- NEW TRAIL
- BLACK COTTONWOOD
- WILLOW BRUSH TRENCH
- WILLOW BUNDLE

ESA
2801 ALASKAN WAY, SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP
PROFESSIONAL ENGINEERS LICENSED P-22651 STATE OF IDAHO GREG WOLOVEKE
1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS
#	DATE	DESCRIPTION

DESIGNED
DRAWN
CHECKED
IN CHARGE

PROJECT NUMBER D202201234
ISSUE DATE 01/15/24
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

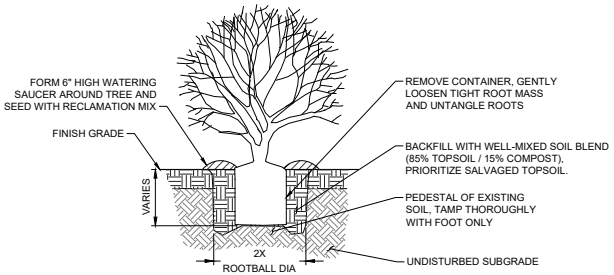
PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE
PLANTING PLAN

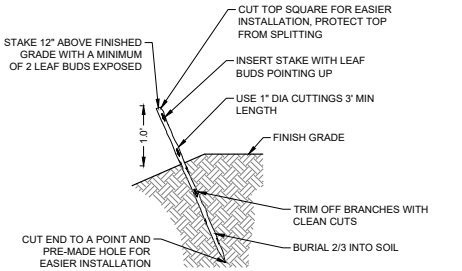
SHEET NUMBER
L-1

SHEET 20 OF 21

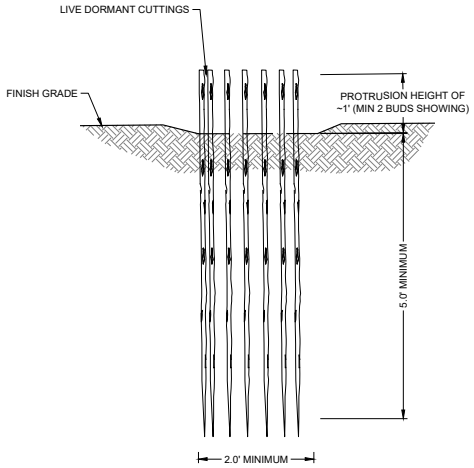
FILE: P:\01 CAD\2022xxxx\D202201234.00 - Big Wood River Heagle Park\DWG\P LANTING PLAN.dwg PLOT DATE: 1/12/2024 3:54:18 PM PLOTTED BY: GREG WOLOVEKE



1 L-1 CONTAINER PLANTING DETAIL — SCALE: NTS



2 L-1 LIVESTAKE PLANTING DETAIL — SCALE: NTS



3 L-1 BRUSH TRENCH DETAIL — SCALE: NTS

PLANTING NOTES:

WOODY VEGETATION BUNDLES/STAKES

1. DORMANT HARDWOOD CUTTINGS WILL BE UTILIZED TO FACILITATE BIOENGINEERING TECHNIQUES. CUTTINGS WILL BE HARVESTED FROM HEALTHY VIGOROUS PLANTS DURING THE DORMANT SEASON (I.E., BETWEEN DORMANCY/LEAF ABSCISSION IN THE FALL AND BUD BREAK IN THE SPRING).
2. CARE WILL BE TAKEN TO AVOID HARVESTING CUTTINGS FROM DONOR PLANTS THAT EXHIBIT SIGNS OF DAMAGE BY DISEASE OR INSECTS. CUTTINGS WILL BE COMPRISED OF WILLOW AND COTTONWOOD STEMS THAT HAVE A MINIMUM BOTTOM DIAMETER OF 1-INCH, HAVE A MINIMUM LENGTH OF 7 FEET, AND ARE RELATIVELY STRAIGHT.
3. CUTTINGS WILL BE REMOVED FROM THE DONOR PLANT WITH A CLEAN DIAGONAL CUT AT THE BASE OF THE STEM USING LOPPING SHEARS, BYPASS PRUNERS, OR A SHARP SAW. THE DIAGONAL SURFACE WILL DIFFERENTIATE THE BOTTOM (I.E., ROOTING END) FROM THE TOP (I.E., ABOVE GROUND PORTION), AND ALLOW FOR EASIER INSTALLATION. THE TERMINAL BUDS AND A FEW UPPER BRANCHES WILL BE LEFT INTACT UNTIL INSTALLATION. ALL OTHER BRANCHES WILL BE REMOVED BY CLIPPING THEM AS CLOSE TO THE STEM AS POSSIBLE. CAUTION WILL BE USED TO AVOID DAMAGING THE STEM WHILE TRIMMING THE LATERAL BRANCHES.
4. CUTTINGS WILL BE BUNDLED BY TYPE (I.E., WILLOW, COTTONWOOD) AND KEPT COOL, MOIST, AND SHADED DURING TRANSPORTATION AND ON-SITE STORAGE. THE CUTTINGS WILL BE SOAKED IN 'ROOT STIMULATOR' WHILE AWAITING PLANTING. AT LEAST HALF OF THE LENGTH OF THE CUTTING SHOULD BE IN CONTACT WITH WATER WHILE SOAKING, AND CUTTINGS SHOULD BE WEIGHTED DOWN WHEN SOAKED. THE TREATMENTS WILL UTILIZE BUNDLES OF 3 WILLOW CUTTINGS; THEREFORE, IT WILL BE NECESSARY TO BREAK DOWN ANY LARGER BUNDLES INTO BUNDLES OF 3 FOR THESE TREATMENTS. BUNDLES AND WILL BE INSTALLED ON 3-FOOT SPACING THROUGHOUT THE TREATMENT AREA.
5. BUNDLES OF DORMANT WILLOW CUTTINGS FOR THE LWD STRUCTURES (SEE STRUCTURE DETAILS) WILL BE INSTALLED AT A 45-DEGREE ANGLE TO THE BANK SO THE TOP OF THE BUNDLE HANGS OUT OVER THE WATER. THE PREPARATION AND INSTALLATION PROCEDURE FOR THE BUNDLES WILL BE AS FOLLOWS:

1.1. BUNDLE 3 WILLOW CUTTINGS TOGETHER IN THE SAME ORIENTATION (TOPS UP AND BUTTS ON THE GROUND). BUNDLES WILL BE AS UNIFORM AS POSSIBLE, AND THE BUTTS OF THE CUTTINGS WILL BE AT THE SAME LEVEL TO ENSURE THAT NO BUTTS WILL BE OUT OF THE WATER WHEN INSTALLED. TIE BUNDLES ONE FOOT FROM THE TOP END AND ONE FOOT FROM THE BUTT END WITH PRE-STRETCHED COTTON STRING, SISAL ROPE, CORD OR NON-GALVANIZED TIE WIRE (NO JUTE OR PLASTIC TWINE WILL BE UTILIZED).

1.2. PLACE TOE ROCK (IF CALLED FOR IN DESIGN SPECIFICATIONS) IN KEY TRENCH AND CONTINUE PLACING ROCK UP THE BANK TO 1 FOOT ABOVE EXISTING WATER LEVEL ELEVATION.

1.3. PLACE TRACK HOE BUCKET IMMEDIATELY ABOVE LAID ROCK POINTED DOWN TOWARD THE BASE OF THE STREAMBANK AT A 45-DEGREE ANGLE.

1.4. PUSH THE BUCKET DOWN AT A 45-DEGREE ANGLE UNTIL THE TEETH REACH AN ELEVATION THAT IS AT LEAST 4 FEET BELOW BANKFULL ELEVATION AND 1-FOOT BELOW THE EXISTING WATER LEVEL.`

1.5. STOP PUSHING DOWN AND LIFT THE BUCKET ENOUGH TO CREATE A SMALL OPENING BETWEEN THE BUCKET AND THE SUBSTRATE UNDERNEATH IT.

1.6. PUSH THE BUNDLE INTO THE HOLE BY HAND UNTIL THE BUTT END IS SEATED ON THE BOTTOM OF THE HOLE. THE BUTT END OF THE BUNDLE MUST BE 1 FOOT BELOW THE LOW-FLOW WATER TABLE WHEN INSTALLED.

1.7. PULL THE BUCKET OUT OF THE HOLE DROPPING REMAINING SOIL/ALLUVIUM ON THE BUNDLE.

1.8. ENSURE THAT THE TOP OF THE BUNDLE PROTRUDES AT LEAST 1 FOOT ABOVE THE ROCK ENSURING THAT A MINIMUM OF 3 OR 4 AUXILIARY BUDS REMAIN ON THE ABOVE-GROUND PORTION, AND TRIM OFF ANY EXCESS.

1.9. IF PROJECT CONSTRUCTION AND REVEGETATION IS TO OCCUR OUTSIDE THE PERIOD OF DORMANCY, CONTAINERIZED NURSERY STOCK WILL BE UTILIZED IN PLACE OF DORMANT CUTTINGS.

BRUSH TRENCHES

1. BRUSH TRENCHES WILL BE CONSTRUCTED ON THE BARE BARS AND ALONG SIDE CHANNELS AND ORIENTED PERPENDICULAR TO THE FLOW. THE PREPARATION AND CONSTRUCTION PROCEDURE FOR THE BRUSH TRENCHES WILL BE AS FOLLOWS:

1. TRENCHES WILL BE EXCAVATED TO THE DESIGN SPECIFICATION OF 10 FT X 2 FT (BOTTOM DIMENSIONS) AND WILL BE EXCAVATED TO A DEPTH OF 4 FEET.
2. INSTALL 10 PRE-SOAKED CUTTINGS ALONG WITH OTHER LIVE/DEAD BRANCHES INTO EACH TRENCH, ENSURING THAT THE BUTTS OF THE CUTTINGS ARE ON THE BOTTOM OF THE TRENCH AND INTO THE LOW-FLOW WATER TABLE.
3. ADD A SMALL AMOUNT OF FILL INTO THE BOTTOM OF THE TRENCH WHILE HOLDING THE CUTTINGS TO ENSURE THEY REMAIN UPRIGHT AND WILL NOT FALL OVER WHILE BACKFILLING.
4. CAREFULLY BACKFILL THE TRENCH WITH A 50/50 MIX OF SALVAGED TOPSOIL AND NATIVE ALLUVIUM. ALTERNATE DUMPING BUCKETS OF TOPSOIL/ALLUVIUM AND BUCKETS OF WATER INTO THE TRENCH, OR UTILIZE A WATER PUMP TO FULLY

SATURATE THE TOPSOIL AFTER THE TRENCH HAS BEEN BACKFILLED TO ALLEVIATE AIR POCKETS AND MAXIMIZE SOIL-TO-STEM CONTACT.

5. ENSURE THAT THE TOP OF THE LIVE CUTTINGS PROTRUDE AT LEAST 1 FOOT ABOVE THE FLOODPLAIN ENSURING THAT A MINIMUM OF 3 OR 4 AUXILIARY BUDS OR BRANCHES REMAIN ON THE ABOVE-GROUND PORTION.
6. TRENCHES SHALL BE ARRANGED IN A NON-UNIFORM PATTERN ON THE FLOODPLAIN, WITH 1 TRENCH CONSTRUCTED PER 500 SF OF FLOODPLAIN AREA.

GRADING AND TOPSOIL APPLICATION

1. PROVIDE ROUGH GRADING TO A SUBGRADE ELEVATION THAT IS 6 INCHES LOWER THAN THE PLANNED FINISHED GRADE IN ALL AREAS EXCEPT FOR THE BOTTOM OF THE CHANNEL.
2. AFTER ROUGH GRADING, PLACE 6 INCHES OF SALVAGED TOPSOIL IN ALL DISTURBED AREAS TO ACHIEVE THE FINISHED GRADE AND PROVIDE FOR A SMOOTH TRANSITION TO SURROUNDING GRADE.
3. IF TOPSOIL STOCKPILES ARE INSUFFICIENT, THEN IT WILL BE NECESSARY TO IMPORT WEED-FREE TOPSOIL OR ENGINEER TOPSOIL OUT OF A COMPOST / SUBSOIL / MYCORRHIZAL INOCULUM BLEND.

SEEDING

AFTER FINISH GRADING AND SEEDBED PREP HAS BEEN COMPLETED, ALL DISTURBED AREAS SHALL BE SEEDED WITH THE RECLAMATION SEED MIX PROVIDED BELOW. ANY SPECIES SUBSTITUTIONS MUST BE APPROVED BY THE DESIGN CONSULTANT.

SEED SHALL ME MEASURED IN POUNDS OF PURE LIVE SEED (PLS) AND APPLIED AT THE RATE SPECIFIED BELOW. SEED SHALL BE CLEAN, DRY, NEW-CROP SEED DELIVERED TO THE PROJECT SITE IN ORIGINAL SEALED, LABELED AND UNDAMAGED CONTAINER(S). SEED CONTAINERS SHALL BE LABELED IN ACCORDANCE WITH THE REQUIREMENTS AND STANDARDS OF THE ASSOCIATION OF OFFICIAL SEED CERTIFICATION AGENCIES (AOSCA). SEED SHALL HAVE BEEN TESTED FOR, AND CERTIFIED FREE OF, NOXIOUS WEEDS SEED IN ACCORDANCE WITH THE IDAHO PURE SEED LAW (IS 22-414), AND SHALL BE SO LABELED. COPIES OF SEED TAGS AND CERTIFICATION LABELS SHALL BE MAINTAINED ON THE JOB SITE AND PROVIDED TO THE DESIGN CONSULTANT FOR REVIEW AND APPROVAL PRIOR TO SOWING THE SEED. SEED SHALL BE BROADCAST OR APPLIED WITH A HYDROSEEDER IN THE FALL PRIOR TO THE ONSET OF WINTER AND THE PRESENCE OF SEASON-LONG SNOW COVER. SEED SHALL NOT BE BROADCAST ON SNOW-COVERED GROUND. AFTER SEEDING, THE SEED SHOULD BE ROLLED, HARROWED, OR RAKED TO ENSURE MAXIMUM SEED-TO-SOIL CONTACT. ON REGRADED BANK, ALL SEED TO BE PLACED PRIOR TO INSTALLING THE EROSION CONTROL BLANKET.

IRRIGATION

SUPPLEMENTAL SPRINKLER IRRIGATION MAY BE UTILIZED FOR THE FIRST 2 GROWING SEASONS TO ENHANCE GERMINATION RATES AND ESTABLISHMENT. IRRIGATION SHOULD OCCUR TWICE PER WEEK, OR AS NEEDED, THROUGH THE DRY SUMMER MONTHS (JUNE-SEPTEMBER). THE SPECIFIED SPECIES ARE NATIVE AND ADAPTED TO THE REGIONAL CLIMATE; THEREFORE, NO IRRIGATION WILL BE REQUIRED AFTER THE STAND HAS BECOME ESTABLISHED.

SEED MIX

BOTANICAL NAME	COMMON NAME	LBS PLS PER ACRE
POA SANDBERGII	SANDBERG BLUEGRASS	1.2
ELYMUS TRACHYCAULUS	SLENDER WHEATGRASS	12
POA PALUSTRIS	FOWL BLUEGRASS	0.6
AGROSTIS SCABRA	ROUGH BENTGRASS	0.2
JUNCUS ARCTICUS	ARTIC RUSH	0.1
BROMUS CARINATUS	MOUNTAIN BROME	4.8
	QUICKGARD STERILE TRITICALE	40
	TOTAL	58.9

ESA
2801 ALASKAN WAY, SUITE 200
SEATTLE, WA 98121
OFFICE - 206.789.9658
WWW.ESASSOC.COM

STAMP
PROFESSIONAL ENGINEER LICENSED P-22651 STATE OF IDAHO GREG WOLOVEKE
1/15/2024

WOOD RIVER LAND TRUST

PROJECT NAME
BIG WOOD RIVER
HEAGLE PARK
FLOODPLAIN RESTORATION
HAILEY, IDAHO
BLAINE COUNTY

REVISIONS

#	DATE	DESCRIPTION

DESIGNED
DRAWN
CHECKED
IN CHARGE

PROJECT NUMBER D202201234
ISSUE DATE 01/15/24
SCALE IS AS SHOWN WHEN PLOTTED TO FULL SIZE (22"x34")

PHASE
100% CONSTRUCTION DOCUMENTATION

SHEET TITLE
PLANTING DETAILS AND NOTES

SHEET NUMBER
L-2

SHEET 21 OF 21

Basis of Design / No-Rise Report

date	October 31, 2023
to	Cory McCaffery (Wood River Land Trust)
from	Greg Woloveke, P.E. (ESA); Jon Ambrose (ESA)
subject	Basis of Design and No-Rise for Big Wood River – Heagle Park Restoration Project

Executive Summary

Environmental Science Associates (ESA) is assisting the Wood River Land Trust (WRLT) with the design of a habitat enhancement and flood reduction project within the Big Wood River in Hailey, Idaho. The project is located near the Della View neighborhood, which frequently experiences flooding during moderate flood events that typically occur during spring snowmelt conditions. The east (left) streambank is presently armored with riprap; however, the rock is currently failing and the streambank has been experiencing significant erosion since 2016. The on-going bank erosion threatens a water pump station located approximately 300 feet from the river, owned and operated by the City of Hailey.

The project will provide multi-objective restoration actions to protect the pump station, reduce local flood depths, and enhance fish habitat. These actions include:

1. Removal and re-install riprap from the left bank within the City's property, including the addition of large wood to enhancement edge habitat along the streambank,. This action stabilizes the bank near the pump station and enhances habitat.

2. Excavate the floodplain on the WLRT property. Floodplain excavation will increase local flood storage.

3. Improve side channel conveyance through an existing side channel located along the west valley wall across the river from Heagle Park. An existing woody debris jam will be re-positioned and the inlet will be excavated to maximize conveyance through the flow pathway.

4. Install ELJs within the main channel of the river to deflect flow, encourage bar stabilization, and wood retention within the reach.

5. Remove abandoned utility pipe that runs parallel to streambank (within ordinary high water).

The current construction plans have been included Attachment A to this report.

Existing Conditions

The project site encompasses approximately 1,500 lineal feet of the river where the Big Wood River passes through the Della View neighborhood near Heagle Park (Figure 1). Riprap armoring is present along the eastern streambank and continues downstream approximately 375 linear feet to the entrance of the Cove Canal. Near the pump station, the river eroded into the bank armoring and caused it to fail.

There is an abandoned metal pipe that runs parallel to the streambank near the pump station. The pipe has become exposed as the streambank has continued to erode. The WLRT has contacted local municipalities and utilities and has been unable to verify the ownership or purpose of the pipe.

An existing side channel exists on the opposite side of the river, running parallel along the toe of the west valley wall. A review of previous aerial photos shows that large wood has historically created a jam at the side channel inlet; the jam at times has likely helped support scour at the inlet or alternatively caused a blockage at the entrance. The jam is presently blocking flow and the side channel is observed to be dry during lower flows.

Hydraulics and Hydrology

ESA conducted a hydraulic analysis to estimate hydraulic parameters to characterize current riverine conditions, evaluate the hydraulic effects of proposed restoration elements, and assist in the design of stable wood structures within the Trafton Reach. ESA used a HEC-RAS hydraulic computer model (USACE 2022) to perform a two-dimensional (2-D) hydraulic analysis of the project reach. The model domain extends from the upstream Bullion Street bridge to below Colorado Gulch, spanning approximately 1 mile in length to capture the flooding that is known to occur through the neighborhoods immediately east of the river. The model domain was developed using a combination of 2017 LiDAR data and 2022 drone-mounted LiDAR that was flown during lower river discharges to capture reach-scale channel bathymetry; ESA developed a terrain of the entire reach by combining drone collected bathymetric data with LiDAR to be used for hydraulic modeling and design (Figure 2).

Hydrology was developed using the Federal Emergency Management Agency (FEMA) flood recurrence intervals that were calculated as part of the Effective Flood Insurance Study (FIS) 16013CV001A, published November 26th, 2010. The peak flows summarized in Table 1.

TABLE 1. SUMMARY OF BIG WOOD RIVER FLOWS NEAR HAILEY, IDAHO (USGS 13139510)

Flood Recurrence Interval	Discharge (cfs)
2-Year	2,550
10-Year	4,170
100-Year	6,580
NOTE: cfs = cubic feet per second	

In addition to evaluating the flood impacts associated with documented FEMA discharges, ESA conducted a hydraulic analysis of the river flowing at 500 cubic feet per second to better lower flows; the 500 cfs was determined from a statistical analysis of the USGS gage data and represents the median daily flow during spring runoff.

Figure 1. Existing Heagle Park Project Reach with Opportunities and Constraints Identified

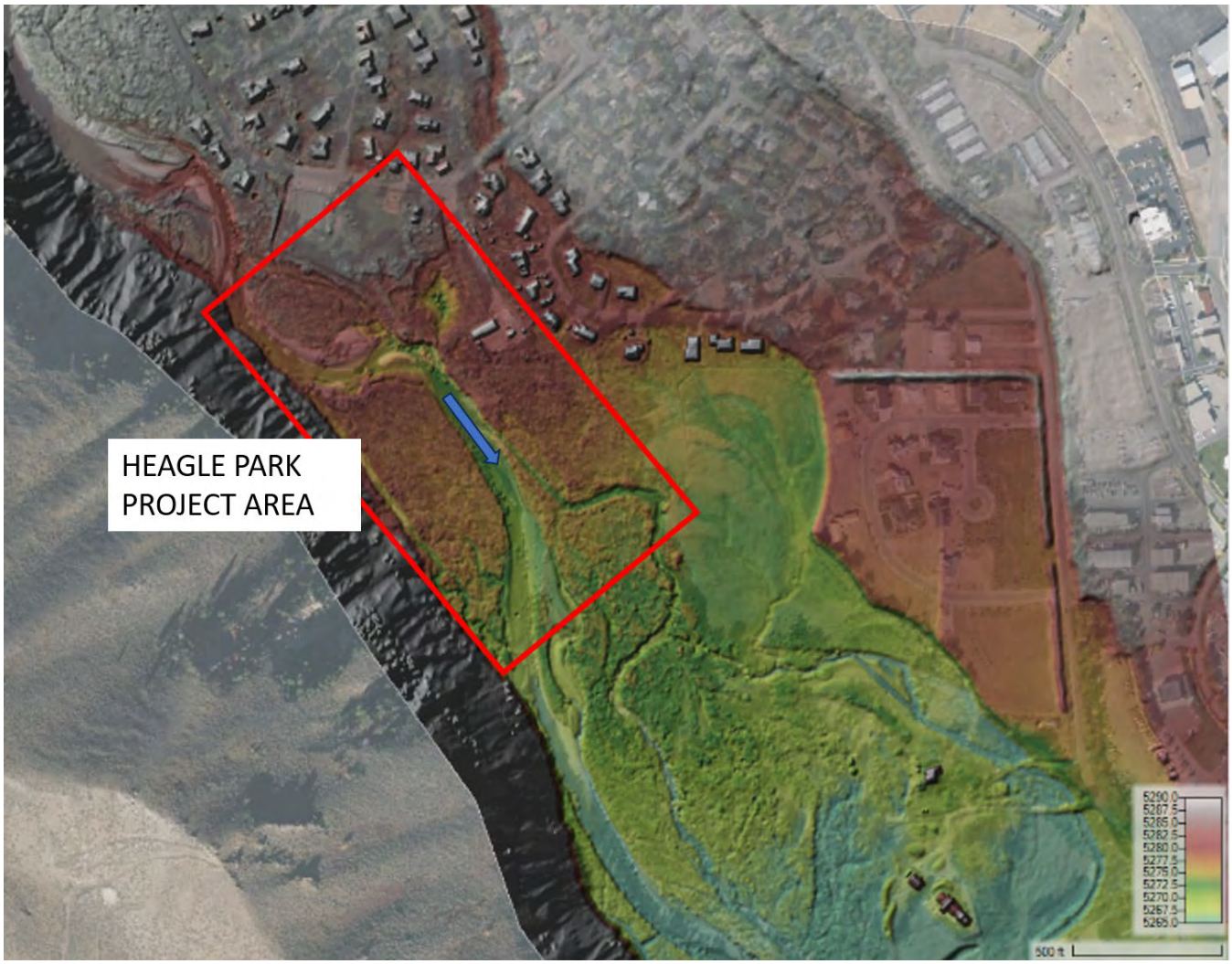


Figure 2. Overview of Existing Topography along the Heagle Park Reach using the 2-dimensional model.

Overbank Flow Patterns

Hydraulic modeling was to evaluate both in-stream hydraulic conditions and overbank flooding with the intent of better understanding flood frequency, overflow pathways, and the potential benefit the project could have on reducing local flood issues. The model shows that at less than the 2-year flood event, the river remains relatively confined within the primary river channel. During the 100-year event (Figure 3), a significant amount of flood water is conveyed on the floodplain and inundates nearby neighborhoods, including the Della Vista neighborhood near the project area. Flooding is identified to begin upstream of Robin Hood Drive, where it then flows down through War Eagle Drive and around the north side of the city's pump station toward Snowfly Lane.

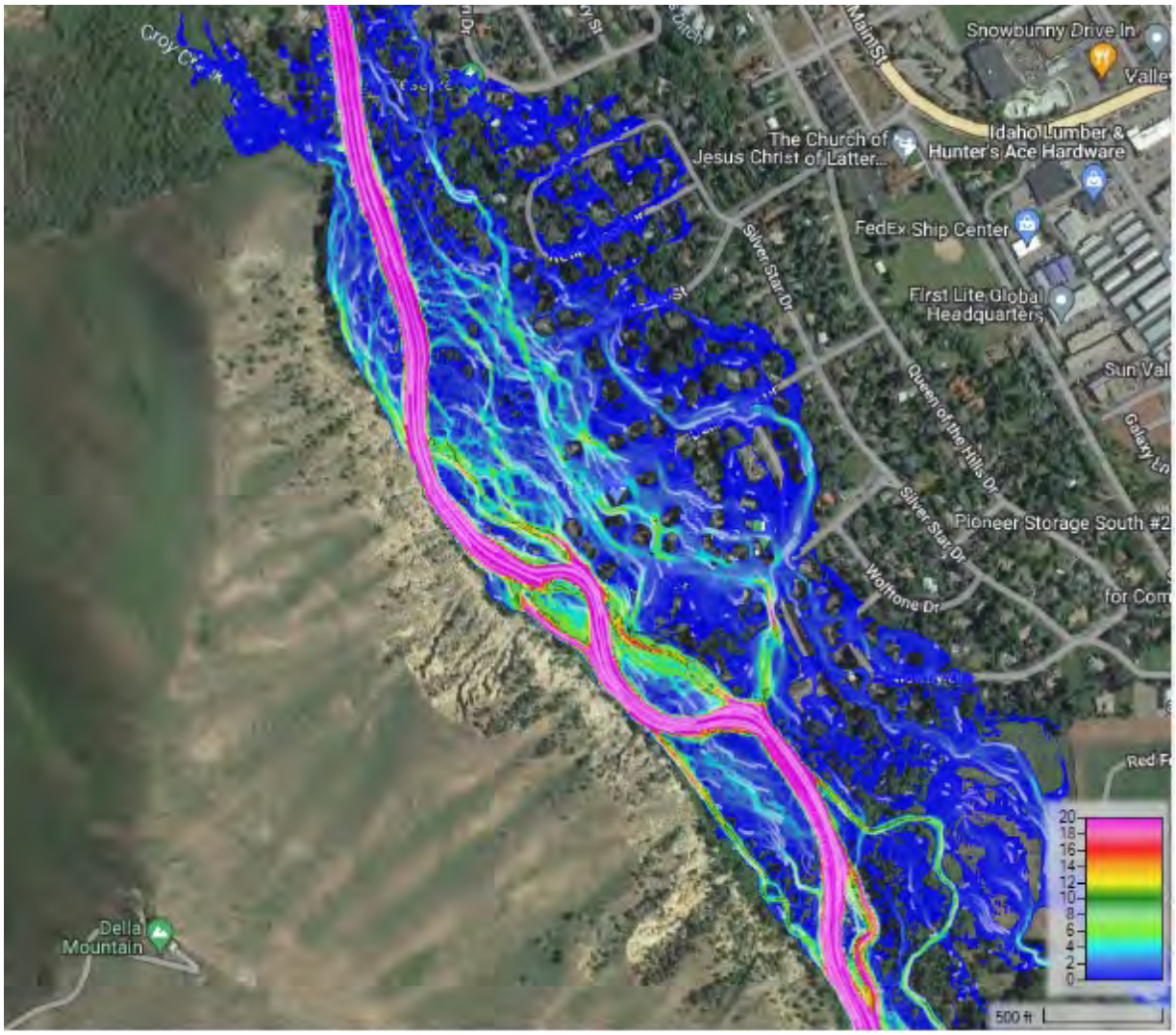


Figure 3. Overbank Flow for 100-Year Event. A greater volume of flow is depicted, where Blue is generally lower velocity and Magenta is high velocity on the legend shown in the bottom right hand corner.

Channel Velocity Patterns

Channel velocity for existing conditions is shown in Figure 4 for both the 2-year and the 100-year events, respectively. Velocity is observed to be relatively high in the main channel of the river, even at the 2-year event; minimal floodplain activation is observed around 2,500 cfs and it is likely the river is slightly incised against the rock armoring that lines the streambanks (Cardno and Ecosystem Sciences 2020). Channel velocity approaches 10 feet-per-second (fps) at the 2-year event and exceeds 14-fps during the 100-year event. High velocities are attributed to the lack of floodplain availability throughout the reach. Floodplain accessibility is generally observed to be limited downstream of Hagle Park, with minimal inundation on the vegetated island across form Heagle Park and the floodplain that exists between the Big Wood River and Cove Canal.

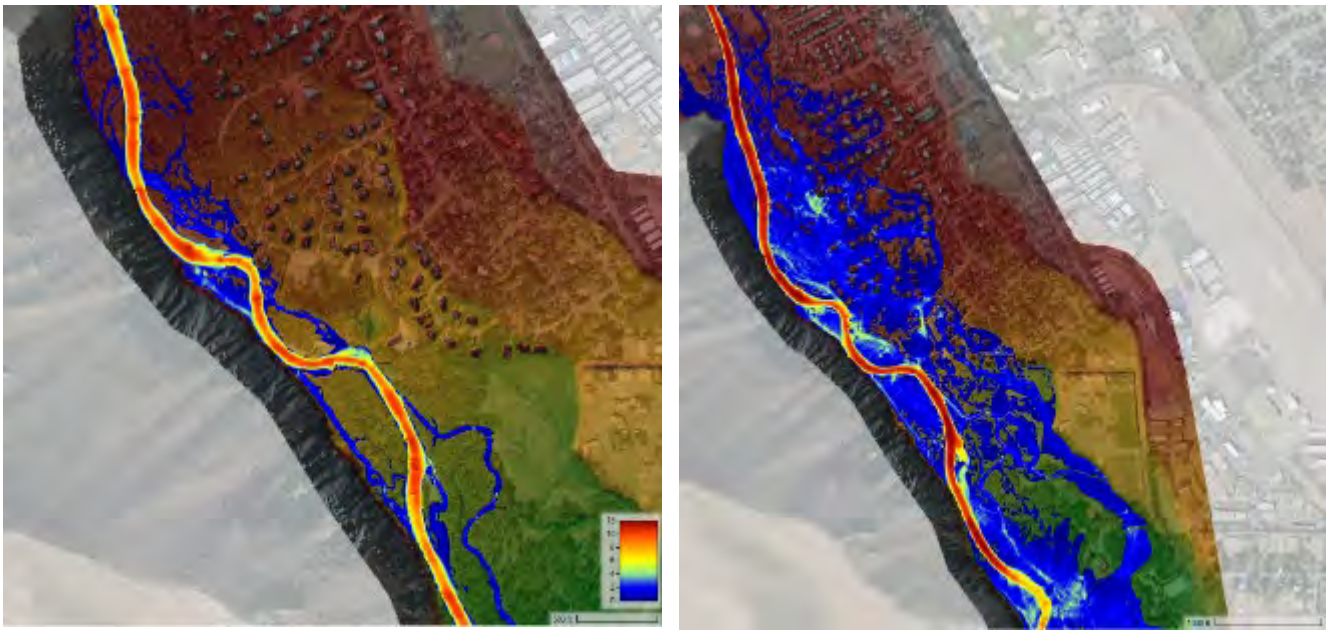


Figure 4. Existing Condition channel velocity near the Heagle Park project for both the 2-Year Event (Left) and the 100-Year Event

Restoration Design Actions

The design includes multiple actions intended to work together to satisfy project goals and objectives. It is important to note that the performance of the project is not contingent on the performance of any one action, but rather a suite of actions that maximize the opportunity to balance project goals, objectives, and constraints.

