City of Ketchum
Planning & Building

STAFF REPORT
KETCHUM PLANNING AND ZONING COMMISSION
MAY 28, 2024 MEETING

PROJECT:	490 Wood River Dr Residence
FILE NUMBER:	P23-111
REPRESENTATIVE:	Erik de Bruijn, Presidio Vista Properties
OWNER:	450-490 Wood River LLC
REQUEST:	Floodplain Development Permit for a new 8,077 square foot residence and modification of wetland areas.
LOCATION:	450 Wood River Drive (Mary's Place Subdivision Lot 3 Block 1)
ZONING:	General Residential – Low Density (GR-L)
OVERLAY:	Floodplain Management Overlay
NOTICE:	A public meeting notice for the project was mailed to all owners of property within 300 feet of the project site and all political subdivisions on May 8, 2024. The notice was published in the Idaho Mountain Express on May 8, 2024. A notice was posted on the project site and the city's website on May 13, 2024.
REVIEWER:	Adam Crutcher, Associate Planner

EXECUTIVE SUMMARY

The applicant is proposing to construct a new 8,077 square foot residence (the "project"), located at 450 Wood River Drive (the "subject property") in the West Ketchum neighborhood. The subject property is zoned General Residential – Low Density (GR-L) and portions of the property are within the Floodplain Management Overlay District.

The subject property (Figure 1) contains an existing residence that is proposed to be demolished. The proposed residence is sited within the platted building envelope, a majority of which is out of the floodplain. The subject property also contains wetlands in the form of a manmade pond, drainage channels, and riparian vegetation, all of which are proposed to be modified for the proposed residence and associated site improvements. The pond which spans the subject property and properties to the east (440 & 430 Wood River Dr) contains water from the high groundwater table as well as surface water from the swales and drainage channels present on 490 & 460 Wood River Dr. This pond is proposed to be removed from the subject property, as well as 430 & 440 Wood River Dr, and to be replaced with a swale that will connect with the one present on 490 Wood River Dr up to its confluence with the Big Wood River. Existing vegetation around the pond will be removed due to construction of the swale but newly proposed riparian grasses, shrubs & trees are proposed along the proposed swale.

The groundwater table underneath the existing pond on the subject property is not regularly high enough to reach the overflow point at 430 Wood River Dr to enable flow through the pond. Surface water flow is intermittent and is controlled by the conditions on 490 Wood River Dr which typically only receives input in the spring and early summer due to rising groundwater levels, groundwater pumping of residences nearby or flooding conditions. As the influx of water into the system typically only occurs in the spring and early summer, the pond sits stagnant for a majority of the year. Limited native plant species surround the pond, leading to increased presence of algae and warmer water temperatures from lack of vegetation shading. The pond also serves as a bottle neck when flooding conditions in the spring occur. As the outlet of the pond is at a higher elevation than the rest of the pond, increased amounts of groundwater and surface drainage are needed to enter into the system of ponds and channels in the Mary's Place Subdivision in order to get the pond to a high enough elevation to start discharging into the Big Wood River. The removal of the pond and introduction of the swale across 450, 440, & 430 Wood River Dr will alleviate this issue as there will no longer be a high point, blocking flow of water. Greater detail as to how the project manages this runoff and floodwaters is outlined in greater detail below in the staff report.

Figure 1 Subject property location (blue outline).

Pursuant to Ketchum Municipal Code (KMC) §17.88.050.D.2,

"If the Administrator, in his or her sole discretion, determines that a project cannot be approved administratively, the Ketchum Planning and Zoning Commission shall consider and approve, approve with conditions, or deny applications for floodplain development permits.
a. Criteria for sending applications to the Planning and Zoning Commission includes, but is not limited to:
(1) Encroachments proposed within the floodway;
(2) Stream alteration projects containing riprap;
(3) Stream alteration projects including gravel extraction; and
(4) Stream alteration projects involving multiple separate parcels of land."

Due to the proposed modification of the pond, drainage channels, and wetlands on the subject property, staff determined the project fell in line with the more complex stream alteration projects which warrant review by

the Planning & Zoning Commission. The project is subject to all floodplain development review criteria and standards specified in KMC §17.88.050 & 17.88.060.

Staff finds the project to not reduce floodwater carrying capacity, preserves the inherent natural characteristics of the floodplain, mitigates wetland impacts effectively with new wetlands, and meets all other applicable floodplain development criteria. Further information detailing staff review of the application criteria are outlined in the staff report below and in Attachment I.

BACKGROUND

Subject Property History & Existing Conditions

The subject property is located within the Mary's Place Subdivision which was platted in 2000 (see Attachment K). This subdivision modified four existing tax lots adjacent to the Big Wood River. All four lots contain manmade ponds and channels which are connected and empty into the Big Wood River at the southern portion of 430 Wood River Dr (see Figure 1 below). The subject property is in the middle point of this system of ponds and channels and contains the largest of the manmade ponds. The creation of these ponds and channels occurred prior to the subdivision without any permits or approval from local or state bodies. This created the need for the subdivision to create building envelopes for all of the lots and outlined pond and drainage channel easements to allow for water to flow through the properties. The subject property currently has a residence within the platted building envelope that is proposed to be removed and replaced with the proposed project.

Figure 2 Aerial image of approximate drainage channels and ponds. Subject property is where yellow star is located.

The subject property receives drainage through channels and swales present on 490 Wood River Dr & 460 Wood River Dr which confluence with the pond that exists on the subject property. The 490 & 460 properties are the receiving point of drainage from other areas within the West Ketchum neighborhood during seasonal flooding or significant rain events. As the properties within the Mary's Place Subdivision (including the subject property) sit at a lower point than most of West Ketchum, drainage from surrounding properties enters into

rights-of-way and ultimately flows towards the subject property. This was especially prevalent in the seasonal flooding that occurred in Spring/Summer of 2023 where many properties within West Ketchum experienced increased levels of groundwater necessitating groundwater pumping which ultimately discharged into public rights-of-way. Much of this discharge led its way to the 490 & 460 properties either through culverts or sheet flowing over roadways such as Williams St to the north or Wood River Drive to the west. Most of this drainage and floodwater enters into the 490 & 460 properties and moves through the system of ponds and channels until it discharges into the Big Wood River at 430 Wood River Dr.

Process to Date
The Planning and Building Department received the Floodplain Development application for the project on December 19th, 2023. Following receipt of the application, staff routed the application materials to all city departments for review. The application was scheduled for hearing after all city department comments were resolved.

CONFORMANCE WITH FLOODPLAIN DEVELOPMENT STANDARDS:
As the project occurs within the Floodplain Management Overlay District, the project is subject to criteria and standards listed in KMC 17.88.050 & 17.88.060. Additionally, staff reviewed the project for conformance with all city code requirements for single family residences including utilities, right-of-way improvements, drainage, and general zoning standards (Attachment I). Staff finds the project to be in conformance with all standards but did highlight a few below for further discussion.

Drainage
Staff reviewed the project to ensure that the proposed project maintained its own drainage as well as confirm that off-site drainage that historically has moved through would not be impacted by the proposed project. Touching on regional drainage first, as discussed above, the subject site receives excess drainage from other properties in the surrounding area as well as drainage from the Williams St & Wood River Dr rights-of-way which empty into the 490 & 460 properties and ultimately lead to the subject property. Staff evaluated the project to confirm that the proposal would not inhibit drainage from continuing to flow in and out of the project site in the same manner it currently does. The City does require that the proposed project maintain existing drainage flows through the property but does not have the ability to require the applicant to improve the drainage situation which currently exists. Drainage is required to move through the project site by plat note #4 of Mary's Place Subdivision which states, "A 10' wide Drainage Easement is reserved centered over existing channels and 5 feet from edge of ponds to provide for maintenance and to preserve natural drainage through the property." Staff reviewed drainage/flood models, drainage memos, and calculations provided by the applicant to ensure this drainage would still occur. The proposed project looks to replace the existing pond with a swale that has a bottom width of 7 feet, side slope of 4:1 or flatter, and overall slope of 0.7%. This swale design has a capacity of 68 cfs at a flow depth of 2.0 feet, matching the carrying capacity of the swale that is under construction on 490 Wood River Dr which empties into the existing pond on the subject property. Through the submitted materials detailing these proposed changes to the site, staff found that the proposed swale is of sufficient size to effectively handle the existing drainage which flows on and through the site today.

Shifting to on-site drainage, new single-family developments must meet the standard that "All stormwater shall be retained on site" as stated in KMC 17.124.170.A.1. The project proposes to handle drainage through trench drains, catch basins, and a drywell. Drainage from the driveway is to be collected in a trench drain and moved through a series of catch basins to the proposed drywell at the rear of the residence. A majority of site improvements are located on the portion of the subject property outside of the floodplain. A detailed explanation of the on-site drainage, including calculations are provided in a memo from Galena-Benchmark in Attachment G. The City Engineer has reviewed this report as well as the proposed grading & drainage plan and has found the drainage features to be sufficient in handling the stormwater generated by the impervious surfaces in a 25-year storm event. As such, staff does find the project to retain all stormwater on site.

As discussed in the "Preserves Natural Characteristics of River/Floodplain" section below, staff believes the project allows for floodwaters, riverine as well as groundwater flooding from other properties, to still be able to move through the subject property sufficiently through the conversion of the existing pond into a swale.

Preserving Natural Characteristics of River/Floodplain & Floodwater Carrying Capacity

Pursuant to KMC 17.88.050.E.1 projects must demonstrate that, "The proposal preserves or restores the inherent natural characteristics of the river, floodplain, and riparian zone, including riparian vegetation and wildlife habitat. Development does not alter river channel unless all stream alteration criteria for evaluation are also met." The project does not propose any alterations within the Big Wood River or the twenty-five (25) foot riparian setback zone, so staff has focused its review of this criterion on whether the project preserves the natural characteristics of the floodplain. The project proposes more cut than fill below the Base Flood Elevation (BFE) outside of the fill required for the home and includes a continuation of the swale present on 490 Wood River DR all the way through 440 & 430 Wood River Dr. In flood years, floodwaters from the Big Wood River crest the bank on properties to the west (upstream) of the subject property and typically flow down Wood River Dr until they reach 490 Wood River Dr. From there, water flows through a series of channels and swales until they reach the subject properties existing pond. The proposed project looks to remove the pond and instead have a swale that carries through water onto the Big Wood River in a west to east direction across the property as it has historically done. This swale will allow for sheet flow to occur on the property and will not provide any obstructions to floodwaters flowing through the site. This more closely matches conditions which existed on the property prior to the creation of the manmade ponds and channels which exist today. As such, staff find the proposal to preserve the inherent natural characteristics of the floodplain.

As discussed in further detail in "Wetlands" the section below, staff believes the proposed wetland mitigation and enhancement helps to maintain and improve wildlife habitat. The proposed plantings outside of the delineated wetland areas are also native species which are reminiscent of riparian habitat found on the site currently.

Regarding floodwater carrying capacity, projects must show that, "floodwater carrying capacity is not diminished by the proposal." Many of the design elements touched on earlier in this section contribute to maintaining floodwater carrying capacity. Based on flood models of the Big Wood River, historic flooding events will be able to move through the site within the proposed swale. The proposed project shows the removal of 372.7 cubic yards of fill from the project site, resulting in an increased conveyance for floodwaters. Through HEC-RAS (Hydraulic Engineering Center's River Analysis System) models provided by the applicant and reviewed by staff, it has been determined that with the proposed swale, the project will not increase the base flood elevation for adjacent properties.

Wetlands

Per KMC 17.88.050.E.21, "Where development is proposed that impacts any wetland the first priority shall be to move development from the wetland area. Mitigation strategies shall be proposed at time of application that replace the impacted wetland area with an equal amount and quality of new wetland area or riparian habitat improvement." As seen in the Joint Application for Permits (Attachment H), wetlands on the site are classified as Palustrine Unconsolidated Bottom Permanently Flood Excavated (PUBHx). These types of wetlands are excavated in an artificial manner, have water cover throughout year, have less than 30% vegetative cover, and have at least 25% cover of particles smaller than stones. Characteristics of this wetland type on the subject property include open water (pond) and vegetated wetland margin (vegetation around pond, both native and introduced/invasive species). The wetlands will be impacted due to the construction of the residence, landscape elements and proposed restoration activities. Approximately 2,300 square feet of wetlands will be permanently impacted by the activities mentioned so the applicant has proposed wetland mitigation/enhancement areas (11,000 sq ft wetland restoration & 29,000 sq ft wetland mitigation as seen in Sheets L2.01 & L2.03 in Attachment H). Wetland mitigation area is primarily ground outside of the existing

delineated jurisdictional area while the wetland restoration area is primarily ground within the existing delineated jurisdictional area on the subject property that will be restored to riparian wetland habitat. As seen on the landscape plan (Sheet L-2.03 in Attachment H), proposed plantings in these locations are native species which fit within the expected species seen in a forested/scrub shrub wetland including cottonwoods, aspens, willows, dogwoods and other riparian species. The wetland mitigation/restoration also opens the opportunity to remove invasive species which are found on the site including reed canary grass. This removal of invasive species provides a greater opportunity for native plant species to establish and outcompete invasives which offers better habitat to wildlife in the area.

Conformance with Zoning Regulations

During city department review, planning staff reviewed the project for conformance with all applicable zoning requirements including permitted uses, dimensional limitations, parking, development standards, and dark skies. Staff believes the project complies with all zoning code regulations and dimensional standards required in the GR-L Zone. Comprehensive analysis of the project's conformance with zoning code requirements and dimensional standards is provided in Attachment J.

STAFF RECOMMENDATION:

Staff recommends **approval** of the Floodplain Development Permit application (File No. P23-111) subject to the following conditions:

1. This approval is subject to the scope of work described in the documents shown in Attachment C.
2. Any modification to approved plans as referenced in this approval shall be subject to a written amendment to this permit approval. If construction or improvements differ from the approved plans, such work may be subject to removal at the applicants expense.
3. Follow up site visits to ensure compliance with the approved Landscaping Plan, L-4.00 dated 4/15/2024, are required for the three (3) years following the initial site visit that occurs in conjunction with issuance of the Certificate of Occupancy.
    a. If, upon an annual inspection, 80% or fewer of the plants indicated on Landscape Plan L-4.00 dated 4/15/2024 have not survived, the property owner shall re-install new plantings.
4. The Administrator shall conduct site inspections of work in progress. The Administrator shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the terms of this permit, approved plans, and KMC 17.88. In exercising this power, the Administrator has a right, upon presentation of proper credentials, to enter the property at any reasonable hour for the purposes of inspection or other enforcement action.
5. Floodplain Development Permit approval shall expire one (1) year from the date of signing of approved Findings of Fact per the terms of KMC, Section 17.88.050.G, Terms of Approval, if construction has not commenced. Once a building permit has been issued, the approval shall be valid for the duration of the building permit.
6. No use of restricted use chemicals or soil sterilants will be allowed within one hundred feet (100') of the mean high-water mark on any property within the city limits at any time (KMC 17.88.040.C.3);
7. All applications of herbicides and/or pesticides within one hundred feet (100') of the mean high water mark, but not within twenty five feet (25') of the mean high water mark, must be done by a licensed applicator and applied at the minimum application rates (KMC 17.88.040.C.4);
8. Application times for herbicides and/or pesticides will be limited to two (2) times a year; once in the spring and once in the fall unless otherwise approved by the City Arborist (KMC 17.88.040.C.5);
9. It shall be unlawful to dump, deposit or otherwise cause any trash, landscape debris or other material to be placed in any stream, channel, ditch, pond or basin that regularly or periodically carries or stores water.