Goals and Objectives

Project goals defined by WRLT during the earlier phase of work include:

1. Remove riprap and fill material near streambanks.

2. Install wood to blend bank stabilization with edge habitat enhancement, providing long-term increased protection for the City of Hailey's pump station.

3. Evaluate and document whether the proposed project will alleviate flood waters in the Della View Neighborhood. High flooding events like the one that occurred in 2017 had impacts of sheet flooding to this neighborhood.

Site Constraints

Key site constraints identified by WRLT include:

1. Protect the City of Hailey's pump station. The pump station was raised after the 2017 flood, but the pump station's vicinity to the river makes it still susceptible to erosion as well as flooding during extreme events.

2. Maintain or improve flood conditions for residents living on Snowfly Lane.

3. The entrance to a pilot channel that feeds the Cove Canal is located near the downstream extent of the project site. Project design needs to maintain existing irrigation supply at the Cove Canal headgate.

Project Design Actions

The design includes the following actions, which are shown in the proposed site plan provided in Figure 5. The full construction plan set is provided in Appendix A.

1. **Rock Armor Removal and Setback**. Approximately 375 lineal feet of rock armoring (riprap) will be removed as part of the project. The rock will primarily be removed from the streambank on the WRLT property. Rock that is removed will be stockpiled on-site and subsequently incorporated into the wood setback revetment. This revetment will combine rock with large wood installations to enhance near-bank habitat while improving protection to the current bank line and the pump station that sits immediately landward. Approximately 300 cubic yards of rock are estimated for salvage based on measurements provided by WRLT.

2. **Floodplain Benching**. Floodplain benching (excavation) will be performed to improve floodplain activation during smaller flood events and reduce local channel velocities in the Big Wood River. Benching will be limited to the floodplain owned by the WRLT, removing between 3 to 4 feet of floodplain. The existing floodplain elevations on the City's property will be maintained in order to ensure protection of the pump station. All streambanks will be laid back to side slopes between 2H:1V and 3H:1V to improve bank stability.

3. **Side Channel Excavation**. The side channel inlet located at the toe of the west valley wall will be cleared of wood and excavated to improve conveyance. Approximately 250 cubic yards of earthwork is estimated to be removed from the inlet and the wood the currently blocks the entrance will either be re-positioned locally to maintain a scour pool at the channel inlet. This action is intended to help maintain conveyance through the side channel and reduce the likelihood of a future blockage. It should be noted that the performance of the overall project is not contingent on future side channel conveyance or potential maintenance needs. While the inlet can be monitored and cleared of future wood deposits, these potential future actions are only intended to reset conditions in the near-term and allow for natural process to continue over the long-term.

4. **Engineered Log Jams**. The proposed design incorporates five (5) different types of large wood structures, which are designed to either be anchored by timber piles or buried into the streambanks. The five types of Engineered Log Jams (ELJs) support multiple objectives, including side channel activation, bank protection, future wood recruitment, and enhanced fish habitat. A total of 50 pieces of large wood, in addition to smaller racking logs and woody slash, will be installed. The types of engineered log jams are discussed in more detail in subsequent sections of this design report.

5. **Utility Removal**. Remove abandoned utility pipe that runs parallel to streambank. The pipe is observed to be installed in segments, which can be disassembled. At the ends, the pipe will be cut and cap, recessed back into the streambank and abandoned outside ordinary high water. Presently, ESA has no information about potential impacts and assumes no liability any outcome, not limited to spill response and cleanup, repair, or replacement.

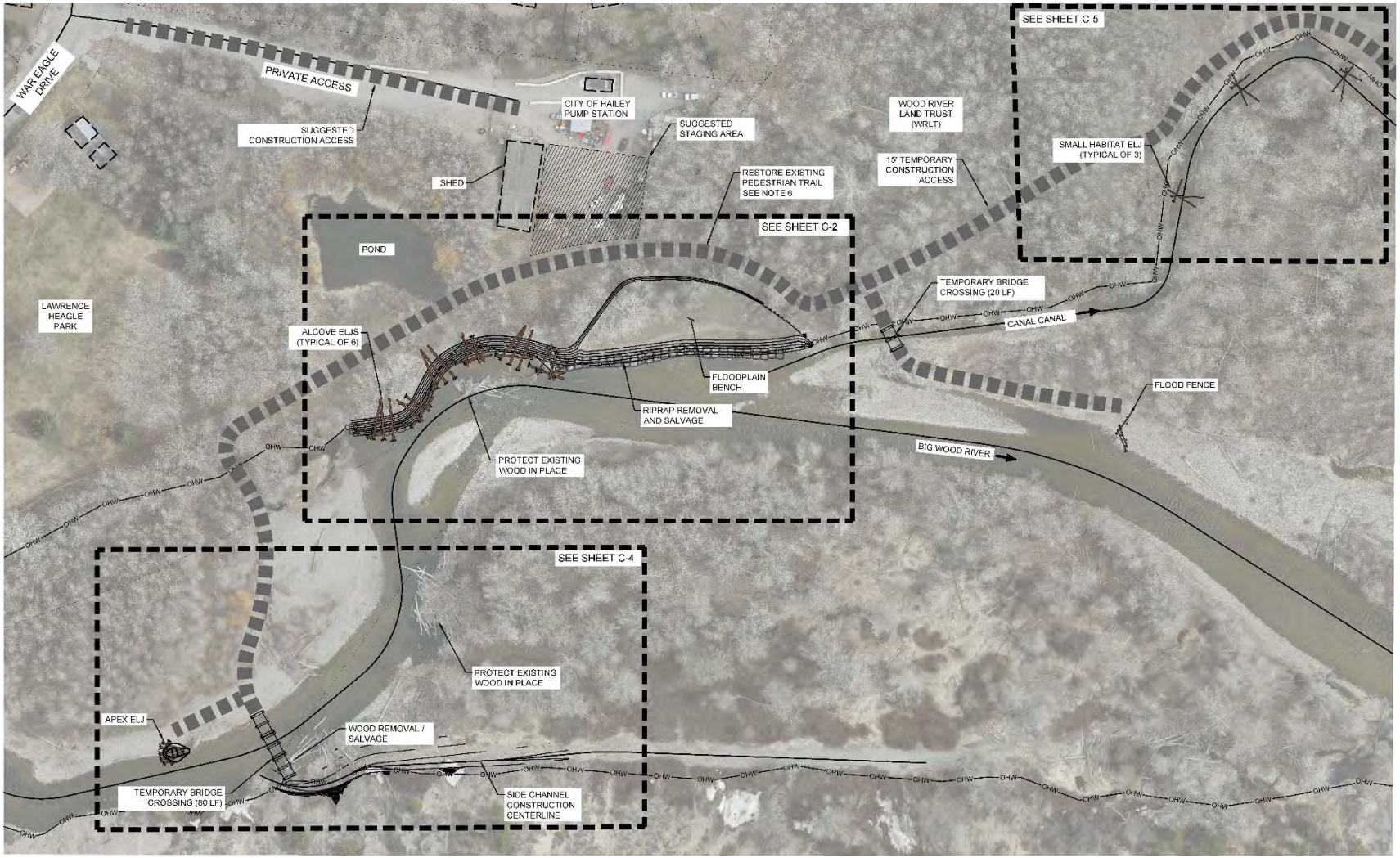


Figure 5. Proposed Site Plan

Engineered Log Jam Design

Apex Jam

An Apex ELJs is sited in the main channel on an existing gravel bar, near edge of water during summer low flow. The apex jam is positioned upstream of the existing side channel inlet and will primarily function to deflect flow towards and to maintain flow in the side channel. The apex jam will also provide secondary benefits, including local scour pool formation and sediment sorting.

Alcove Jams

There are two types of Alcove Jams that will be installed along the existing alcove bank line. The two types of jams are intended to be installed in an alternating pattern in order to promote greater near-bank physical complexity and roughness, while supporting flow deflection and bank erosion protection objectives as well.

Side Channel Wood

Wood will be placed as 'Channel Spanning Jams' within Cove Canal. These small log jams will be anchored by burying trees into streambanks to pin down wood placed in the middle of the channel. This type of wood placement is intended to force scour pools into the streambed to promote deeper cover and local channel complexity.

Flood Fence

These structures are pile-supported and feature logs embedded into gravel bars. Extra logs that are salvaged on-site will be weaved into the piles to emulate racking; this wood is considered transient. Over time, it is expected that the piles will retain additional wood transported from upstream, while currently racked wood may be lost.

Design Hydraulics

The design elements discussed above were incorporated into the hydraulic model and were analyzed to evaluate the placement and stability of the design elements. The ELJs discussed above were added to the model by raising topography to simulate the structure at the locations depicted in the construction plans. The proposed side channel was included in the model to evaluate how reach-scale hydraulics will change with the wood and sediment blockage removed.

Hydraulic Influence in the Side Channel

Removing wood and excavating an improved side channel inlet is modeled to increase flow conveyance within the side channel and reduce the erosive force along the left bank near Heagle Park. To simulate this action, the woody debris jam was captured using the drone photogrammetry and simulated using the 2-d hydraulic model to determine the how river conditions may change with- and without the side channel blockage.

The present wood jam stands a few feet tall, completely blocking the side channel during lower flows and reducing conveyance during larger flood events. The hydraulic model indicates that removing the debris jam may double the amount of direct flow into the side channel. The model shows flow within the side channel increase from 500- to nearly 1,000-cfs during the 100-year event (Figure 6). This result appears consistent with review of aerial imagery, where at about 4,0900 cfs the side channel is observed with water but not flow actively relative to velocity river (Figure 7).

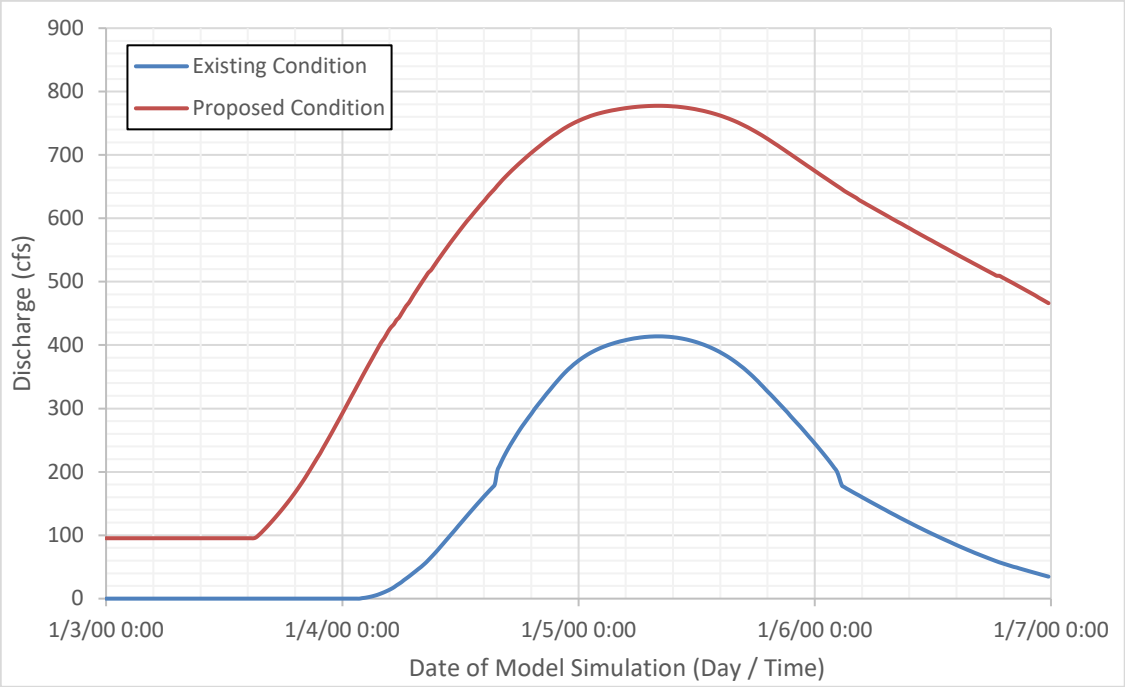


Figure 6. Comparison of flow through the side channel between Existing and Proposed Conditions. This figure depicts that approximately twice the flow is simulated following the removal of wood at the side channel inlet

Figure 7. Drone imagery of the side channel flow at 4,090 cfs on May 23, 2023. The image is looking downstream from the side channel inlet. Flow appears relatively stagnant in the side channel relative to the river. The side channel should have a steeper gradient (shorter flow path) and be more active in an unblocked condition.

Hydraulic Influence in the Overall Reach

As previously discussed, project actions are shown to increase water amount of water in the side channel, which results in a commensurate reduction in discharge (water surface elevation) in the main channel of the river. As shown in Figure 8, the proposed water surface is up to 0.3 feet less than existing conditions near Heagle Park and the pump station; small reductions are also simulated in the overall reach (depicted in light blue), but these reductions are less than 0.01 feet and likely wouldn't be associated to any real-world reduction in flood risk. Never-the-less, reducing amount of water in the main channel means that channel velocity may be reduced up to 30 percent in the immediate area. Reducing channel velocity means less erosive force acting against streambanks.

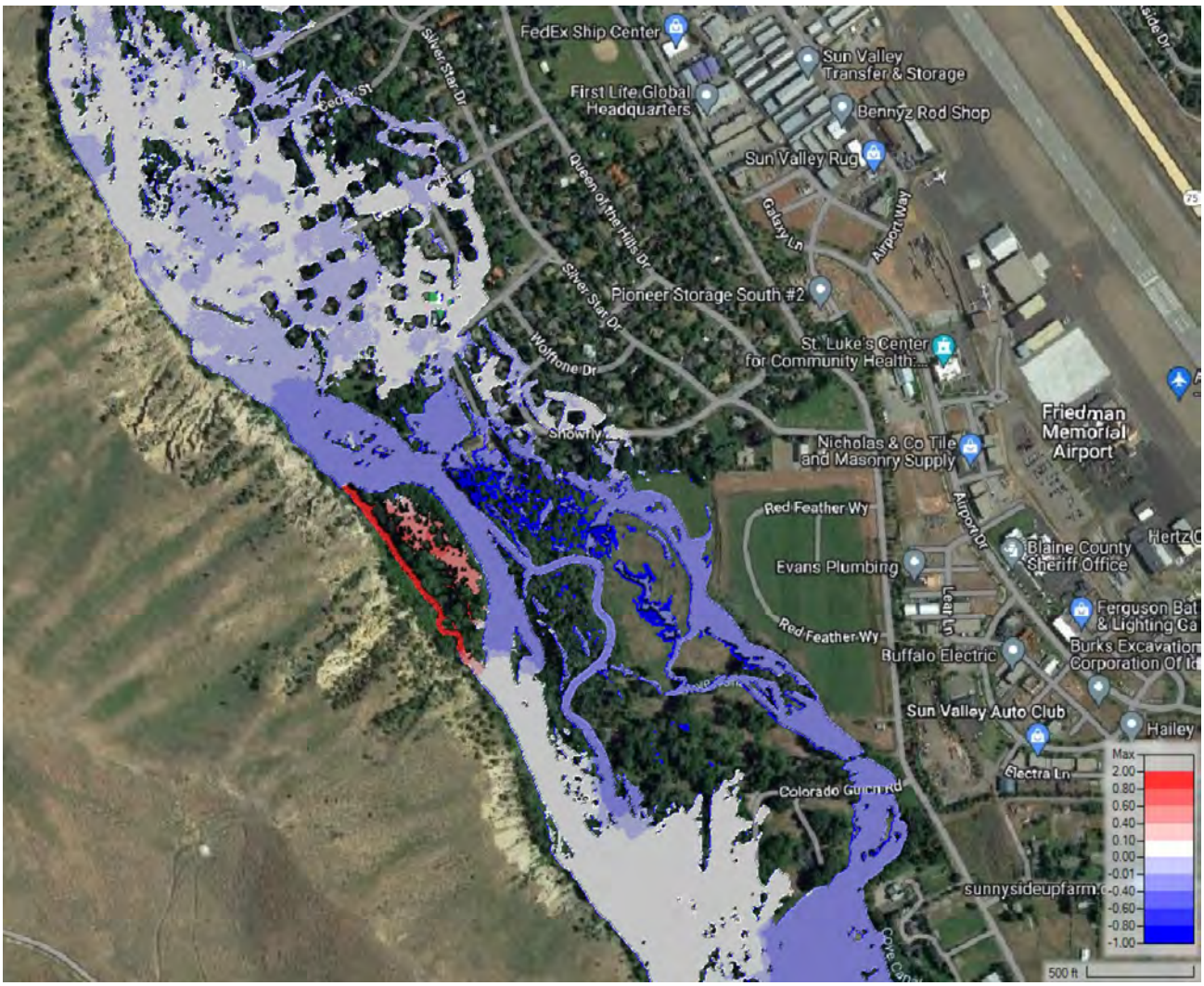


Figure 8. Overview of local water surface changes using 2-dimensional modeling. Water surface reductions in the main channel and floodplain are shown in blue while increases associated to the side channel are shown in red. Areas in white are no change. It should be noted that this analysis is not the 1-dimensional no-rise analysis, subsequently presented as part of this document.

Riprap Rap Sizing

Riprap is sized using the Maynord Equation, published by United States Army Corp of Engineer's (USACE) (USACE 1991). The equation uses hydraulic model estimates of channel depth and velocity to calculate a recommended median particle size for riprap design. For this project, the 100-year event (6,580 cfs) was used to conservatively size riprap. Channel velocity and flow depth used in this calculation were obtained from the 2-D hydraulic model, using values of 11 feet per second and 7 feet of depth, respectively. Riprap design is parameters are conservative estimates that assumes the main channel of the river has the potential to laterally migrate toward the eroding streambank over the long-term and re-introduce greater velocities, similar to what was likely present prior to bank failure.

A median riprap particle size (D_{50}) of 18-inches was calculated for this project. Riprap will be installed with a maximum thickness of 36-inches and down to an elevation that matches the existing river thalweg. Riprap will be incorporated into the large wood installations proposed to line the streambank on the City's parcel, thereby redirecting high velocities away from the embankment and providing greater overall protection for the City's infrastructure.

Engineered Log Jam Stability

The specific design criteria associated with the stability of wood structures was adopted from the U.S. Bureau of Reclamation's *Large Woody Material – Risk Based Design Guidelines* (Reclamation 2014). Although the minimum design criteria are the 10-year flow event at this location (low risk to property damage and public safety), the 100-year event is adopted for long-term resiliency needed to promote dynamic processes and maximize project ecological objectives. For each structure type, the analysis was done on the "worst-case scenario" structure (i.e., the one that encounters the highest velocity and depth at the design flow).

Factors of safety (FOS) were calculated using a force-balance analysis based on the following methods. FOSs less than 1.0 indicate the structure will move. FOSs greater than 1.0 indicate the structure is stable. The higher the FOS, the higher the structure's inherent stability. All structures were designed with a FOS equal to or exceeding 1.5 for buoyancy and sliding. The primary assumptions in the stability analysis assume:

- Trees are assumed to be Cottonwood.
- Timber piles will be 12-inch diameter Cotttonwood.
- Loads are distributed evenly.
- The obstructed area is non-porous.
- The substrate is homogenous (no detailed geotechnical analysis has been performed).
- Impact loads are equivalent to a 30-foot-long, 18-inch diameter-at-breast-height cottonwood with a rootwad colliding with the structure at the design flow.
- Using inputs from the hydraulic model of the 100-year flow, the maximum expected scour depth at the proposed ELJs is estimated to be 3 feet for any ELJ placed within the main channel of the river.

Buoyancy

The vertical loads acting on the structure include buoyancy and lift. All logs are assumed to be completely submerged.

Sliding

The horizontal loads acting on the structures include hydraulic drag, hydrostatic loading caused by backwater, and impact from floating debris (e.g., large wood). Sliding forces are resisted by the piles' lateral capacity or earth pressure from burial. As a conservative measure, the drag is assumed to be applied to full height and width of the structure, ignoring any change in effective drag area associated with the geometry of the structure.

Pile Overturning and Bending Moments

Additional overturning moments and pile bending capacity (breaking strength) are considered as part of the analysis. The depth to which the piles must be driven to hold the structure in place assumes several soil characteristics. No geotechnical analysis was performed as part of this project.

Project Costs

The construction cost estimate is provided in Attachment D. The primary assumptions incorporated into construction cost estimate are as follows:

- A 10 percent contingency is applied to the construction subtotal to account for design and construction uncertainties.
- A 5 percent mobilization lump sum is included in the construction subtotal.
- Wood costs do not assume salvage of tree on-site to maintain a conservative approach or funding. This will be evaluated and incorporated in the next phase to reduce project costs.

No-Rise Certification

This section summarizes the technical documentation for the no-rise certification as part of the Big Wood River Restoration project at Heagle Park. The project lies along the Big Wood River immediately adjacent to the Della Vista neighborhood in Hailey, Idaho.

Regulatory Context

The Project lies within the Big Wood River, approximately 4,500 feet downstream of the Croy Creek bridge. The current effective FEMA Flood Insurance Rate Maps (FIRMs) are numbered 16013C0668E and 16013C0664E for Blaine County, Idaho and dated November 26th, 2010 (Appendix A); the current effective Flood Insurance Study (FIS) 16013CV001A is effective on the same date. Work will occur within a Zone AE floodway, indicating that the project area has regulatory Base Flood Elevations (BFEs). An overview of the 2010 effective FEMA floodway and Special Flood Hazard Area (SFHA) is provided in Figure 9.

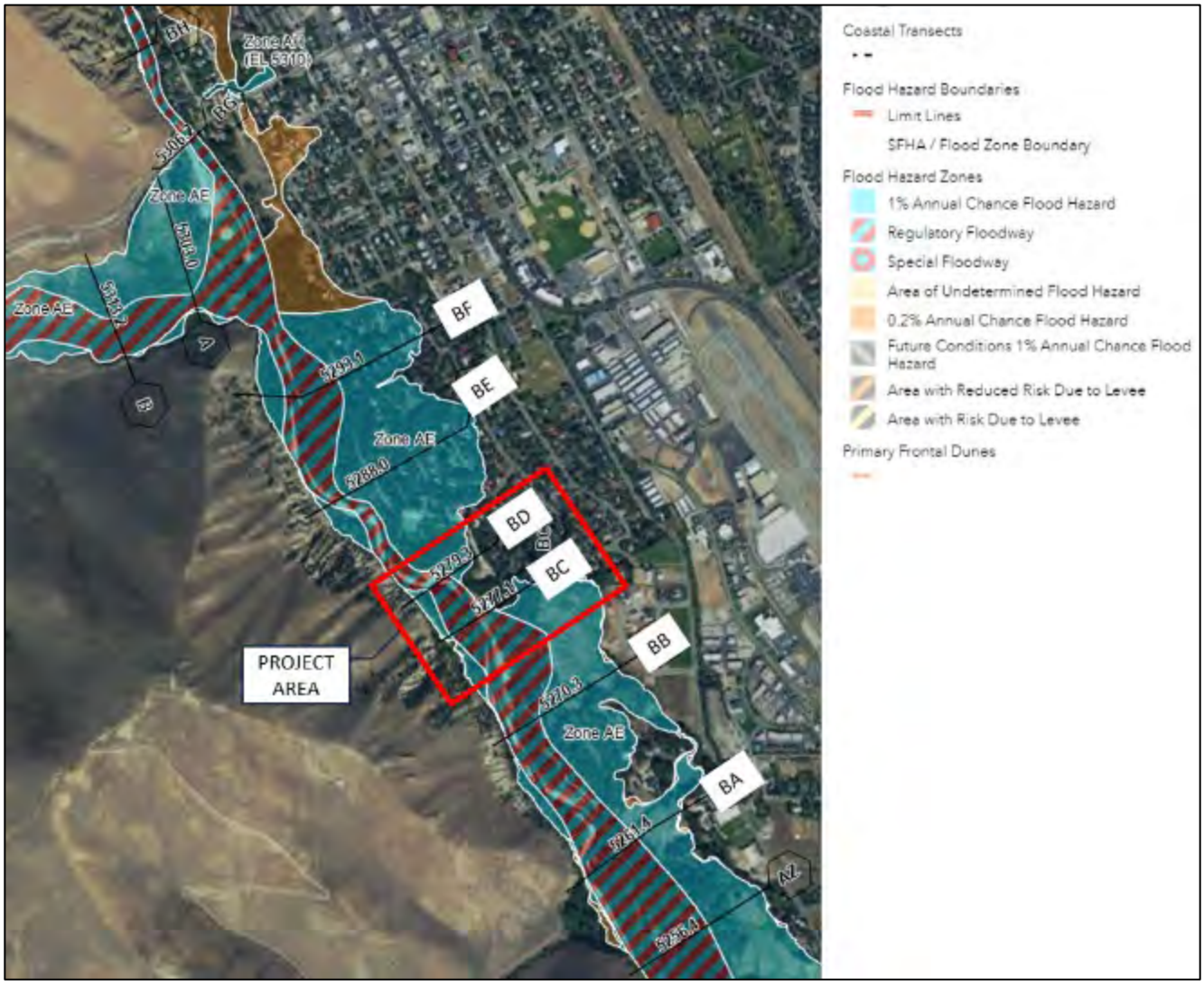


Figure 9. Overview of FEMA Floodplain Mapping in Project Vicinity (Map from FEMA NFHL Viewer)

Methodology and Approach

The “No-Rise Evaluation” was performed based on an existing conditions hydraulic model for the Big Wood River, which included 7 “lettered” cross sections documented in the FIS, spanned the project reach from Section ‘AZ’ to Section ‘BF’. The no-rise was evaluated using a 1-dimenensional HEC-RAS model to compute water surface elevations, comparing existing and proposed conditions.

The effective model was not used for this evaluation. This modeling effort makes use of both 2017 LiDAR and bathymetric data that was collected using drone-mounted photogrammetry, which provides reach wide elevation data that spans the entire study area. The effective model was developed in the 1990s using HEC-2. As described below, the modeling performed for this project provides a comprehensive update of elevation data, including bathymetry. Therefore, we propose to forego comparison to effective model, and limit the no-rise to comparison between existing and proposed conditions using the best available terrain and bathymetric data.

Existing Conditions Model

The U.S. Army Corps of Engineers (USACE) Hydrologic Engineering Center’s River Analysis System (HEC-RAS) hydraulic computer model, Version 6.2 (USACE 2021), was used to compute steady-state 1-D subcritical hydraulics for the project reach of the project. The model was developed using a combination of two data sources: 2017 LiDAR data and 2022 drone-mounted LiDAR. The drone-mounted LiDAR was able to penetrate the water and therefore provides reach-scale bathymetric data to help with the accuracy of the analysis.

It should be noted that the drone-mounted LiDAR cannot differentiate between bare-earth, woody debris, and other objects within the terrain during the time of survey. However, the scale of data collected is deemed suitable for this evaluation when compared to limited ground surveys and cross-sections that are traditionally used to represent rivers and floodplains.

Boundary Conditions

The 1% ACE (100-year) was evaluated using the effective discharge from the Flood Insurance Study (FIS), which is 6,580 cfs for the Big Wood River at this location; the flow was run as a steady-state through the 1-D model. The downstream boundary condition was set using a normal depth slope of 0.5 percent.

Cross Sections

A total of 23 cross-sections were used to evaluate the project. Cross-sections overlap FEMA cross-sections where possible, but the orientation and location of cross-sections was adjusted to properly represent multiple flow paths and conveyance. The location of cross-sections is shown in Figure 10, which includes an overlay of the 100-year inundation map identified from the 2-d modeling. The 2-d modeling was used to evaluate overbank flow and side channel flow, which provides a rationale for how ineffective flow areas were set in the 1-dimensiojnal model.

Ineffective Flow Area

Ineffective flow areas were used to control the amount of water in the side channel. As previously described, the 2-dimensional model shows that removing the wood blockage at the upstream inlet allows more water to enter the side channel. Split flow conditions are difficult to represent in 1-d modeling, therefore ineffective flow areas were set to permanent and used to reduce the amount of conveyance through the side channel calculated in the model. Under proposed conditions the ineffective flow areas are removed to simulate the removal of wood at the

inlet and the unobstructed flow within the channel. Existing conditions simulates the amount of flow in the side channel

The amount of water in the side channel during existing conditions was approximated using the 2-D modeling. Modeling results are presented in the preceding Basis of Design Report (see Design Hydraulics).

Manning's Roughness

Manning's values were generally set as low as possible but kept high enough as to not create supercritical flow. The existing condition model generally shows relatively high Froude numbers throughout the entire study area. Manning's values are within the range of manning's values presented in the effective flood insurance study and are summarized in Table 3.

TABLE 3
SUMMARY OF MANNING'S ROUGHNESS 'N' VALUES

Land use	Roughness Value (n)
Main Channel	0.040 - 0.045
Side Channel / Cove Canal	0.06
Overbanks	0.10

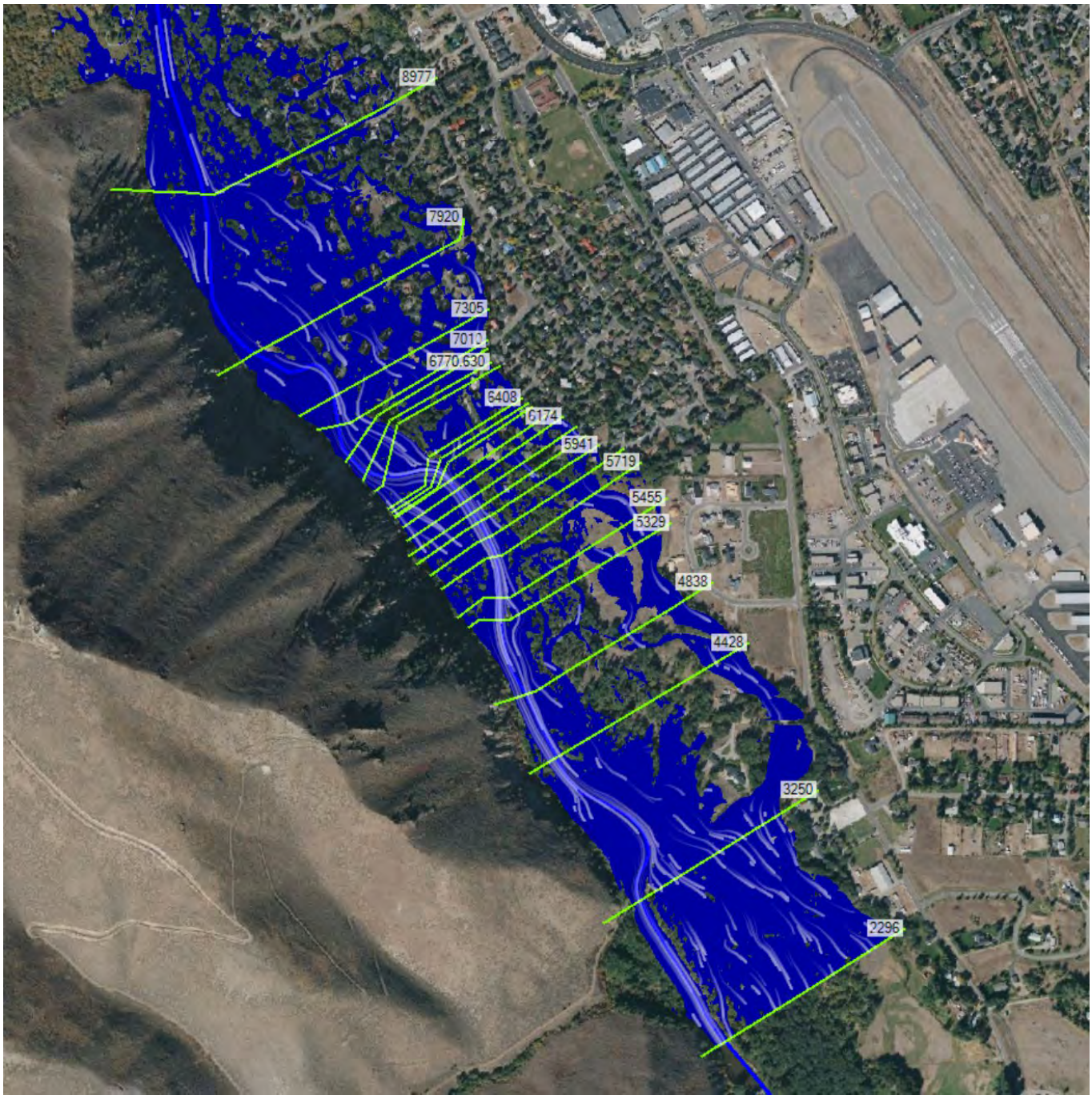


Figure 10. Existing Condition Cross Sections over Aerial Imagery with Flow Inundation Pathway from 2-D Model. The white tracers in this image describe the direction and intensity of flow (fast moving water in the main channel vs. slow moving water in the overbanks). This depiction is similar to the definition of the floodway.