10. Prior to issuance of building permit of a building permit for the proposed residence, a preconstruction elevation certificate shall be completed by a registered professional engineer, architect or surveyor and submitted to the City of Ketchum building inspector.
11. A building under-construction Elevation Certificate (FEMA FORM 86-0-33) shall be submitted within seven calendar days upon completion of the foundation and lowest floor.
12. A final, as built finished construction Elevation Certificate (FEMA Form 86-0-33) with supporting documentation such as an as-built survey of the project produced by a surveyor or engineer licensed in Idaho demonstrating that the project was constructed in accordance with the approved plans, shall be submitted prior to issuance of Certificate of Occupancy. Deficiencies detected by such documentation shall be corrected by the permit holder immediately and prior to certificate of occupancy issuance. In some instances, another certification may be required to certify corrected as-built construction. Failure to submit the certification or failure to make required corrections shall be cause to withhold the issuance of a certificate of occupancy.
13. The finished construction elevation certificate certifier shall provide at least two photographs showing the front and rear of the building taken within 90 days from the date of certification. The photographs must be taken with views confirming the building description and elevation locations identified on the approved plans. To the extent possible, these photographs should show the entire building including foundation. If the building has split-level or multi-level areas, provide at least two additional photographs showing side views of the building. In addition, when applicable, provide a photograph of the foundation showing a representative example of the flood openings or vents if applicable. All photographs must be in color and measure at least three inches by three inches. Digital photographs are acceptable.
14. Regional drainage swales shall be kept clear of any obstructions at all times to allow for drainage to move through the subject property as intended.
15. The realigned and reconfigured ponds and drainage channels as approved by this floodplain development permit shall be considered the ponds and drainage channels, and corresponding drainage easements, identified by plat note #4 of Mary's Place Subdivision.
16. Notarized authorization of the property owners of record for 430 and 440 Wood River Dr for proposed off-site improvements is required to be submitted with the building permit application for the development approved with this Floodplain Development Permit. If at any time during the construction period staff is notified that the authorization of work has been rescinded, construction shall cease immediately until resolution with the adjacent property owner is found or revised development plans are submitted to the City for review and approval that do not require adjacent property owner consent.

RECOMMENDED MOTION:
"I move to approve the 450 Wood River Drive Residence Floodplain Development Permit application, as conditioned, and direct staff to return with the findings of fact."

ATTACHMENTS:
A. Floodplain Development Permit Application Materials
B. Floodplain Affidavit
C. Project Plans
D. Brockway Technical Narrative (8/13/23)
E. Brockway Technical Memo (3/8/24)
F. Brockway Technical Memo (4/15/24)
G. Galena-Benchmark Drainage Memo (3/4/24)
H. IDWR & USACE Joint Application
I. Floodplain Development Criteria Evaluation

J. Zoning and Dimensional Standards Evaluation
K. Mary's Place Subdivision Plat Map

Attachment A:
450 Wood River Dr
Application Materials

City of Ketchum
Planning & Building

OFFICIAL USE ONLY	
File Number:	P23-111
Date Received:	12/19/23
By:	HLN
Fee Paid:	$2700
Approved Date:	
Denied Date:	
By:	

Floodplain Development Permit and Riparian Alteration Application

NOTE: This permit is required for all properties containing 100 year floodplain area and Riparian Setbacks

PROPERTY OWNER INFORMATION			
Property Owner Name(s):	450-490 WOOD RIVER LLC		
Property Owner's Mailing Address:	P.O. BOX 14001-174 KETCHUM, ID 83340		
Phone:	(720) 339-6798		
Email:	frazier@presidiovistaproperties.com		
PROJECT INFORMATION			
Project Name:	450 WOOD RIVER RESIDENCE AND SITE GRADING		
Project Representative's Name (main point of contact for project):	FRAZIER CAVNESS		
Project Representative's Phone:	(720) 339-6798		
Project Representative's Mailing Address:	P.O. BOX 14001-174 KETCHUM, ID 83340		
Project Representative's Email:	frazier@presidiovistaproperties.com		
Architect's name, phone number, e-mail:	RO ROCKETT DESIGN | JASON RO | jro@rorockettdesign.com		
Landscape Architect's name, phone number, e-mail:	FSLA | (406) 551-2089 | CHARLIE KEES | ckees@fieldstudiola.com		
Environmental consultant's name, phone number, e-mail:	SAWTOOTH | (208) 720-8543 | TRENT STUMPH | trent@sawtoothenvironmental.com		
Engineer's name, phone number, e-mail:	BROCKWAY ENGINEERING | (208) 736-8543 | CHUCK BROCKWAY | charles.g.brockway@brockwayeng.com		
Project Address:	450 WOOD RIVER DRIVE, KETCHUM, ID 83340		
Legal Description of parcel:	MARY'S PLACE SUB; LOT 3, BLK 1		
Lot Size:	1.24 AC.		
Zoning District:	GR-L		
Overlay Zones – indicate all that apply:	☒ Floodplain	☐ Floodway	☐ Riparian Zone ☐ Avalanche ☐ Mountain
Brief description of project scope:	SEE ATTACHED NARRATIVE		
Value of Project: $			
TYPE OF PROJECT – indicate all that apply:			
☒ New Building in Floodplain	☐ Building Addition in Floodplain	☐ Streambank Stabilization / Stream Alteration	☐ Other. Please describe:
☐ Riparian Alteration	☒ Floodplain Development		
PROPOSED SETBACKS – if project is a new building or an addition to an existing building			
Front: 15'	Side: 10'-11.5"	Side: 10'-11.5"	Rear: 10'-11.5"
ADDITIONAL INFORMATION			
Will fill or excavation be required in floodplain, floodway or riparian zone?	Yes ☒	No ☐	
If Yes, Amount in Cubic Yards: Fill: 325 CY	Excavation: 436 CY	SEE NARRATIVE FOR EXPLANATION AND	
Will Existing Trees or Vegetation be Removed? Yes ☒	No ☐	FURTHER INFORMATION	
Will new trees or vegetation be planted? Yes ☒	No ☐		

Applicant agrees in the event of a dispute concerning the interpretation or enforcement of the Floodplain Management Overlay Application, in which the City of Ketchum is the prevailing party, to pay reasonable attorney fees, including attorney fees on appeal, and expenses of the City of Ketchum. I, the undersigned, certify that all information submitted with and upon this application form is true and accurate to the best of my knowledge and belief.

Signature of Owner/Representative — Date: 12.15.2023

Date: 11/9/2023

To: Adam Crutcher

From: Greg Brakovich (property owner of 440 and 430 Wood River Drive)

RE: Floodplain Development Permit Application – 450 Wood River Drive

Dear Adam,

My name is Greg Brakovich, and I am the owner of individual properties located at 440 Wood River Drive and 430 Wood River Drive in Ketchum, Idaho (respective parcel numbers are: RPK04740000020 & RPK0474000001A). My properties are adjacent and downstream of 450 Wood River Drive, and they are highlighted on the parcel map on the following page.

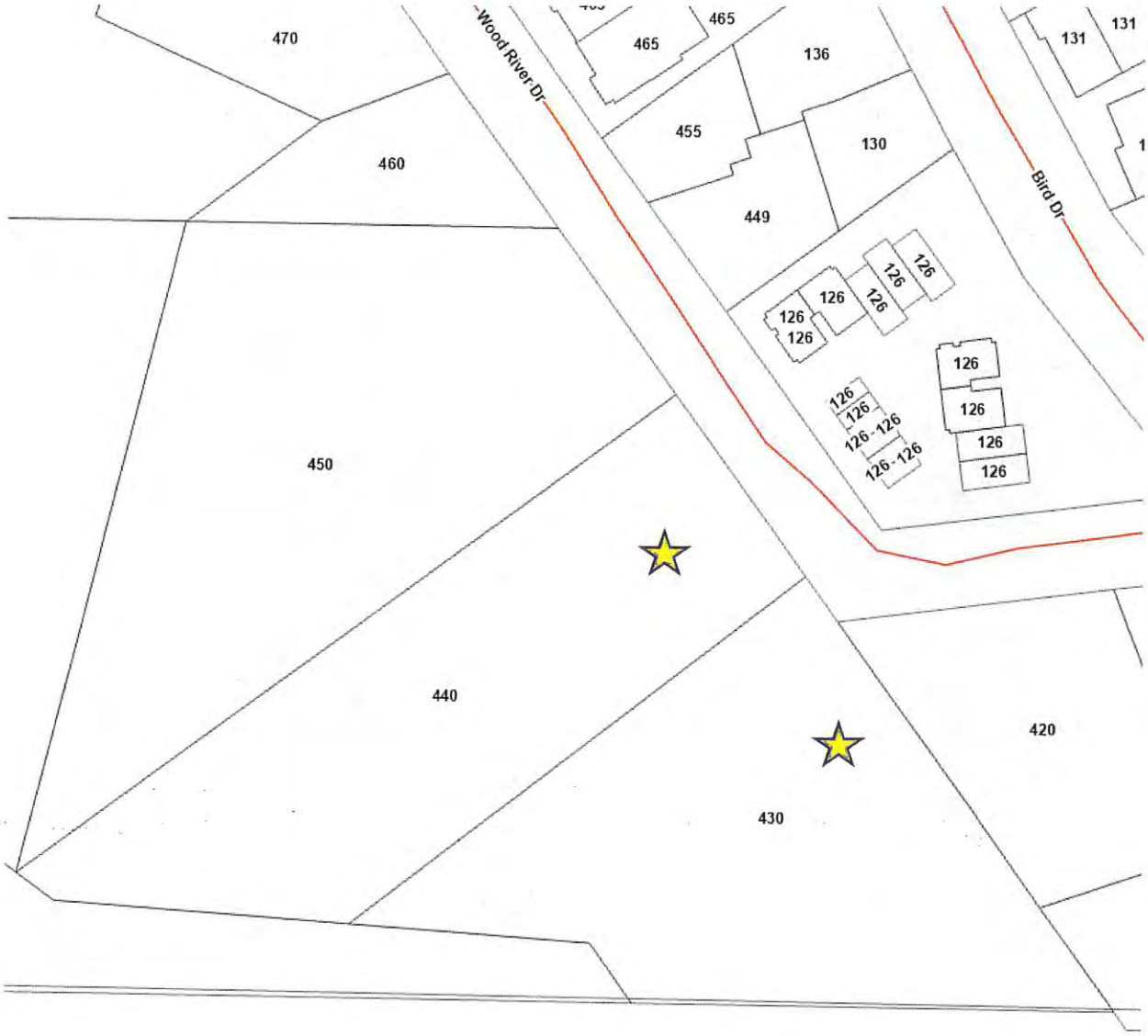
I have been working with the owners of 450 Wood River Drive for nearly one year as they assembled their Joint Application for impacting Wetlands, and this current Floodplain Development Permit Application. The proposed Designs seek to fill in the non-conforming pond and swale, which spans across the property boundary lines between 450 Wood River Drive and the properties that I own. In addition, the Designs seek to create a new swale that directs flood waters further to the south and away from the residence that I own. I am in complete support of the Designs and I am excited to see them become a reality, as it will be a tremendous benefit to all property owners in the area.

My signature below indicates my concurrence and support of the Floodplain Development Permit Application for 450 Wood River Drive.

Warm Regards,

Greg Brakovich

Date: 11/9/2023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Wood River Dr
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DATE: January 20, 2023

South Central Public Health District
Health and Environmental Services
117 Ash Street
Bellevue, ID 83313

Re: 450 Wood River Drive

The City of Ketchum has the capacity and is willing to serve or continue to serve the development located at 450 Wood River Drive, Ketchum, ID 83340.

Sincerely,

Gio Tognoni, Ketchum City Water

Mick Mummert, Ketchum City Sewer

Evaluation Criteria for Ketchum Floodplain Development Permit application, 450 Wood River

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Brockway Engineering PLLC
August 15, 2023

1. The proposal preserves or restores the inherent natural characteristics of the river, floodplain, and Riparian Zone, including riparian vegetation and wildlife habitat. Development does not alter river channel unless all stream alteration criteria for evaluation are also met.

   The proposal will include restoration of wetland and riparian areas. Natural riparian swale will ensure continuity of water connection to river. Restored area will provide enhanced natural characteristics, riparian vegetation, and wildlife habitat. No alteration of river channel is proposed. Unauthorized, nuisance pond will be removed.

2. No temporary construction activities, encroachment, or other disturbance into the twenty-five foot (25') Riparian Zone, including encroachment of below grade structures, shall be permitted, except for approved stream stabilization work and restoration work associated with a riparian zone that is degraded.

   This criteria will be adhered to.

3. No permanent development shall occur within the twenty-five foot (25') Riparian Zone, except for approved stream stabilization work and restoration work associated with permit issued under this title, or exceptions as described below:

   a. Access to a property where no other primary access is available. b. Emergency access required by the Fire Department.
   b. A single defined pathways or staircases for the purpose of providing access to the river channel and in order to mitigate multiple undefined social paths.

   c. Development by the City of Ketchum

   This criteria is met since the work is to be authorized under an approved permit.

4. New or replacement planting and vegetation in the Riparian Zone shall include plantings that are low growing and have dense root systems for the purpose of stabilizing stream banks and repairing damage previously done to riparian vegetation. Examples of such plantings most commonly include red osier dogwood, common chokecherry, serviceberry, elderberry, river birch, skunk bush sumac, Beb's willow, Drummond's willow, little wild rose, gooseberry, and honeysuckle. However, in rare instances the distance from the top-of-bank to the mean high-water mark is significant and the native vegetation appropriate for the Riparian Zone are low growing, drought resistant grasses and shrubs. Replacement planting and vegetation shall be appropriate for the specific site conditions. Proposal does not include vegetation within

the twenty-five foot (25') Riparian Zone that is degraded, not natural, or which does not promote bank stability.

These types of plantings are being proposed. The plan will include a revegetation plan as specified by the landscape architect and/or wetland specialist.

5. Landscaping and driveway plans to accommodate the function of the floodplain allow for sheet flooding.
    a. Surface drainage is controlled and shall not adversely impact adjacent properties including driveways drained away from paved roadways. Culvert(s) under driveways may be required. Landscaping berms
    b. shall be designed to not dam or otherwise obstruct floodwaters or divert same onto roads or other public pathways.

Driveway is not within 100-year floodplain. Cross-drainage culverts can be installed. Hydraulic analysis of the proposed building and grading plan has been performed as described in the technical narrative. No water will be diverted onto roads or public pathways.

6. Floodwater carrying capacity is not diminished by the proposal.

See narrative for more detail.

7. Impacts of the development on aquatic life, recreation, or water quality upstream, downstream or across the stream are not negative.

Restoration of natural riparian waterway will enhance habitat and improve water quality. Existing pond water quality is poor.

8. Building setback in excess of the minimum required along waterways is encouraged. An additional ten- foot (10') building setback beyond the required twenty-five foot (25') Riparian Zone is encouraged to provide for yards, decks and patios outside the twenty five foot (25') Riparian Zone.

Buildings will be located within platted building envelope.

9. The top of the lowest floor of a building located in, or partially within, the SFHA shall be at or above the Flood Protection Elevation (FPE). A building is considered to be partially within the SFHA if any portion of the building or appendage of the building, such as footings, attached decks, posts for upper story decks, are located within the SFHA. See section 17.88.060, figures 1 and 2 of this chapter to reference construction details. See Chapter 17.08 of this title for definition of "lowest floor."

    a. In the SFHA where Base Flood Elevations (BFEs) have been determined, the FPE shall be twenty-four inches (24") above the BFE for the subject property; twenty-four inches (24") or two (2) feet is the required freeboard in Ketchum city limits.

b. In the SFHA where no BFE has been established, the FPE shall be at least two (2) feet above the highest adjacent grade.

This criteria is met. See architectural drawings for more detail.

10. The backfill used around the foundation in the SFHA floodplain shall provide a reasonable transition to existing grade but shall not be used to fill the parcel to any greater extent.

    a. Compensatory storage shall be required for any fill placed within the floodplain.

    b. A CLOMR-F shall be obtained prior to placement of any additional fill in the floodplain.

Adequate compensatory storage is provided. See narrative for additional detail.

11. All new buildings located partially or wholly within the SFHA shall be constructed on foundations that are designed by a licensed professional engineer.

See architectural plans for more detail.

12. Driveways shall comply with City of Ketchum street standards; access for emergency vehicles has been adequately provided for by limiting flood depths in all roadways to one foot (1-ft) or less during the 1% annual chance event.

Driveway is not within the 100-year floodplain.

13. Landscaping or revegetation shall conceal cuts and fills required for driveways and other elements of the development.

Owner will comply with this requirement.

14. (Stream alteration.) The proposal is shown to be a permanent solution and creates a stable situation.

Not applicable

15. (Stream alteration.) No increase to the one percent (1%) annual chance flood elevation at any location in the community, based on hydrologic and hydraulic analysis performed in accordance with standard engineering practice and has been certified and submitted with supporting calculations and a No Rise Certificate, by a registered Idaho engineer.

Not applicable, but see narrative for description of modeling for the project.

16. (Stream alteration.) The project has demonstrated No Adverse Impact or has demonstrated all impacts will be mitigated.

Not, but see narrative.

17. (Stream alteration.) The recreational use of the stream including access along any and all public pedestrian/fisher's easements and the aesthetic beauty shall not be obstructed or interfered with by the proposed work.

    Not applicable

18. (Stream alteration.) Fish habitat shall be maintained or improved as a result of the work proposed.

    Not applicable.

19. (Stream alteration.) The proposed work shall not be in conflict with the local public interest, including, but not limited to, property values, fish and wildlife habitat, aquatic life, recreation and access to public lands and waters, aesthetic beauty of the stream and water quality.

    Not applicable.

20. (Stream alteration.) The work proposed is for the protection of the public health, safety and/or welfare such as public schools, sewage treatment plant, water and sewer distribution lines and bridges providing particularly limited or sole access to areas of habitation.

    Not applicable.

21. (Wetlands) Where development is proposed that impacts any wetland the first priority shall be to move development from the wetland area. Mitigation strategies shall be proposed at time of application that replace the impacted wetland area with an equal amount and quality of new wetland area or riparian habitat improvement.

    See analysis and Joint Application for Permits prepared by Sawtooth Environmental.

APPLICATION CHECKLIST

Please utilize and submit the checklist on the following pages to ensure a complete application.

Floodplain management overlay application certification of completeness is based on submittal of all applicable items on this checklist.

Use for:

- Floodplain Development Permit (includes stream Alteration / streambank stabilization)
- Riparian Alteration

Project name:_____

Reviewed by:_____

DOCUMENTS

☒ One (1) digital copy of all application materials
☒ Application form
☒ Evaluation criteria narrative
☒ Description of proposed development
☒ Specifications for building construction and materials, flood proofing, filling, grading, dredging, channel improvement/changes and utilities
☒ Elevation and/or flood proofing certification prepared by a professional engineer for existing and proposed residential and nonresidential structures located partially or wholly in the regulatory floodplain. Said floodproofing methods shall meet the criteria in subsection 17.88.060.B of the Ketchum Municipal Code.
N/A ☐ Copy of letter of map amendment based on fill (LOMA-F) application for any proposed fill in the floodplain. LOMA-F approval shall be obtained from FEMA prior to issuance of a floodplain development permit.

SITE SURVEY OF EXISTING CONDITIONS (prepared and stamped by a licensed engineer or surveyor) – REQUIRED FOR NEW BUILDINGS OR ADDITIONS TO BUILDINGS IN THE FLOODPLAIN AND ANY WORK WITHIN THE FLOODWAY

☒ Exterior boundary lines of the property together with dimensions
☒ Topographic survey of the real property at a minimum of one (1) foot contour intervals, significant hillsides may be a minimum of ten (10) foot contour intervals
☒ Location of any existing dwelling units, other structures, fill, storage of materials, drainage facilities and all improved areas (pavement) with dimensions thereof showing the setback of each structure from the nearest property line
☒ Location of existing channels and ditches and other significant natural features, boundaries of floodway and floodplain, including Base Flood Elevation (BFE) and other site specific information from the studies referred to in Ketchum Municipal Code, subsection 17.88.040.A.3
☒ Location and elevations of adjacent streets, water supply and sewer lines, including private wells and/or septic systems

- ☒ Elevation of the lowest floor (including basement) of all structures existing and proposed partially or wholly located in the one percent (1%) annual chance floodplain, including elevation to which any structure has been or will be floodproofed
- ☒ Identification of the riparian zone and the "mean high water mark," as defined in Ketchum Municipal Code
- ☒ Location of previous stream alterations upstream, downstream and along both banks from subject lot
- ☒ Location of drainage ways, intermittent and year-round, including potential overflow channels or channel movement
- ☒ Location and dimensions of easements, private and public, within and adjacent to the proposed project together with the purpose thereof
- ☒ Location of all existing trees to be preserved and significant trees to be removed
- ☒ Indication of any zoning district overlay which affects the property (floodplain, mountain overlay or avalanche)
- ☒ Location of existing structures on adjacent properties

SITE PLAN – REQUIRED FOR ALL PROJECTS.

- ☒ Vicinity map
- ☒ Proposed excavation or land fill including resulting slope grades for the building pad(s), driveways and any other element of the proposed development where excavation or fill will take place
- ☒ Drainage plan including offsite improvements such as borrow ditches and culverts and including a plan for on- and off-site improvements to provide for unobstructed conveyance of floodwaters
- ☒ Location of on-site parking spaces and access thereto, including the dimensions of the spaces and the width and length of access and curb cuts
- ☒ Location and dimensions of snow storage areas
- ☒ Location of dumpster and/or garbage and recycling can storage areas, including the dimensions and proposed fencing or other screening
- ☒ Location and type of any electrical power transformers, switches and/or sectors
- ☒ Location and type of all heating, ventilation, air conditioning and other mechanical units
- ☒ Drip line of all buildings
- ☒ Percentage of the lot coverage by proposed building and parking areas together with the total square footage of the parcel of property
- ☒ Location of all proposed structures (buildings) and all improved areas (pavement, sidewalk) with dimensions thereof showing the setback of each structure from the nearest property line
- ☒ Designation of the zoning district in which the project is located
- ☒ Location of any zoning district boundary line within the proposed project or the immediate vicinity thereof
- N/A ☐ For any building in the floodplain with an area below the lowest floor that is below the base flood elevation and has a ceiling height of five feet (5') or greater, the building owner shall sign a non-conversion agreement, that shall run with the property, promising not to improve, finish or otherwise convert the area below the lowest floor to living area and granting the city the right to inspect the enclosed area at its discretion. Such agreement shall be recorded at Blaine County's recorder's office

ARCHITECTURAL PLANS – REQUIRED FOR NEW BUILDINGS OR ADDITIONS TO EXISTING BUILDINGS

- ☒ Floor plans of all floors at not less than one-eighth (1/8) scale
- ☒ All exterior elevations
- ☒ Roof plan including direction of snow sliding and snow clips if applicable. Location and type of all mechanical equipment and rooftop appurtenances
- ☒ Cross-section(s) of the property and proposed building adequately establishing the natural grade, finished grade, slope of land, slope of proposed accesses and grades to all public rights-of-way

- ☒ Location and type (cut sheets) of all exterior lighting
- ☒ Model or computer simulation renderings, if required at pre-application design review meeting

LANDSCAPE PLAN – REQUIRED FOR ANY PROJECT PROPOSING TO ALTER VEGETATION IN THE RIPARIAN ZONE OR SPECIAL FLOOD HAZARD AREA

- ☒ All existing vegetation over 2 inches in caliper, including size and species
- ☒ Proposed landscaping of the project including types, quantities and sizes of trees, shrubs, ground cover and other vegetation
- ☒ Proposed landscaping or other improvements within any public rights-of-way
- ☒ Location, type (materials and colors) and height of walls or fences
- ☒ Location of parking areas
- ☒ Location of vehicular and pedestrian circulation patterns, easements and proposed improvements with regard thereto
- ☒ Irrigation system for landscaping
- ☒ Drainage plan including off-site improvements

STREAM ALTERATIONS / STREAMBANK STABILIZATION

N/A

- ☐ Copies of the Joint Application for Permits submitted to the U.S. army corps of engineers (USACE) and Idaho department of water resources (IDWR). Please note, USACE and IDWR approvals shall be obtained prior to issuance of a stream alteration permit.
- ☐ Copy of the USACE permit approval.
- ☐ Copy of the IDWR permit approval.
- ☐ Cross section of proposed work
- ☐ Length of stream to be worked, type of work to be done, type of equipment to be used and starting and completion dates of work
- ☐ A valley cross section showing stream channel, floodway limits, elevations of adjacent land areas, Special Flood Hazard Area boundary, floodway boundary, existing Mean High Water mark, proposed Mean High Water mark, Riparian Zone regulated by the City of Ketchum, proposed excavation, proposed fill. A profile showing the slope of the bottom of the channel or flow line of the stream may be required upon review of all other material submitted.
- ☐ For any work proposed to occur in the regulatory floodway: A no net rise certificate, including supporting calculations, prepared and stamped by an Idaho registered professional hydraulic engineer
- ☐ For any work proposed to occur in the floodway: HEC-RAS model

NO ADVERSE IMPACT STATEMENT – WHERE APPLICABLE

- ☒ No Adverse Impact Statement
    - o See definition of "No Adverse Impact" in section 17.08.020 of Ketchum Municipal Code.

Attachment B:

Floodplain Affidavit

RECORDING REQUESTED BY AND WHEN RECORDED RETURN TO: City Clerk, City of Ketchum PO Box 2315 Ketchum Idaho, 83340	

(Space Above Line For Recorder's Use)

Acknowledgement of Floodplain Management Overlay District and Waterways Design Review District Affidavit

Property Owner: 450-490 WOOD RIVER LLC
Building Permit Number: Building Permit # has not been issued
Property Address: 450 Wood River Drive, Ketchum Idaho 83340
Legal Description: MARY'S PLACE SUBD LOT 3 BLK 1
Parcel Number: RPK 04740000030
Scope of Work: Single Family Residence: Main Hose Dwelling with in ground spa

Please initial and fill below:

FC I acknowledge that this development and the parcel of land, or portion thereof, on which the development will be situated are within the Floodplain Management Overlay District.

FC I acknowledge this property is within the Waterways Review District.

FC I have thoroughly read and fully understand Ketchum Municipal Code Title 17, Chapter 17.88 "Floodplain Management Overlay District", to include regulations for the Waterways Design Review District including regulations on activities within 100 feet of the mean high-water mark.

FC I fully understand and agree to comply with Ketchum Municipal Code Title 17, Chapter 17.88.040 C.

FC I, on behalf of myself, my personal representatives and my heirs, successors, and assignees, acknowledge by this written *affidavit* that said property is located within the one percent annual chance floodplain (SFHA) as defined herein, and/or said property is within the Waterways Design Review District and that a violation of the terms of Ketchum Municipal Code 17.88 shall cause the City to seek legal remedies.

FC I acknowledge that the City of Ketchum Planning & Building Department shall have the notarized affidavit recorded in the records of Blaine County for the property.

Property Owner Signature — 11/14/2023 Date

Authorized Representative of the owner

STATE OF Idaho, County of Blaine

On this 14th day of November, 2023, before me, the undersigned, a Notary Public in and for said State, personally appeared Frazier Gurness, known or identified to me to be the person whose name is subscribed to the within instrument.

WITNESS my hand and seal the day and year in this certificate first above written.

Dara R Dickerson — Residing at: 231 Edelweiss Ave, Ketchum, ID 83340

Notary Public for Idaho (State) — Commission Expires: 04/25/2029

Dara R Dickerson
Commission Number: 20231921
Notary Public
State of Idaho
My Commission Expires: 04/25/2029

City of Ketchum accepts this Affidavit from (insert owner's name).

450-490 Wood River LLC

ATTEST, CITY CLEK

Attachment C:

450 Wood River Dr

Project Plans

450 WOOD RIVER DR

FLOODPLAIN DEVELOPMENT PERMIT APPLICATION RESUBMITTAL - 4.16.24

DESCRIPTION
APPROX. 6,600 SF (CONDITIONED) NEW SINGLE-FAMILY RESIDENCE WITH 823 SF GARAGE. SCOPE OF WORK INCLUDES NEW CONSTRUCTION OF FOUNDATION, ERECTION OF STRUCTURE, CIVIL, LANDSCAPING, HARDSCAPING AND FINISHES.

PROJECT ADDRESS
450 WOOD RIVER DR
KETCHUM, ID 83340

APPLICABLE CODES
All construction shall comply with:
2018 INTERNATIONAL BUILDING CODE*
2018 INTERNATIONAL RESIDENTIAL CODE*
2018 INTERNATIONAL FIRE CODE WITH LOCAL AMENDMENTS*
2018 INTERNATIONAL ENERGY CONSERVATION CODE*
2018 INTERNATIONAL SWIMMING POOL AND SPA CODE
2018 INTERNATIONAL EXISTING BUILDING CODE
2018 INTERNATIONAL PROPERTY MAINTENANCE CODE
NATIONAL GREEN BUILDING STANDARD [SILVER CERTIFICATION]
TITLE 15 KETCHUM MUNICIPAL CODE
APPENDIX M OF THE IBC AS AMENDED BY THE CITY OF KETCHUM
ALL APPLICABLE COUNTY ORDINANCES
+FULLY-SPRINKLERED NFPA 13D THROUGHOUT

*AS AMENDED BY THE IDAHO BUILDING CODE BOARD AND INCLUDING NOTED APPENDICES.

CONTRACTOR SHALL KEEP A COPY OF THE ABOVE CODE SECTIONS ON THE JOB SITE AT ALL TIMES.

JURISDICTIONAL AGENCY SHALL BE THE KETCHUM BUILDING DEPARTMENT.