Results and Discussion

The hydraulic model generally predicts water surface elevations that exceed the effective BFE at each cross-section (Table 4). This result suggests that water surface elevations represented in the effective flood insurance study may be underestimated. As previously noted, Manning's roughness values were set as low as practical, but could not be reduced further due to supercritical flow conditions. Similarly, the downstream boundary condition could not be set to the match the published WSE at Section AZ due to supercritical flow. The differences between the existing model and the FIS is considered acceptable because the model makes use of detailed LiDAR and bathymetry. Furthermore, the effective modeling published in the FIS was performed using outdated HEC-2 software and limited topographic data.

TABLE 4
COMPARISON OF WATER SURFACE ELEVATIONS PUBLISHED IN FIS VS. EXISTING CONDITION MODEL

RAS Station	Existing Model WSE (FT)	FIS Model WSE (FT)	Difference (FT) (Existing – FIS)	FEMA Section
8977	5294.89	5293.1	1.79	Section BF
7920	5288.95	5288	0.95	Section BE
7305	5287.06	--	--	--
7010	5286.57	--	--	--
6800	5284.94	--	--	--
6770	5283.95	--	--	--
6534	5282.87	--	--	--
6408	5281.44	--	--	--
6346	5281.28	--	--	--
6304	5281.06	5279.3	1.76	Section BD
6246	5280.04	--	--	--
6174	5279.53	--	--	--
6090	5278.91	--	--	--
6011	5278.22	--	--	--
5941	5277.86	5277.1	0.76	--
5833	5277	--	--	--
5719	5276.01	--	--	--
5455	5274.51	--	--	--
5329	5273.46	--	--	
4838	5270.71	5270.3	0.41	Section BB
4428	5268.7	--		
3250	5262.45	5261.4	1.05	Section BA
2296	5257.23	5256.4	0.83	Section AZ

Proposed Model (Design)

The proposed condition model incorporates major work elements of the design, including:

- Remove / Salvage / Layback 375 LF of rock armoring along the eastern streambank near Heagle Park.
- Excavate approximately 2,100 CY of floodplain benching near Heagle Park.
- Excavate approximately 250 CY for side channel conveyance and inlet enhancement.
- Installation of 11 large wood structures within the project reach.
    - 6 Alcove Jams.
    - 1 Apex Jam.
    - 3 Wood Structures within Cove Canal.
    - 1 Flood Fence.

For the proposed conditions, there is no change made to boundary conditions, energy loss coefficients, or manning's roughness values associated to land cover. Bank stations were only adjusted where they overlapped within proposed grading, but the manning's values were set using a horizontal varied 'n' value that did not change. The following changes are made to the proposed model terrain and associated inputs:

- Proposed large wood structures are simulated as physical obstructions in the terrain to provide a conservative representation for potential hydraulic influence. This includes the flood fence, wood in cove canal, alcove jams, and apex jam.
- Floodplain benching is made by lowering the terrain.
- To represent grading within the right bank side channel, the obstruction (wood) at the inlet was removed to represent that physical clearing of the woody debris jam that presently keeps that majority of flow within the main channel of the river; the obstruction is re-positioned within the proposed model to simulate the re-location of wood, opposed to complete removal and haul.
- Ineffective flow areas that was used to limit flow within the existing side channel conditions is removed, allowing the 1-D model to simulate more flow conveyance through the side channel.

Project actions in the vicinity of Heagle Park and pump station are shown below in Figure 11 with a typical section in Figure 12.

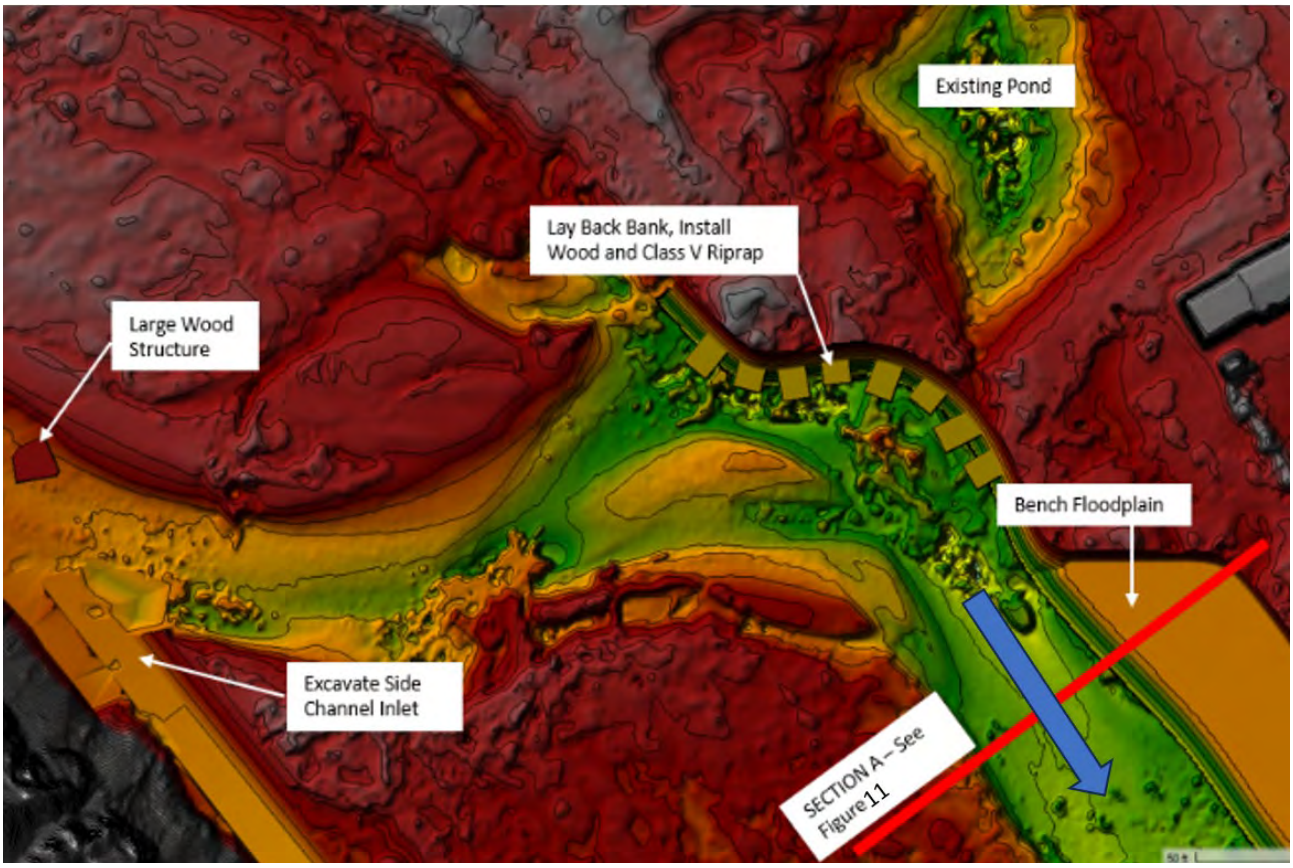


Figure 11. Overview of Proposed Model Features near Heagle Park

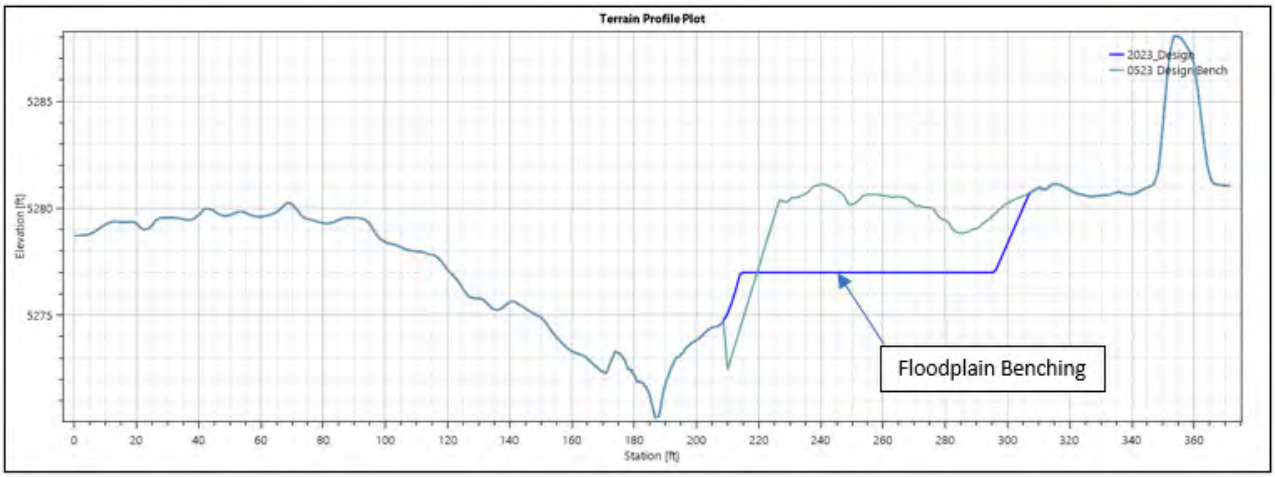


Figure 12. Cross Section of Proposed Grading (Section A is shown in Figure 11 and is Looking Upstream)

Results and Discussion

The project is modeled to reduce base flood elevations in the immediate vicinity of the project. A lower water surface elevation is primarily associated with improving flow conveyance the right bank side channel, which is presently blocked by wood. Excavation and wood relocation at the side channel inlet is intended to reduce the likelihood of a future blockage and maximize conveyance through the side channel during flood events. As described in basis of design report, these actions not only lower water surface elevation in the main channel of the river but reduce erosive force on the left streambank near the City's pump station.

Results are summarized in Table 5, which compares existing and proposed water surface elevation at each cross-section. HEC-RAS standard output tables, profile, and cross-sections are provided in the Appendix B of this document.

TABLE 5
COMPARISON OF WATER SURFACE ELEVATION IN EXISTING CONDITION MODEL VS. PROPOSED MODEL

RAS Station	Existing Model WSE (FT)	Proposed Model WSE (FT)	Difference (Proposed – Existing) (FT)	FEMA Section
8977	5294.89	5294.89	0	Section BF
7920	5288.95	5288.95	0	Section BE
7305	5287.06	5287.06	-0.01	--
7010	5286.57	5286.57	0	--
6800	5284.94	5284.93	-0.02	--
6770	5283.95	5283.9	-0.25	--
6534	5282.87	5282.68	-0.43	--
6408	5281.44	5281.39	-0.21	--
6346	5281.28	5281.18	-0.21	--
6304	5281.06	5281.03	-0.01	Section BD
6246	5280.04	5279.48	-0.60	--
6174	5279.53	5279.52	-0.14	--
6090	5278.91	5278.84	-0.27	--
6011	5278.22	5278.19	-0.06	--
5941	5277.86	5277.86	-0.08	--
5833	5277	5276.96	-0.09	--
5719	5276.01	5276.01	-0.05	--
5455	5274.51	5274.5	-0.07	--
5329	5273.46	5273.44	-0.04	
4838	5270.71	5270.71	0	Section BB
4428	5268.7	5268.7	0	
3250	5262.45	5262.45	0	Section BA
2296	5257.23	5257.23	0	Section AZ

References

Cardno and Ecosystem Sciences. 2020. Big Wood River Atlas. Prepared for Blaine County, Idaho.

FEMA. (2010a). *Flood Insurance Rate Map (FIRM), #16013C0664E.* Federal Emergency Management Agency.

FEMA. (2010b). *Flood Insurance Rate Map (FIRM), #16013C0856E.* Federal Emergency Management Agency.

FEMA. (2010c). *Flood Insurance Study (FIS), Blaine County, Idaho and Incorporated Areas. Flood Insurance, Study Number 16013CV001A. Revised Date: November 26th, 2010.*

Federal Emergency Management Agency. FEMA. (2013, October) Procedures for "No-Rise" Certification for Proposed Developments in the Regulatory Floodway.

FEMA. (2020). Guidance for Flood Risk Analysis and Mapping: MRT-2 Requests.

Reclamation (U.S. Bureau of Reclamation). 2014. *Large Woody Material – Risk Based Design Guidelines*. Pacific Northwest Region Resource & Technical Services. Boise, ID. September 2014.

USACE (U.S. Army Corps of Engineers). 2022. HEC-RAS River Analysis System Version 6.2 User's Manual. Hydrologic Engineering Center. Davis, CA. March 2022.

ENGINEERING "NO-RISE" CERTIFICATION

This is to certify that I am a duly qualified engineer licensed to practice in the State of IDAHO.

It is to further certify that the attached technical data supports the fact that proposed HEAGLE PARK FLOODPLAIN AND STREAM RESTORATION PROJECT *(Name of Development)* will not impact the 100-year flood elevations, floodway elevations and floodway widths on BIG WOOD RIVER *(Name of Stream)* at published sections in the Flood Insurance Study for BLAINE COUNTY, IDAHO *(Name of Community)*, dated NOVEMBER 26TH, 2010 and will not impact the 100-year flood elevations, floodway elevations, and floodway widths at unpublished cross-sections in the vicinity of the proposed development.

Attached are the following documents that support my findings:

NO-RISE AND HYDRAULIC MODELING EVALUATION AND RESULTS

BASIS OF DESIGN REPORT

HEC-RAS MODEL

(Date) 10/31/2023

(Signature)

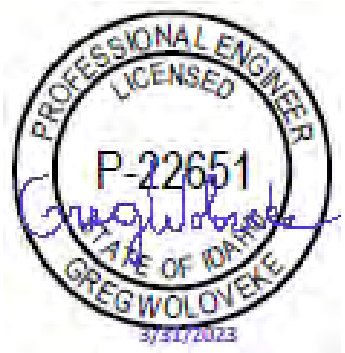
(Title) HYDRAULIC ENGINEER

GREG WOLOVEKE, PE

2801 ALASKAN WAY #200
SEATTLE, WA 98121

(Address)

(Seal)



Limitations

Overview

Environmental Sciences Associates (ESA) has prepared this report and design for the Wood River Land Trust (Client) and their authorized agents and regulatory agencies for this specific Big Wood River "Heagle Park" Stream Restoration Project. Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted practices in the field of geomorphology; hydrology/hydraulics; and stream/river habitat enhancement, stabilization, and restoration design engineering in this area at the time this report was prepared. The conclusions, recommendations, and opinions presented in this report are based on our professional knowledge, judgment, and experience. No warranty or other conditions, expressed or implied, should be understood.

Any electronic form, facsimile, or hard copy of the original document (email, text, table, workbook and/or figure), if provided, and any attachments should be considered a copy of the original document. The original document is stored by ESA and will serve as the official document of record.

Instream Habitat Structures

Instream habitat, stabilization, enhancement and/or restoration structures and artificial structures (Structures) involve the placement of large logs, logs with root wads, large rocks, and other natural and artificial materials and/or features in and adjacent to creeks, streams, and rivers (streams). They are designed for various purposes including but not limited to: improvement of aquatic and riparian habitat; stabilization of eroding stream banks and channels; restoration of stream channels; creation or improvement of recreational uses; irrigation; and flood management.

Hazards of Instream Habitat Structures

Instream habitat structures create potential hazards, including, but not limited to: humans falling from the structures and associated injury or death; collisions of recreational users' watercraft with the structures and associated risk of injury or death, with partial or total damage of the watercraft; mobilization of a portion or all of the structures during high water flow conditions and related damage to downstream properties, utilities, roads, bridges and other infrastructure, and injury or death to humans; flooding; erosion; and channel avulsion. In some cases, instream habitat structures are only intended to be temporary, providing temporary stabilization while riparian vegetation becomes established while or stream/river processes stabilize. This gradual deterioration with age and vulnerability to major flood events make temporary Structures inherently dangerous with increasing age.

It is strongly recommended that the Client address the necessary safety concerns appropriately. This would include warning construction workers of hazards associated with working in or near deep and fast moving water and on steep, slippery and unstable slopes. In addition, signs should be placed along the enhanced stream reaches in prominent locations to warn recreational users of the potential hazards noted above.

Channel Erosion and Migration are Possible

In general, river and stream enhancements are intended to result in more stable streambeds, banks, and floodplains. In some cases, stream enhancement and channel stability mean reestablishing the natural balance of sediment erosion, distribution, and deposition, which induces channel meandering and migration. Therefore, channel erosion, channel migration and/or avulsions can be expected to occur over time.

Importance of Monitoring and Maintenance

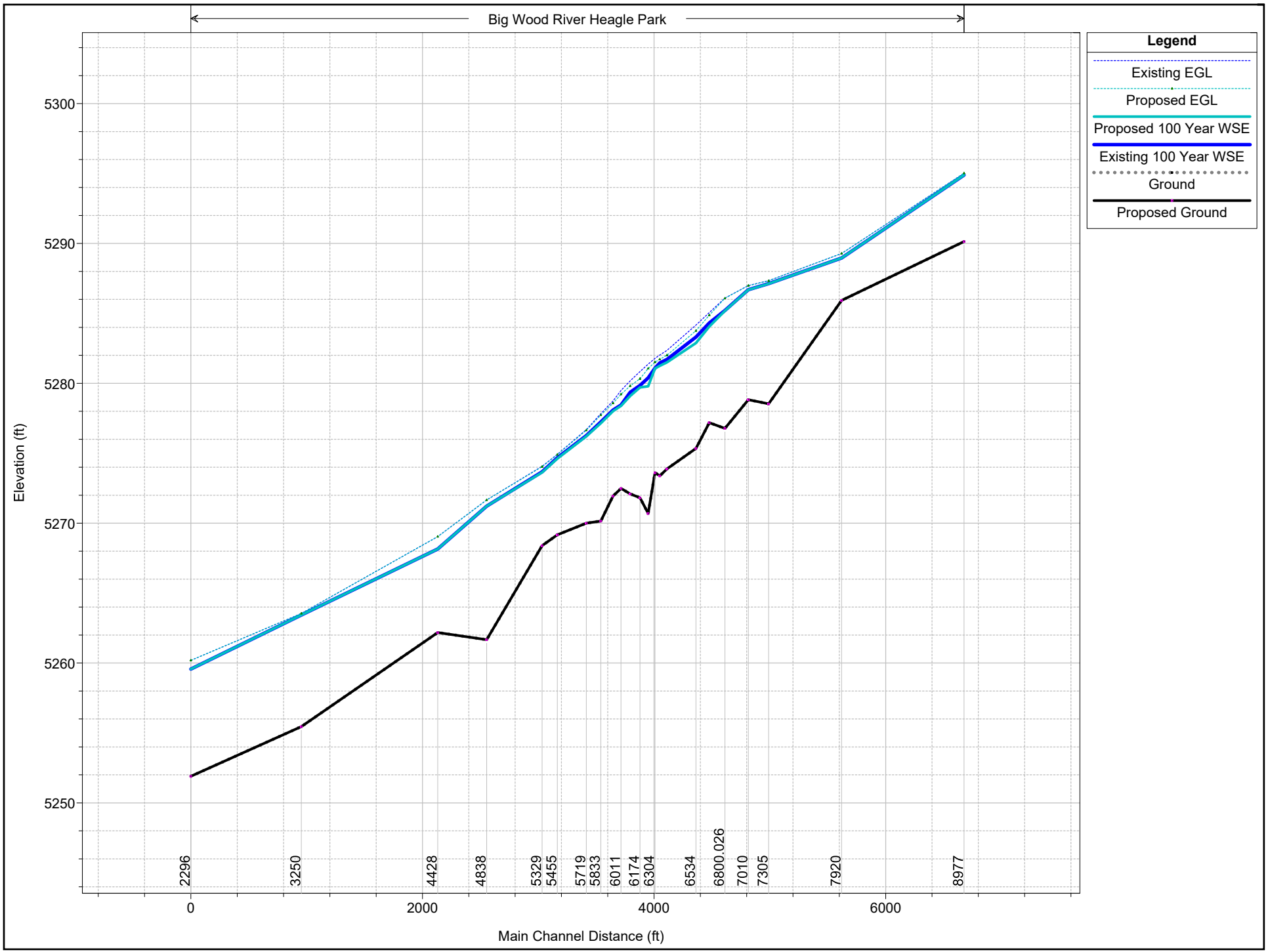
Piles, anchors, chains, cables, reinforcing bars, bolts and similar fasteners may have purposely been excluded from woody habitat structures with the intent of mimicking naturally-occurring instream wood structures. Conversely, such fasteners may have purposely been included in woody habitat Structures if considered appropriate. While the Structures are designed to be relatively stable during flood events, movement of these Structures should be expected. As noted in the text of this report, we recommend that the Client implement appropriate monitoring and maintenance procedures to minimize potential adverse impacts at or near areas of concern, such as at downstream road, bridge and/or culvert crossings. This would include replacing, adjusting, and removing damaged, malfunctioning, or deteriorated components of Structures, particularly following a major storm event.

Contractors are Responsible Site Safety

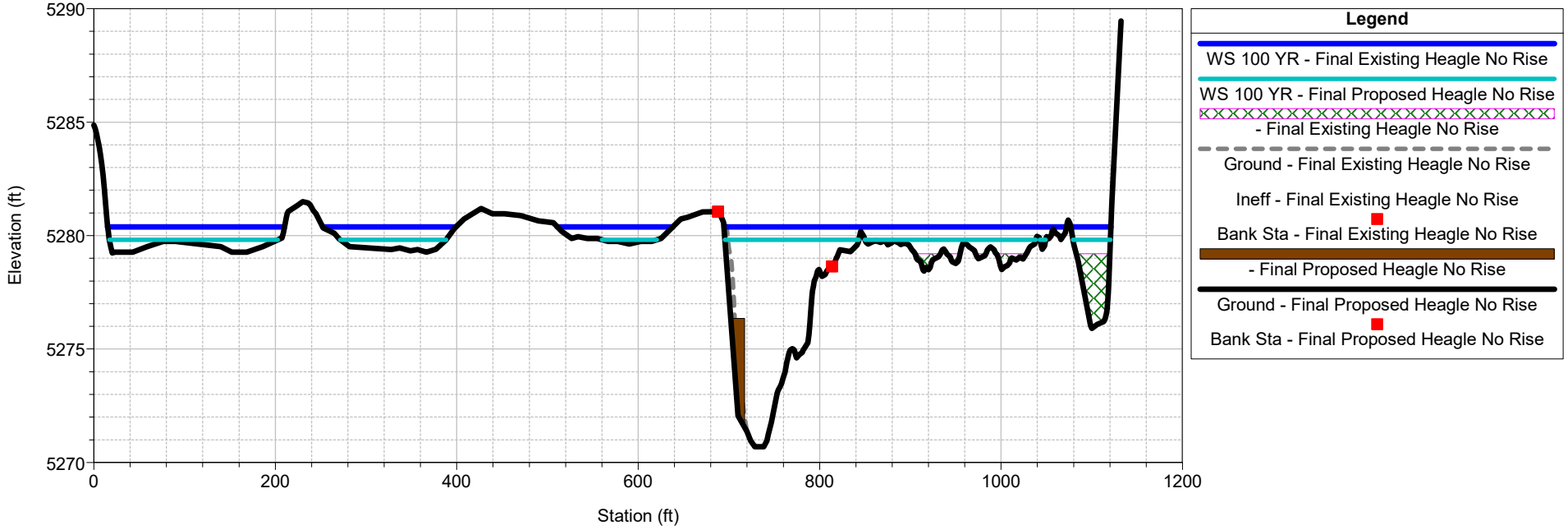
ESA’s recommendations are not intended to direct the contractor’s procedures, methods, schedule, or management of the work site. The contractor is solely responsible for job site safety and for managing construction operations to minimize risks to on-site personnel and adjacent properties.

Appendix A. Construction Plans

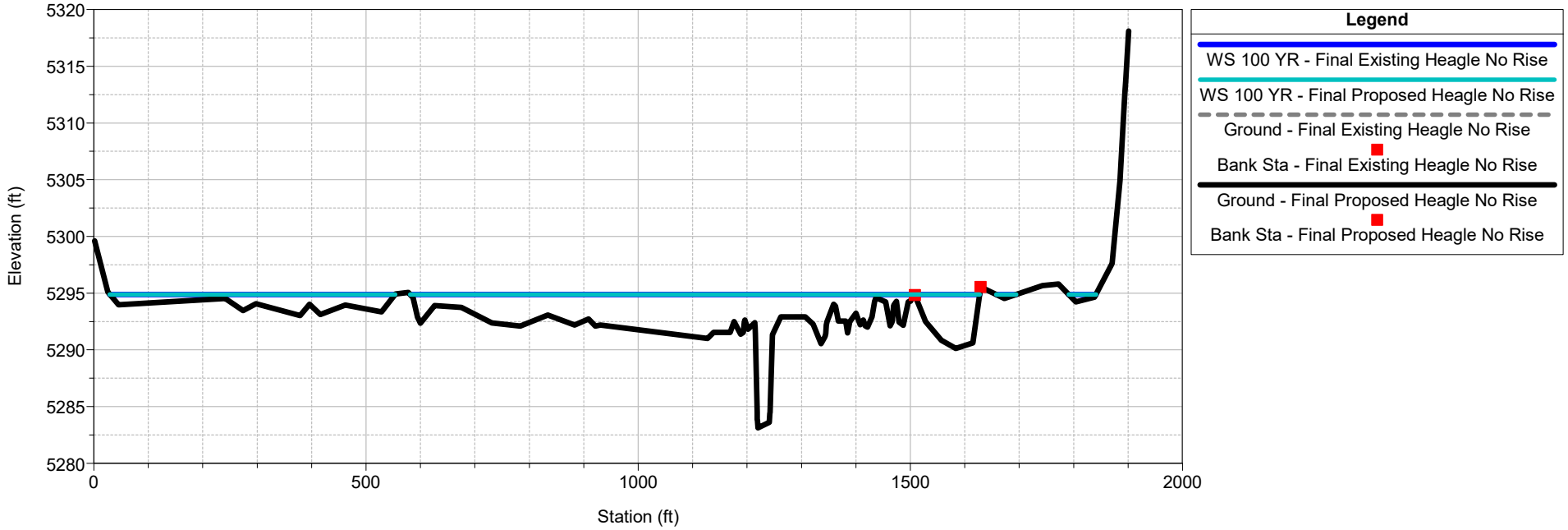
Appendix B. Hydraulic Modeling Output for No-Rise


Big Wood River Heagle Park
Legend
Existing EGL
Proposed EGL
Proposed 100 Year WSE
Existing 100 Year WSE
Ground
Proposed Ground
Elevation (ft)
5300
5290
5280
5270
5260
5250
0
2000
4000
6000
Main Channel Distance (ft)
2296
3250
4428
4838
5329
5455
5719
5833
6011
6174
6304
6534
6800.026
7010
7305
7920
8977