DEFERRED SUBMITTALS
FIRE SPRINKLERS

PROJECT DATA

LOCATION:	LOT 3, BK 1
LOT AREA:	54,219 SF (1.24 AC.)
ZONING DESIGNATION:	GR-L GENERAL RESIDENTIAL LOW DENSITY
LAND USE:	120 (VACANT, SINGLE FAMILY)
OCCUPANCY:	R-3 - SINGLE FAMILY DWELLING
CONSTRUCTION TYPE:	TYPE V
OVERLAYS:	FLOODPLAIN
FLOOD ZONE (FEMA):	SFHA-ZONE AE

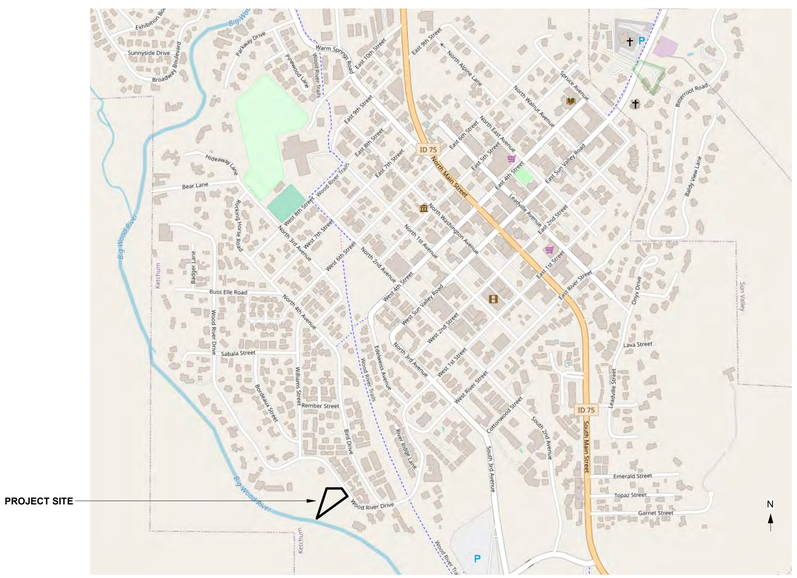
PROPOSED DEVELOPMENT

BUILDING COVERAGE:	10.0% (SEE G-011 FOR CALCULATIONS)
MAXIMUM BUILDING HEIGHT:	ALLOWABLE - 35'-0" ACTUAL / PROPOSED - 33'-2.5" 1
PARKING SPACES:	3 (GARAGE)

GROSS FLOOR AREA	
LEVEL 01	4,668 SF
LEVEL 02	3,409 SF
TOTAL	8,077 SF
CONDITIONED FLOOR AREA	
LEVEL 01	3,365 SF
LEVEL 02	3,182 SF
TOTAL	6,547 SF
GARAGE	886 SF
MECH	643 SF

REQUIRED SETBACKS

FRONT YARD:	15'-0"
SIDE YARD:	11'-0" (PER 17.20.030)
REAR YARD:	11'-0" (PER 17.20.030)



VICINITY MAP

450 WOOD RIVER

OWNER:
450-490 WOOD RIVER, LLC
ATTN: FRAZIER CAVNESS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:
RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:
BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:
BENCHMARK ASSOCIATES
100 BELL DRIVE
KETCHUM, ID 83340
TEL: 208.726.9512

LANDSCAPE ARCHITECT:
FIELD STUDIO LANDSCAPE ARCHITECTS
722 N. ROUSE AVENUE
BOZEMAN, MT 59715
TEL: 406.551.2098

STRUCTURAL ENGINEER:
LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700

MEP ENGINEER:
CONSULTING ENGINEERING SERVICES (CES)
1001 W OAK BLDG
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING:
KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

AV:
AUDIO VIDEO SYSTEMS, INC.
2700 HOMESTEAD RD
PARK CITY, UT 84098
TEL: 801.649.5200

SEAL:
LICENSED ARCHITECT
AR 987568
JASON RO
STATE OF IDAHO

NO	DATE	ISSUE
1	04.16.2024	FDP APP RESUBMITTAL
	12.13.2023	FDP APPLICATION

PROJECT:
450 WOOD RIVER
450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER
2108

DRAWING TITLE:
COVER SHEET

DRAWING NUMBER:
G-000

NOT FOR CONSTRUCTION

A. GENERAL NOTES:

1. 1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENT OF THE APPLICABLE CODES, LAWS & REQUIREMENTS APPLICABLE TO THE LOCATION OF THE PROJECT.
2. THE CONTRACTOR (AND THEIR SUB-CONTRACTORS) SHALL STUDY AND COMPARE THE CONTRACT DOCUMENTS AND SHALL AT ONCE REPORT TO THE OWNER/DESIGNER IN WRITING ALL ERRORS, INCONSISTENCIES OR OMISSIONS DISCOVERED AND VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING THE WORK. IF THE CONTRACTOR KNOWINGLY PROCEEDS WITH ANY OF THE WORK SO AFFECTED WITHOUT WRITTEN INSTRUCTION OF THE OWNER/DESIGNER, THE CONTRACTOR SHALL MAKE GOOD AT HIS OWN COST ANY RESULTING ERROR, DAMAGE, OR DEFECTS OR TIME DELAYS CAUSED. THE CONTRACTOR SHALL PERFORM NO PORTION OF THE WORK WITHOUT CONTRACT DOCUMENTS OR, WHERE REQUIRED, APPROVED SHOP DRAWINGS, PRODUCT DATA OR SAMPLES FOR SUCH PORTION OF WORK.
3. NO WORK TO COMMENCE ON SITE UNTIL PLAN HAS BEEN APPROVED AND PERMIT ISSUED BY THE DEPARTMENT OF BUILDINGS.
4. ALL STRUCTURAL WORK SHALL BE COORDINATED W/ DESIGN DRAWINGS AND SHALL CONFORM TO THE PROJECT SPECIFICATIONS AND APPLICABLE BUILDING CODES.
5. ALL MECHANICAL AND ELECTRICAL WORK SHALL BE DESIGN BUILD, FILED BY THE CONTRACTOR. RELATED FILINGS SHALL ALSO BE COORDINATED AND EXECUTED BY THE CONTRACTOR. ANY DISCREPANCIES BETWEEN THE ENGINEERED SYSTEMS AND THE DESIGN DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER IMMEDIATELY, PRIOR TO ANY CONSTRUCTION OR PURCHASING OF MATERIAL.
6. CONTRACTOR SHALL PROVIDE TEMPORARY SHORING, BRACING, SHEETING AND MAKE SAFE ALL FLOORS, ROOFS, WALLS AND ADJACENT PROPERTY AS PROJECT CONDITIONS REQUIRE. SHORING AND SHEETING SHALL BE DESIGNED BY A STATE OF CALIFORNIA LICENSED PROFESSIONAL ENGINEER HIRED BY THE CONTRACTOR, WHO SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR THE OWNER'S REVIEW.
7. DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION GIVEN IN STRUCTURAL DRAWINGS ARE BASED ON INFORMATION CONTAINED IN VARIOUS ORIGINAL DESIGN AND CONSTRUCTION DOCUMENTS PROVIDED BY THE OWNER, AND LIMITED FIELD OBSERVATIONS AND MEASUREMENTS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO EXISTING CONDITIONS BY ACTUAL MEASUREMENT AND OBSERVATION AT THE SITE. ALL DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN IN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE DESIGNER OF RECORD FOR HIS EVALUATION BEFORE THE AFFECTED CONSTRUCTION IS PUT IN PLACE.
8. PRODUCTS: TRADE NAMES OR MANUFACTURERS NOTED WITHIN DRAWINGS AND/OR SPECIFICATIONS ARE TO ESTABLISH A STANDARD OF QUALITY: CONTRACTOR MAY SUBMIT OTHER MANUFACTURERS PRODUCTS EQUAL TO THOSE SPECIFIED FOR APPROVAL.
9. THE CONTRACTOR SHALL MAKE NO DEVIATION FROM THE DRAWINGS WITHOUT WRITTEN APPROVAL OF THE DESIGNER.
10. THE CONTRACTOR SHALL GUARANTEE ALL WORK PERFORMED UNDER THIS CONTRACT FOR A PERIOD OF ONE YEAR AFTER COMPLETION AND FINAL ACCEPTANCE BY THE OWNER.
11. THE CONTRACTOR SHALL INSPECT EXISTING CONDITIONS AT JOB SITE BEFORE SUBMITTING BID. CONTRACTOR WILL BE RESPONSIBLE FOR ALL CONDITIONS ON SITE WHETHER INDICATED ON DRAWINGS OR NOT. SUBMISSION OF A PROPOSAL SHALL SIGNIFY THE CONTRACTOR'S ACCEPTANCE OF THE CONTRACT DOCUMENTS AND EXISTING CONDITIONS.
12. CONTRACTOR MUST CONDUCT A PRE-DEMOLITION MEETING AND SITE WALKTHROUGH WITH THE OWNER AND ARCHITECT BEFORE THE COMMENCEMENT OF ANY DEMOLITION OR REMOVAL OF MATERIALS.
13. THE WORK TO BE PERFORMED CONSISTS OF FURNISHING ALL LABOR, EQUIPMENT, TOOLS, TRANSPORTATION, SUPPLIES, FEES, MATERIALS, AND SERVICES IN ACCORDANCE WITH THESE NOTES AND DRAWINGS; AND INCLUDES PERFORMING ALL OPERATIONS NECESSARY TO CONSTRUCT AND INSTALL COMPLETE, IN SATISFACTORY CONDITION, THE VARIOUS MATERIALS AND EQUIPMENT AT THE LOCATIONS SHOWN.
14. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO INSURE THE SAFETY OF THE BUILDING, ITS OCCUPANTS, AND THE GENERAL PUBLIC.
15. PROVIDE ALL WORK INDICATED OR IMPLIED BY THE DRAWINGS.
16. SUBMIT SHOP DRAWINGS TO DESIGNER FOR REVIEW. DO NOT COMMENCE WORK UNTIL REVIEW OF SHOP DRAWINGS HAS BEEN COMPLETED AND THE DRAWINGS APPROVED. ALLOW TEN (10) BUSINESS DAYS MIN FOR REVIEW.
17. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR HIS WORK UNTIL TURNED OVER TO THE OWNER.
18. THE GENERAL CONSTRUCTION NOTES AND/OR DRAWINGS ARE SUPPLIED TO ILLUSTRATE THE DESIGN AND THE GENERAL TYPE OF CONSTRUCTION DESIRED AND ARE INTENDED TO IMPLY THE FINEST QUALITY OF CONSTRUCTION, MATERIAL AND WORKMANSHIP THROUGHOUT.
19. THE CONTRACTOR SHALL MAKE ALL REQUIRED ARRANGEMENTS FOR DELIVERY OF MATERIALS.
20. BUILDING CONDITIONS, INCLUDING SIZE OF SERVICE ELEVATORS, DOORWAYS, STAIRS, CORRIDORS, WINDOW OPENINGS, ETC., SHALL BE CHECKED FOR ITEMS BEING DELIVERED.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING THE PREMISES EACH EVENING PRIOR TO LEAVING THE JOB SITE. THE SITE SHALL REMAIN LOCKED AND SECURED AT ALL TIMES WHEN THE GENERAL CONTRACTOR IS NOT ON SITE AND KEYS FOR THE SITE SHALL BE HELD BY THE GENERAL CONTRACTOR. NO UNSUPERVISED SUBCONTRACTORS SHALL HAVE KEYS OR ACCESS TO THE SITE WITHOUT THE OWNER'S PRIOR CONSENT.
22. PRIOR TO BEGINNING ANY WORK, THE CONTRACTOR SHALL FURNISH A SCHEDULE SHOWING THE CHRONOLOGICAL PHASES OF THE WORK. THIS SCHEDULE SHALL INDICATE ALL ORDERING LEAD TIMES, LENGTH FOR EACH PHASE, ITS START AND COMPLETION AND A PROJECTED COMPLETION DATE FOR THE PROJECT.
23. ANY COST CAUSED BY DEFECTIVE OR ILL-TIMED WORK, AS A RESULT OF, BUT NOT LIMITED TO, INFERIOR WORKMANSHIP OR MATERIALS, IMPROPER SCHEDULING OR DELINQUENT ORDERING SHALL BE BORNE BY THE CONTRACTOR.
24. ALL RUBBISH AND WASTE MATERIALS CAUSED BY THE INSTALLATION OF THE WORK SHALL BE REMOVED FROM THE PREMISES PROMPTLY.
25. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL RULES, REGULATIONS, CODES AND ALL AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL COMPLY WITH ALL APPROPRIATE MUNICIPAL AND REGULATORY AGENCIES, CODES AND REQUIREMENTS. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS AND APPROVALS.
26. THE CONTRACTOR SHALL EXAMINE ALL AREAS OF CONSTRUCTION AFTER COMPLETION OF WORK AND PROVIDE NECESSARY TOUCH UP PAINTING OR WALL COVERING FOR PROTECTION.
27. THE CONTRACTOR SHALL INSPECT ALL EXISTING FINISHED SURFACES INCLUDING CORNER BEADS, STOPS, ETC. FOR CHIPS, CRACKS, HOLES, DAMAGED SURFACES AND ANY OTHER DEFECTS CAUSING AN APPEARANCE DIFFERENT FROM A NEW FIRST-CLASS FINISHED INSTALLATION. ALL DEFECTS SHALL BE REPAIRED, OR IF BEYOND REPAIR, THEN INSTALLED AND FINISHED TO THE SATISFACTION OF THE DESIGNER JUST PRIOR TO BEING TURNED OVER TO THE OWNER.
28. THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL LIGHT FIXTURES AND LENSES, A/C DIFFUSERS AND REGISTERS, FLOORS AND BASES, DOORS, ETC. CONTRACTOR SHALL ALSO PROVIDE A FULL POST-CONSTRUCTION CLEAN PRIOR TO FINAL PROJECT ACCEPTANCE.
29. THIS PROJECT IS A CAPITAL IMPROVEMENT AND NO SALES TAX SHALL BE PAID FOR THE PURCHASE OF EQUIPMENT AND MATERIALS BY OWNER.
30. THE CONTRACTOR SHALL PROTECT ALL INSTALLED WORK AND EXISTING, EXTERIOR GLASS AGAINST ANY DAMAGE UNTIL PROJECT IS COMPLETED AND ACCEPTED BY THE OWNER.
31. REMOVE ALL EXISTING APPLIANCES AND PLUMBING FIXTURES FROM THE SITE, UNO.
32. PREPARE THE KITCHEN SURFACES FOR NEW EQUIPMENT AND CABINETS AND PROVIDE UTILITIES AS REQUIRED TO CONNECT ALL NEW APPLIANCES.
33. CONTRACTOR SHALL CONSULT WITH REPRESENTATIVES OF APPLICABLE UTILITIES, INCLUDING GAS, WATER, POWER, TELEPHONE AND CABLE TV AND DETERMINE EXACT LOCATIONS AND AVAILABILITY OF UTILITIES AND DETERMINE CONDITION OF EXISTING SERVICE PRIOR TO COMMENCING WORK OR CONNECTING UTILITIES.
34. CONTRACTOR SHALL PROVIDE TEMPORARY TOILET FACILITIES AT THE JOB SITE AS NECESSARY AND REQUIRED BY CODE.
35. CONTRACTOR SHALL PROTECT FLOOR SURFACES FROM DAMAGE WITH RAMBOARD AND EQUIP MOBILE EQUIPMENT WITH PNEUMATIC TIRES.
36. PRIOR TO ISSUANCE OF A BUILDING PERMIT THE CONTRACTOR SHALL HAVE THE FOLLOWING: 1) CERTIFICATE OF WORKER'S COMPENSATION INSURANCE MADE OUT TO THE CONTRACTOR'S STATE LICENSE BOARD 2) COPY OF BUSINESS TAX REGISTRATION CERTIFICATE OR A NEWLY PAID RECEIPT FOR ONE FOR APPLICABLE JURISDICTION. 3) NOTARIZED LETTER OF AUTHORIZATION FOR AGENTS 4) COPY OF CONTRACTOR'S STATE LICENSE OR POCKET ID.

B. DEMOLITION:

1. 1. AS REQUIRED TO INSTALL NEW SCOPE OF WORK.
2. ALL DEBRIS TO BE PROMPTLY REMOVED FROM SITE.
3. ANY DAMAGE DONE TO FLOORS, WALLS, ETC. DUE TO REMOVAL OF EXISTING PARTITIONS, PLUMBING FIXTURES, OR ANYTHING REMOVED IN ORDER TO COMPLETE THE SCOPE OF WORK AS INDICATED ON DRAWINGS SHOULD BE PATCHED TO MATCH EXISTING AND MEET DESIGNER'S AND OWNER'S APPROVAL.
4. SEAL ALL VENTS AND OPENINGS AS REQUIRED DURING DEMOLITION TO PREVENT DUST DAMAGE ACROSS ROOMS.
5. CONTRACTOR TO REMOVE ALL FURNITURE, APPLIANCES, ETC., IN ORDER TO ALLOW FOR NEW CONSTRUCTION AS SHOWN.
6. CONTRACTOR TO PROVIDE ALL SCAFFOLDING AND BRIDGING AS REQUIRED TO COMPLETE SCOPE OF WORK.
7. FOR ALL NEW STONE AND WOOD FLOORING, CONTRACTOR IS TO REMOVE ANY EXISTING SUBSTRATE AS REQUIRED TO KEEP FLOORS LEVEL AND TRUE.
8. WHEN DEMOLITION IS REQUIRED ON SITE: 1) ALL DEBRIS SHALL BE WET AT THE TIME OF HANDLING TO PREVENT DUST, 2) NO STRUCTURAL MEMBER OF ANY KIND SHALL BE DEMOLISHED UNTIL THE STORY ABOVE IS COMPLETELY REMOVED, 3) FREE FALL DUMPING OVER EXTERIOR WALL WILL NOT BE ALLOWED 4) DEMOLITION PERMIT SHALL BE OBTAINED BY A LICENSED WRECKING CONTRACTOR (CLASS C-21) OR A LICENSED GENERAL CONTRACTOR (CLASS B-1). 5) CONTRACTOR SHALL USE NEGATIVE PRESSURE MACHINES AND HEPA FILTERS THROUGHOUT DEMOLITION TO REDUCE AIRBORNE DUST.

C. PRODUCT NOTES:

1. 1. ALL PRODUCTS SPECIFIED SHALL BE PROVIDED IN LOCATIONS INDICATED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.
2. PROVIDE BLOCKING WITHIN ALL WALLS TO SECURE SHELVING WHERE REQUIRED.
3. GENERAL CONTRACTOR (GC) TO ENSURE THAT ALL APPLIANCES, TO INCLUDE CONDENSER AND AIR HANDLING UNITS, ARE OPERATIONAL BEFORE HANDING OVER TO OWNER, ENSURE THAT ALL POWER, WATER AND VENTILATION PROVIDE AS NECESSARY.
4. GC TO PROVIDE OWNER WITH PROJECT MANUALS AT CLOSE OF JOB INCLUDING ALL OWNER'S MANUALS AND WARRANTIES FOR ALL EQUIPMENT AND APPLIANCES INSTALLED WITHIN THE SCOPE OF WORK.

D. POWER AND TELEPHONE NOTES:

1. PROVIDE ALL ELECTRICAL WORK AS INDICATED ON OR IMPLIED BY THE CONTRACT DOCUMENTS.
2. PROVIDE ALL ELECTRICAL POWER AS REQUIRED BY TELEPHONE COMPANY. PROVIDE TELEPHONE AND DATA WIRING IN LOCATIONS INDICATED AND ALL NECESSARY CONDUIT. VOICE WIRING TO BE CAT3, DATA WIRING TO BE CAT6. PATCH PANEL TO BE PROVIDED IN LOCATION INDICATED. TERMINATIONS TO BE PROVIDED BY GC AT LOCATIONS INDICATED. TELEPHONE EQUIPMENT TO BE PROVIDED BY OTHERS.
3. ALL ELECTRICAL WORK SHALL BE COORDINATED WITH THE WORK OF OTHER TRADES.
4. ALL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE REQUIREMENT OF ALL AUTHORITIES HAVING JURISDICTION.
5. ALL ELECTRICAL, SPEAKER, AND TELEPHONE WIRING SHALL BE CONCEALED IN DRYWALL AND/OR CEILING. INSTALL SPEAKER WIRE IN LOCATIONS INDICATED. TERMINATIONS AND SPEAKER INSTALLATION ARE BY OTHERS.
6. ALL ELECTRICAL, SPEAKER AND LIGHTING WORK IN CONJUNCTION WITH CABINET WORK SHALL BE COORDINATED WITH THE MILLWORK CONTRACTOR.
7. REFER TO ELEVATIONS FOR DIMENSIONED LOCATIONS OF SWITCHES, PLATES, AND OTHER EQUIPMENT.
8. ALL 125-V RECEPTACLES IN GARAGE (INCLUDING ANY CEILING OUTLETS) SHALL HAVE GFCI PROTECTION.
9. ALL 125-V RECEPTACLES SERVING COUNTER TOP SURFACES IN THE KITCHEN SHALL HAVE GFCI PROTECTION.
10. ALL 120-V BRANCH CIRCUITS SUPPLYING OUTLETS IN CLOSETS, HALLWAYS, BEDROOMS AND OTHER HABITABLE ROOMS (EXCEPT KITCHEN) SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER (AFCI).
11. RECEPTACLE OUTLETS IN HABITABLE ROOMS SHALL BE SPACED 12' O.C. MAXIMUM AND SHALL BE LOCATED WITHIN 6' OF WALL ENDS, DOOR OPENINGS, AND AT EVERY 2' OR WIDER WALL.
12. RECEPTACLE OUTLETS AT KITCHEN COUNTER-TOPS SHALL BE SPACED AT 4' O.C. MAXIMUM AND WITHIN 2' OF ENDS/BREAKS OF COUNTERS.
13. PROVIDE AT LEAST ONE OUTDOOR RECEPTACLE OUTLET WITH WEATHER PROOF COVER AND GFCI AT FRONT AND REAR OF DWELLING UNIT AND AT DECK/BALCONY (EXCEPTION: DECK/BALCONY WITH USABLE AREA LESS THAN 20 SQ.FT.
14. ALL RECEPTACLE OUTLETS SHALL BE LISTED TAMPER-RESISTANT RECEPTACLE.
15. BATHROOM RECEPTACLES SHALL BE SERVED BY A DEDICATED 20 AMP CIRCUIT.
16. PROVIDE A WALL SWITCHED-CONTROLLED LIGHTING OUTLET ON THE EXTERIOR SIDE OF OUTDOOR ENTRANCES OR EXITS WITH GRADE LEVEL ACCESS.

E. CEILING & LIGHTING NOTES:

1. CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS OF EXISTING LIGHTING AT JOB SITE. CONTRACTOR TO NOTIFY DESIGNER OF ANY DISCREPANCIES IN FIELD.
2. PROVIDE LIGHTING FIXTURES INCLUDING RELATED ELECTRICAL WORK AND LAMPING OF TYPES AND INSTALL AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS IN LOCATIONS AS INDICATED ON THE DRAWINGS.
3. SUBMIT CUTS OF ALL LIGHTING FIXTURES FOR DESIGNER'S REVIEW AND APPROVAL PRIOR TO INSTALLATION.
4. ALL FIXTURES SHALL BE REMOTE SWITCHED UNLESS OTHERWISE NOTED.
5. ALL CEILING WORK SHALL BE SQUARE AND LEVEL.
6. PROVIDE CUTOUTS IN CEILING AS REQUIRED FOR NEW CONDUITS.
7. ALL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION AND WITH CEILING MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.
8. ALL ACCESS PANELS TO BE RECESSED ACCESS DOORS FOR DRYWALL SURFACES.
9. 9. REFER TO DESIGNER OR REFLECTED CEILING PLANS FOR LOCATIONS OF SPEAKERS. WHERE DIMENSIONED NOT NOTED, GC TO COORDINATE PLACEMENT WITH DESIGNER.
10. COORDINATE CEILING FRAMEWORK ALL TRADES.
11. ALL REVEALS IN CEILINGS TO BE FRY REGLET EXTRUDED ALUMINUM AS NOTED IN CEILING DETAILS.
12. REFER TO DESIGN ELEVATIONS FOR DIMENSIONED LOCATIONS OF SWITCHES. WHERE DIMENSIONED LOCATIONS ARE NOT NOTED, GC TO COORDINATE PLACEMENT WITH DESIGNER.

F. MILLWORK:

1. 1. CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE. CONTRACTOR TO NOTIFY DESIGNER OF ANY DISCREPANCIES IN FIELD.
2. CONTRACTOR SHALL CHECK JOB PROGRESS AND COORDINATE WITH OTHER TRADES INVOLVED.
3. PERFORM ALL FABRICATION FROM FIELD MEASUREMENT WITH PROVISION FOR SCRIBING AS REQUIRED TO MEET BUILT-IN CONDITIONS.
4. ALL MILLWORK TO INCLUDE INSTALLATION SHALL BE AWI 'PREMIUM GRADE.'
5. ALL WOOD SHALL BE FIRE-RATED IN ACCORDANCE WITH LOCAL FIRE RATING REGULATIONS.
6. GROUNDS, FURRING, STRAPPING AND BLOCKING SHALL BE FREE FROM KNOTS WHICH WOULD AFFECT THE STRENGTH OR RENDER NAILING DIFFICULT.
7. ALL MATERIALS FOR WOODWORK SHALL BE THOROUGHLY KILN-DRIED.
8. ALL FINISHED WORK SHALL AS FAR AS PRACTICABLE, BE ASSEMBLED AND FINISHED IN THE SHOP AND DELIVERED TO THE BUILDING READY TO ERECT IN PLACE.
9. ALL WORK SHALL BE FABRICATED, ASSEMBLED, FINISHED AND ERECTED IN ACCORDANCE WITH AWI 'PREMIUM GRADE' STANDARDS. SURFACES AND ARISES SHALL BE TRUE, STRAIGHT, AND FREE FROM ALL MACHINE AND TOOL MARKINGS, BRUISES, INDENTATIONS, CHIPS OR ABRASIONS.
10. WHERE MEMBERS ARE MITERED OR BUTTED, THEY SHALL BE JOINED AND IN A MANNER TO INSURE AGAINST THE JOINT OPENING.
11. PROVIDE ALL CABINET DOOR AND SHELVING WORK HARDWARE AS REQUIRED FOR A COMPLETE INSTALLATION. REFER TO HARDWARE SCHEDULE.
12. AFTER TOTAL COMPLETION OF ERECTION, ALL NAIL HOLES, SCRATCHES AND OPEN JOINTS SHALL BE FILED AND TOUCHED UP SO AS TO BE INVISIBLE.
13. ALL WHITE LACQUER MDO AND WOOD VENEER PLYWOOD TO RECEIVE SOLID EDGE BANDING TO CONCEAL LAMINATIONS. EDGE BANDING TO BE VENEER THICK UNLESS OTHERWISE NOTED.
14. FLITCHES TO BE MAXIMUM PRACTICABLE WIDTHS AND FULL HEIGHT IN SEQUENTIAL BOOK MATCH PATTERN OR AS NOTED BY ARCHITECT. GRAIN DIRECTION ON WALL PANELS AND CABINET FACES TO BE VERTICAL UNLESS OTHERWISE NOTED. ARCHITECT TO SELECT ALL FLITCHES.
15. FABRICATE UNITS IN LARGEST PRACTICABLE SECTIONS. ASSEMBLE IN THE SHOP FOR TRIAL FIT. DISASSEMBLE FOR SHIPMENT AND REASSEMBLE WITH CONCEALED FASTENERS.
16. MAINTAIN RELATIVE HUMIDITY AND TEMPERATURE DURING FABRICATION, STORAGE AND FINISHING OPERATIONS MATCHING THAT OF THE AREAS OF INSTALLATION.
17. FACTORY FINISH ALL ITEMS WHERE POSSIBLE. DEFER FINAL TOUCH-UP, CLEANING AND POLISHING UNTIL AFTER DELIVERY AND INSTALLATION.
18. PANELING - PROVIDE CONCEALED WOOD BLOCKING AND FRAMING, ANCHORS, CLIPS, SPLINES, SUPPORTING AND ATTACHING DEVICES. PROVIDE CUT-OUTS TO RECEIVE ATTACHMENTS, MECHANICAL AND ELECTRICAL WORK AS REQUIRED.
19. MAKE ALL JOINTS HAIRLINE TIGHT, FITTED ACCURATELY AND JOINTED WITH HARDWOOD SPLINES OR DOWELS, GLUED TOGETHER OR BY OTHER METHOD APPROVED BY DESIGNER. USE SCREWS, NOT NAILS, FOR FASTENING TO GYPSUM BOARD.
20. ALL DRAWERS SHALL BE MAXIMUM DEPTH OF THE HOUSE CABINET W/ FULL EXTENSION, SOFT CLOSING SLIDES, 100 LBS MIN CAPACITY, UNO.
21. ALL CABINET DOORS SHALL HAVE SOFT CLOSING CONCEALED ERO HINGES, UNO. WHEN THE DOOR OPEN ADJACENT TO A PERPENDICULAR WALL CONTRACTOR SHALL PROVIDE LIMITER CLIPS TO PREVENT CLASHING DOOR W/ WALL, PROVIDE HINGE AT MAX 16" O.C.
22. ALL DRAWERS & CABINET DOOR PANELS SHALL BE FITTED W/ (4) FOUR 1/8" THK CLEAR SELF-ADHESIVE BUMPERS AS EACH CORNER.
23. ALL REVEAL JOINTS BETWEEN CABINET & DRAWER PANELS SHALL ALIGN + BE LEVEL + PLUMB.

G. GYPSUM BOARD WORK:

1. GYPSUM BOARD PARTITIONS SHALL TYPICALLY CONSIST OF 2X6 WOOD STUDS AT 16" O.C. WITHOUT EXCEPTION, STUDS SHALL BE FIRMLY ANCHORED TO THE FLOOR AND CEILING PLATES. THE FLOOR AND CEILING PLATES SHALL IN TURN BE ANCHORED TO THE FLOOR AND CEILING STRUCTURES WITH TWO CONTINUOUS BEADS OF ACOUSTIC/FIRE SEALANT BETWEEN SUBSTRUCTURE & RUNNER.
2. ALL GYPSUM BOARD WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL AUTHORITIES HAVING JURISDICTION AND WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. ALL NEW GYPSUM SURFACES TO BE LEVEL 4 DRYWALL FINISH AND BOARDS TO HAVE TAPERED EDGES.
3. PROVIDE ALL REQUIRED FASTENERS, ANCHORS, ADHESIVES, COMPOUNDS, ETC. AS INDICATED PER GYPSUM BOARD MANUFACTURE'S STANDARDS AND AS REQUIRED FOR A COMPLETE INSTALLATION.
4. ALL EXPOSED EDGES AND/OR CORNERS OF GYPSUM BOARD SHALL RECEIVE A HOT-DIPPED GALVANIZED METAL CORNER BEAD AND ALL EDGES OF A GYPSUM BOARD ABUTTING OTHER MATERIAL SHALL RECEIVE A HOT-DIPPED GALVANIZED METAL CASING BEAD, TAPED AND SPACKLED SMOOTH.
5. PROVIDE NEW SPECIAL WATER RESISTANT TYPE GYPSUM BOARD IN ALL WET LOCATIONS SUCH AS BATHROOMS. PROVIDE CEMENT BOARD SUCH AS DUROCK AT ALL SHOWER AND BATH AREAS OVER MEMBRANE WATER PROOFING.
6. WALLS SHOWN ALIGNED WITH EXISTING BUILDING CONSTRUCTION SHALL BE FLUSH AND SMOOTH WITH EXISTING BUILDING CONSTRUCTION UNLESS OTHERWISE INDICATED.
7. ALL PARTITIONS SHALL BE FURNISHED WITH BASES AS INDICATED IN THE CONTRACT DOCUMENTS.
8. ALL NEW PARTITIONS SHALL BE TAPED, SPACKLED AND SANDED.
9. WHERE SPECIFIED, PLYWOOD UNDERLAYMENT TO HAVE STAGGERED JOINTS, GWB OVERLAY ALSO STAGGERED SO THAT PLYWOOD JOINTS DO NOT TELEGRAPH THROUGH TO SURFACE OF GWB.
10. AT EXISTING PARTITIONS, CONTRACTOR TO PROBE WALL TO LOCATE STUDS AND COORDINATE WITH NEW CONSTRUCTION.
11. PROVIDE A FULL SKIM COAT OF COMPOUND AT ALL EXISTING AND NEW GWB SURFACES THAT ARE NOT SMOOTH AND TRUE.
12. ALL DRYWALL SURFACES ABUTTING FINISH CASEWORK SHALL RECEIVE SKIM COATING AS REQUIRED TO MAKE SURFACE LEVEL AND PLUMB.