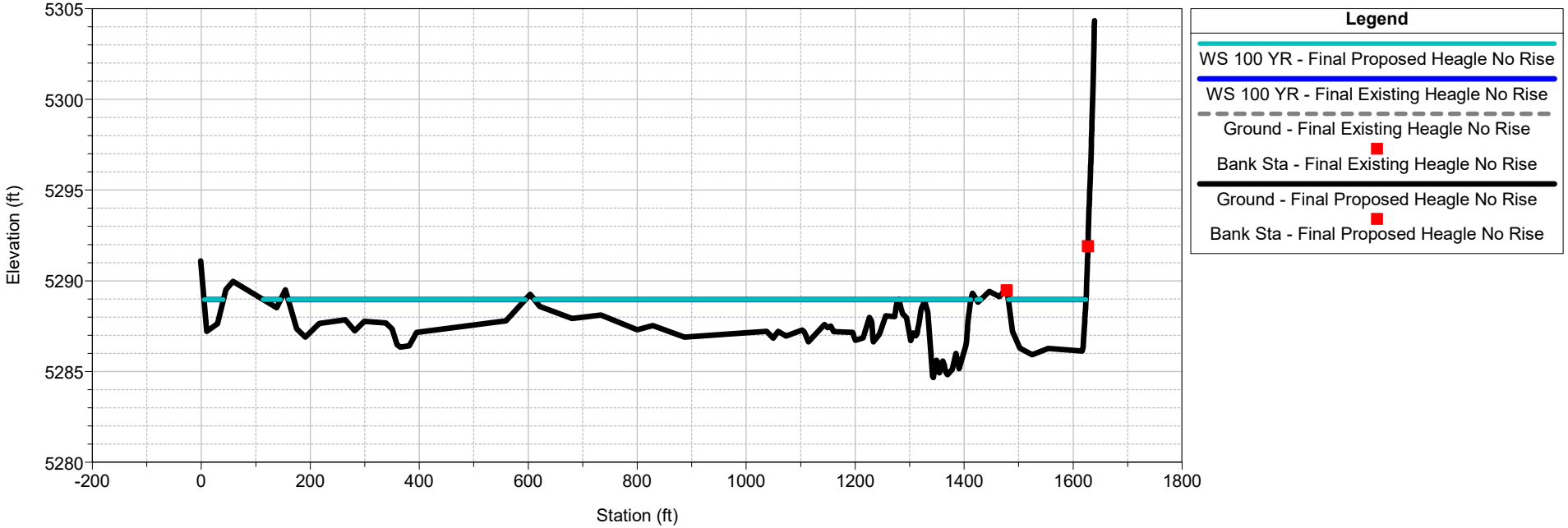
RS = 6246



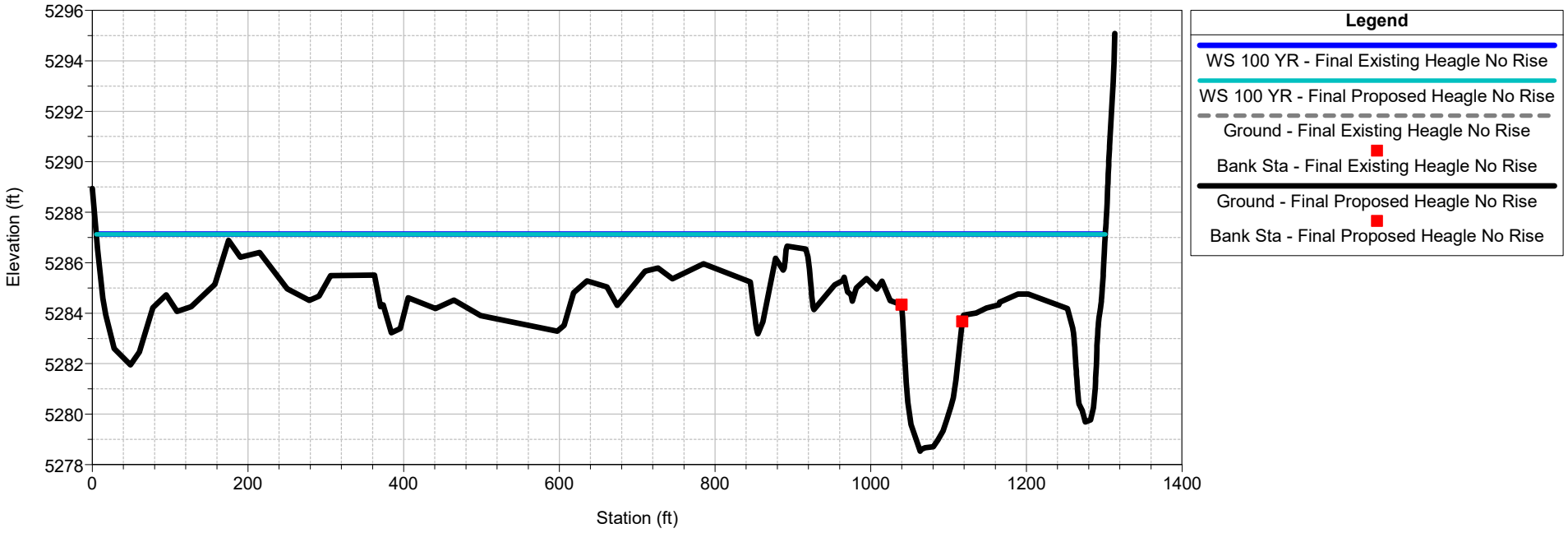
RS = 8977



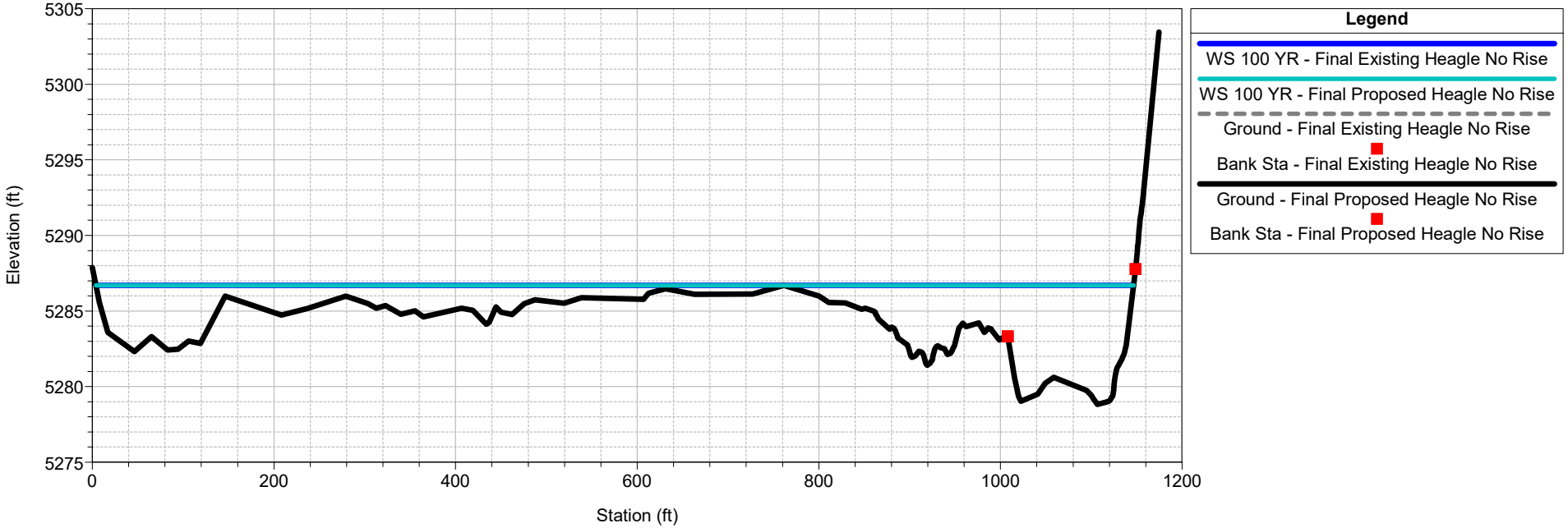
RS = 7920



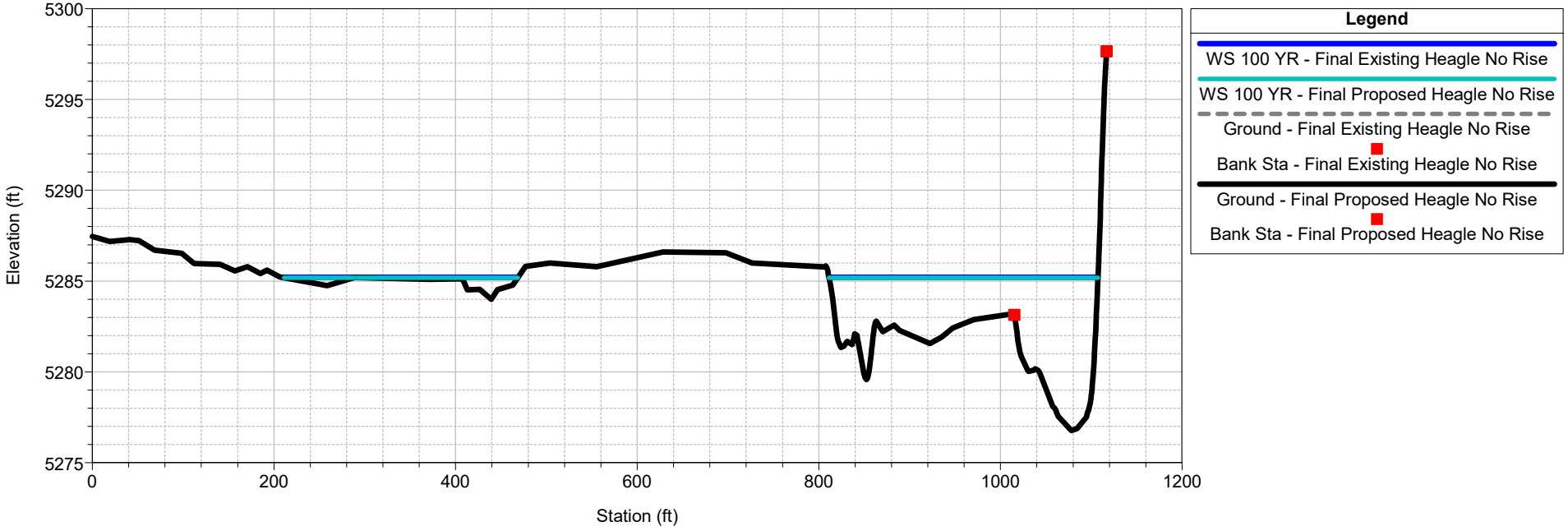
RS = 7305



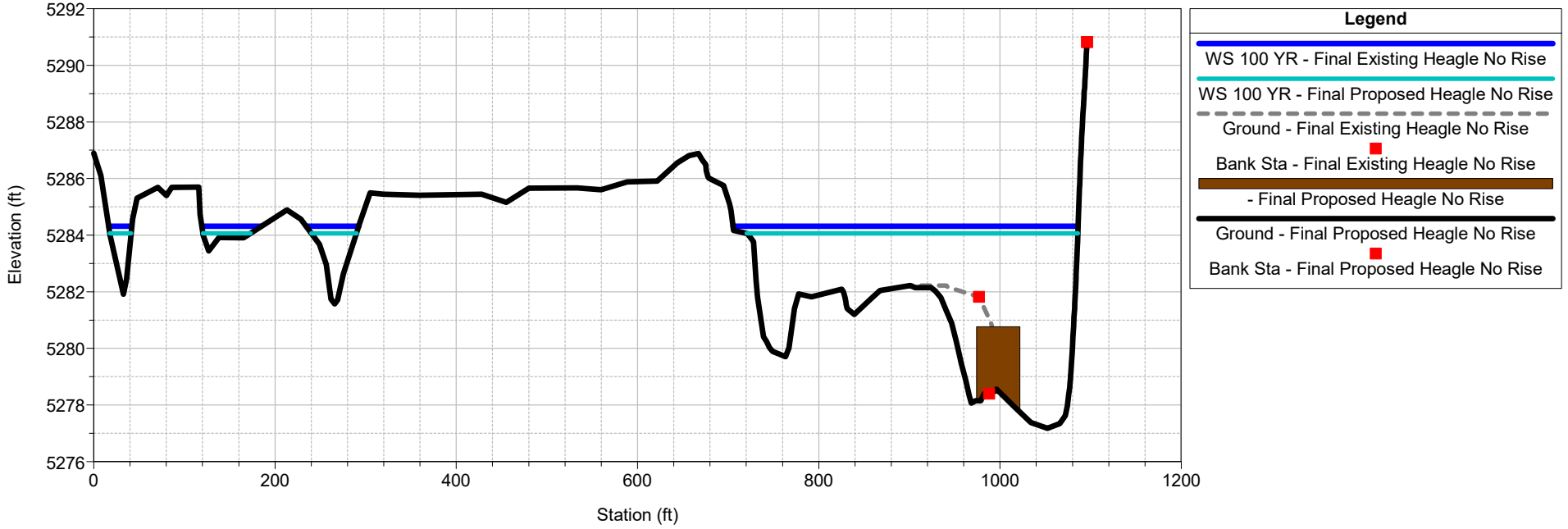
RS = 7010



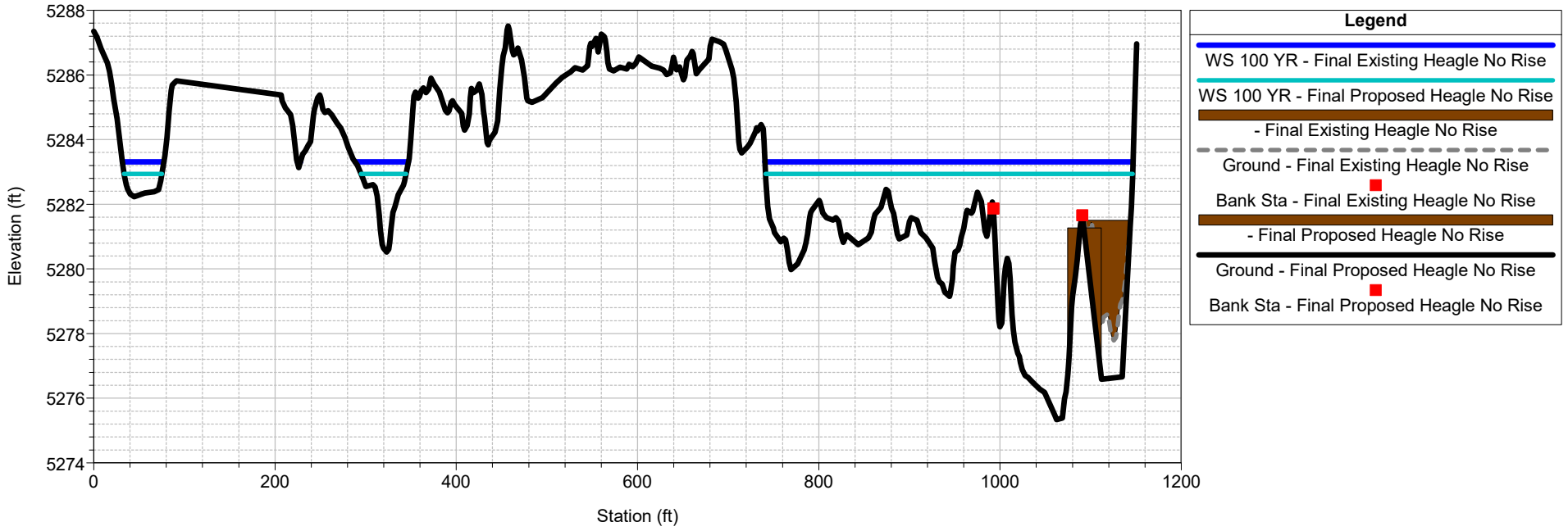
RS = 6800.026



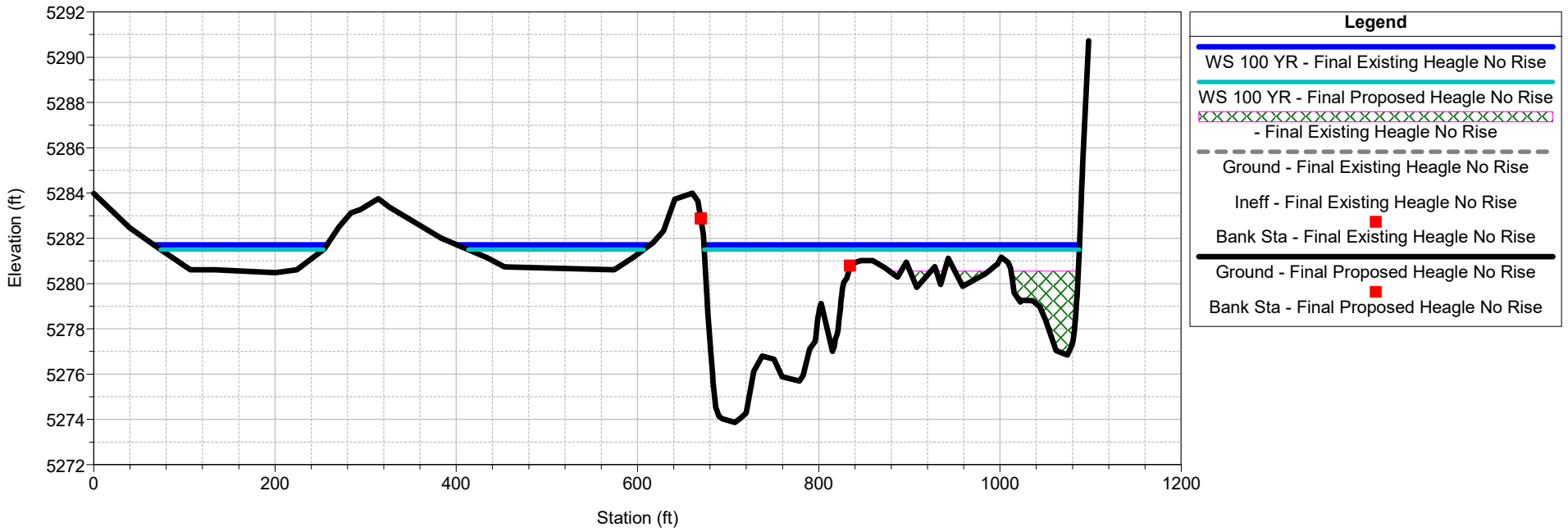
RS = 6770.630



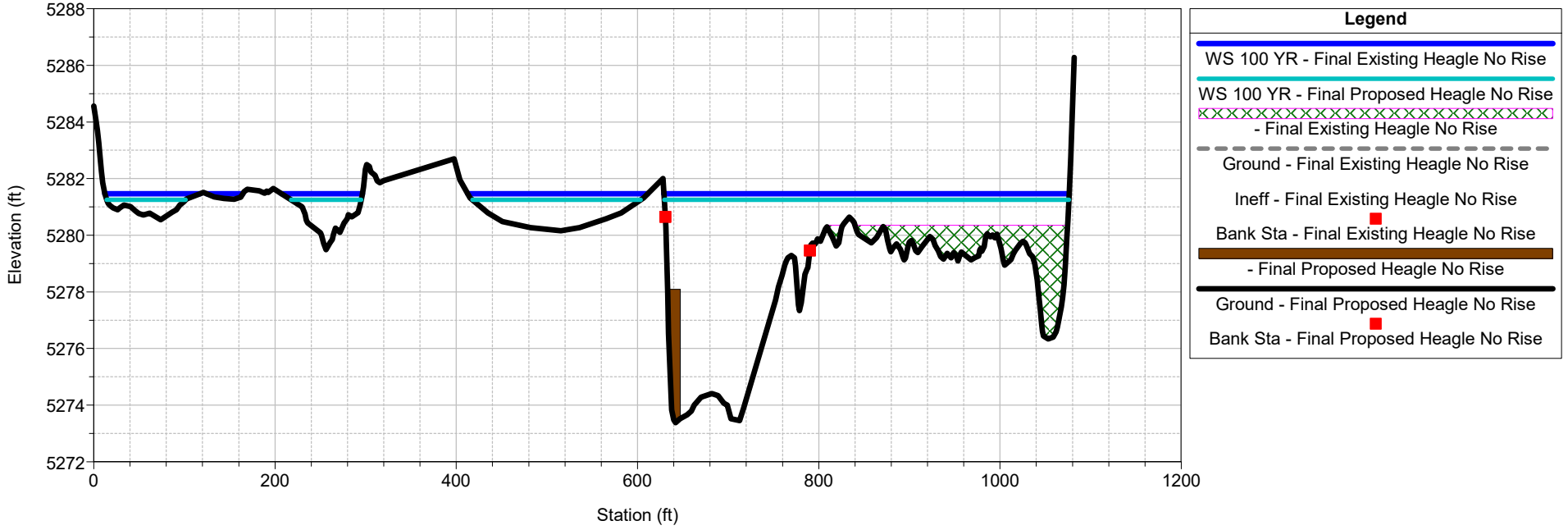
RS = 6534



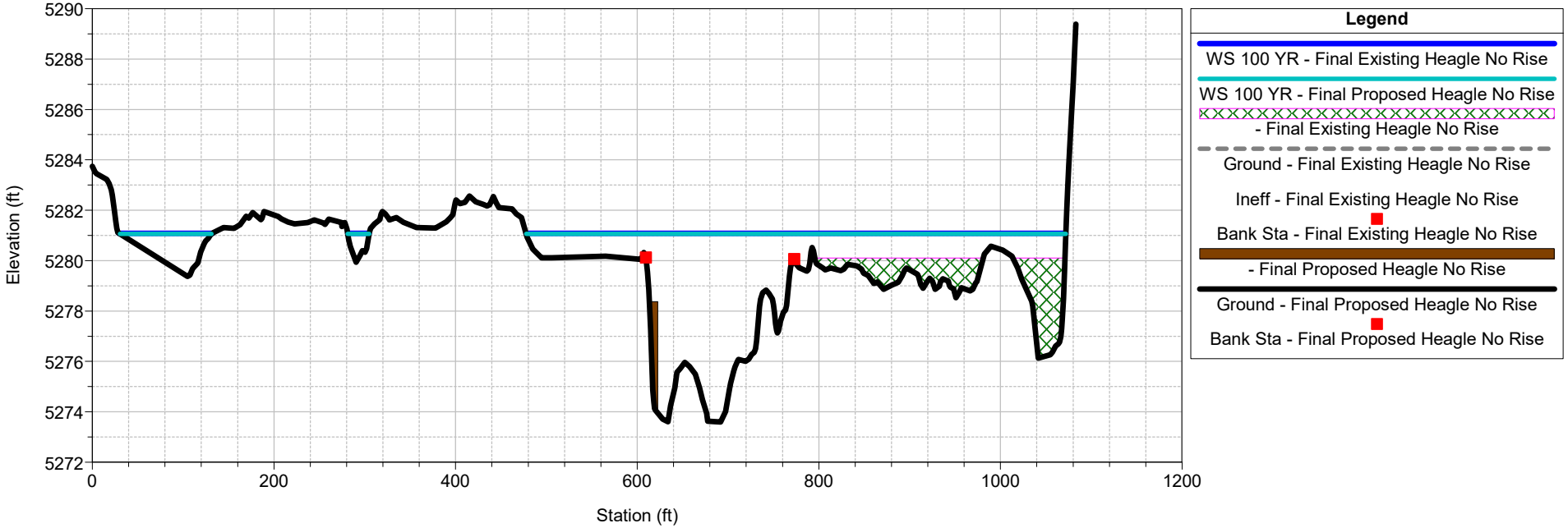
RS = 6408



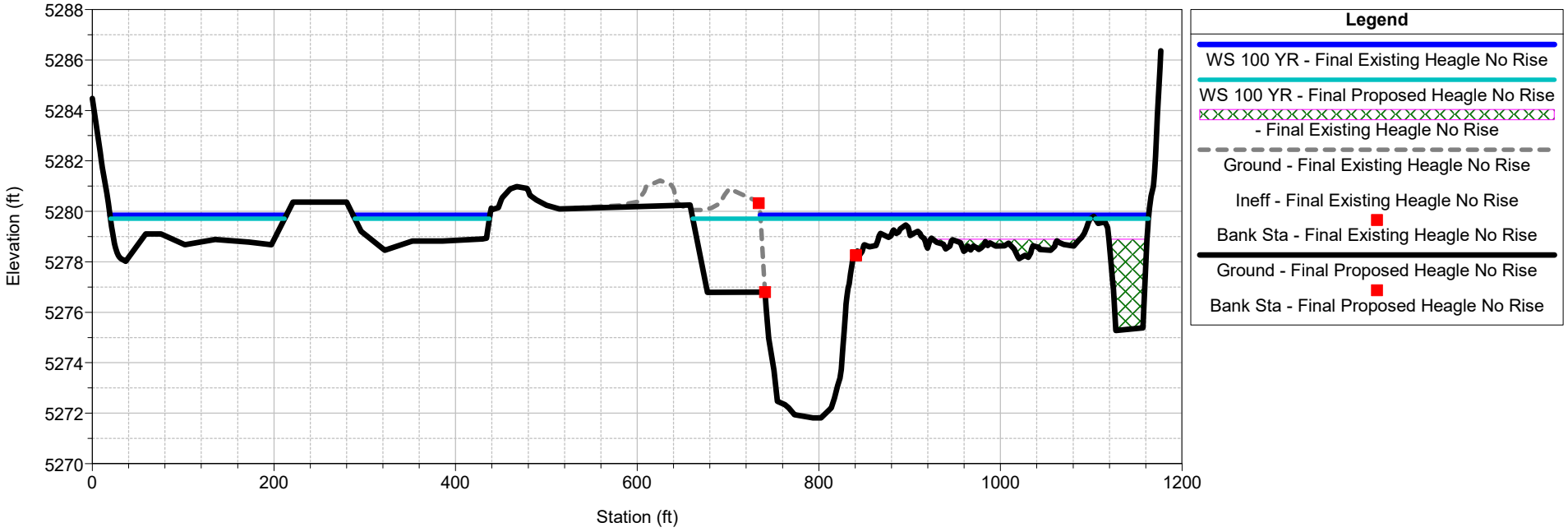
RS = 6346



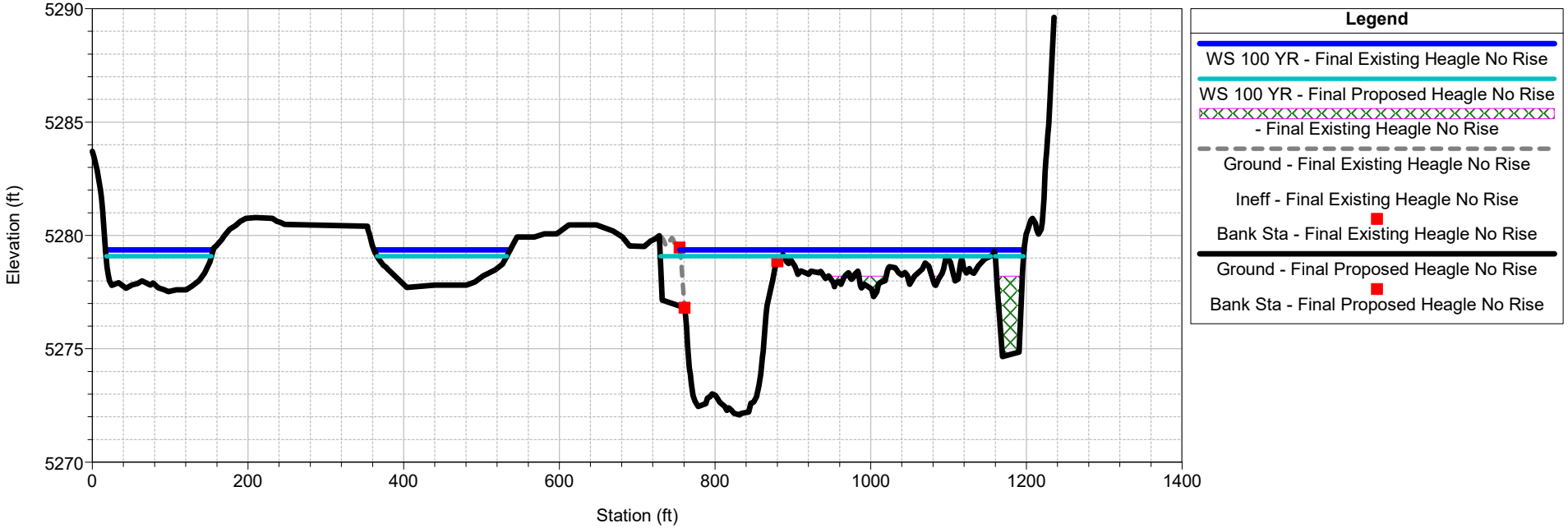
RS = 6304



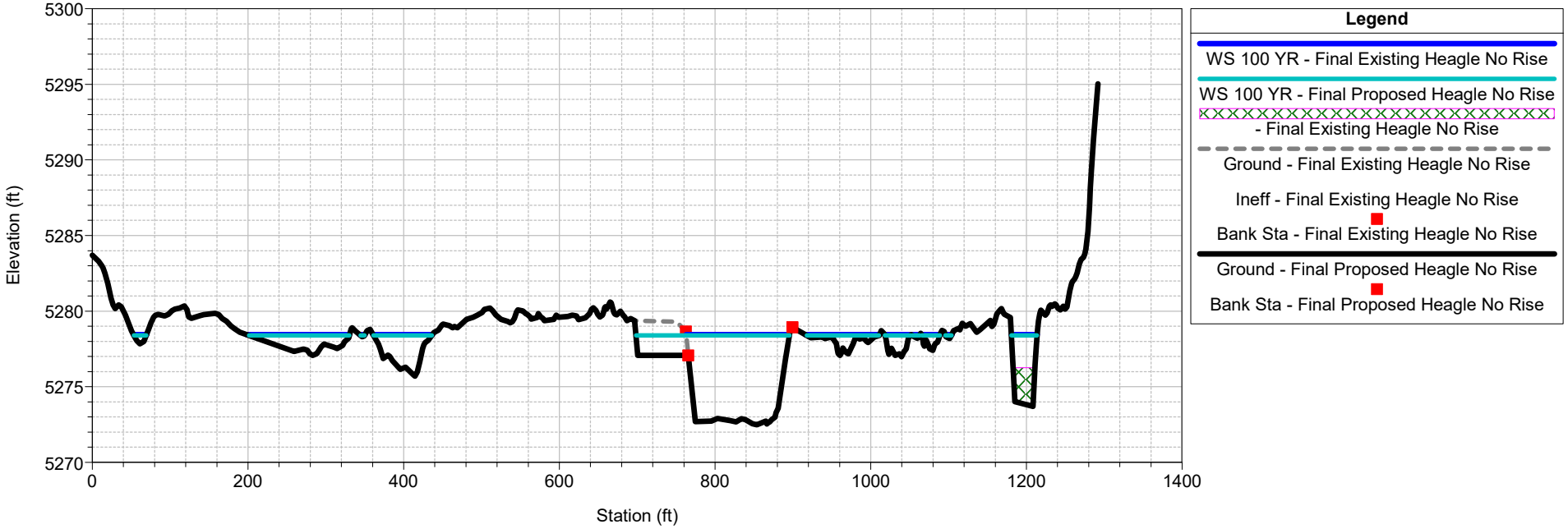
RS = 6174



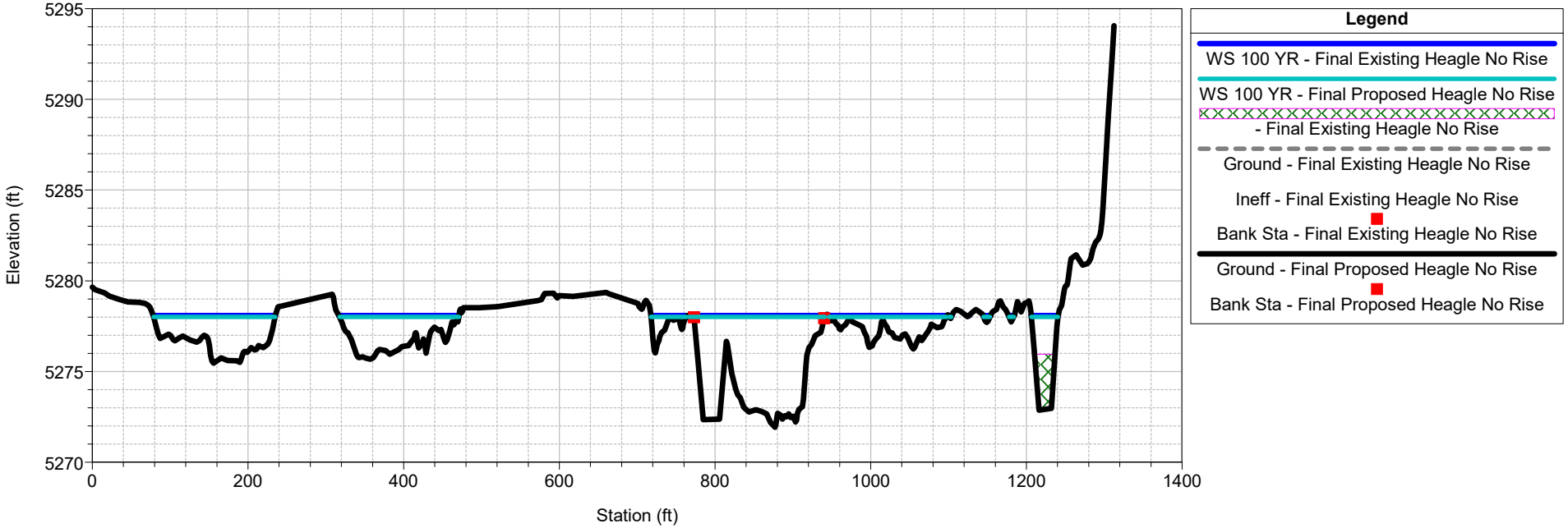
RS = 6090



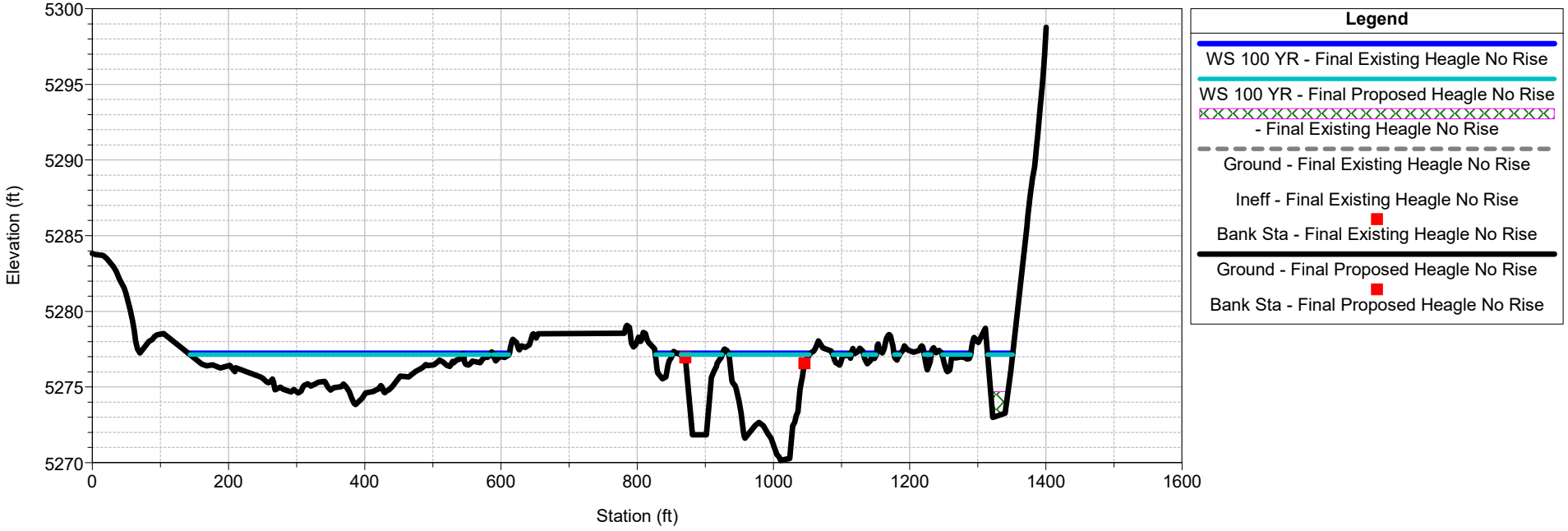
RS = 6011



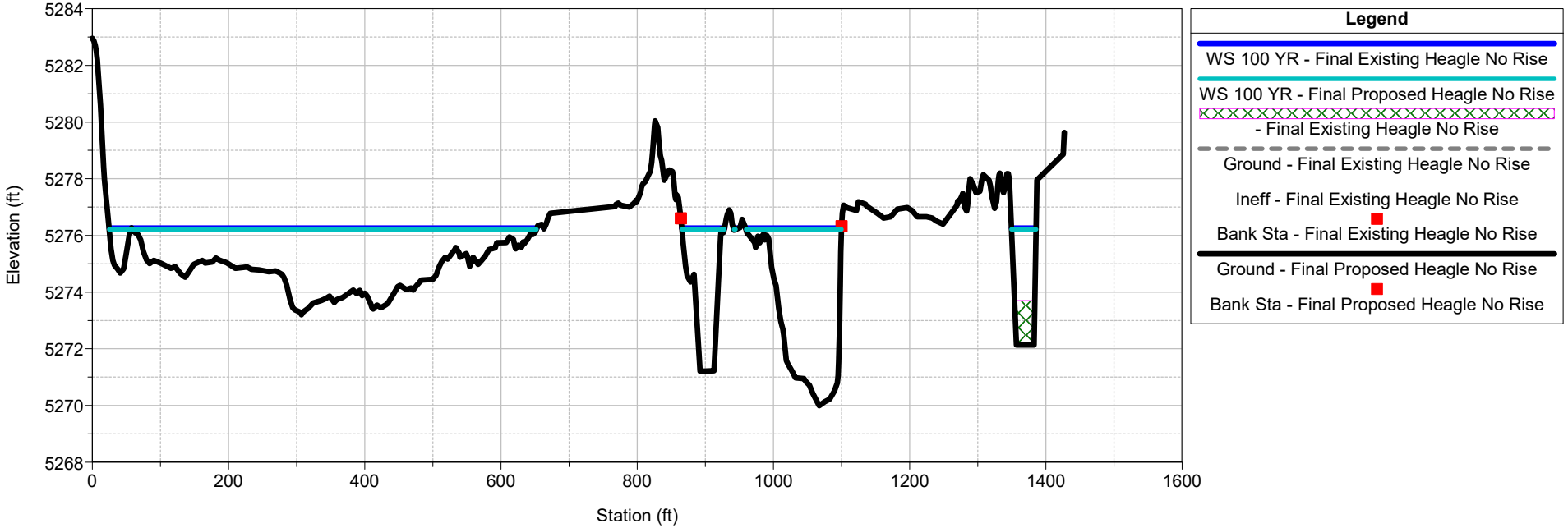
RS = 5941



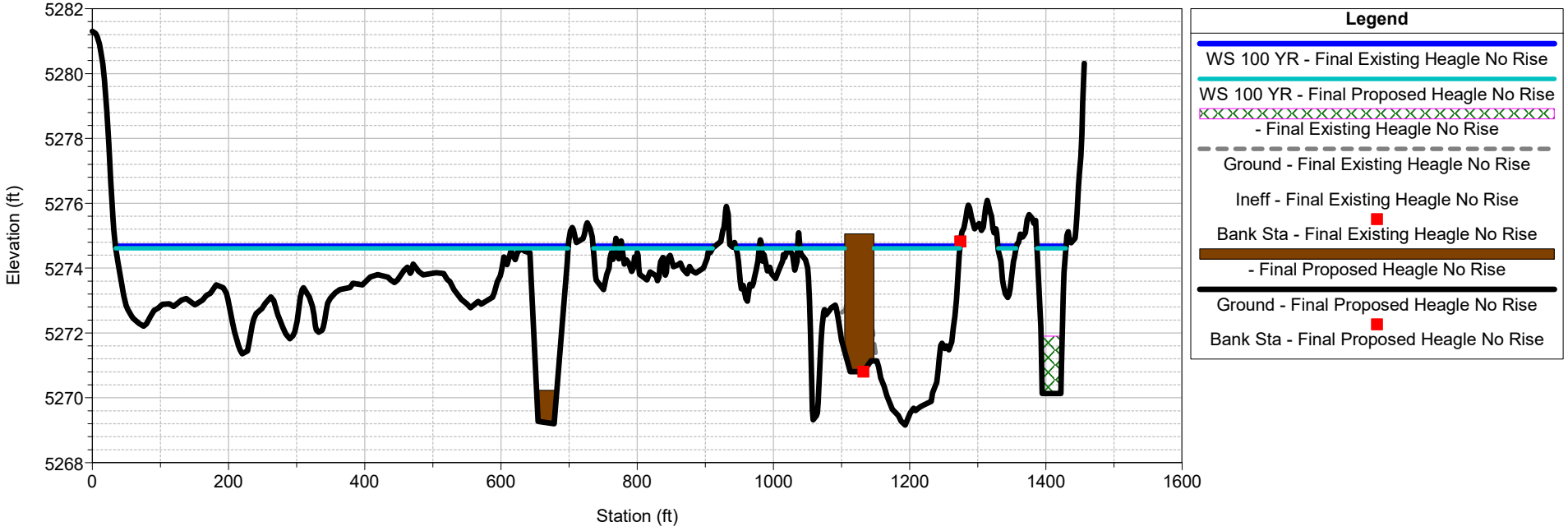
RS = 5833



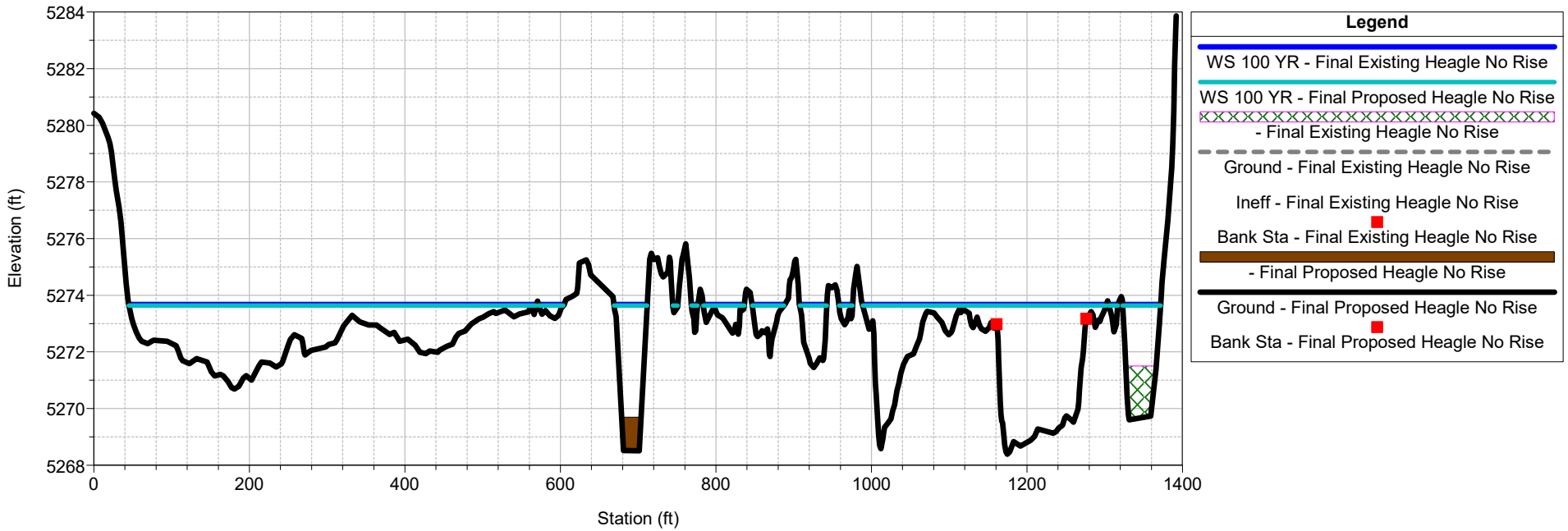
RS = 5719



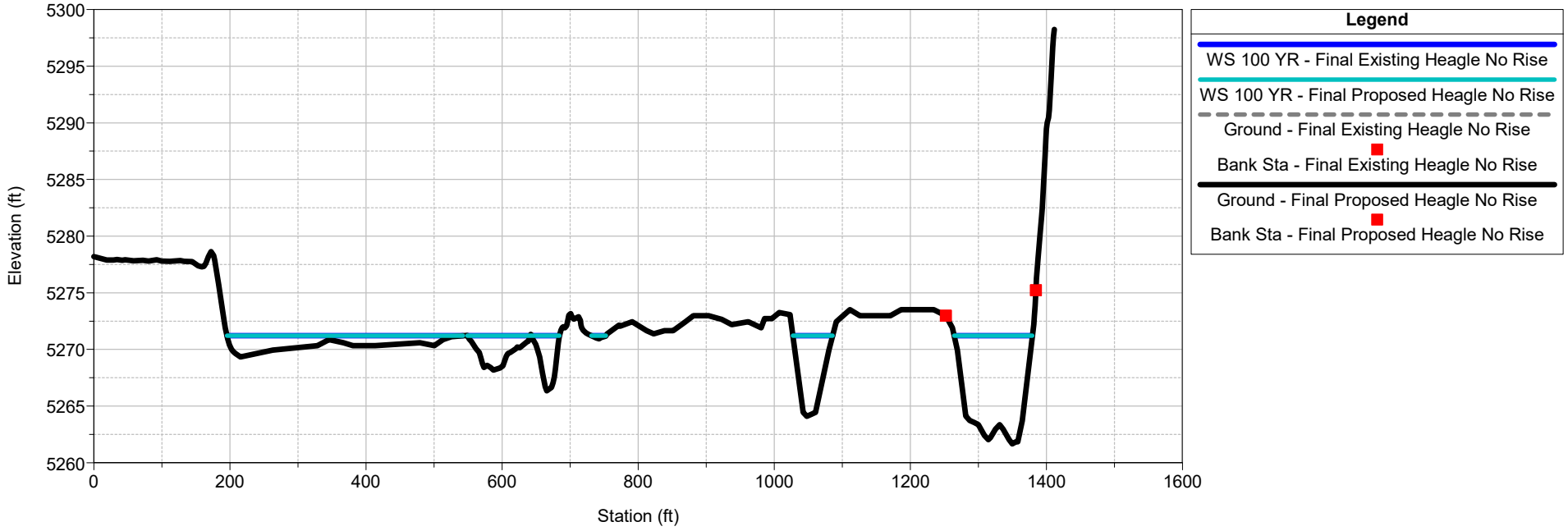
RS = 5455



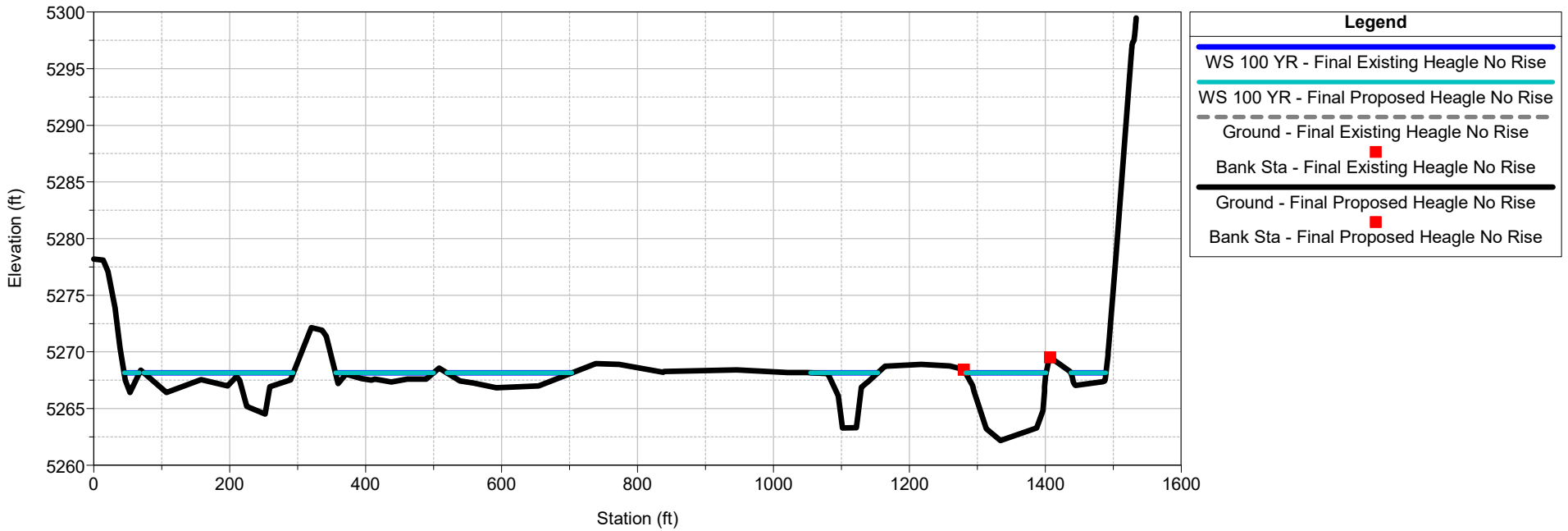
RS = 5329



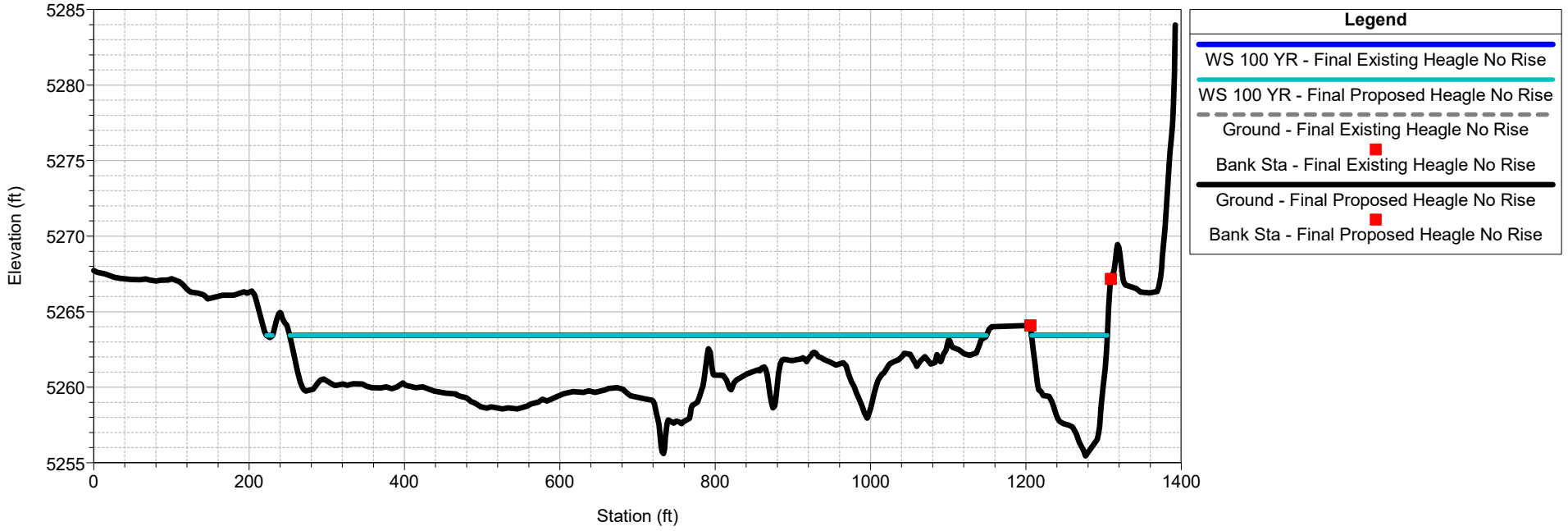
RS = 4838



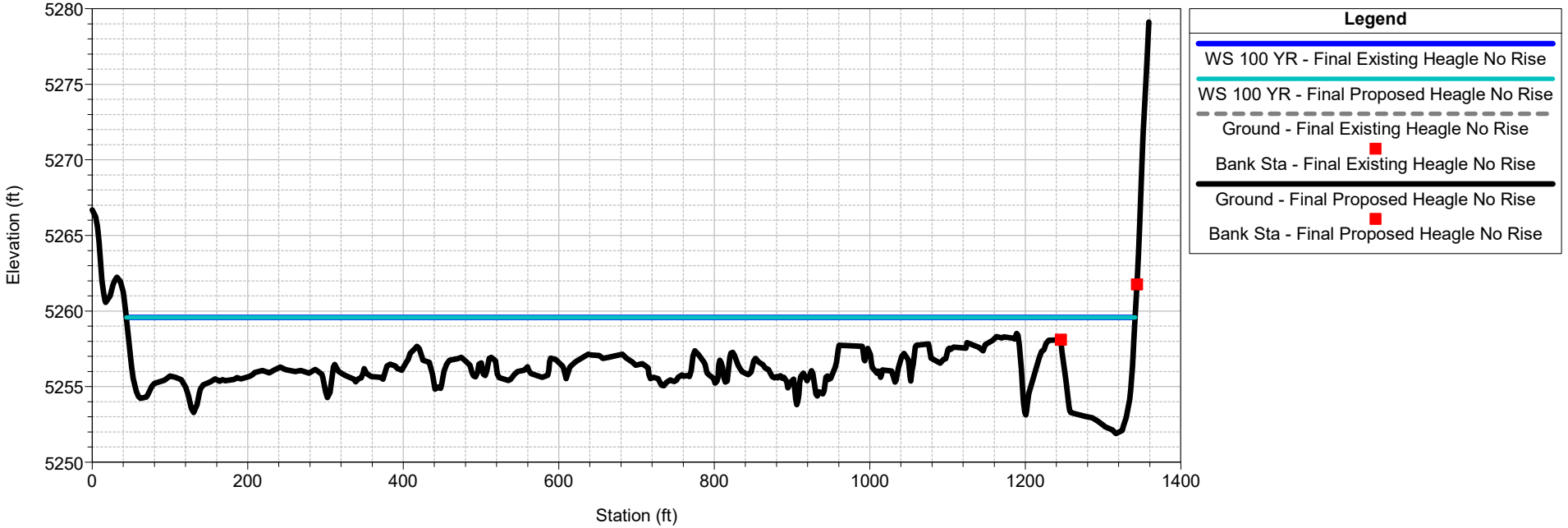
RS = 4428



RS = 3250



RS = 2296


Legend
WS 100 YR - Final Existing Heagle No Rise
WS 100 YR - Final Proposed Heagle No Rise
Ground - Final Existing Heagle No Rise
Bank Sta - Final Existing Heagle No Rise
Ground - Final Proposed Heagle No Rise
Bank Sta - Final Proposed Heagle No Rise
Elevation (ft)
5280
5275
5270
5265
5260
5255
5250
0
200
400
600
800
1000
1200
1400
Station (ft)

HEC-RAS River: Big Wood River Reach: Heagle Park Profile: 100 YR

Reach	River Sta	Profile	Plan	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
				(ft)	(ft)	(ft)	(ft)	(ft)	(cfs)	(cfs)	(cfs)	(ft)
Heagle Park	8977	100 YR	Final Existing Heagle No Rise	5295.03	5294.89	0.14	5.74	0.02	4604.15	1964.27	11.58	1658.32
Heagle Park	8977	100 YR	Final Proposed Heagle Park No Rise	5295.03	5294.89	0.14	5.73	0.02	4598.60	1969.88	11.52	1658.13
Heagle Park	7920	100 YR	Final Existing Heagle No Rise	5289.28	5288.95	0.33	1.97	0.03	4029.52	2550.48		1450.93
Heagle Park	7920	100 YR	Final Proposed Heagle Park No Rise	5289.28	5288.95	0.33	1.97	0.03	4030.08	2549.92		1451.18
Heagle Park	7305	100 YR	Final Existing Heagle No Rise	5287.27	5287.06	0.21	0.33	0.01	2346.16	2922.40	1311.44	1296.07
Heagle Park	7305	100 YR	Final Proposed Heagle Park No Rise	5287.27	5287.06	0.21	0.33	0.01	2345.83	2922.70	1311.47	1296.07
Heagle Park	7010	100 YR	Final Existing Heagle No Rise	5286.92	5286.57	0.35	0.82	0.07	1784.67	4795.33		1128.41
Heagle Park	7010	100 YR	Final Proposed Heagle Park No Rise	5286.92	5286.57	0.35	0.82	0.08	1784.29	4795.71		1128.35
Heagle Park	6800.026	100 YR	Final Existing Heagle No Rise	5286.03	5284.94	1.10	1.06	0.03	1392.02	5187.99		383.41
Heagle Park	6800.026	100 YR	Final Proposed Heagle Park No Rise	5286.03	5284.93	1.10	1.17	0.06	1389.95	5190.05		382.41
Heagle Park	6770.630	100 YR	Final Existing Heagle No Rise	5284.94	5283.95	0.99	0.98	0.01	1377.94	5202.06		476.41
Heagle Park	6770.630	100 YR	Final Proposed Heagle Park No Rise	5284.81	5283.90	0.91	1.13	0.01	1818.56	4761.44		443.06
Heagle Park	6534	100 YR	Final Existing Heagle No Rise	5283.95	5282.87	1.08	1.71	0.12	976.35	4891.61	712.04	494.28
Heagle Park	6534	100 YR	Final Proposed Heagle Park No Rise	5283.67	5282.68	0.99	1.59	0.13	829.09	4069.16	1681.76	486.80
Heagle Park	6408	100 YR	Final Existing Heagle No Rise	5282.12	5281.44	0.68	0.26	0.04	211.94	5682.98	685.08	777.71
Heagle Park	6408	100 YR	Final Proposed Heagle Park No Rise	5281.95	5281.39	0.56	0.25	0.02	176.63	5228.32	1175.05	769.26
Heagle Park	6346	100 YR	Final Existing Heagle No Rise	5281.82	5281.28	0.53	0.17	0.01	173.40	5710.63	695.97	807.92
Heagle Park	6346	100 YR	Final Proposed Heagle Park No Rise	5281.68	5281.18	0.50	0.17	0.01	150.28	5239.86	1189.87	784.29
Heagle Park	6304	100 YR	Final Existing Heagle No Rise	5281.64	5281.06	0.59	0.32	0.06	197.99	5559.26	822.74	718.44
Heagle Park	6304	100 YR	Final Proposed Heagle Park No Rise	5281.50	5281.03	0.47	0.35	0.11	183.61	4979.07	1417.32	715.53
Heagle Park	6246	100 YR	Final Existing Heagle No Rise	5281.26	5280.04	1.22	0.53	0.02	161.03	5960.04	458.93	830.30
Heagle Park	6246	100 YR	Final Proposed Heagle Park No Rise	5281.04	5279.48	1.56	0.53	0.24	8.80	5898.00	673.20	475.05
Heagle Park	6174	100 YR	Final Existing Heagle No Rise	5280.69	5279.53	1.16	0.65	0.01	242.37	5847.60	490.03	742.21
Heagle Park	6174	100 YR	Final Proposed Heagle Park No Rise	5280.27	5279.52	0.74	0.50	0.02	614.30	4967.39	998.31	814.78
Heagle Park	6090	100 YR	Final Existing Heagle No Rise	5280.03	5278.91	1.12	0.69	0.00	373.88	5812.51	393.61	702.01
Heagle Park	6090	100 YR	Final Proposed Heagle Park No Rise	5279.75	5278.84	0.92	0.59	0.00	438.76	5324.33	816.91	714.65
Heagle Park	6011	100 YR	Final Existing Heagle No Rise	5279.34	5278.22	1.12	0.61	0.10	245.08	5772.04	562.89	469.64
Heagle Park	6011	100 YR	Final Proposed Heagle Park No Rise	5279.15	5278.19	0.96	0.54	0.09	330.39	5404.94	844.68	520.04
Heagle Park	5941	100 YR	Final Existing Heagle No Rise	5278.62	5277.86	0.77	0.89	0.01	728.37	5312.28	539.35	686.61
Heagle Park	5941	100 YR	Final Proposed Heagle Park No Rise	5278.53	5277.86	0.67	0.84	0.01	692.21	5017.13	870.66	689.03
Heagle Park	5833	100 YR	Final Existing Heagle No Rise	5277.71	5277.00	0.72	1.08	0.04	1000.60	5026.03	553.37	753.19
Heagle Park	5833	100 YR	Final Proposed Heagle Park No Rise	5277.68	5276.96	0.72	1.06	0.04	965.76	4975.07	639.17	732.06
Heagle Park	5719	100 YR	Final Existing Heagle No Rise	5276.59	5276.01	0.59	1.69	0.08	1395.69	4545.92	638.39	829.07
Heagle Park	5719	100 YR	Final Proposed Heagle Park No Rise	5276.58	5276.01	0.57	1.67	0.07	1368.49	4445.15	766.36	829.45
Heagle Park	5455	100 YR	Final Existing Heagle No Rise	5274.82	5274.51	0.31	0.85	0.02	2814.69	3149.55	615.76	1188.33
Heagle Park	5455	100 YR	Final Proposed Heagle Park No Rise	5274.84	5274.50	0.34	0.86	0.02	2688.73	3100.82	790.44	1146.98
Heagle Park	5329	100 YR	Final Existing Heagle No Rise	5273.95	5273.46	0.50	2.60	0.01	2558.62	3341.03	680.36	1076.38
Heagle Park	5329	100 YR	Final Proposed Heagle Park No Rise	5273.97	5273.44	0.52	2.62	0.01	2326.20	3339.31	914.49	1066.08
Heagle Park	4838	100 YR	Final Existing Heagle No Rise	5271.34	5270.71	0.63	2.07	0.03	1314.43	5265.57		580.93
Heagle Park	4838	100 YR	Final Proposed Heagle Park No Rise	5271.34	5270.71	0.63	2.07	0.03	1314.43	5265.57		580.93
Heagle Park	4428	100 YR	Final Existing Heagle No Rise	5269.24	5268.70	0.54	6.44	0.08	2275.91	4203.40	100.69	1203.08
Heagle Park	4428	100 YR	Final Proposed Heagle Park No Rise	5269.24	5268.70	0.54	6.44	0.08	2275.91	4203.40	100.69	1203.08