H. SHOP DRAWINGS & SAMPLES:

1. SUBMIT SHOP DRAWINGS FOR DESIGNERS APPROVAL FOR THE FOLLOWING ITEMS: CABINETRY/MILLWORK, ALL DOOR & WINDOW ASSEMBLIES, ALL METAL WORK & STRUCTURAL STEEL, TILE LAYOUT DETAILS WITH STARTING POINTS AND JOINT LAYOUT, CUSTOM CONCRETE, MECHANICAL DUCTWORK, ELECTRICAL WORK, GLAZED ASSEMBLIES.
2. CONTRACTOR SHALL SUBMIT THREE SAMPLES OF ALL FINISH MATERIALS, INCLUDING BUT NOT LIMITED TO, TILE, GLASS, STONE, WOOD VENEER FOR DESIGNER/OWNER REVIEW. SAMPLES MAY BE REVIEWED ON SITE. SEE PROJECT MANUAL.

I. HVAC:

1. CONTRACTOR TO TEST ANY FANS, EXHAUSTS, MECHANICAL EQUIPMENT PRIOR TO HANDOVER OF PROJECT TO OWNER.
2. NEW DWELLING UNIT SHALL HAVE A MECHANICAL VENTILATION SYSTEM.

J. PAINTING:

1. ALL AREAS RECEIVING PAINT, AS INDICATED IN FINISH SCHEDULE, SHALL BE PAINTED IN ACCORDANCE WITH PAINT MANUFACTURE'S WRITTEN INSTRUCTIONS.
2. WALLS SCHEDULED TO BE PAINTED SHALL INCLUDE SURFACES FROM FLOOR TO CEILING INCLUDING PILASTERS, FASCIAS, DOORS, BUCKS, REVEALS, AND ALL SURFACES NOT INCLUDING FLOOR AND CEILINGS.
3. PAINT GYPSUM CEILINGS AND WALLS AS PER FINISH SCHEDULE.
4. PAINT COLORS AND TEXTURES SHALL BE SELECTED AND SPECIFIED IN FINISH SCHEDULE, AND CONTRACTOR SHALL SUBMIT THREE 18"X18" SAMPLES OF EACH SELECTED COLOR AND TEXTURE FOR DESIGNERS REVIEW.
5. ALL WALLS AND CEILINGS SHALL BE PROPERLY PREPARED, SPACKLED, SANDED, ETC., TO PROVIDE A PERFECTLY SMOOTH SURFACE TO RECEIVE PAINT, SKIM COAT, ETC. AS REQUIRED.
6. ALL PAINT SHALL BE WATER BASED PAINT, PROVIDE ONE (1) PRIMER COAT AND TWO (2) FINISH COATS OF PAINT AS SPECIFIED IN FINISH SCHEDULE.
7. ALL ROOMS TO BE BENJAMIN MOORE AURA, DUNN EDWARDS SUPREMA OR APPROVED EQUAL. COLORS & FINISH TBD BY DESIGNER.

K. PLUMBING NOTES:

1. PROVIDE ALL PLUMBING ROUGHING AS INDICATED OR IMPLIED BY CONTRACT DOCUMENTS.
2. ALL FIXTURES AND ACCESSORIES TO BE PROVIDED AND INSTALLED BY CONTRACTOR AS PER MANUFACTURER'S GUIDELINES. IF CONTRACTOR FINDS THAT COMPONENTS OR ITEMS ARE MISSING WHICH ARE REQUIRED FOR THE COMPLETE INSTALLATION AS IMPLIED IN THE CONTRACT DOCUMENTS THE GC SHALL NOTIFY THE DESIGNER IMMEDIATELY FOR COORDINATION.
3. PLUMBING WORK SHALL BE COORDINATED WITH ALL OTHER TRADES.
4. INSTALL FIXTURES, LINES OR PIECES OF THE APPROVED ALL VALVES AS INDICATED ON THE DRAWINGS OR AS MAY BE REQUIRED FOR THE PROPER CONTROL OF THE VARIOUS APPARATUS AND PIPELINES SO THAT ANY OF THE FIXTURE, LINES OR PIECES OF APPARATUS MAY BE CUT OFF FOR REPAIR WITHOUT INTERFERING OR INTERRUPTING SERVICE TO THE REST OF THE PROJECT. ALL VALVES SHALL BE DESIGNED FOR REPACKING WHEN WIDE OPEN UNDER PRESSURE.
5. BEFORE BEING COVERED UP OR BUILT IN, ALL PIPING SHALL BE TESTED AS REQUESTED BY THE AUTHORITIES HAVING JURISDICTION AND WITNESS BY THE OWNER, DESIGNER AND OR BUILDING ENGINEER.
6. DIVERSION OF PLUMBING SHALL NOT INTERRUPT DRAINAGE SERVICE IN ANY WAY.
7. REMOVE ANY DORMANT PIPES DISCOVERED.
8. CONTRACTOR TO ENSURE THAT ANY EXISTING PIPES ARE IN GOOD CONDITION OR REMEDY OR REPLACE EXISTING PIPES.
9. IDENTIFY ALL ITEMS REQUIRING SERVICE ACCESS AND PROVIDE APPROVED TYPE ACCESS DOORS. SUCH LOCATIONS TO BE COORDINATED AND APPROVED BY DESIGNER. ACCESS DOOR TO BE RECESSED FOR DRYWALL SURFACES.
10. IF REQUIRED A NEW WATER METER SHALL BE INSTALLED TO MEET CAPACITY OF THE NEW DOMESTIC AND SPRINKLER CAPACITY DEMANDS.
11. WATER METERS SHALL BE PLACED NEAR THE PROPERTY LINE AND OUT OF THE DRIVEWAY APPROACH WHENEVER POSSIBLE.
12. THE WATER METER BOX MUST BE PURCHASED FORM THE CITY AND MUST HAVE A TRAFFIC RATED LID IF THE BOX IS LOCATED IN THE DRIVEWAY.

L. WOOD FLOORING:

1. GENERAL STANDARDS TO COMPLY WITH RECOMMENDATIONS OF NATIONAL FLOORING MANUFACTURER'S ASSOCIATION (NOFMA).
2. FLOORING TO BE INSTALLED AS SPECIFIED IN FINISH SCHEDULE AND AS PER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
3. PROTECT FLOORING FROM EXCESSIVE MOISTURE IN SHIPMENT, STORAGE AND HANDLING. DELIVER IN UNOPENED CARTONS OR BUNDLES AND STORE IN A DRY PLACE WITH ADEQUATE AIR CIRCULATION. DO NOT DELIVER MATERIAL TO BUILDING UNTIL WET WORK SUCH AS CONCRETE HAVE BEEN COMPLETED AND CURED TO A CONDITION OF EQUILIBRIUM.
4. PROVIDE MOCK-UP OF WOOD 4'X4' SQUARE ON SITE (TO BE REPLACED WITH FINAL FLOORING) FOR DESIGNER AND OWNER REVIEW AND APPROVE.
5. WHERE THE SUBFLOOR IS NOT LEVEL, THE CONTRACTOR SHALL TAKE MEASURES TO LEVEL THE SUBSTRATE WITHOUT AFFECTING THE INSTALLATION OF FLOOR.
6. GRAIN/BOARD DIRECTION SHALL BE INDICATED ON FLOOR PLAN.
7. CONTRACTOR SHALL PROVIDE MANUFACTURER RECOMMENDED VAPOR BARRIER OVER SUBFLOOR THROUGHOUT PROJECT AND PROVIDE 1/4" FLOOR UNDERLAYMENT
8. CONTRACTOR SHALL STORE WOOD FLOOR ON SITE FOR MINIMUM OF TWO WEEKS TO ALLOW WOOD TO ACCLIMATE PRIOR TO INSTALLATION. BOARDS SHALL BE SPACED OUT TO ALLOW AIR FLOW ACROSS ALL FACES OF EACH BOARD.
9. ADHESIVE AND FASTENING AGENTS USED TO INSTALL FLOORING SHALL BE MANUFACTURER APPROVED ONLY.
10. CONTRACTOR SHALL COORDINATE AND ALLOW FOR (IF ANY) THERMAL EXPANSION TO PREVENT PLANKS FROM BUCKLING.
11. BOARDS SHALL BE A MINIMUM OF 60" IN LENGTH AND SHALL NOT ACCOUNT FOR MORE THAN 25% OF THE BOARD MIX. REMAINING MIX OF BOARDS SHALL BE AT MINIMUM 25% 5'-8', 25% 8'-10' & 25% 10'-0" AND LONGER.
12. SEE FINISH AND MATERIAL SCHEDULE FOR MORE INFORMATION.

M. DOOR NOTES:

1. ALL DOORS TO BE 1-3/4" SOLID LUMBER CORE FLUSH WHITE OAK VENEER DOORS W/ 'A' FACE ON BOTH SIDES OR APPROVED EQUAL. DOORS IN EXCESS OF 36" IN WIDTH AND/OR 96" IN HEIGHT SHALL BE 2" IN THICKENSS.
2. DOORS SHALL BE MANUFACTURED BY WEYERHAEUSER, ALGOMA OR EGGERS HARDWOOD PRODUCTS CORP., OR OTHER APPROVED EQUALS.
3. DOORS WHEN INSTALLED SHALL NOT BOW OR BECOME OUT OF PLANE. ALL DOORS SHALL BE FABRICATED TO ACCOMODATE SELF WEIGHT AND THE DISTRIBUTION OF WEIGHT SPECIFIC TO OPERATION AND ATTACHMENT OF ASSIGNED HARDWARE EACH DOOR.
4. ALL DOOR STOPS SHALL BE LOCATED IN THE FIELD W/ DESIGNER & OWNER PRIOR TO INSTALLATION.

N. STONE NOTES:

1. A WATERPROOFING MEMBRANE SHALL BE PLACED OVER ALL PORTIONS OF SUBFLOOR AT BATHROOMS AND RUN UP VERTICAL AT ALL WALLS AS HIGH AS POSSIBLE, BUT A MINIMUM OF 12" ABOVE FINISHED FLR, WHILE REMAINING CONCEALED BEHIND THE WALL BASE TRIM AND OR WALL CLADDING MATERIAL.
2. ANY STONE OR TILE SHALL BE SET LEVEL, PLUMB AND FLUSH ALIGNED. JOINTS SHALL BE 1/8" MAX AND 1/16" MIN.
3. GROUT COLOR SHALL BE AS PER FINISH SCHEDULE AND A SAMPLE MEASURING 12"X12" SHALL BE SUBMITTED FOR DESIGNER AND OWNER APPROVAL.
4. FINAL STONE, TILE INSTALLATION SHALL BE FREE OF CHIPS, SCRATCHES, GROUT HAZE OR STAINS.
5. ALL EXPOSED EDGES ON COUNTERTOPS SHALL BE SLIGHTLY EASED, 1/8" MAX AT ALL UNDERMOUNT SINKS AND TUBS AND 1/16" MAX AT ALL OTHER LOCATIONS. CONTRACTOR SHALL SUBMIT AN EASED EDGE SAMPLE FOR DESIGNER'S REVIEW.
6. ALL STONE TO BE FINISHED WITH DRY TREAT BRAND SEALER OR SUPPLIER RECOMMENDED SEALER.
7. CONTRACTOR SHALL CLEAN, PATCH AND LEVEL THE SUBFLOOR AS REQUIRED FOR ALL TILE/STONE FLOORING.

O. GLASS NOTES:

1. ALL GLASS SHALL BE SIZE CRITICAL BASED ON FIELD DIMENSIONS
2. ALL GLASS, UON, SHALL BE WATER WHITE GLASS AND TEMEPRED WHERE REQUIRED BY CODE

P. TEMPORARY MEASURES:

1. GC SHALL MAINTAIN A COMPUTER & INTERNET CONNECTION TO RECEIVE SKETCHES & TRANSMISSIONS ON SITE DURING CONSTRUCTION. GC SHALL ALSO PROVIDE THE DESIGNER WITH A TELEPHONE NUMBER FOR THE JOB SITE WHETHER WIRED OR MOBILE.
2. GC TO PROVIDE A FIRE EXTINGUISHER AND FIRST AID KIT ON SITE DURING CONSTRUCTION.
3. GC SHALL PROVIDE A NEST WEBCAM OR APPROVED EQUIVALENT FOR REMOTE VIEWING OF SITE FROM TWO LOCATIONS. OWNER SHALL INSTALL & PAY COST OF INTERNET BANDWITH TO SUPPORT CONTINUOUS CAMERA FEED.

Q. LANDSCAPE & LANDSCAPE IRRIGATION:

1. ALL LANDSCAPE IRRIGATION BACKFLOW DEVICES MUST MEET CURRENT JURISDICTION'S REQUIREMENTS FOR PROPER INSTALLATION.

R. FIRE DEPARTMENT NOTES:

1. GC TO REFER TO APPLICABLE FIRE CODE NOTES RELEVANT TO NEW CONSTRUCTION OF SINGLE FAMILY RESIDENCE.
2. PROJECT CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STANDARDS OF THE MOST CURRENT BUILDING AND MUNICIPAL CODES AS ADOPTED BY GOVERNING JURISDICTIONS OF THE PROJECT LOCATION AT TIME OF INITIAL FILING.
3. A SET OF PLANS MUST REMAIN ON THE JOB SITE AT ALL TIMES. APPOINTMENTS FOR INSPECTIONS, IF REQUIRED, SHOULD BE MADE AT LEAST TWO DAYS IN ADVANCE OF THE REQUIRED INSPECTION.
4. AN APPROVED KEY BOX SHALL BE INSTALLED, WITH THE APPROPRIATE KEYS, FOR EMERGENCY FIRE DEPARTMENT ACCESS IN A LOCAITON APPROVED BY THE FIRE DEPARTMENT. THE KEY BOX SHALL BE A KNOX BOX BRAND AN DSIZED TO ACCOMMODATE KEYS TO EVERY DOOR OF THE PROJECT.
5. FIRE EXTINGUISHERS SHALL BE INSTALLED AND MAINTAINED PER 2018 IFC SECTION 906 BOTH DURING CONSTRUCTION AND UPON OCCUPANCY OF THE BUILDING. DURING CONSTRUCTION, FIRE EXTINGUISHERS SHALL BE PLACED IN A CONSPICUOUS, EASY TO ACCESS, UNOBSTRUCTED LOCATION THAT IS LESS THAN 75' TRAVEL DISTANCE TO ANY COMBUSTIBLES ON SITE, 30' TO ANY HOT WORK. EXTINGUISHERS SHALL BE MOUNTED IN A CONSPICUOUS, EASY TO ACCESS, UNOBSTRUCTED LOCATION. UPON COMPLETION OF PROJECT, RESIDENCE SHALL HAVE A MINIMUM OF ONE EXTINGUISHER PER GARAGE AND ONE EXTINGUISHER PER KITCHEN AREA.
6. APPROVED ADDRESS NUMBERS SHALL BE PLACED IN SUCH A POSITION TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE ROAD FRONTING THE PROPERTY. NUMBERS AND LETTERS SHALL BE A MINIMUM OF FOUR (4) INCHES TALL, HAVE A MINIMUM 1/2" BRUSH STROKE, CONTRAST WITH THEIR BACKGROUND, AND BE POSITIONED A MINIMUM OF FORTY-EIGHT (48) INCHES ABOVE FINAL GRADE.
7. VEHICLE PARKING AND MATERIAL STORAGE DURING CONSTRUCTION SHALL NOT RESTRICT OR OBSTRUCT PUBLIC STREETS OR ACCESS TO ANY BUILDING. A MINIMUM TWENTY FOOT TRAVEL LANE FOR EMERGENCY VEHICLE ACCESS SHALL BE MAINTAINED CLEAR AND UNOBSTRUCTED AT ALL TIMES. ALL REQUIRED FIRE LANES, INCLUDING WITHIN 15 FEET OF FIRE HYDRANTS, SHALL BE MAINTAINED CLEAR AND UNOBSTRUCTED AT ALL TIMES.
8. PROVIDE FIRE HYDRANT FOR THE PROPERTY AS REQ'D PER NLTFD REQUIREMENTS AND IFC Table C102.1 (IFC Appendix C).
9. ALL BUILDINGS EQUIPED WITH AN AUTOMATIC FIRE SPRINKLER SYSTEM SHALL HAVE A MONITORED FIRE ALARM PER (IFC 903.4) PLANS AND INSTALLATION OF 13R FIRE SPRINKLER AND MONITORED FIRE ALARM SYSTEM UNDER SEPARATE PERMIT PER RESOLUTION 16-1.

S. FIRE PROTECTION

1. (IFC 907.2.10): INTERCONNECTED SMOKE ALARMS SHALL BE INSTALLED INSIDE ALL BEDROOMS, ON THE CEILING OR WALL OUTSIDE OF EACH BEDROOM AND IN EVERY STORY IN THE DWELLING UNIT INCLUDING BASEMENTS BUT NOT CRAWL SPACES, UNINHABITED ATTICS AND GARAGES.
2. CARBON MONOXIDE ALARMS SHALL BE INSTALLED IMMEDIATELY OUTSIDE OF ALL BEDROOMS AND IN THE IMMEDIATE VICINITY OF BEDROOMS IN DWELLING UNITS WITHIN WHICH FUEL FIRED APPLIANCES ARE INSTALLED, AND IN DWELLING UNITS THAT HAVE ATTACHED GARAGES.
3. CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING, SHALL BE EQUIPPED WITH A BATTERY BACKUP AND INTERCONNECTED
4. CUT SHEETS OF ALL DEVICES SHALL BE SUBMITTED TO ARCHITECT PRIOR TO PURCHASE AND INSTALLATION
5. FIRE SUPPRESSION SHALL BE PROVIDED IN NEW DWELLING UNIT, ATTACHED GARAGE AND ANY CRAWL SPACES IF APPLICABLE. THE AUTOMATIC RESIDENTIAL SPRINKLER SYSTEM WILL COMPLY WITH NFPA 13R, MONITORED BY AN APPROVED FIRE ALARM SYSTEM IN ACCORDANCE WITH NFPA 72, AND PER REQ'S OF AUTHORITY HAVING JURISDICTION.

T. COUNTY RIGHT-OF-WAY

1. AN EXCAVATION AND ENCROACHMENT PERMIT IS REQUIRED PRIOR TO ANY IMPROVEMENTS N THE COUNTY RIGHT-OF-WAY, PERMIT MUST BE OBTAIN BY COUNTY APPROVED CONTRACTOR.
2. A REVOCABLE OCCUPANCY PERMIT MUST BE OBTAINED SHALL THE BEAR BOX LOCATION BE WITHIN 12' OF EDGE OF PAVEMENT.

U. FLOODPLAIN NOTES

1. ALL NEW CONSTRUCTION, SUBSTANTIAL IMPROVEMENTS, AND DEVELOPMENT SHALL BE CONSTRUCTED WITH MATERIALS AND UTILITY EQUIPMENT RESISTANT TO FLOOD DAMAGE IN ACCORDANCE WITH FEMA TECHNICAL BULLETIN 2, FLOOD DAMAGE-RESISTANT MATERIALS REQUIREMENTS. ALL MATERIALS LOCATED BELOW THE BASE FLOOD ELEVATION SHALL MEET THE REQUIREMENTS OF BEING FLOOD RESISTANT. MATERIALS INCLUDE FERROUS METAL AND / OR STEEL PANELS WITH WATERPROOF ADHESIVES.
2. ALL NEW CONSTRUCTION AND SUBSTANTIAL IMPROVEMENTS SHALL BE ANCHORED TO PREVENT FLOTATION, COLLAPSE, OR LATERAL MOVMENT OF THE STRUCTURE RESULTING FROM HYDRODYNAMIC AND HYDROSTATIC LOADS, INCLUDING THE EFFECTS OF BUOYANCY.
3. 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. THESE INCLUDE, BUT ARE NOT LIMITED TO, HVAC EQUPMENT, WATER SOFTENER UNITS, BATH/KITCHEN FIXTURES, DUCTWORK, ELECTRIC/GAS METER PANELS/BOXES, UTILITY/CABLE BOXES, HOT WATER HEATERS, AND ELECTRIC OUTLETS/SWITCHES.

450 WOOD RIVER

OWNER:

450-490 WOOD RIVER, LLC
ATTN: FRAZIER CAVNESS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:

BENCHMARK ASSOCIATES
100 BELL DRIVE
KETCHUM, ID 83340
TEL: 208.726.9512

LANDSCAPE ARCHITECT:

FIELD STUDIO LANDSCAPE ARCHITECTS
722 N. ROUSE AVENUE
BOZEMAN, MT 59715
TEL: 406.551.2098

STRUCTURAL ENGINEER:

LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700

MEP ENGINEER:

CONSULTING ENGINEERING SERVICES (CES)
1001 W OAK BLDG
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

AV:

AUDIO VIDEO SYSTEMS, INC.
2700 HOMESTEAD RD
PARK CITY, UT 84098
TEL: 801.649.5200

SEAL:
LICENSED
ARCHITECT
AR 987568
JASON RO
STATE OF IDAHO

NO	DATE	ISSUE
1	04.16.2024	FDP APP RESUBMITTAL

PROJECT:

450 WOOD RIVER

450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER

2108

DRAWING TITLE:

GENERAL NOTES

DRAWING NUMBER:

G-002 1

NOT FOR CONSTRUCTION

Ketchum Fire Department

FIRE COMMENTS MEMO

To: Frazier Cavness
CC: Ketchum Building
From: Seth Martin, Assistant Chief / Fire Marshal
Date: December 26, 2023
Subject: 450 Wood River Dr

It is the General Contractor's responsibility to understand and adhere to all Fire Protection Ordinance #1217 requirements in addition to all City of Ketchum requirements in effect at the time of Building Permit issuance. Failure to comply with all local ordinances and codes may result in project work stoppage as well as criminal penalties.

The above project shall meet all 2018 International Fire Code requirements in addition to specific City Building and Fire Ordinances.

An approved automatic fire sprinkler system shall be installed throughout the building per City of Ketchum Ordinance #1217 ***(www.ketchumfire.org)*** and the National Fire Protection Association Standard 13. An approved fire sprinkler flow bell, Knox box and Fire Department Connection shall be installed in an approved location visible to approaching firefighters. **Water service lines to structures shall be hydraulically calculated for size to meet fire sprinkler flow requirements.** Fire sprinkler systems shall be annually tested and maintained per NFPA 25. An approved fire department connection and flow bell shall be installed in a location approved by the fire department and the system shall be supervised by an approved alarm system.

NOTE: One electronic set of fire sprinkler system plans must be submitted to the Ketchum Fire Department as well as the State Fire Marshals office and a Ketchum Fire Department Permit must be obtained *prior to installation* of fire sprinkler systems. Inspections of fire sprinkler systems by the Fire Chief or an appointee are required. Inspections must be scheduled at least 48 hours in advance.

An approved monitored fire detection system shall be installed per City of Ketchum Ordinance #1217 ***(www.ketchumfire.org)*** and the requirements of NFPA 72. Alarm system plans shall be submitted to the Ketchum Fire Department for approval and a permit is required prior to installation of alarm systems. Inspections of fire detection systems by the Fire Chief or an appointee are required and shall be scheduled at least 48 hours in advance.

An approved monitored fire sprinkler alarm system shall be installed per City of Ketchum Ordinance #1217 ***(www.ketchumfire.org)*** and the requirements of NFPA 72. Alarm system plans shall be submitted to the Ketchum Fire Department for approval and a permit is required prior to installation of alarm systems. Inspections of fire detection systems by the Fire Chief or an appointee are required and shall be scheduled at least 48 hours in advance.

An approved key box shall be installed, with the appropriate keys, for emergency fire department access in a location approved by the fire department. The key box shall be a Knox box brand and sized to accommodate keys to every door of the project.

An approved access roadway per 2018 International Fire Code Appendix D ***(www.ketchumfire.org)*** shall be installed prior to any combustible construction on the site. The road shall be a minimum of twenty (20) feet in width, capable of supporting an imposed load of at least 75,000 pounds, and extend to within 150' of all exterior areas of the structure(s). The road must be an all-weather driving surface maintained free, clear, and unobstructed at all times. Grades shall not exceed 7%. Dead end access roadways exceeding 150 feet in length shall be provided with an approved turnaround. Gates, if installed, are required to be siren activated for emergency vehicle access. Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet, approved aerial fire apparatus access roads shall be provided. Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet, exclusive of shoulders, in the immediate vicinity of the building or portion thereof.

Smoke and Carbon Monoxide Detectors shall be installed per NFPA and the International Fire Code. Smoke detectors shall be installed inside each bedroom, within 21' of each sleeping area, and on every level of the occupancy, including the basement. CO alarms shall be installed in a central location outside each sleeping area and on every level of the home.

Fire extinguishers shall be installed and maintained per 2018 IFC Section 906 both during construction and upon occupancy of the building. During construction fire extinguishers shall be placed in a conspicuous, easy to access, unobstructed location that is less than 75' travel distance to any combustibles on site, 30' to any hot work. Extinguishers shall be mounted in a conspicuous, easy to access, unobstructed location. Upon completion of project every single-family residence shall have a **minimum of one extinguisher per garage and one extinguisher per kitchen area.**

Approved address numbers shall be placed in such a position to be plainly visible and legible from the road fronting the property. Numbers and letters shall be a minimum of four (4) inches tall, have a minimum ½" brush stroke, **contrast** with their background, and be positioned a minimum of forty-eight (48) inches above final grade.

Vehicle parking and material storage during construction shall not restrict or obstruct public streets or access to any building. A **minimum** twenty-foot travel lane for emergency vehicle access shall be maintained clear and unobstructed at all times. All required Fire Lanes, including within 15 feet of fire hydrants, shall be maintained clear and unobstructed at all times.

This project shall comply with the City of Ketchum Fire Protection and defensible space characteristics. Exterior windows, window walls, glazed doors, windows within exterior doors, and skylights shall be tempered glass, multilayered glazed panels, glass block *or* have a fire protection rating of not less than 20 minutes. All exterior doors shall be solid core construction or have a fire rating of not less than 20 minutes. All exterior vents shall be designed and approved to prevent flame or ember penetration and all exterior mesh shall have openings that do not exceed 1/8". Gutters and downspouts shall be non-combustible and shall be provided with an approved means to prevent the accumulation of leaves and debris. **All materials within 12" vertical of finished grade shall be 1 hour rated, non-combustible, or covered with minimum 28-gauge flashing. The area 12" horizontal from the base of a wall shall be finished in a way to prevent any vegetation growing, and for vegetative debris to be easily removed**. Tree crowns and all other combustible vegetation extending to within 10 feet of any structure or chimney shall be pruned to maintain a minimum horizontal clearance of 10 feet. Tree crowns within 30 feet of any structure shall be pruned to remove limbs located less than 6 feet above the ground surface adjacent to the trees. Non-fire

resistive vegetation or growth shall be kept clear of buildings and structures, in such a manner as to provide a clear area for fire suppression operations. Spark arrestors are required on chimneys attached to all solid fuel burning installations.

Note: Additional requirements may be added upon final plan review.

John Reuter Greenworks
Tel: 208.721.2922
john@idahogreenworks.com
126 S Main St, Suite B4
Hailey, ID 83333

450 Wood River Drive
2018 IECC Prescriptive Path with Idaho Amendment
August 18, 2023

The new residence at 450 Wood River Drive, Ketchum, ID intends to use the 2018 IECC prescriptive path with Idaho amendment for insulation and fenestration requirements for climate zone 6, as shown in the table below:

TABLE R402.1.2
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT [a]

Climate Zone	Fenestration U- Factor[b]	Skylight[b] U-factor	Glazed Fenestration SHGC[b, e]	Ceiling R-Value	Wood Frame Wall R-Value	Mass Wall R-Value[j]	Floor R-Value	Basement[c] Wall R-Value	Slab[d] R-Value & Depth	Crawlspace[c] Wall R-Value
5	0.32	0.55	NR	38	20 or 13+5[h]	13/17	30[g]	15/19	10, 2 ft	15/19
6	0.30	0.55	NR	49	22 or 13+5[h]	15/20	30[g]	15/19	10, 4 ft	15/19

Source: Division of Building Safety, 2020, Idaho Statutes and Administrative Rules, page 8

Specifically, this project intends to use the following components:

Building Component	Insulation Type	R-value / U-value
Slab	2" thick XPS under entire slab	10
Floors Overhangs and over Garage	Blown fiberglass or spray foam	30
Above Grade Walls	Spray Foam	22
Windows and Glass Doors	Double pane low E	0.3
Solid Doors	Insulated Door or Solid Wood	0.28
Ceilings	8" CCSPF	49

John Reuter

450 WOOD RIVER

OWNER:
450-490 WOOD RIVER, LLC
ATTN: FRAZIER CAVNESS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:
RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:
BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:
BENCHMARK ASSOCIATES
100 BELL DRIVE
KETCHUM, ID 83340
TEL: 208.726.9512

LANDSCAPE ARCHITECT:
FIELD STUDIO LANDSCAPE ARCHITECTS
722 N. ROUSE AVENUE
BOZEMAN, MT 59715
TEL: 406.551.2098

STRUCTURAL ENGINEER:
LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700

MEP ENGINEER:
CONSULTING ENGINEERING SERVICES (CES)
1001 W OAK BLDG
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING:
KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

AV:
AUDIO VIDEO SYSTEMS, INC.
2700 HOMESTEAD RD
PARK CITY, UT 84098
TEL: 801.649.5200

SEAL:

LICENSED ARCHITECT
AR 987568
JASON RO
STATE OF IDAHO

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450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER
2108

DRAWING TITLE:
ENERGY & FIRE DEPT DOCUMENTS

DRAWING NUMBER:
G-005 1

NOT FOR CONSTRUCTION

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5 | SCALE: NTS | **N ELEVATION**

3 | SCALE: NTS | **S ELEVATION**

4 | SCALE: NTS | **SE PERSPECTIVE / BACKYARD**

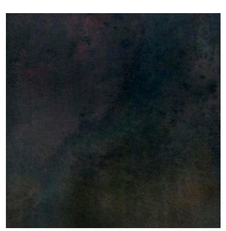
2 | SCALE: NTS | **SW PERSPECTIVE / BACKYARD**

[A] INTEGRALLY COLORED CONCRETE TO MATCH GRANITE

[B] STAINED SAWN CEDAR

[C] FREEFORM NATURAL STONE

[D] LIGHT GRAY PAVERS



[E] BLACK POWDER-COATED METAL

1 | SCALE: NTS | **MATERIALS**

BUILDING ELEVATION NOTES:

1. NOTE: PLEASE SEE SHEET G-010 FOR PERMISSIBLE BUILDING HEIGHT DETERMINATION.
2. ALL MATERIALS TO BE NON-GLARE FINISH, TYP
3. SEE G-013 FOR BUIDLING MATERIALS.