Heagle Park	3250	100 YR	Final Existing Heagle No Rise	5262.72	5262.45	0.27	5.15	0.01	3995.74	2584.26		956.87
Heagle Park	3250	100 YR	Final Proposed Heagle Park No Rise	5262.72	5262.45	0.27	5.15	0.01	3995.74	2584.26		956.87
Heagle Park	2296	100 YR	Final Existing Heagle No Rise	5257.57	5257.23	0.34			4161.16	2418.84		1093.55
Heagle Park	2296	100 YR	Final Proposed Heagle Park No Rise	5257.57	5257.23	0.34			4161.16	2418.84		1093.55

HEC-RAS River: Big Wood River Reach: Heagle Park Profile: 100 YR

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Heagle Park	8977	100 YR	Final Existing Heagle No Rise	6580.00	5290.13	5294.89	5292.28	5295.03	0.003430	4.88	3438.77	1658.32	0.47
Heagle Park	8977	100 YR	Final Proposed Heagle Park No Rise	6580.00	5290.13	5294.89	5292.28	5295.03	0.003426	4.88	3438.09	1658.13	0.47
Heagle Park	7920	100 YR	Final Existing Heagle No Rise	6580.00	5285.92	5288.95	5288.52	5289.28	0.009877	6.92	2367.60	1450.93	0.76
Heagle Park	7920	100 YR	Final Proposed Heagle Park No Rise	6580.00	5285.92	5288.95	5288.52	5289.28	0.009860	6.92	2369.01	1451.18	0.76
Heagle Park	7305	100 YR	Final Existing Heagle No Rise	6580.00	5278.53	5287.06	5285.22	5287.27	0.001514	5.27	3512.94	1296.07	0.35
Heagle Park	7305	100 YR	Final Proposed Heagle Park No Rise	6580.00	5278.53	5287.06	5285.22	5287.27	0.001515	5.27	3512.31	1296.07	0.35
Heagle Park	7010	100 YR	Final Existing Heagle No Rise	6580.00	5278.82	5286.57	5284.44	5286.92	0.002467	5.52	2529.79	1128.41	0.39
Heagle Park	7010	100 YR	Final Proposed Heagle Park No Rise	6580.00	5278.82	5286.57	5284.44	5286.92	0.002468	5.52	2529.24	1128.35	0.39
Heagle Park	6800.026	100 YR	Final Existing Heagle No Rise	6580.00	5276.77	5284.94	5284.24	5286.03	0.007720	9.38	1126.79	383.41	0.67
Heagle Park	6800.026	100 YR	Final Proposed Heagle Park No Rise	6580.00	5276.77	5284.93	5284.24	5286.03	0.007746	9.39	1124.92	382.41	0.68
Heagle Park	6770.630	100 YR	Final Existing Heagle No Rise	6580.00	5277.18	5283.95	5283.44	5284.94	0.007990	8.92	1226.18	476.41	0.68
Heagle Park	6770.630	100 YR	Final Proposed Heagle Park No Rise	6580.00	5277.18	5283.90	5283.38	5284.81	0.009691	8.84	1242.95	443.06	0.71
Heagle Park	6534	100 YR	Final Existing Heagle No Rise	6580.00	5275.34	5282.87	5282.61	5283.95	0.009117	9.40	1153.24	494.28	0.72
Heagle Park	6534	100 YR	Final Proposed Heagle Park No Rise	6580.00	5275.34	5282.68	5282.22	5283.67	0.010008	8.83	1117.91	486.80	0.72
Heagle Park	6408	100 YR	Final Existing Heagle No Rise	6580.00	5273.87	5281.44	5280.36	5282.12	0.005664	7.07	1345.46	777.71	0.56
Heagle Park	6408	100 YR	Final Proposed Heagle Park No Rise	6580.00	5273.87	5281.39	5279.99	5281.95	0.004946	6.58	1391.07	769.26	0.52
Heagle Park	6346	100 YR	Final Existing Heagle No Rise	6580.00	5273.38	5281.28	5279.41	5281.82	0.003637	6.27	1616.59	807.92	0.46
Heagle Park	6346	100 YR	Final Proposed Heagle Park No Rise	6580.00	5273.46	5281.18	5279.60	5281.68	0.004145	6.24	1564.09	784.29	0.48
Heagle Park	6304	100 YR	Final Existing Heagle No Rise	6580.00	5273.60	5281.06	5279.98	5281.64	0.004701	6.64	1523.26	718.44	0.52
Heagle Park	6304	100 YR	Final Proposed Heagle Park No Rise	6580.00	5273.60	5281.03	5279.62	5281.50	0.004476	6.19	1569.90	715.53	0.49
Heagle Park	6246	100 YR	Final Existing Heagle No Rise	6580.00	5270.69	5280.04	5280.04	5281.26	0.007795	9.29	1084.19	830.30	0.69
Heagle Park	6246	100 YR	Final Proposed Heagle Park No Rise	6580.00	5270.69	5279.48	5279.25	5281.04	0.012317	10.47	741.84	475.05	0.84
Heagle Park	6174	100 YR	Final Existing Heagle No Rise	6580.00	5271.81	5279.53	5279.42	5280.69	0.007077	9.14	1154.88	742.21	0.65
Heagle Park	6174	100 YR	Final Proposed Heagle Park No Rise	6580.00	5271.81	5279.52	5278.25	5280.27	0.004945	7.85	1421.96	814.78	0.55
Heagle Park	6090	100 YR	Final Existing Heagle No Rise	6580.00	5272.09	5278.91	5278.81	5280.03	0.008418	9.02	1140.73	702.01	0.70
Heagle Park	6090	100 YR	Final Proposed Heagle Park No Rise	6580.00	5272.09	5278.84	5278.31	5279.75	0.007156	8.43	1203.38	714.65	0.64
Heagle Park	6011	100 YR	Final Existing Heagle No Rise	6580.00	5272.48	5278.22	5277.62	5279.34	0.009050	8.96	960.10	469.64	0.71
Heagle Park	6011	100 YR	Final Proposed Heagle Park No Rise	6580.00	5272.48	5278.19	5277.48	5279.15	0.007911	8.45	1053.45	520.04	0.67
Heagle Park	5941	100 YR	Final Existing Heagle No Rise	6580.00	5271.93	5277.86	5277.37	5278.62	0.008511	7.73	1304.67	686.61	0.67
Heagle Park	5941	100 YR	Final Proposed Heagle Park No Rise	6580.00	5271.93	5277.86	5277.20	5278.53	0.007547	7.28	1347.88	689.03	0.63
Heagle Park	5833	100 YR	Final Existing Heagle No Rise	6580.00	5270.14	5277.00	5276.37	5277.71	0.008459	7.58	1375.35	753.19	0.66
Heagle Park	5833	100 YR	Final Proposed Heagle Park No Rise	6580.00	5270.14	5276.96	5276.31	5277.68	0.008483	7.57	1361.73	732.06	0.66
Heagle Park	5719	100 YR	Final Existing Heagle No Rise	6580.00	5269.99	5276.01	5275.53	5276.59	0.008874	6.97	1572.11	829.07	0.66
Heagle Park	5719	100 YR	Final Proposed Heagle Park No Rise	6580.00	5269.99	5276.01	5275.45	5276.58	0.008473	6.80	1588.27	829.45	0.65
Heagle Park	5455	100 YR	Final Existing Heagle No Rise	6580.00	5269.16	5274.51	5273.58	5274.82	0.005316	5.86	2026.06	1188.33	0.53
Heagle Park	5455	100 YR	Final Proposed Heagle Park No Rise	6580.00	5269.16	5274.50	5273.57	5274.84	0.005385	6.04	1978.98	1146.98	0.53
Heagle Park	5329	100 YR	Final Existing Heagle No Rise	6580.00	5268.39	5273.46	5272.84	5273.95	0.007855	7.27	1643.25	1076.38	0.64
Heagle Park	5329	100 YR	Final Proposed Heagle Park No Rise	6580.00	5268.39	5273.44	5272.88	5273.97	0.007961	7.30	1622.36	1066.08	0.65
Heagle Park	4838	100 YR	Final Existing Heagle No Rise	6580.00	5261.66	5270.71	5268.15	5271.34	0.003996	7.00	1328.63	580.93	0.48
Heagle Park	4838	100 YR	Final Proposed Heagle Park No Rise	6580.00	5261.66	5270.71	5268.15	5271.34	0.003996	7.00	1328.63	580.93	0.48
Heagle Park	4428	100 YR	Final Existing Heagle No Rise	6580.00	5262.17	5268.70	5268.15	5269.24	0.006153	7.22	1871.28	1203.08	0.59
Heagle Park	4428	100 YR	Final Proposed Heagle Park No Rise	6580.00	5262.17	5268.70	5268.15	5269.24	0.006153	7.22	1871.28	1203.08	0.59
Heagle Park	3250	100 YR	Final Existing Heagle No Rise	6580.00	5255.45	5262.45	5261.30	5262.72	0.004880	6.15	2446.27	956.87	0.51
Heagle Park	3250	100 YR	Final Proposed Heagle Park No Rise	6580.00	5255.45	5262.45	5261.30	5262.72	0.004880	6.15	2446.27	956.87	0.51
Heagle Park	2296	100 YR	Final Existing Heagle No Rise	6580.00	5251.90	5257.23	5256.87	5257.57	0.006002	6.46	1689.28	1093.55	0.56
Heagle Park	2296	100 YR	Final Proposed Heagle Park No Rise	6580.00	5251.90	5257.23	5256.87	5257.57	0.006002	6.46	1689.28	1093.55	0.56

Appendix C. FEMA Supporting Data

Table 4. Summary of Discharges

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cfs) 10-percent-annual-chance	2-percent-annual-chance	1-percent-annual-chance	0.2-percent-annual-chance
Big Wood River					
At Cross Section A	822	3,480	4,880	5,360	6,280
At Cross Section H	800	3,430	4,880	5,360	6,280
At Cross Section N	779	3,430	4,935	5,510	6,495
At Cross Section O	777	3,430	4,990	5,710	6,710
At Cross Section P	774	3,430	5,045	5,860	6,925
At Cross Section Q	771	3,430	5,100	6,060	7,140
At Cross Section R	768	3,430	5,155	6,210	7,355
At Cross Section S	764	3,430	5,210	6,410	7,570
At Cross Section T	759	3,430	5,265	6,560	7,785
At Cross Section U	755	3,430	5,350	6,790	8,000
At Cross Section V	754	3,650	5,750	7,500	9,000
At Cross Section AE	748	4,420	6,300	7,500	9,900
Below Croy Creek	684	4,170	5,890	6,580	8,190
Below Indian Creek	624	4,280	6,000	6,680	8,290
Below East Fork Big Wood River	518	3,990	5,540	6,200	7,700
Below Trail Creek	403	3,430	4,750	5,320	6,600
Below Warm Springs Creek	336	3,050	4,220	4,740	5,890
Below North Fork Big Wood River	178	1,860	2,570	2,880	3,580
Aspen Lakes Drive Overflow Channel	--[1]	--[1]	720	1,300	2,510
Big Wood River Overflow Channel					
At Broadford Road	--[1]	1,543	2,750	3,195	4,266

[1] Data not available

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Big Wood River (continued)								
AA	409.68	190	940	8.0	5,089.0	5,089.0	5,089.0	0.0
AB	411.32	655	2,400	3.1	5,097.7	5,097.7	5,097.7	0.0
AC	413.06	573	1,955	3.8	5,105.3	5,105.3	5,105.3	0.0
AD	414.12	255	1,185	6.3	5,111.0	5,111.0	5,111.0	0.0
AE	416.86	510	1,915	3.9	5,125.7	5,125.7	5,126.6	0.9
AF	418.87	310	1,495	5.0	5,136.9	5,136.9	5,137.6	0.7
AG	419.77	615	1,943	3.9	5,141.9	5,141.9	5,142.8	0.9
AH	420.24	440	1,712	4.4	5,144.5	5,144.5	5,145.5	1.0
AI	420.87	450	2,120	3.5	5,148.0	5,148.0	5,148.7	0.7
AJ	421.72	350	1,185	6.3	5,153.1	5,153.1	5,153.2	0.1
AK	422.41	590	1,828	4.1	5,157.9	5,157.9	5,158.8	0.9
AL	422.51	655	2,260	3.3	5,158.6	5,158.6	5,159.6	1.0
AM	423.14	190	832	9.0	5,163.3	5,163.3	5,164.2	0.9
AN	423.66	188	635	5.3	5,165.5	5,165.5	5,166.1	0.6
AO	425.13	221	713	4.7	5,173.3	5,173.3	5,174.2	0.9
AP	426.29	320	818	4.1	5,180.2	5,180.2	5,180.2	0.0
AQ	427.77	320	573	5.9	5,187.7	5,187.7	5,188.0	0.3
AR	430.02	563	940	3.6	5,201.8	5,201.8	5,201.8	0.0
AS	430.75	241	600	5.6	5,205.0	5,205.0	5,205.1	0.1
AT	431.69	388	752	4.5	5,210.8	5,210.8	5,210.8	0.0
AU	432.96	321	687	4.9	5,217.6	5,217.6	5,217.7	0.1
AV	434.21	191	615	5.5	5,224.4	5,224.4	5,224.4	0.0
AW	435.54	379	782	4.3	5,231.1	5,231.1	5,231.1	0.0
AX	436.84	106	462	7.3	5,237.8	5,237.8	5,237.8	0.0
AY	439.03	546	1,523	4.3	5,248.8	5,248.8	5,249.6	0.8
AZ	440.79	700	2,023	3.3	5,256.4	5,256.4	5,257.3	0.9

[1]Thousands of feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLAINE COUNTY, IDAHO AND INCORPORATED AREAS

FLOODWAY DATA

BIG WOOD RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Big Wood River (continued)								
BA	441.73	581	1,444	4.6	5,261.4	5,261.4	5,261.9	0.5
BB	443.31	337	899	7.3	5,270.3	5,270.3	5,271.0	0.7
BC	444.43	453	1,506	4.4	5,277.1	5,277.1	5,278.1	1.0
BD	444.95	226	928	7.2	5,279.3	5,279.3	5,280.2	0.9
BE	446.23	154	760	8.8	5,288.0	5,288.0	5,288.0	0.0
BF	447.33	514	1,864	3.6	5,293.1	5,293.1	5,294.0	0.9
BG	449.81	116	756	8.8	5,306.2	5,306.2	5,307.1	0.9
BH	450.78	119	796	8.4	5,311.9	5,311.9	5,311.9	0.0
BI	451.36	120	652	10.2	5,314.7	5,314.7	5,314.8	0.1
BJ	451.99	155	832	8.0	5,318.8	5,318.8	5,318.8	0.0
BK	453.07	103	630	10.6	5,325.0	5,325.0	5,325.0	0.0
BL	455.10	160	877	7.6	5,338.1	5,338.1	5,338.8	0.7
BM	456.09	123	762	8.8	5,342.7	5,342.7	5,343.7	1.0
BN	457.06	102	600	11.1	5,349.7	5,349.7	5,349.7	0.0
BO	458.80	386	1,289	5.2	5,360.8	5,360.8	5,361.6	0.8
BP	459.40	257	926	7.2	5,364.2	5,364.2	5,364.3	0.1
BQ	461.34	358	1,116	5.6	5,374.6	5,374.6	5,375.5	0.9
BR	462.84	491	1,605	3.9	5,383.2	5,383.2	5,383.8	0.6
BS	463.85	228	683	9.1	5,389.0	5,389.0	5,389.1	0.1
BT	464.62	133	717	8.6	5,395.2	5,395.2	5,395.9	0.7
BU	466.71	716	1,609	3.9	5,408.0	5,408.0	5,408.4	0.4
BV	467.55	312	877	7.1	5,414.2	5,414.2	5,414.2	0.0
BW	467.75	160	828	7.5	5,415.4	5,415.4	5,415.4	0.0
BX	469.35	166	685	9.0	5,423.9	5,423.9	5,424.5	0.6
BY	471.60	722	1,609	3.9	5,437.6	5,437.6	5,437.8	0.2
BZ	473.21	891	782	7.9	5,448.9	5,448.9	5,448.9	0.0

[1]Thousands of feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLAINE COUNTY, IDAHO AND INCORPORATED AREAS

FLOODWAY DATA

BIG WOOD RIVER

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713- 3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from multiple sources. Base map files were provided in digital format by the State of Idaho and Blaine County. This information was compiled from the U.S. Geological Survey (2007), Blaine County GIS Department (2006), Idaho Department of Water Resources (2008), Idaho Bureau of Land Management (2005), NGS (2007), and the USDA-FSA (2004) at a scale of 1:24,000.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1- 877- FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip/.

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- **ZONE A** No Base Flood Elevations determined.
- **ZONE AE** Base Flood Elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- **ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- **ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- **ZONE D** Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% Annual Chance Floodplain Boundary
- 0.2% Annual Chance Floodplain Boundary
- Floodway Boundary
- Zone D Boundary
- CBRS and OPA Boundary
- Boundary Dividing Special Flood Hazard Areas of Different Base Flood Elevations, Flood Depths or Flood Velocities.
- 513 Base Flood Elevation line and value; elevation in feet*
- (EL 987) Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A Cross section line
- 27 — 27 Transect line
- 43° 02' 08", 93° 02' 12" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
- 5100000 FT 5000-foot ticks: Idaho State Plane Central Zone (FIPS Zone 1101). Transverse Mercator projection
- 4427000 M 1000-meter Universal Transverse Mercator grid values, zone 11N
- 2653510 X Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
November 26, 2010

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0664E

FIRM

FLOOD INSURANCE RATE MAP

BLAINE COUNTY, IDAHO AND INCORPORATED AREAS

PANEL 664 OF 2000
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BLAINE COUNTY	160027	0664	E
HAILEY, CITY OF	160022	0664	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
16013C0664E
EFFECTIVE DATE
NOVEMBER 26, 2010

Federal Emergency Management Agency

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from multiple sources. Base map files were provided in digital format by the State of Idaho and Blaine County. This information was compiled from the U.S. Geological Survey (2007), Blaine County GIS Department (2008), Idaho Department of Water Resources (2008), Idaho Bureau of Land Management (2005), NGS (2007), and the USDA-FSA (2004) at a scale of 1:24,000.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

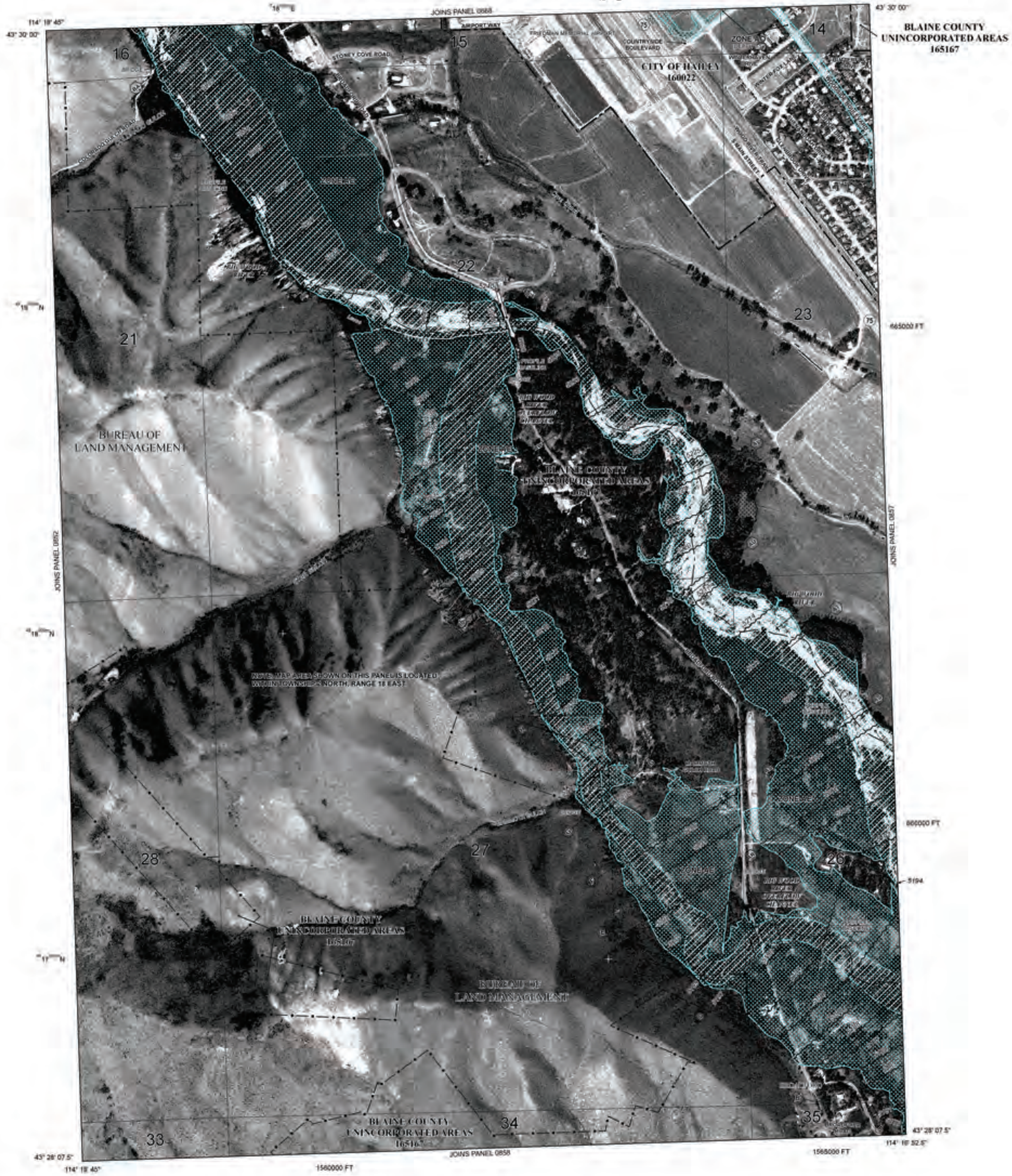
Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1- 877- FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip/.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% Annual Chance Floodplain Boundary
	0.2% Annual Chance Floodplain Boundary
	Floodway boundary
	Zone D Boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
~~ 513 ~~~	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

(A)——(A)	Cross section line
(23)- - - -(23)	Transect line
45° 02' 08", 93° 02' 12"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
5100000 FT	5000-foot ticks: Idaho State Plane Central Zone (FIPS Zone 1102), Transverse Mercator projection
	1000-meter Universal Transverse Mercator grid values, zone 11N
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP

November 26, 2010

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0856E

FIRM

FLOOD INSURANCE RATE MAP

BLAINE COUNTY, IDAHO

AND INCORPORATED AREAS

PANEL 856 OF 2000

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BLAINE COUNTY	[illegible]	[illegible]	[illegible]
HAILEY CITY OF	[illegible]	[illegible]	[illegible]

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
16013C0856E

EFFECTIVE DATE
NOVEMBER 26, 2010

Federal Emergency Management Agency

Return to Agenda

STAFF REPORT
Hailey Planning and Zoning Commission
Regular Meeting of May 20, 2024

To: Hailey Planning and Zoning Commission
From: Emily Rodrigue, City Planner/Resilience Planner

Overview: Consideration of a Design Review Application by Idaho Lumber and Ace Hardware, represented by Mark Gasenica, for the construction of a new 3,090 square foot addition, to be located at 921 Airport Way (Lot 7, Block 1, Friedman Park), within the Light Industrial (LI) Zoning District.

Hearing: May 20, 2024

Applicant: Idaho Lumber and Ace Hardware
Location: 921 Airport Way (Lot 7, Block 1, Friedman Park Subdivision)
Zoning/Size: Light Industrial (LI)/1.47 acres (64,033 sq. ft.)

Notice: Notice for the public hearing was published in the Idaho Mountain Express on April 30, 2024 and mailed to property owners within 300 feet on April 30, 2024.

Application: The Applicant is seeking approval to construct a 3,090 square foot addition to the existing commercial building known as Idaho Lumber and Ace Hardware. Additionally, the Applicant intends to reconfigure and formalize the property's onsite parking area along Airport Way, as well as install right-of-way improvements along the property's Airport Way frontage.

The programming of the proposed addition is as follows:

- 1,898 square feet of new ground-floor retail and storage space
- 976 square feet of new second-story office and breakroom space (directly above new ground-floor retail space)
- 216 square feet of new second-story deck space
- Twenty-six (26) newly striped, angled parking spaces in the existing parking area along Airport Way. This also includes one (1) ADA compliant parking space.
- New signage and site operations, directing all parking area traffic to move north to south when entering and exiting the lot.
- Right-of-way improvements along Airport Way, including curb and gutter, sidewalk, street trees, and landscaping buffer.

Access to the site will remain along Airport Way. However, the Applicant intends to install curb, gutter, and sidewalk features along the property's eastern frontage, limiting parking area access to a singular point of entry at the north end of the parking area, and a singular point of exit at the south end of the parking area. The Applicant also intends to add twenty-six (26) striped, angled parking spaces to the site's parking area. As it currently exists, the parking area has limited striped spaces, and it generally functions with "self-directed" parking. Ingress/egress occurs along the entirety of the Airport Way

property frontage. According to the Applicant - and anecdotally - the parking area has irregular parking patterns, unpredictable lines of sight, and can be somewhat chaotic to navigate. The Applicant hopes to improve both site safety and function with these parking area enhancements.

Staff would also like to note that they will be exploring joint parking area approach opportunities with the USPS property directly to the north. This research should not inhibit the Applicant's request, nor the Commission's decision, to construct the commercial addition.

The Applicant has also shown new, separated sidewalks along the entirety of the property's Airport Way frontage. City of Hailey Staff enthusiastically support the addition of this pedestrian feature, as there is currently limited sidewalk connectivity in this area of Airport Way, and the road has been previously designated as a multi-modal transit route for the City of Hailey. However, a "typical section" for street/right-of-way design (similar to that of River Street) does not currently exist for the Airport Way area. Community Development Staff are currently working closely with the Public Works Department, City Engineer, and City Administration to develop a typical section for this area of Hailey, so that future development may have design guidance and requirements that help build an integrated, attractive, well-functioning multi-modal transportation corridor along Airport Way.

The Applicant is strongly encouraged to work internally with Staff to design and implement right-of-way improvements that support broader Airport Way connectivity/"Complete Streets" and/or City of Hailey Standard Drawings in the future. This includes drought tolerant and/or pollinator-enhancing landscaping, as well as street trees and water-conserving irrigation. Not only will these additional right-of-way landscaping features enhance the visual value of Idaho Lumber and Ace Hardware, but these measures can greatly enhance the environmental resilience of this section of Airport Way.

Potential resilience benefits include:

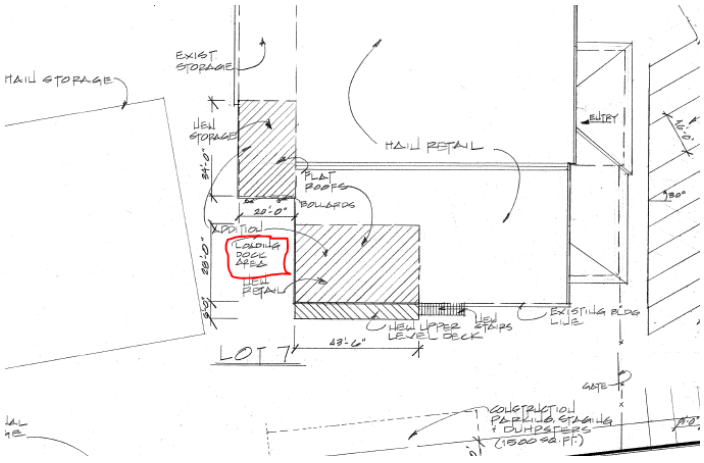
- Lower ambient air and radiative surface temperatures
- CO^2 absorption and improved air quality
- Improved precipitation runoff control, soil moisture, and groundwater retention
- Improved bird and insect habitat and pollination services

To further encourage such enhancements and support resilience benefits as aforesaid, this parcel is part of the newly created Airport Way Urban Renewal District (as of December 2021). Any public right-of-way enhancements, modifications, and/or development may qualify for reimbursement from the Urban Renewal Agency, of which Staff and the Applicant will work internally to formalize.

Given the information above, Staff encourages the Commission to consider the outsized impact that additional right-of-way landscaping will hold for this area, as asphalt surfaces and heavy vehicle, machinery, and aircraft traffic are dominating features in this reach of Airport Way.

Procedural History: The Application was submitted on April 23, 2024, and certified complete on April 24, 2024. A public hearing before the Planning and Zoning Commission for approval or denial of the project will be held on May 20, 2024, in the Council Chamber and virtually via Microsoft Teams.

General Requirements for all Design Review Applications				
Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**City Code**	**City Standards and *Staff Comments***
☒	☐	☐	**17.06.050**	*Complete Application*
☒	☐	☐	**Department Comments**	**Engineering and Streets:** *The Streets Division and the City Engineer are currently finalizing the required design specifications for the property's right-of-way area along Airport Way. They will ensure to communicate these standards promptly and comprehensively to the Applicant. The Applicant shall meet with City Staff to design and submit a final right-of-way improvement plan, to include but not be limited to: sidewalks, street trees, and low water and low maintenance landscaping, prior to the Applicant's submittal for a Building Permit. While Staff are requiring the public right-of-way infrastructure to be installed by the Applicant, if, after formalizing the Airport Way Typical Section, it is determined that an in-lieu fee for infrastructure would be more appropriate, Staff would like to retain this as a possible option. This has been made a Condition of Approval.*
				Life/Safety: *No comments.*
				Water and Sewer*: No comments.*
				Building: *No comments.*
☐	☐	☒	**17.08A Signs**	**17.08A Signs: The applicant is hereby advised that a sign permit is required for any signage exceeding four square feet in sign area. Approval of signage areas or signage plan in Design Review does not constitute approval of a sign permit.**
			Staff Comments	*Two (2) new signs are proposed for the site, utilized for directing vehicular traffic into and out of the onsite parking area. Each sign will be 12" tall, 18" wide, with appropriately alternating text (based on directionality) that directs traffic into and out of the site at singular points. The signs will be supported by a 2" square tube post, 8' tall.* *The Applicant is aware of the sign permit requirement; however, the size of signs proposed does not warrant a sign permit. If any future signage to the building occurs, an approved Sign Permit Application will be required prior to signage installation.*
☐?	☐	☐	**17.09.040 On-site Parking Req.**	**See Section 17.09.040 for applicable code.**

				Required: 1 space for 1,000 square feet, or, if the site is considered warehouse and storage, 1 space per every (full time) employee, whichever is greater.
			Staff Comments	*The Site Plan shows a total of twenty-six (26) onsite parking spaces, which includes one (1) accessible space. These spaces are head-in spaces accessed off of the public street, Airport Way. The Applicant is proposing to limit access to onsite parking to entry at the north end of the site, and exit at the south end of the site. City Regulations require that twenty-one (21) parking spaces be provided.* *Additional areas are available onsite for loading and warehouse activities. Pursuant Section 17.09.020.02, one (1) loading space shall be provided for any single retail, wholesale or warehouse occupancy with a floor area in excess of 4,000 square feet, except grocery and convenience stores. The existing and proposed total square area for retail/warehouse space at the site is 19,909 square feet. The Applicant has provided site plans that show one (1) loading dock area at the interior of the site, accessed via the existing south entry point, and located directly adjacent to the new storage and new retail spaces (see below).*  *The project meets the number of parking and loading spaces required by the Hailey Municipal Code.* *That said, Staff are aware that the Applicant currently uses a "back-in" approach along the south side of the existing building for freight access and large deliveries. This approach requires the vehicle driver to turn into the parking area on the opposite side of Airport Way (920 Airport Way, currently overflow parking for Karl Malone Ford), move in reverse across Airport Way, and temporarily block southern ingress/egress at the site. Given the Applicant's new proposed entry/exit scheme and parking area reconfiguration, Staff have some level of concern for ongoing site operation and freight delivery. The Applicant and the Commission may wish to discuss alternative parking area configurations (i.e., space locations and/or number of spaces provided) that would allow for an adequate turning radius of freight vehicles, while still ensuring parking requirements are met and pedestrian safety is upheld.*
			17.08C.040 Outdoor	**17.08C.040 General Standards**

☒	☐	☐	**Lighting Standards**	**a. All exterior lighting shall be designed, located and lamped in order to prevent:** **1. Overlighting;** **2. Energy waste;** **3. Glare;** **4. Light Trespass;** **5. Skyglow.** **b. All non-essential exterior commercial and residential lighting is encouraged to be turned off after business hours and/or when not in use. Lights on a timer are encouraged. Sensor activated lights are encouraged to replace existing lighting that is desired for security purposes.** **c. Canopy lights, such as service station lighting shall be fully recessed or fully shielded so as to ensure that no light source is visible from or causes glare on public rights of way or adjacent properties.** **d. Area lights. All area lights are encouraged to be eighty-five (85) degree full cut-off type luminaires.** **e. Idaho Power shall not install any luminaires after the effective date of this Article that lights the public right of way without first receiving approval for any such application by the Lighting Administrator**
			Staff Comments	*The Applicant is proposing four (4) new light fixtures that are downcast and utilize energy efficient LED bulbs. All proposed fixtures will be Dark Sky Compliant. Three (3) light fixtures will be located on the upper-level deck area, and one (1) light fixture will be placed adjacent to the new metal overhead door associated with the loading area.*
☒	☐	☐	**Bulk Requirements**	**Light Industrial (LI) Zone District:** - **Maximum Building Height: 35 feet** - **Front Yard Setback: 10 feet** - **Side Yard Setbacks: 10 feet** - **Rear Yard Setback: 10 feet** - **Lot Coverage: 75%**
			Staff Comments	*The Applicant is proposing:* - *Building Height: 27'-6"* - *Front Yard Setback: 143'* - *Side Yard Setbacks: 60' (south), 50' (north)* - *Rear Yard Setback: 150'* - *Lot Coverage: 37%* *All setbacks, building height and lot coverage requirements have been met.*
☒	☐	☐	**17.06.070(A)1** **Street Improvements Required**	**Sidewalks and drainage improvements are required in all zoning districts, except as otherwise provided herein.**
			Staff Comments	*No sidewalks exist along the property's Airport Way frontage, although this infrastructure does exist directly to the north of the site (Hailey Post Office), northeast of the site (Karl Malone Ford Dealership), and southeast of the site (Rocky Mountain Hardware). As discussed previously in this Staff Report, an Airport Way "typical section" is currently being developed by City of Hailey Staff. This will include sidewalks, as well as curb and gutter, landscaping, street trees, and possible bike*

				infrastructure. The Applicant has shown sidewalk infrastructure along Airport Way, which Staff are in full support of. However, Staff would like to ensure that any right-of-way improvements constructed in conjunction with this development are cohesive with long-range streetscape design standards for Airport Way, which will likely include other features, in addition to sidewalks. *The Applicant shall meet with City Staff to design and submit a final right-of-way improvement plan, to include but not be limited to: sidewalks, street trees, and low water and low maintenance landscaping, prior to the Applicant's submittal for a Building Permit. While Staff are requiring the public right-of-way infrastructure to be installed by the Applicant, if, after formalizing the Airport Way Typical Section, it is determined that an in-lieu fee for infrastructure would be more appropriate, Staff would like to retain this as a possible option. This has been made a Condition of Approval.*
☐	☐	☒	**17.06.070(B) Required Water System Improvements**	**In the Townsite Overlay District, any proposal for new construction or addition of a garage accessing from the alley, where water main lines within the alley are less than six (6) feet deep, the developer shall install insulating material (blue board insulation or similar material) for each and every individual water service line and main line between and including the subject property and the nearest public street, as recommended by the City Engineer.**
			Staff Comments	*N/A, as this parcel is not located within the Townsite Overlay (TO) Zoning District.*

Design Review Requirements for Non-Residential, Multifamily, and/or Mixed-Use Buildings within the City of Hailey

1. Site Planning: 17.06.080(A)1, items (a) thru (n)

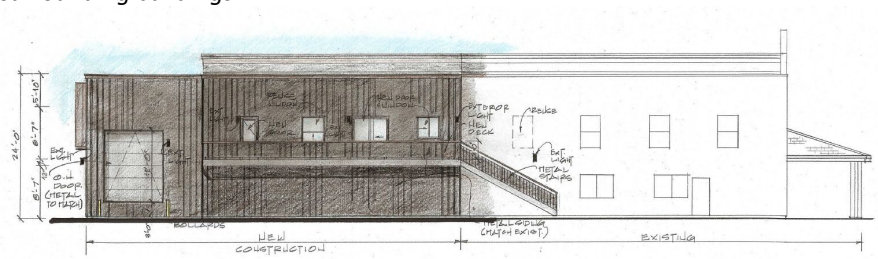
Compliant			Standards and Staff Comments	
Yes	**No**	**N/A**	**City Code**	**City Standards and *Staff Comments***
☒	☐	☐	**17.06.080(A)1a**	**a. The location, orientation and surface of buildings shall maximize, to the greatest extent possible sun exposure in exterior spaces to create spaces around buildings that are usable by the residents and allow for safe access to buildings.**
			Staff Comments	*The orientations of the proposed additions follow south (new retail, office/breakroom, exterior deck) and west-facing (new storage) patterns, respectively. The second-floor exterior deck will especially benefit from its south-facing orientation and southerly location in terms of sun exposure and the promotion of usable spaces.*

				Customer and employee access to the building will not change with the proposed additions.
☐	☐	☒	**17.06.080(A)1b**	**b. All existing plant material shall be inventoried and delineated, to scale, and noted whether it is to be preserved, relocated or removed. Removal of trees larger than 6-inch caliper proposed to be removed require an arborist review. Any tree destroyed or mortally injured after previously being identified to be preserved, or removed without authorization, shall be replaced with a species of tree found in the Tree Guide and shall be a minimum of 4-inch caliper.**
			Staff Comments	*N/A, as no existing plant material, trees and landscaping exists on the site.*
☐?	☐	☐	**17.06.080(A)1c**	**c. Site circulation shall be designed so pedestrians have safe access to and through the site and to building.**
			Staff Comments	*Generally speaking, safe access to the building will remain with the proposed additions, and day-to-day parking area safety enhancements are anticipated with the parking space striping and single-direction entry/exit circulation scheme.* *However, as previously mentioned in this Staff Report, freight delivery and truck onloading along the building's southern elevation may – at times - impact site circulation and safe access to buildings, especially for pedestrians. The Applicant and the Commission may wish to discuss alternative parking area configurations (i.e., space locations and/or number of spaces provided) that would allow for an adequate turning radius of freight vehicles, while still ensuring parking requirements are met and overall pedestrian safety is upheld. While Staff are requiring the public right-of-way infrastructure to be installed by the Applicant, if, after formalizing the Airport Way Typical Section, it is determined that an in-lieu fee for infrastructure would be more appropriate, Staff would like to retain this as a possible option.*
☒	☐	☐	**17.06.080(A)1d**	**d. Building services including loading areas, trash storage/pickup areas and utility boxes shall be located at the rear of a building; the side of the building adjacent to an internal lot line may be considered as an alternate location. These areas shall be designed in a manner to minimize conflict among uses and shall not interfere with other uses, such as snow storage. These areas shall be screened with landscaping, enclosures, fencing or by the principal building.**
			Staff Comments	*The loading area shown on site plans is located at the rear of the existing building, which also serves as a screening mechanism for the loading area from Airport Way and the retail entrance to Idaho Lumber and Ace Hardware.*
☐	☐	☒	**17.06.080(A)1e**	**e. Where alleys exist, or are planned, they shall be utilized for building services.**
			Staff Comments	*N/A, as no alley exists and none is proposed.*
☐	☐	☒	**17.06.080(A)1f**	**f. Vending machines located on the exterior of a building shall not be visible from any street.**
			Staff Comments	*N/A, as no vending machines are proposed.*
☒	☐	☐	**17.06.080(A)1g**	**g. On-site parking areas shall be located at the rear of the building and screened from the street. Parking and access shall not be obstructed by snow accumulation. *(NOTE: If project is located in Airport West Subdivision, certain standards may apply that are not listed here. See code for details.)*** **i. Parking areas located within the SCI zoning district may be located at the side or rear of the building.** **ii. Parking areas may be considered at the side of buildings within the B, LB, TI and LI zoning districts provided a useable prominent**

				entrance is located on the front of the building and the parking area is buffered from the sidewalk adjacent to the street.
			Staff Comments	*The project is located within the Light Industrial (LI) Zoning District. A usable, prominent entrance for the existing building is located at the front of the building, facing Airport Way. However, this parking area is neither at the rear nor the side of the existing building and proposed additions. In the interest of minimizing further surface disruption, material expenditure, and burden to the Applicant, Staff are amenable to existing onsite parking remaining at the front of the building, where it is currently located.* *However, Staff would like to see the Applicant make every effort to buffer this parking area from Airport Way and adjacent sidewalks through the addition of landscaping and street trees. The Applicant shall buffer the front parking area from Airport Way and the adjacent sidewalk through the installation of landscaping and street trees. This has been made a Condition of Approval.*
☒	☐	☐	**17.06.080(A)1h**	**h. Access to on-site parking shall be from the alley or, if the site is not serviced by an alley, from a single approach to the street to confine vehicular/pedestrian conflict to limited locations, allow more buffering of the parking area and preserve the street frontage for pedestrian traffic.**
			Staff Comments	*This site is not serviced by an alley, and the Applicant is proposing to adjust the site's current vehicular access. With no sidewalk or curb and gutter currently existing along the site's Airport Way frontage, vehicular access to the parking area is completely unrestricted and unpredictable.* *The Applicant is now proposing to install a sidewalk and curb and gutter, limiting entry and exit to the parking area to single points at the north (entry point) and south (exit point) of the property's Airport Way frontage.*
☐	☐	☒	**17.06.080(A)1i**	**i. Snow storage areas shall be provided on-site where practical and sited in a manner that is accessible to all types of snow removal vehicles of a size that can accommodate moderate areas of snow.**
			Staff Comments	*N/A. All snow is to be removed and stored off-site, according to the Applicant.*
☐	☐	☒	**17.06.080(A)1j**	**j. Snow storage areas shall not be less than 25% of the improved parking and vehicle and pedestrian circulation areas.**
			Staff Comments	*N/A. See Standard (i) above.*
☐	☐	☒	**17.06.080(A)1k**	**k. A designated snow storage area shall not have any dimension less than 10 feet.**
			Staff Comments	*N/A. See Standard (i) above.*
☐	☐	☒	**17.06.080(A)1l**	**l. Hauling of snow from downtown areas is permissible where other options are not practical.**
			Staff Comments	*N/A. See Standard (i) above.*
☐	☐	☒	**17.06.080(A)1m**	**m. Snow storage areas shall not impede parking spaces, vehicular and pedestrian circulation or line of sight, loading areas, trash storage/pickup areas, service areas or utilities.**
			Staff Comments	*N/A. See Standard (i) above.*
			17.06.080(A)1n	**n. Snow storage areas shall be landscaped with vegetation that is salt-tolerant and resilient to heavy snow.**

☐	☐	☒		
			Staff Comments	*N/A. See Standard (i) above.*

2. Building Design: 17.06.080(A)2, items (a) thru (m)

Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**City Code**	**City Standards and *Staff Comments***
☒	☐	☐	**17.06.080(A)2a**	**a. The proportion, size, shape and rooflines of new buildings shall be compatible with surrounding buildings.**
			Staff Comments	*The proportion, size, shape, and roof profile of the proposed addition will match the existing building. The addition will be fully compatible with the existing and surrounding buildings.*  SOUTH ELEVATION
☒	☐	☐	**17.06.080(A)2b**	**a. Standardized corporate building designs are prohibited.**
			Staff Comments	*The building is a very functional building and is not a standardized corporate design.*
☒	☐	☐	**17.06.080(A)2c**	**b. At ground level, building design shall emphasize human scale, be pedestrian oriented and encourage human activity and interaction.**
			Staff Comments	*The proposed addition design will match that of the existing building. A new second-floor deck feature is proposed, with a metal staircase providing second-floor deck access from the ground level. This staircase feature will emphasize human scale and is pedestrian oriented. The front façade of the existing building will not be altered in any way. However, the parking area adjacent to Airport Way will be redesigned to limit vehicular entry/exit to singular points, and a new sidewalk and curb and gutter (at minimum) is proposed along the property's Airport Way frontage. These site design adjustments will greatly enhance the pedestrian orientation and human scale, activity, and interaction of the site.*
☒	☐	☐	**17.06.080(A)2d**	**c. The front façade of buildings shall face the street and may include design features such as windows, pedestrian entrances, building off-sets, projections, architectural detailing, courtyards and change in materials or similar features to create human scale and break up large building surfaces and volumes.**
			Staff Comments	*N/A. No changes to the front façade of the existing building are proposed.*

☒	☐	☐	**17.06.080(A)2e**	**d. Any addition onto or renovation of an existing building shall be designed to create a cohesive whole.**
			Staff Comments	*The proposed additions to Idaho Lumber and Ace Hardware will match the existing building design, materials, scale, and function. The Applicant has taken care to design a very cohesive addition to the building.*
☒	☐	☐	**17.06.080(A)2f**	**e. All exterior walls of a building shall incorporate the use of varying materials, textures and colors.**
			Staff Comments	*All new exterior walls of the proposed addition will match that of the existing building. Metal is the primary material type for the addition, including for the building siding and new exterior staircase. However, the different forms and functions of this metal material will create variety within this addition and across the existing building as a whole.*
☒	☐	☐	**17.06.080(A)2g**	**f. Exterior buildings colors and materials shall be integrated appropriately into the architecture of the building and be harmonious within the project and with surrounding buildings.**
			Staff Comments	*See Section (d) for how this Standard is met.*
☒	☐	☐	**17.06.080(A)2h**	**g. Flat-roofed buildings over two stories in height shall incorporate roof elements such as parapets, upper decks, balconies or other design elements.**
			Staff Comments	*A new parapet, visible from the existing building's north, west, and south elevations, is included as part of the addition's exterior building design. This roof element will add visual interest to the flat-roofed design of the existing structure.*
☒	☐	☐	**17.06.080(A)2i**	**i. All buildings shall minimize energy consumption by utilizing alternative energy sources and/or passive solar techniques. At least three (3) of the following techniques, or an approved alternative, shall be used to improve energy cost savings and provide a more comfortable and healthy living space:** **i. Solar Orientation. If there is a longer wall plane, it shall be placed on an east-west axis. A building's wall plane shall be oriented within 30 degrees of true south.** **ii. South facing windows with eave coverage. At least 40% of the building's total glazing surface shall be oriented to the south, with roof overhang or awning coverage at the south.** **iii. Double glazed windows.** **iv. Windows with Low Emissivity glazing.** **v. Earth berming against exterior walls** **vi. Alternative energy. Solar energy for electricity or water heating, wind energy or another approved alternative shall be installed on-site.** **vii. Exterior light shelves. All windows on the southernmost facing side of the building shall have external light shelves installed.**
			Staff Comments	*The Applicant has stated that the project meets this Standard in the following ways:* *i. The building's east-west façade is longer than its north-south, and it is oriented 27 degrees east of south.* *ii. 60% of the building's windows will be on the south elevation – although no roof/overhang will be present.* *iii. Windows will be double-glazed.* *iv. Windows will incorporate low emissivity glazing.*
☒	☐	☐	**17.06.080(A)2j**	**j. Gabled coverings, appropriate roof pitch, or snow clips and/or gutters and downspouts shall be provided over all walkways and entries to prevent snow from falling directly onto adjacent sidewalks.**

			Staff Comments	*The building addition's roof pitch will be sloping towards the addition's center, with drains routed to a drywell, according to the Applicant.*
☒	☐	☐	**17.06.080(A)2k**	**k. Downspouts and drains shall be located within landscape areas or other appropriate locations where freezing will not create pedestrian hazards.**
			Staff Comments	*According to the Applicant, all catch basins and drains currently on-site (seven (7) total) are to remain, except for the one (1) catch basin and dry well feature set that is located where the proposed new retail space will be built. The Applicant has stated that this catch basin/dry well will be relocated.* *The Applicant shall ensure that any relocation of catch basins and dry wells is approved by the Public Works Department and will not create pedestrian hazards, prior to issuance of a Building Permit. This has been made a Condition of Approval.*
☐	☐	☒	**17.06.080(A)2l**	**l. Vehicle canopies associated with gas stations, convenience stores or drive-through facilities shall have a minimum roof pitch of 3/12 and be consistent with the colors, material and architectural design used on the principal building(s).**
			Staff Comments	*N/A, as no vehicle canopies are proposed.*
☒	☐	☐	**17.06.080(A)2m**	**m. A master plan for signage is required to ensure the design and location of signs is compatible with the building design and compliance with Chapter 17.08.**
			Staff Comments	*Building signage has been shown on the elevations. Prior to installation, the Applicant shall submit a Sign Permit Application and receive approval for all building signage. This has been made a Condition of Approval.*

3. Accessory Structures, Fences and Equipment/Utilities: 17.06.080(A)3, items (a) thru (i)

Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**City Code**	**City Standards and *Staff Comments***
☐	☐	☒	**17.06.080(A)3a**	**a. Accessory structures shall be designed to be compatible with the principal building(s).**
			Staff Comments	*N/A, as no accessory structures are proposed at this time.*
☐	☐	☒	**17.06.080(A)3b**	**b. Accessory structures shall be located at the rear of the property.**
			Staff Comments	*N/A, as no accessory structures are proposed at this time.*
☐	☐	☒	**17.06.080(A)3c**	**c. Walls and fences shall be constructed of materials compatible with other materials used on the site.**
			Staff Comments	*N/A, as no new walls or fences are proposed at this time.*
☐	☐	☒	**17.06.080(A)3d**	**d. Walls and fencing shall not dominate the buildings or the landscape. Planting should be integrated with fencing in order to soften the visual impact.**
			Staff Comments	*N/A, as no new walls or fences are proposed at this time.*
			17.06.080(A)3e	**e. All roof projections including, roof-mounted mechanical equipment, such as heating and air conditioning units, but excluding solar panels and Wind**

☐	☐	☒		**Energy Systems that have received a Conditional Use Permit, shall be shielded and screened from view from the ground level of on-site parking areas, adjacent public streets and adjacent properties.**
			Staff Comments	*N/A, as no roof-mounted equipment is proposed at this time. If any mechanical equipment, roof or ground-mounted, is installed, it shall be located at the rear of the building and/or screened from view at ground level. This has been made a Condition of Approval.*
☐	☐	☒	**17.06.080(A)3f**	**f. The hardware associated with alternative energy sources shall be incorporated into the building's design and not detract from the building and its surroundings.**
			Staff Comments	*N/A, as no alternative energy sources are proposed at this time.*
☐	☐	☒	**17.06.080(A)3g**	**g. All ground-mounted mechanical equipment, including heating and air conditioning units, and trash receptacle areas shall be adequately screened from surrounding properties and streets by the use of a wall, fence, or landscaping, or shall be enclosed within a building.**
			Staff Comments	*N/A, as no new ground-mounted equipment or trash receptacle areas are proposed with this project.*
☒	☐	☐	**17.06.080(A)3h**	**h. All service lines into the subject property shall be installed underground.**
			Staff Comments	*All services lines will be installed underground.*
☐	☐	☒	**17.06.080(A)3i**	**i. Additional appurtenances shall not be located on existing utility poles.**
			Staff Comments	*N/A, as none are proposed at this time.*

4. Landscaping: 17.06.080(A)4, items (a) thru (n)

Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**City Code**	**City Standards and *Staff Comments***
☒	☐	☐	**17.06.080(A)4a**	**a. Only drought tolerant plant species and/or xeriscape specific plant materials shall be used, as specified by the Hailey Landscaping Manual or an approved alternative.**
			Staff Comments	*As noted previously in this Staff Report and within the listed Conditions of Approval, the Applicant will be required to install street trees and/or landscaping along the property's right-of-way frontage. Any new plantings required with the project shall be drought tolerant and/or xeriscape specific plant materials. This has been made a Condition of Approval.*
☒	☐	☐	**17.06.080(A)4b**	**b. All plant species shall be hardy to the Zone 4 environment.**
			Staff Comments	*As noted previously in this Staff Report and within the listed Conditions of Approval, the Applicant will be required to install street trees and/or landscaping along the property's right-of-way frontage. All plant species shall be hardy to the Zone 4 environment. This has been made a Condition of Approval.*
			17.06.080(A)4c	**c. At a minimum, a temporary irrigation system that fully operates for at least two complete growing seasons is required in order to establish drought**

☒	☐	☐		**tolerant plant species and/or xeriscape specific plant materials. Features that minimize water use, such as moisture sensors, are encouraged.**
			Staff Comments	*As noted previously in this Staff Report and within the listed Conditions of Approval, the Applicant will be required to install street trees and/or landscaping along the property's right-of-way frontage. The Applicant shall install a temporary irrigation system that fully operates for at least two (2) complete growing seasons, which shall also include features that minimize water use. This has been made a Condition of Approval.*
☐	☐	☒	**17.06.080(A)4d**	**d. Landscaped areas shall be planned as an integral part of the site with consideration of the urban environment. A combination of trees shrubs, vines, ground covers and ornamental grasses shall be used. Newly landscaped areas shall include trees with a caliper of no less than two and one-half inches (2 ½"). A maximum of twenty percent (20%) of any single tree species shall not be exceeded in any landscape plan, which includes street trees. New planting areas shall be designed to accommodate typical trees at maturity. Buildings within the LI and SCI-I Zoning Districts are excluded from this standard.**
			Staff Comments	*The project is located within the Light Industrial (LI) Zoning District and is excluded from this standard.*
☐?	☐	☐	**17.06.080(A)4e**	**e. Seasonal plantings in planter boxes, pots, and/or hanging baskets shall be provided to add color and interest to the outside of buildings in the LI and SCI-I zoning districts.**
			Staff Comments	*This project is located within the Light Industrial (LI) Zoning District; therefore, seasonal plantings are required. No seasonal plantings have been shown on the plan set. The Applicant shall confirm if Idaho Lumber and Ace Hardware is already including seasonal plantings on site, in conjunction with the existing building and store front. Unless confirmed by the Applicant to have seasonal plantings currently onsite, this has been made a Condition of Approval.*
☐	☐	☒	**17.06.080(A)4f**	**f. Plantings for pedestrian areas within the B, LB, TN and SCI-O zoning districts shall be designed with attention to the details of color, texture and form. A variety of trees, shrubs, perennials, ground covers and seasonal plantings, with different shapes and distinctive foliage, bark and flowers shall be used in beds, planter boxes, pots, and/or hanging baskets.**
			Staff Comments	*N/A, as this project is located within the Light Industrial (LI) Zoning District and landscaping of this scale is not required.*
☐	☐	☒	**17.06.080(A)4g**	**g. Storm water runoff should be retained on the site wherever possible and used to irrigate plant materials.**
			Staff Comments	*Runoff is directed toward drywells located within the shop yard. Any new plant materials will be within the City right-of-way, and therefore irrigated with the existing City water irrigation system.*
☐	☐	☒	**17.06.080(A)4h**	**h. A plan for maintenance of the landscaping areas is required to ensure that the project appears in a well-maintained condition (i.e., all weeds and trash removed, dead plant materials removed and replaced).**
			Staff Comments	*N/A, as no onsite landscaped areas are proposed. All landscaping will occur within the City's right-of-way, and maintenance will be managed according to Streets Department operations and standards.*
☐	☐	☒	**17.06.080(A)4i**	**i. Retaining walls shall be designed to minimize their impact on the site and the appearance of the site.**
			Staff Comments	*N/A, as no retaining walls are proposed.*
☐	☐	☒	**17.06.080(A)4j**	**j. Retaining walls shall be constructed of materials that are utilized elsewhere on the site, or of natural or decorative materials.**
			Staff Comments	*N/A, as no retaining walls are proposed.*

☐	☐	☒	**17.06.080(A)4k**	**k. Retaining walls, where visible to the public and/or to residents or employees of the project, shall be no higher than four feet or terraced with a three-foot horizontal separation of walls.**
			Staff Comments	*N/A, as no retaining walls are proposed.*
☐	☐	☒	**17.06.080(A)4l**	**l. Landscaping should be provided within or in front of extensive retaining walls.**
			Staff Comments	*N/A, as no retaining walls are proposed, nor is landscaping proposed or required.*
☐	☐	☒	**17.06.080(A)4m**	**m. Retaining walls over 24" high may require railings or planting buffers for safety.**
			Staff Comments	*N/A, as no retaining walls are proposed.*
☐	☐	☒	**17.06.080(A)4n**	**n. Low retaining walls may be used for seating if capped with a surface of at least 12 to 16 inches wide.**
			Staff Comments	*N/A, as no retaining walls are proposed.*

Additional Design Review Requirements for all Non-Residential Buildings located within the LI, SCI, TI or A Zoning Districts

1. Site Planning: 17.06.080 (C) 1, items (a) thru (c)

Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**City Code**	**City Standards and *Staff Comments***
☒	☐	☐	**17.06.080(C) 1a**	**a. Adjoining parcels shall be considered when planning building configuration, vehicular circulation and access, parking, and drainage.**
			Staff Comments	*Adjoining parcels include other light industrial buildings and storage. The proposed design, circulation, access, parking, and drainage do not conflict with the adjoining parcels.*
☐?	☐	☐	**17.06.080(C) 1b**	**b. Reciprocal vehicular ingress and egress, circulation, and parking arrangements are encouraged when the adjacent site(s) allows in order to facilitate the ease of vehicular movement between adjoining properties.**
			Staff Comments	*See Section 17.09.040 for details on ingress, egress, and site circulation. The Applicant and the Commission may wish to discuss alternative parking area configurations, and/or adjoining parcel parking arrangements, which allow for parking requirements to be met, pedestrian safety to be upheld, and conflicts with freight vehicle movement and loading/unloading activities to be minimized.*
☐?	☐	☐	**17.06.080(C) 1b**	**c. Vehicle circulation, parking and loading shall not block pedestrian access ways.**
			Staff Comments	*See Section 17.06.080(C) 1b.*

17.06.060 Criteria.

A. The Commission or Hearing Examiner shall determine the following before approval is given:

1. **The project does not jeopardize the health, safety or welfare of the public.**
2. **The project conforms to the applicable specifications outlined in the Design Review Guidelines, as set forth herein, applicable requirements of the Hailey Municipal Code Zoning Ordinance, and City Standards.**

B. Conditions. The Commission or Hearing Examiner may impose any condition deemed necessary. The Commission or Hearing Examiner may also condition approval of a project with subsequent review and/or approval by the Administrator or Planning Staff. Conditions which may be attached include, but are not limited to those which will:

1. **Ensure compliance with applicable standards and guidelines.**
2. **Require conformity to approved plans and specifications.**
3. **Require security for compliance with the terms of the approval.**
4. **Minimize adverse impact on other development.**
5. **Control the sequence, timing and duration of development.**
6. **Assure that development and landscaping are maintained properly.**
7. **Require more restrictive standards than those generally found in the Hailey Municipal Code.**

C. Security. The applicant may, in lieu of actual construction of any required or approved improvement, provide to the City such security as may be acceptable to the City, in a form and in an amount equal to the cost of the engineering or design, materials and installation of the improvements not previously installed by the applicant, plus fifty percent (50%), which security shall fully secure and guarantee completion of the required improvements within a period of one (1) year from the date the security is provided.

1. **If any extension of the one-year period is granted by the City, each additional year, or portion of each additional year, shall require an additional twenty percent (20%) to be added to the amount of the original security initially provided.**
2. **In the event the improvements are not completely installed within one (1) year, or upon the expiration of any approved extension, the City may, but is not obligated, to apply the security to the completion of the improvements and complete construction of the improvements.**

The following conditions are suggested to be placed on approval of this Application:

a) All applicable Fire Department and Building Department requirements shall be met.
b) Any change in use or occupancy type from that approved at time of issuance of Building Permit may require additional improvements and/or approvals. Additional parking may also be required upon subsequent change in use, in conformance with Hailey Municipal Code at the time of the new use.

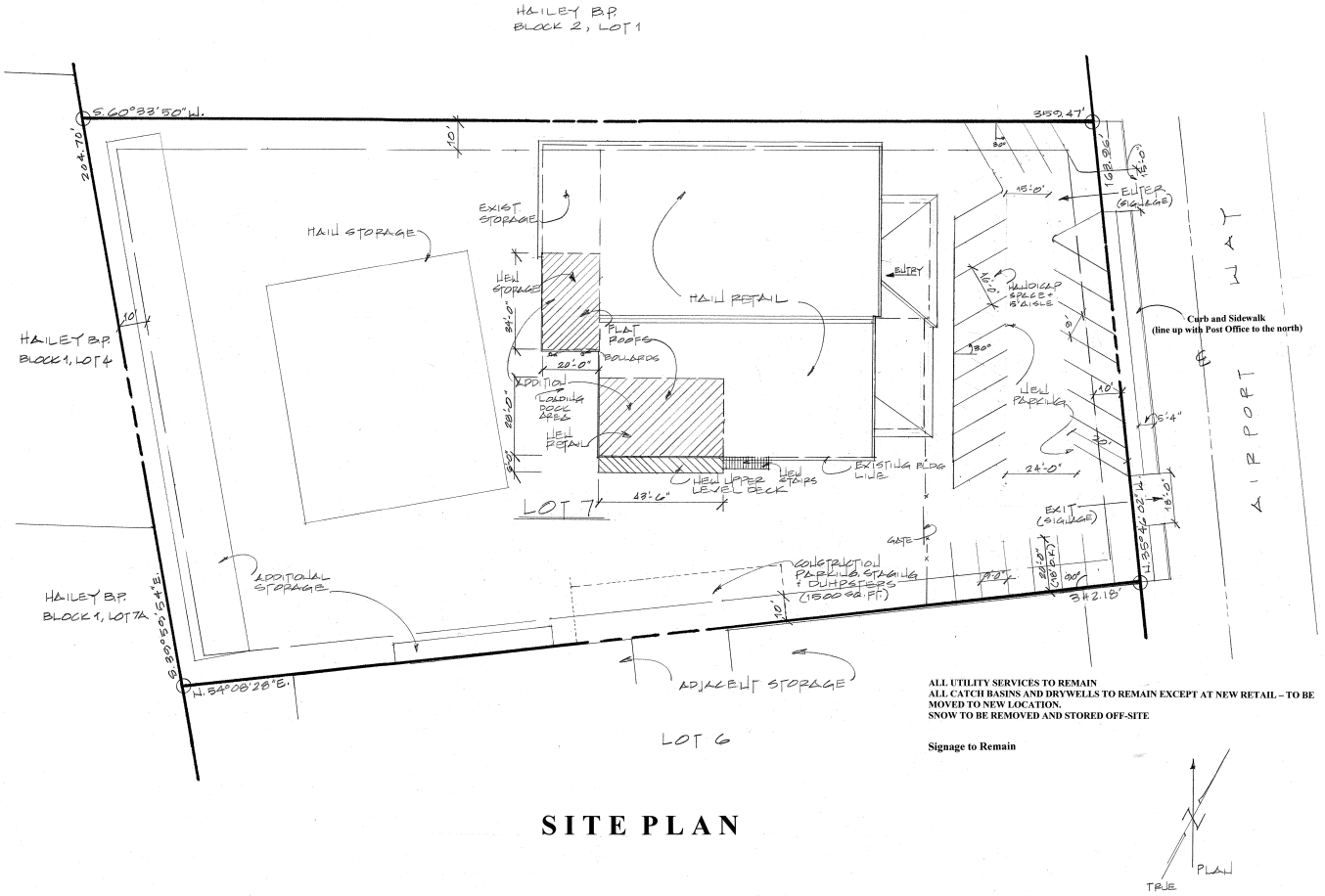
c) All City infrastructure requirements shall be met, and plans shall be modified to meet the comments herein. Infrastructure plans shall be stamped by a licensed engineer. Detailed plans for all infrastructure to be installed or improved at or adjacent to the site shall be submitted for Department Head approval and shall meet City Standards where required. Infrastructure to be completed at the Applicant's sole expense includes, but will not be limited to, the following requirements and improvements:
    i. The Applicant shall meet with City Staff to confirm all right-of-way improvement standards, or a reasonable in-lieu fee, prior to the Applicant's submittal for a Building Permit.
    ii. The Applicant shall ensure that any relocation of catch basins and dry wells is approved by the Public Works Department and will not create pedestrian hazards, prior to issuance of a Building Permit.
    iii. A Right-of-Way Maintenance Agreement shall be adopted by the City Council prior to issuance of a Certificate of Occupancy.
d) The Applicant shall buffer the front parking area from Airport Way and the adjacent sidewalk through the installation of landscaping and street trees.
e) Any new plantings required with the project shall be drought tolerant and/or xeriscape specific plant materials.
f) The Applicant shall install a temporary irrigation system that fully operates for at least two (2) complete growing seasons, which shall also include features that minimize water use.
g) The Applicant shall confirm if Idaho Lumber and Ace Hardware is already including seasonal plantings on site, in conjunction with the existing building and store front, and shall include seasonal plantings on site if seasonal plantings are not found to be present/utilized.
h) The project shall be constructed in accordance with the application or as modified by the Findings of Fact, Conclusions of Law, and Decision.
i) All exterior lighting shall comply with the Outdoor Lighting requirements according to 17.08C.
j) Except as otherwise provided, all the required improvements shall be constructed and completed, or sufficient security provided as approved by the City Attorney, before a Certificate of Occupancy can be issued.
k) This Design Review approval is for the date the Findings of Fact are signed. The Planning & Zoning Administrator has the authority to approve minor modifications to this project prior to, and for the duration of a valid Building Permit.
l) All utilities shall be located underground, consistent with 17.06.080(A)3h, and shall be shown on the Building Permit submittal.
m) A Sign Permit Application shall be submitted and approved prior to installation of building signage.
n) All roof and ground-mounted equipment shall be located to the rear of the building and/or screen from view at ground level.
o) The Applicant shall show the locations of all street trees, including dimensionally correct locations and sizes of the tree wells with the footprint of the suitable soil, structural soil, or suspended pavement areas. Said exhibit shall include the supporting mathematical calculations and shall be supplied at the time of Building Permit submittal. The exhibit shall also include a checklist for use during construction inspections, as directed by City Staff.
p) The Applicant shall include street tree species per the recommendation of the Hailey Tree Committee, and in congruence with design/species presented in the Hailey Downtown Master Plan (draft or other).

q) Prior to final design, Staff and the Applicant will meet internally to finalize site details. If construction occurs prior to Staff review and approval of the final design, any and all site and/or right-of-way infrastructure installed may need to be removed and/or modified at the sole expense of the Applicant.

Motion Language:
Approval: Motion to approve the Design Review Application by Idaho Lumber and Ace Hardware, represented by Mark Gasenica, for the construction of a new 3,090 square foot addition, to be located at 921 Airport Way (Lot 7, Block 1, Friedman Park), within the Light Industrial (LI) Zoning District, finding that the project does not jeopardize the health, safety or welfare of the public and the project conforms to the applicable specifications outlined in the Design Review Guidelines, applicable requirements of the Hailey Municipal Code Titles 17 and 18, and City Standards, provided conditions (a) through (q) are met.

Denial: Motion to deny the Design Review Application by Idaho Lumber and Ace Hardware, represented by Mark Gasenica, for the construction of a new 3,090 square foot addition, to be located at 921 Airport Way (Lot 7, Block 1, Friedman Park), within the Light Industrial (LI) Zoning District, finding that _____ [the Commission should cite which standards are not met and provide the reason why each identified standard is not met].

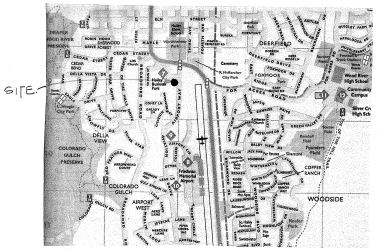
Continuation: Motion to continue the public hearing to_____ [Commission should specify a date].



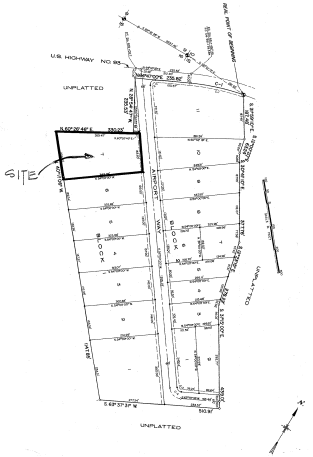
SITE PLAN

ALL UTILITY SERVICES TO REMAIN
ALL CATCH BASINS AND DRYWELLS TO REMAIN EXCEPT AT NEW RETAIL – TO BE MOVED TO NEW LOCATION.
SNOW TO BE REMOVED AND STORED OFF-SITE

Signage to Remain



VICINITY MAP
N.T.S.



NEIGHBORHOOD MAP
N.T.S.

LEGAL DESCRIPTION

Friedman Park Subdivision
Lot 7, Block 1
921 Airport Way
Hailey, Idaho

Zoning LI
Group M, B, S1 Occupancy
Type V-N Construction, Sprinklered

Area of Lot (1.471ac.)	**64219 sq.ft.**
Existing Main Level	**11802 sq.ft.**
Additional Main Level	**1898 sq.ft.**
Total Main Level	**13700 sq.ft.**
Existing Upper Level	**776 sq.ft.**
Additional Upper Level	**976 sq.ft.**
Total Upper Level	**1752 sq.ft.**
Additional Upper Level Deck	**216 sq.ft.**
Total Building	**15668 sq.ft.**
Existing Outbuilding Storage	**6209 sq.ft.**
Total Building Square Footage	**21877 sq.ft.**
Lot Coverage	**37.3%**
Building Height	**24'-0" @ Addition (34'-6" @ Existing East Parapet)**

LICENSED ARCHITECT AR-1645
MARK GASENICA STATE OF IDAHO
4-22-2024

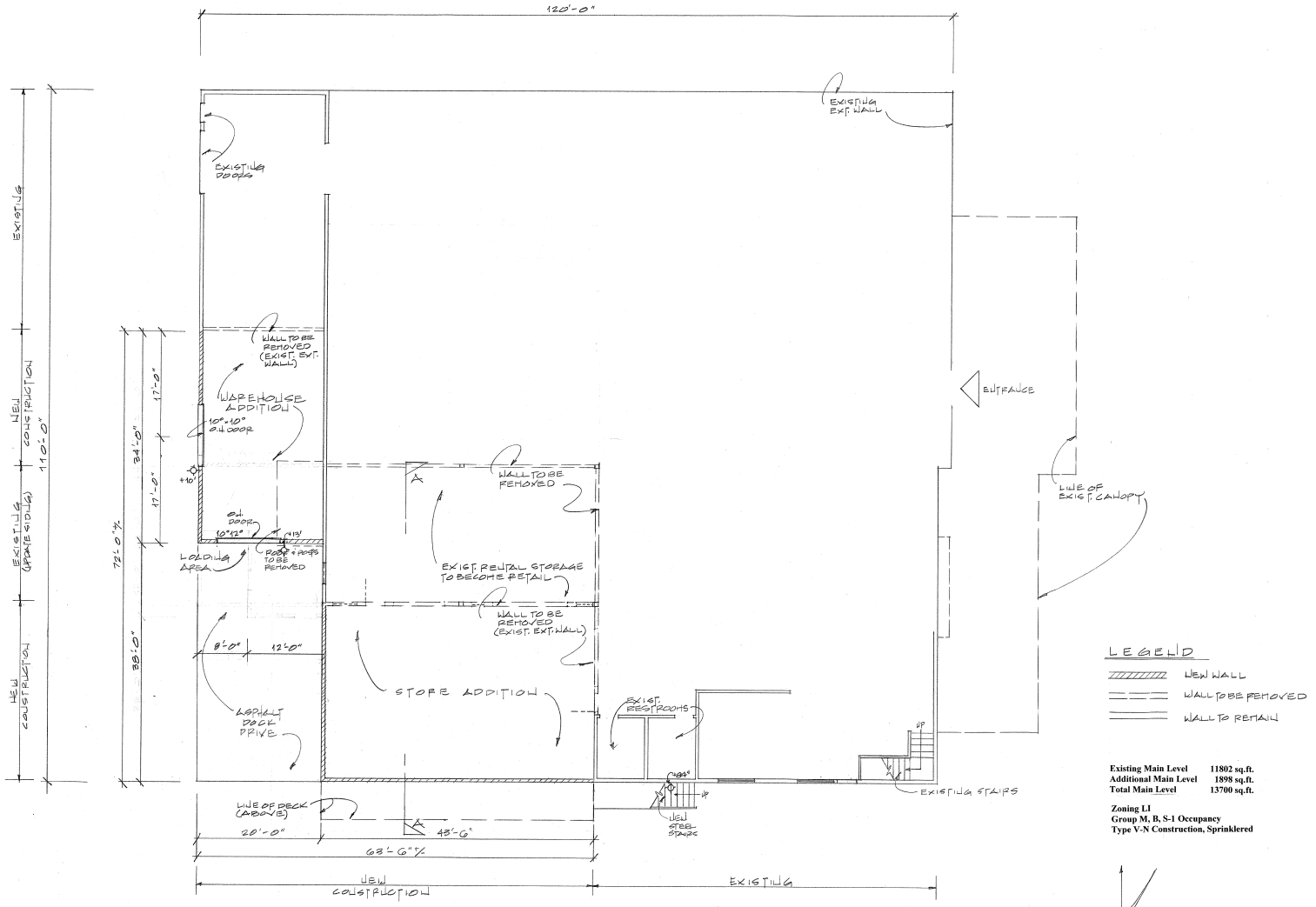
MARK A. GASENICA ARCHITECT
ARCHITECTURE PLANNING PROJECT MANAGEMENT
PO BOX 4573 KETCHUM, IDAHO 83340 208.720.1569

A REMODEL/ADDITION TO THE
IDAHO LUMBER AND ACE HARDWARE
HAILEY, IDAHO

SITE PLAN

SCALE 1" = 20'-0"

A1.0



MAIN LEVEL FLOOR PLAN

LEGEND

- NEW WALL
- WALL TO BE REMOVED
- WALL TO REMAIN

Existing Main Level	**11802 sq.ft.**
Additional Main Level	**1898 sq.ft.**
Total Main Level	**13700 sq.ft.**

Zoning LI
Group M, B, S-1 Occupancy
Type V-N Construction, Sprinklered

TRUE NORTH
PLAN NORTH

LICENSED ARCHITECT AR-1048 — MARK ALAN GASENICA — STATE OF IDAHO

4-22-2024

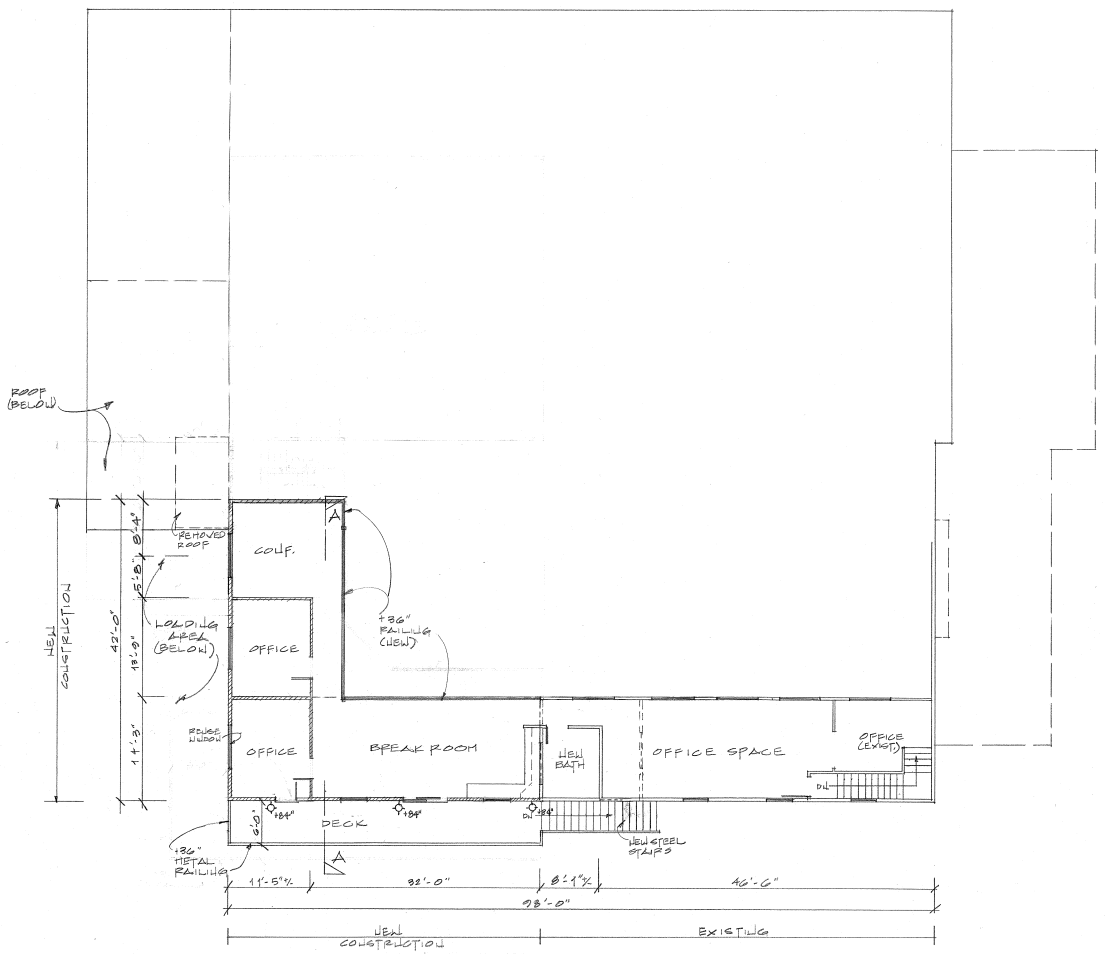
MARK A. GASENICA ARCHITECT
ARCHITECTURE PLANNING PROJECT MANAGEMENT
PO BOX 4573 KETCHUM, IDAHO 83340 208.720.1569

A REMODEL/ADDITION TO THE
IDAHO LUMBER AND ACE HARDWARE
HAILEY, IDAHO

MAIN LEVEL FLOOR PLAN

SCALE 1/8" = 1'-0"

A2.0



UPPER LEVEL FLOOR PLAN

LEGEND

- NEW WALL
- WALL TO BE REMOVED
- WALL TO REMAIN

Existing Upper Level	**776 sq.ft.**
Additional Upper Level	**976 sq.ft.**
Total Upper Level	**1752 sq.ft.**

Zoning LI
Group M, B, S-1 Occupancy
Type V-N Construction, Sprinklered

TRUE NORTH / PLAN NORTH

LICENSED ARCHITECT AR-1845 — MARK GASENICA — STATE OF IDAHO

4-22-2024

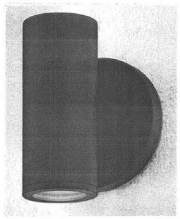
MARK A. GASENICA ARCHITECT
ARCHITECTURE PLANNING PROJECT MANAGEMENT
PO BOX 4573 KETCHUM, IDAHO 83340 208.720.1569

A REMODEL/ADDITION TO THE
IDAHO LUMBER AND ACE HARDWARE
HAILEY, IDAHO

UPPER LEVEL FLOOR PLAN

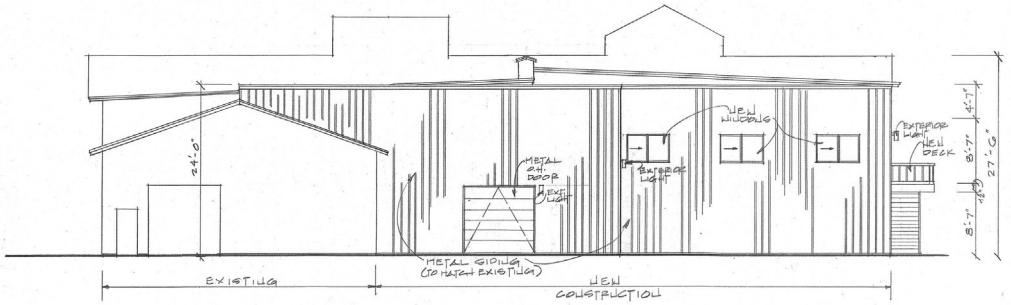
SCALE 1/8" = 1'-0"

A3.0



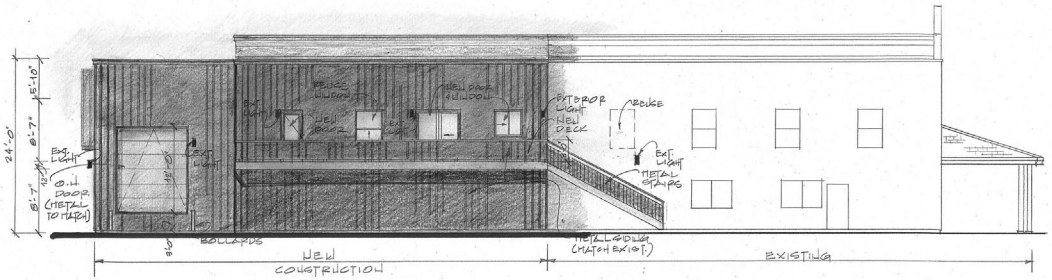
EXTERIOR WALL LIGHT (DARK SKY APPROVED)

Product Number:	420810	Bulb Color:	Clear
Manufacturer:	Design Classics Lighting	Dark Sky:	Yes
Model Number:	1771-07	Energystar Complians:	No
Collection:	Jack and Jill	Shade Material:	Metal, Glass
Manufacturer Finish:	Matte Black	Material:	Aluminum, Glass
Manufacturer Shade Color:	Matte Black	Shipping:	UPS Regular
Total Wattage:	7 W	Certification Agencies:	ETL
Voltage Type:	Line Voltage	Backplate Dimension:	4.5
Height:	5.5 in.	Wet Location:	Yes
Width:	4.5 in.	Damp Location:	Yes
Depth:	3.38 in.	Harsh Environ/Coastal:	No
Wattage Per Bulb:	7	Weight:	1.4 lbs
Bulb Type:	LED	Made In America:	No
Bulb Shape:	MR-16	Dusk To Dawn:	No
Base Type:	Twist Lock (GU10)	Motion Sensor:	No
Number Of Bulbs:	1	Title 24:	No
Bulb Included:	No		

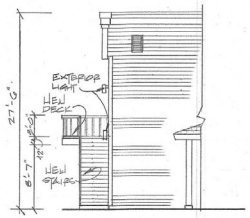


WEST ELEVATION

ALL NEW MATERIALS, FINISHES AND COLORS TO MATCH EXISTING.



SOUTH ELEVATION



EAST ELEVATION

PARTIAL

LICENSED ARCHITECT AR-1866
MARK GASENICA STATE OF IDAHO

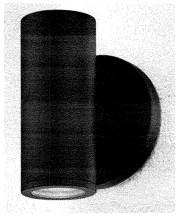
MARK A. GASENICA ARCHITECT
ARCHITECTURE PLANNING PROJECT MANAGEMENT
PO BOX 4573 KETCHUM, IDAHO 83340 208.720.1569

A REMODEL/ADDITION TO THE
IDAHO LUMBER AND ACE HARDWARE
HAILEY, IDAHO

ELEVATIONS

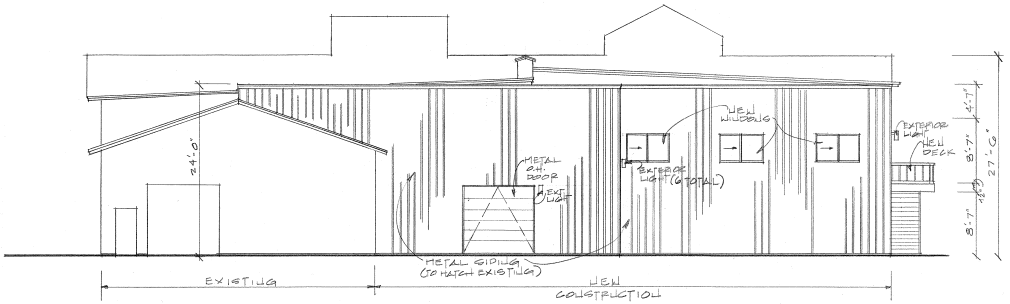
SCALE 1/8" = 1'-0"

A4.0



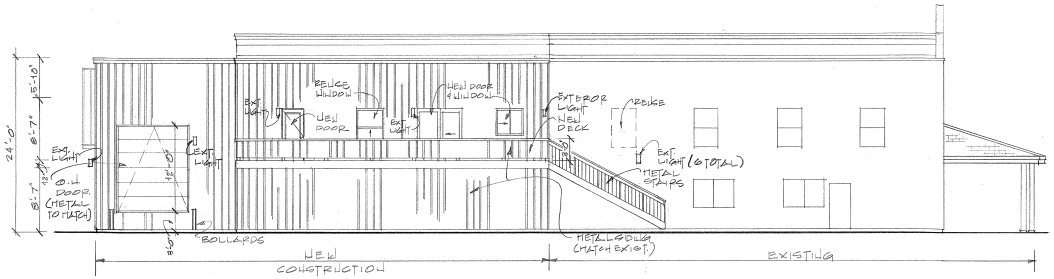
EXTERIOR WALL LIGHT (DARK SKY APPROVED)

Product Number:	626810	Bulb Color:	Clear
Manufacturer:	Design Classics Lighting	Dark Sky:	Yes
Model Number:	1771-07	Energystar Compliant:	No
Collection:	Jack and Jill	Shade Material:	Metal, Glass
Manufacturer Finish:	Matte Black	Material:	Aluminum, Glass
Manufacturer Shade Color:	Matte Black	Shipping:	UPS Regular
Total Wattage:	7 w	Certification Agencies:	ETL
Voltage Type:	Line Voltage	Backplate Dimension:	4.5
Height:	5.5 in	Wet Location:	Yes
Width:	4.5 in	Damp Location:	Yes
Depth:	3.38 in	Marsh Environ/Coastal:	No
Wattage Per Bulb:	7	Weight:	1.4 lbs
Bulb Type:	LED	Made in America:	No
Bulb Shape:	MB-16	Dusk To Dawn:	No
Base Type:	Twist Lock (GU10)	Motion Sensor:	No
Number Of Bulbs:	1	Title 24:	No
Bulb Included:	No		

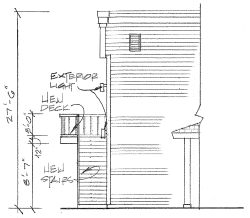


WEST ELEVATION

ALL NEW MATERIALS, FINISHES AND COLORS TO MATCH EXISTING.



SOUTH ELEVATION



EAST ELEVATION

PARTIAL

LICENSED ARCHITECT AR-1646
MARK GASENICA STATE OF IDAHO
4.22.2024

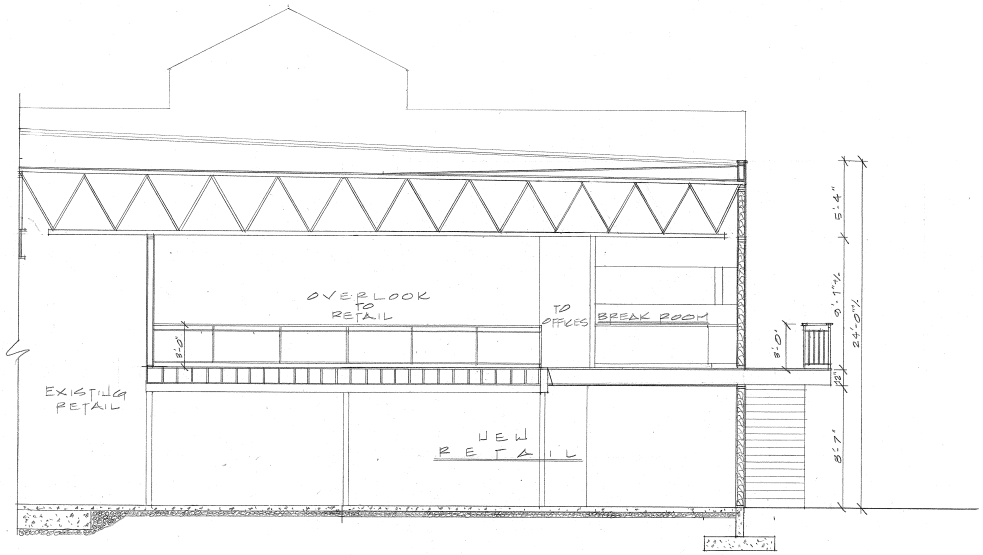
MARK A. GASENICA ARCHITECT
ARCHITECTURE PLANNING PROJECT MANAGEMENT
PO BOX 4573 KETCHUM, IDAHO 83340 208.720.1569

A REMODEL/ADDITION TO THE
IDAHO LUMBER AND ACE HARDWARE
HAILEY, IDAHO

ELEVATIONS

SCALE 1/8" = 1'-0"

A4.0



SECTION A

LICENSED ARCHITECT AR-1645
MARK GASENICA STATE OF IDAHO
4-22-2024

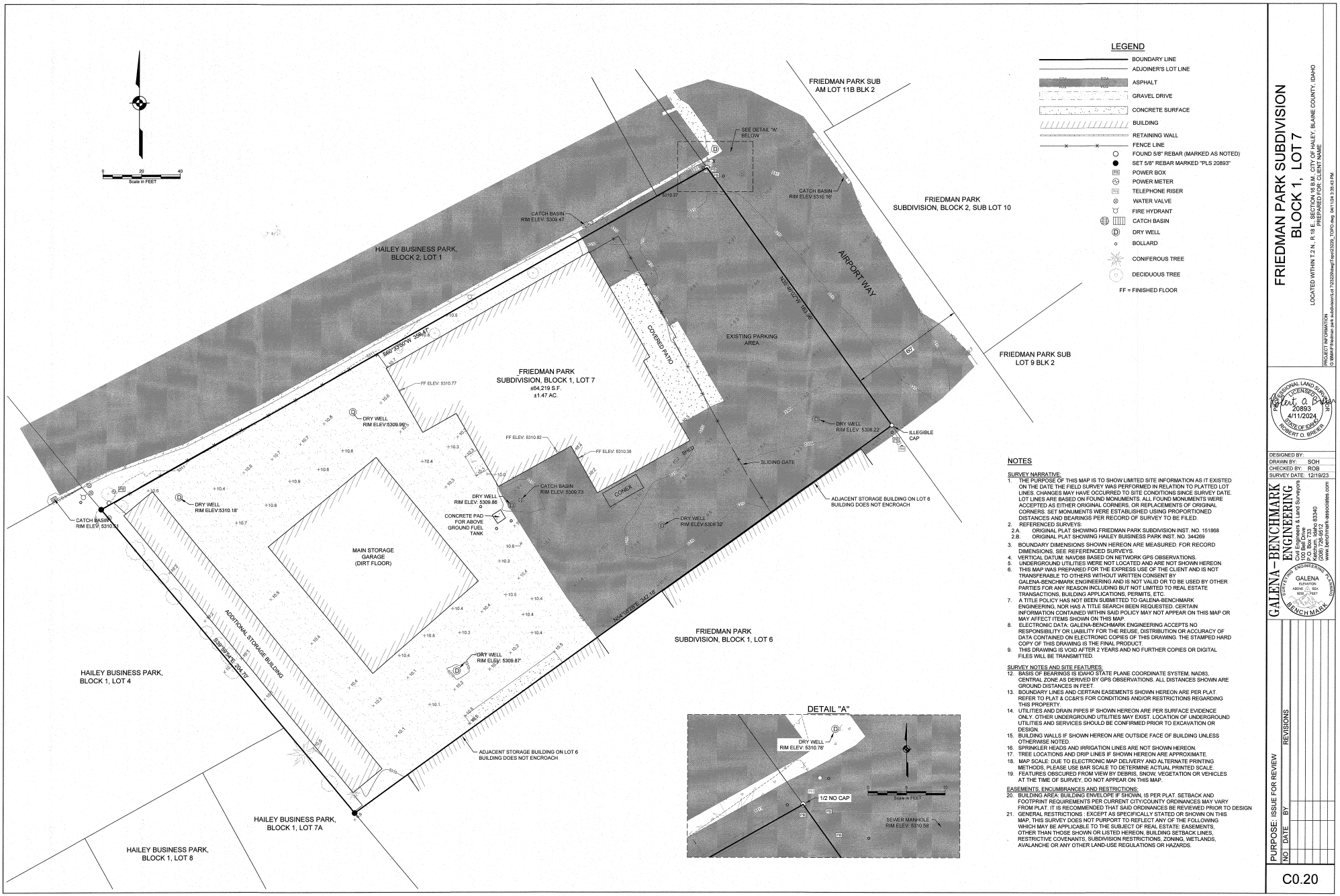
MARK A. GASENICA ARCHITECT
ARCHITECTURE PLANNING PROJECT MANAGEMENT
PO BOX 4573 KETCHUM, IDAHO 83340 208.720.1569

A REMODEL/ADDITION TO THE
IDAHO LUMBER AND ACE HARDWARE
HAILEY, IDAHO

BLDG. SECTION/DETAILS

SCALE ¼" = 1'-0"

A5.0



LEGEND

- BOUNDARY LINE
- ADJOINER'S LOT LINE
- ASPHALT
- GRAVEL DRIVE
- CONCRETE SURFACE
- BUILDING
- RETAINING WALL
- FENCE LINE
- FOUND 5/8" REBAR (MARKED AS NOTED)
- SET 5/8" REBAR MARKED "PLS 20893"
- POWER BOX
- POWER METER
- TELEPHONE RISER
- WATER VALVE
- FIRE HYDRANT
- CATCH BASIN
- DRY WELL
- BOLLARD
- CONIFEROUS TREE
- DECIDUOUS TREE

FF = FINISHED FLOOR

DETAIL "A"

NOTES

SURVEY NARRATIVE:

1. THE PURPOSE OF THIS MAP IS TO SHOW LIMITED SITE INFORMATION AS IT EXISTED ON THE DATE THE FIELD SURVEY WAS PERFORMED IN RELATION TO PLATTED LOT LINES. CHANGES MAY HAVE OCCURRED TO SITE CONDITIONS SINCE SURVEY DATE. LOT LINES ARE BASED ON FOUND MONUMENTS. ALL FOUND MONUMENTS WERE ACCEPTED AS EITHER ORIGINAL CORNERS, OR REPLACEMENTS OF ORIGINAL CORNERS. SET MONUMENTS WERE ESTABLISHED USING PROPORTIONED DISTANCES AND BEARINGS PER RECORD OF SURVEY TO BE FILED.
2. REFERENCED SURVEYS:
   - 2.A. ORIGINAL PLAT SHOWING FRIEDMAN PARK SUBDIVISION INST. NO. 151868
   - 2.B. ORIGINAL PLAT SHOWING HAILEY BUISINESS PARK INST. NO. 344269
3. BOUNDARY DIMENSIONS SHOWN HEREON ARE MEASURED. FOR RECORD DIMENSIONS, SEE REFERENCED SURVEYS.
4. VERTICAL DATUM: NAVD88 BASED ON NETWORK GPS OBSERVATIONS.
5. UNDERGROUND UTILITIES WERE NOT LOCATED AND ARE NOT SHOWN HEREON.
6. THIS MAP WAS PREPARED FOR THE EXPRESS USE OF THE CLIENT AND IS NOT TRANSFERABLE TO OTHERS WITHOUT WRITTEN CONSENT BY GALENA-BENCHMARK ENGINEERING AND IS NOT VALID OR TO BE USED BY OTHER PARTIES FOR ANY REASON INCLUDING BUT NOT LIMITED TO REAL ESTATE TRANSACTIONS, BUILDING APPLICATIONS, PERMITS, ETC.
7. A TITLE POLICY HAS NOT BEEN SUBMITTED TO GALENA-BENCHMARK ENGINEERING, NOR HAS A TITLE SEARCH BEEN REQUESTED. CERTAIN INFORMATION CONTAINED WITHIN SAID POLICY MAY NOT APPEAR ON THIS MAP OR MAY AFFECT ITEMS SHOWN ON THIS MAP.
8. ELECTRONIC DATA: GALENA-BENCHMARK ENGINEERING ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR THE REUSE, DISTRIBUTION OR ACCURACY OF DATA CONTAINED ON ELECTRONIC COPIES OF THIS DRAWING. THE STAMPED HARD COPY OF THIS DRAWING IS THE FINAL PRODUCT.
9. THIS DRAWING IS VOID AFTER 2 YEARS AND NO FURTHER COPIES OR DIGITAL FILES WILL BE TRANSMITTED.

SURVEY NOTES AND SITE FEATURES:

12. BASIS OF BEARINGS IS IDAHO STATE PLANE COORDINATE SYSTEM, NAD83, CENTRAL ZONE AS DERIVED BY GPS OBSERVATIONS. ALL DISTANCES SHOWN ARE GROUND DISTANCES IN FEET.
13. BOUNDARY LINES AND CERTAIN EASEMENTS SHOWN HEREON ARE PER PLAT. REFER TO PLAT & CC&RS FOR CONDITIONS AND/OR RESTRICTIONS REGARDING THIS PROPERTY.
14. UTILITIES AND DRAIN PIPES IF SHOWN HEREON ARE PER SURFACE EVIDENCE ONLY. OTHER UNDERGROUND UTILITIES MAY EXIST. LOCATION OF UNDERGROUND UTILITIES AND SERVICES SHOULD BE CONFIRMED PRIOR TO EXCAVATION OR DESIGN.
15. BUILDING WALLS IF SHOWN HEREON ARE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
16. SPRINKLER HEADS AND IRRIGATION LINES ARE NOT SHOWN HEREON.
17. TREE LOCATIONS AND DRIP LINES IF SHOWN HEREON ARE APPROXIMATE.
18. MAP SCALE: DUE TO ELECTRONIC MAP DELIVERY AND ALTERNATE PRINTING METHODS, PLEASE USE BAR SCALE TO DETERMINE ACTUAL PRINTED SCALE.
19. FEATURES OBSCURED FROM VIEW BY DEBRIS, SNOW, VEGETATION OR VEHICLES AT THE TIME OF SURVEY, DO NOT APPEAR ON THIS MAP.

EASEMENTS, ENCUMBRANCES AND RESTRICTIONS:

20. BUILDING AREA: BUILDING ENVELOPE IF SHOWN, IS PER PLAT. SETBACK AND FOOTPRINT REQUIREMENTS PER CURRENT CITY/COUNTY ORDINANCES MAY VARY FROM PLAT. IT IS RECOMMENDED THAT SAID ORDINANCES BE REVIEWED PRIOR TO DESIGN
21. GENERAL RESTRICTIONS : EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS MAP, THIS SURVEY DOES NOT PURPORT TO REFLECT ANY OF THE FOLLOWING WHICH MAY BE APPLICABLE TO THE SUBJECT OF REAL ESTATE: EASEMENTS, OTHER THAN THOSE SHOWN OR LISTED HEREON, BUILDING SETBACK LINES, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, ZONING, WETLANDS, AVALANCHE OR ANY OTHER LAND-USE REGULATIONS OR HAZARDS.

FRIEDMAN PARK SUBDIVISION
BLOCK 1, LOT 7

LOCATED WITHIN T.2 N., R.18 E., SECTION 16 B.M., CITY OF HAILEY, BLAINE COUNTY, IDAHO
PREPARED FOR: CLIENT NAME

PROJECT INFORMATION
G:\BMA\Friedman park subdivision\Lot 7\2023\dwg\Topo\2329_TOPO.dwg 04/11/24 3:35:43 PM

PROFESSIONAL LAND SURVEYOR
LICENSED
Robert O. Brewer
20893
4/11/2024
STATE OF IDAHO
ROBERT O. BREWER

DESIGNED BY:
DRAWN BY: SOH
CHECKED BY: ROB
SURVEY DATE: 12/19/23

GALENA–BENCHMARK ENGINEERING
Engineers & Land Surveyors
100 Bell Drive
P.O. Box 733
Ketchum, Idaho 83340
208.726.9512
www.benchmark-associates.com

CERTIFIED ENGINEERING & SURVEYING DOCUMENTS
GALENA ELEVATION ABOVE SEA 6000 FEET
BENCH MARK

NO	DATE	BY	REVISIONS

PURPOSE: ISSUE FOR REVIEW

C0.20

ACE HARDWARE and IDAHO LUMBER

(EXISTING BUILDING PHOTOS)

WEST ELEVATION (PARTIAL) – ADDITION TO STORAGE WILL BE TO SOUTH (RIGHT)

WEST ELEVATION (PARTIAL) – ADDITION TO STORAGE WILL BE IN THIS AREA AND TO THE SOUTH

ACE HARDWARE and IDAHO LUMBER

(EXISTING BUILDING PHOTOS)

WEST ELEVATION (PARTIAL) – ADDITION TO STORAGE TO 10’ OF FAR-RIGHT EXISTING CORNER

SOUTH ELEVATION (PARTIAL) – ADDITION TO RETAIL 28’ TO SOUTH AND LINES UP WITH EXISTING BUILDING’S SOUTH WALL.

ACE HARDWARE and IDAHO LUMBER

(EXISTING BUILDING PHOTOS)

SOUTHWEST ELEVATION – ADDITION TO RETAIL WHERE TRUCK IS AND LINES UP WITH EXISTING BUILDING. 6’ DECK AT PORTION OF UPPER LEVEL.

EXTERIOR WALL LIGHT (DARK SKY APPROVED)

Product Number:	626810	**Bulb Color:**	Clear
Manufacturer:	Design Classics Lighting	**Dark Sky:**	Yes
Model Number:	1771-07	**EnergyStar Compliant:**	No
Collection:	Jack and Jill	**Shade Material:**	Metal, Glass
Manufacturer Finish:	Matte Black	**Material:**	Aluminum, Glass
Manufacturer Shade Color:	Matte Black	**Shipping:**	UPS Regular
Total Wattage:	7 w.	**Certification Agencies:**	ETL
Voltage Type:	Line Voltage	**Backplate Dimension:**	4.5
Height:	5.5 in.	**Wet Location:**	Yes
Width:	4.5 in.	**Damp Location:**	Yes
Depth:	3.38 in.	**Harsh Environ/Coastal:**	No
Wattage Per Bulb:	7	**Weight:**	1.4 lbs
Bulb Type:	LED	**Made In America:**	No
Bulb Shape:	MR-16	**Dusk To Dawn:**	No
Base Type:	Twist Lock (GU10)	**Motion Sensor:**	No
Number Of Bulbs:	1	**Title 24:**	No
Bulb Included:	No		

Return to Agenda