450 WOOD RIVER

OWNER:

450-490 WOOD RIVER, LLC
ATTN: FRAZIER CAVNESS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:

BENCHMARK ASSOCIATES
100 BELL DRIVE
KETCHUM, ID 83340
TEL: 208.726.9512

LANDSCAPE ARCHITECT:

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722 N. ROUSE AVENUE
BOZEMAN, MT 59715
TEL: 406.551.2098

STRUCTURAL ENGINEER:

LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700

MEP ENGINEER:

CONSULTING ENGINEERING SERVICES (CES)
1001 W OAK BLDG
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

AV:

AUDIO VIDEO SYSTEMS, INC.
2700 HOMESTEAD RD
PARK CITY, UT 84098
TEL: 801.649.5200

SEAL:

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PROJECT:

450 WOOD RIVER

450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER

2108

DRAWING TITLE:

PERSPECTIVE VIEWS & MATERIALS

DRAWING NUMBER:

G-010

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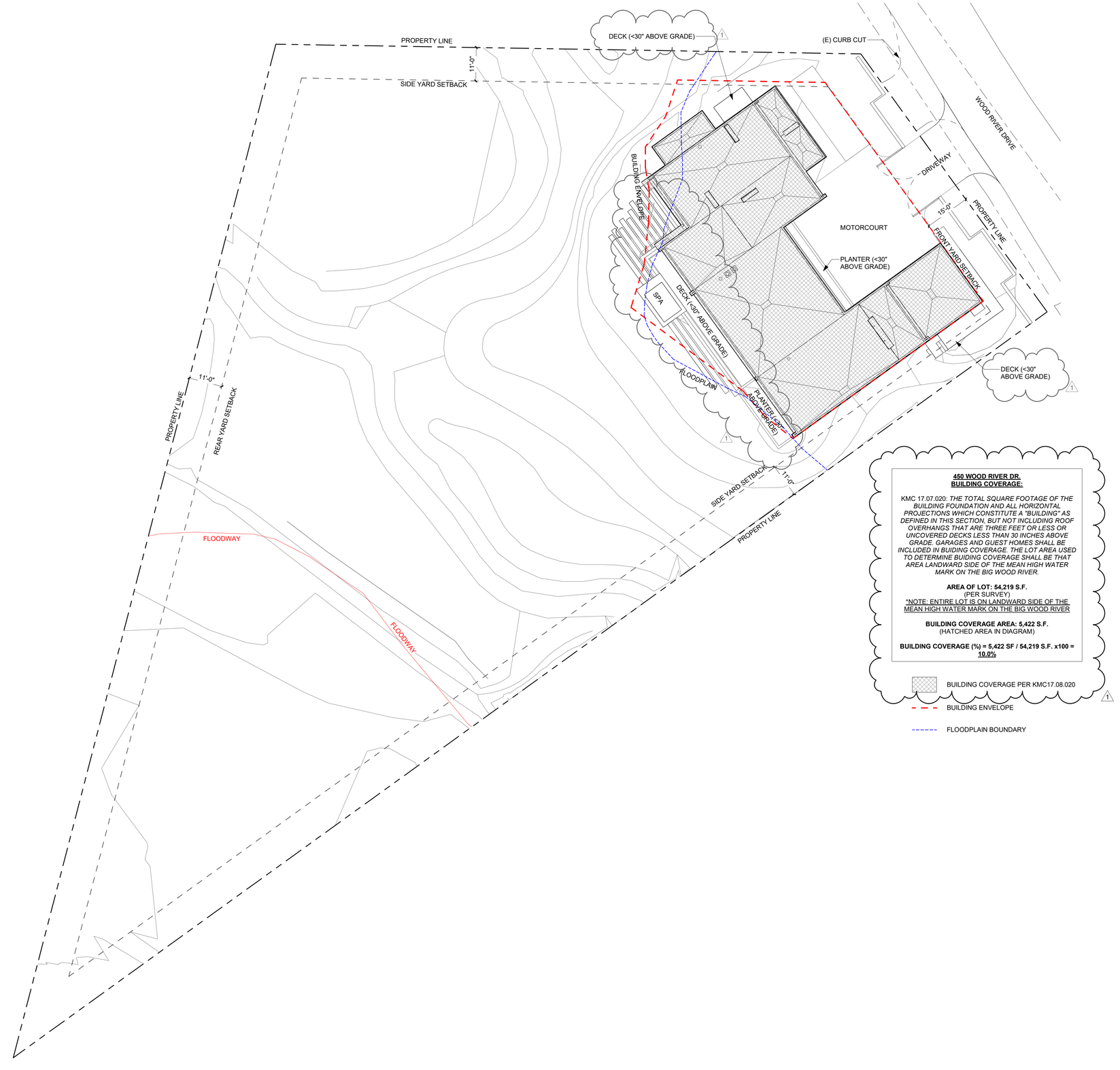

450 WOOD RIVER DR.
BUILDING COVERAGE:

KMC 17.07.020: *THE TOTAL SQUARE FOOTAGE OF THE BUILDING FOUNDATION AND ALL HORIZONTAL PROJECTIONS WHICH CONSTITUTE A "BUILDING" AS DEFINED IN THIS SECTION, BUT NOT INCLUDING ROOF OVERHANGS THAT ARE THREE FEET OR LESS OR UNCOVERED DECKS LESS THAN 30 INCHES ABOVE GRADE. GARAGES AND GUEST HOMES SHALL BE INCLUDED IN BUIDING COVERAGE. THE LOT AREA USED TO DETERMINE BUIDING COVERAGE SHALL BE THAT AREA LANDWARD SIDE OF THE MEAN HIGH WATER MARK ON THE BIG WOOD RIVER.*

AREA OF LOT: 54,219 S.F.
(PER SURVEY)
*NOTE: ENTIRE LOT IS ON LANDWARD SIDE OF THE MEAN HIGH WATER MARK ON THE BIG WOOD RIVER

BUILDING COVERAGE AREA: 5,422 S.F.
(HATCHED AREA IN DIAGRAM)

BUILDING COVERAGE (%) = 5,422 SF / 54,219 S.F. x100 = 10.0%

BUILDING COVERAGE PER KMC17.08.020

BUILDING ENVELOPE

FLOODPLAIN BOUNDARY

1 | 1/16" = 1'-0" | **LOT COVERAGE DIAGRAM**

450 WOOD RIVER

OWNER:
450-490 WOOD RIVER, LLC
ATTN: MATT SCOGGINS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:
RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:
BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:
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100 BELL DRIVE
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LICENSED ARCHITECT
AR 987568
JASON RO
STATE OF IDAHO

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450 WOOD RIVER
450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER
2108

DRAWING TITLE:
BUILDING COVERAGE CALCULATIONS

DRAWING NUMBER:
G-011

NOT FOR CONSTRUCTION

Tue 04/16/24 9:17:55 AM

SCHEDULE - FINISH MATERIALS

IDENTIFIER	DESCRIPTION	LOCATION	MANUFACTURER	MODEL	DIMENSIONS	SPECIES/COLOR	FINISH	COMMENTS
BRK-1	FIREBRICK	RM 101 FP-1, RM 111 FP-2. DECK FP-4	ISOKERN	FIRE BRICK	9" x 4.5" x 1.25"	BLACK - SPLIT	MATTE	CUT FIREBRICK IN HALF ALONG LONG EDGE AND INSTALL IN A STACKED BOND W/ GROUT TO MATCH, FINISHED SIZE 9" x 2" x 1.25"
EPX-1	EPOXY RESIN	RM 106, 113, 204, 214 MECH ROOMS	PENNTEK EVOLUTION COATINGS	POLYASPARTIC POLYUREA CHIP SYSTEM	-	TBD	TBD	PROVIDE 1/16" CUSTOM COLOR FLAKE MIX
GL-1	TEMPERED GLASS	ALL SHOWER DOORS	VITRO OR APPROVED EQ	STARPHIRE	1/2" THICK	CLEAR WATER WHITE	POLISHED / (.1) ACID ETCHED ONE SIDE / (.2) ACID ETCHED BOTH SIDES	SIZE CRITICAL, FLAT POLISHED EDGES, TEMPERED AS REQ BY APPLICATION AND CODE
GL-2	FROSTED TEMPERED GLASS	VARIES	CUSTOM	-	PER MANUF	SEE WINDOW SCHEDULE	FROSTED	SEE WINDOW SCHEDULE
GL-4	TEMPERED MIRROR GLASS	ALL BATHROOMS	VITRO OR APPROVED EQ	STARPHIRE	1/4" THK	MIRROR	POLISHED	SIZE CRITICAL, FLAT POLISHED EDGES
GL-5	TINTED TEMPERED MIRROR GLASS	RM 113 POWDER	BENDHEIM OR APPROVED EQ	-	1/2" THK	BRONZE TINTED MIRROR	ANTI-GLARE	SIZE CRITICAL, FLAT POLISHED EDGES
LTH-1	LEATHER	ENTRY DOOR PULL	EDELMAN	TBD		BROWN	SMOOTH	PROVIDE SADDLE STITCHING
MTL-1	PTD SHEET METAL	EXTERIOR FLASHING & REVEALS	DREXEL OR EQUAL	TBD	22 GA	TBD	LOW GLOSS	-
MTL-2	PTD PLATE STEEL / BAR STOCK	VARIES	CUSTOM	CUSTOM COLD ROLLED	SEE DWGS	TBD	PRIMED + PAINTED	-
PLAM-1	ACRYLIC LAMINATE	RM 213 LAUNDRY CSWK OUTERS	FENIX OR APPROVED EQ	J0032 BIANCO KOS	-	WHITE	WHITE	-
PLAM-2	MELAMINE ON MDF	RM 213 LAUNDRY CSWK INNERS	-	-	-	WHITE	WHITE	-
PLAS-1	GWB PLASTER FINISH WET LOCATION	ALL BATHROOMS	TEXSTON	HYDROLIME 125	-	CM-6918-REG-SDGNS-031822	MATTE	TROWEL SMOOTH, PROVIDE WATERPROOF ADDITIVE TO MIX, MATCH BENJAMIN MOORE OC-17 WHITE DOVE
PNT-1	GWB PAINT FINISH	INT WALLS & CEILINGS	BENJIMAN MOORE OR APPROVED EQ	AURA	-	OC-17 WHITE DOVE	EGGSHELL @ WALLS & DAMP / FLAT @ CLGNS	PROVIDE PRIMER & TWO COATS
SSM-1	SOLID SURFACE	SHOWER NICHE, TYP	DUPONT	CORIAN	1/2" THK	RICE PAPER	HONED	
SSM-2	SOLID SURFACE	RM 213 LAUNDRY COUNTERTOP	DUPONT	CORIAN	1/2" THK	GLACIER WHITE	HONED	
STN-1	STONE FLOOR TILE	LEVEL 01 & LEVEL 02 FLOORS	MATERIAL BESPOKE STONE + TILE	AVALON KAHLA GREY	12"x24"	KAHLA GREY	FLAMED	3/16" GROUT JOINT, COLOR TBD
STN-2	FREEFORM STONE WALL	RM 101 FP-1 & DECK FP-4 WALLS	SELECT STONE	MUDDY CREEK TUMBLED ASHLAR	VARIES / 2" THK	MUDDY CREEK	NATURAL CLEFT	RANDOMIZED INSTALLATION W / OVERGROUTED JOINTS, COLOR TBD BY ARCHITECT
STN-3	ROUGH STONE SLAB	RM 113 POWDER; RM 101 FP MANTLE	SELECT STONE	NIAGARA DOLOMITE	3/4" THK UNO	LIMESTONE	SPLITFACE	
STN-4	DARK STONE SLAB	RM 102 KITCHEN & RM 111 REC	STONELAND	TBD	3/4" THK UNO	TBD	HONED	PROVIDE $80/SF MATERIAL COST ALLOWANCE, STONE TO BE SHIPPED FROM LOS ANGELES
STN-5	STONE SLAB	RM 108, 208, 212, 216 TYP BATH COUNTER & WALLS	STONELAND	TBD	3/4" THK UNO	TBD	HONED	PROVIDE $40/SF MATERIAL COST ALLOWANCE, STONE TO BE SHIPPED FROM LOS ANGELES
STN-6	HONED STONE SLAB	RM 113 POWDER	SELECT STONE	NIAGARA DOLOMITE	3/4" THK UNO	LIMESTONE	HONED	3/16" GROUT JOINT, COLOR TBD
STN-7	STONE SLAB	RM 206 PRIMARY BATH WALLS & COUNTERS	STONELAND	TBD	3/4" THK UNO	TBD	HONED	PROVIDE $80/SF MATERIAL COST ALLOWANCE, STONE TO BE SHIPPED FROM LOS ANGELES
STN-8	RIVER ROCK ROOF BALLAST	LOW ROOFS	SELECT STONE	-	1.5" MIN DIAMETER	GRAY RIVER ROCK	SMOOTH, ROUNDED	
STN-9	EXT STONE FLOOR TILE	LEVEL 02 EXTERIOR SLIDING DOOR SILLS	STONELAND	TBD	3/4" THK UNO	BLACK GRANITE	TBD	
TL-1	CERAMIC TILE	RM 213 LAUNDRY BACKSPLASH	ANN SACKS	ELEMENTS FIELD TILE	1.75" x11"	WHITE	MATTE	STACKED BOND 1/8" NON-SANDED GROUT JOINT, COLOR TBD
TXT-1	UPHOLSTERY	RM 100 FOYER & RM 104 MUD	TBD	TBD	TBD	TBD	TBD	PROVIDE MATERIAL ALLOWANCE OF $150/YD
WD-1	WOOD SIDING - INTERIOR	INTERIOR WD WALLS & CEILINGS	MADERA	WALL / CEILING PANELING	3/4" x 6"	ENGINEERED PLAIN SAWN AMERICAN WHITE OAK T&G PANELS		CONCEALED FASTENERS. SEE INT ELEVATIONS FOR ORIENTATION. PROVIDE MATERIAL ALLOWANCE OF $20/SF.
WD-1E	WOOD SIDING - EXTERIOR	EXTERIOR WD WALLS & CEILINGS	RESAWN LUMBER	TAKU - T&G SIDING	3/4" x 6"	WEATHERED ALASKAN YELLOW CEDAR	TAKU	SEAL ALL SIDES. CONCEALED / BLIND SS FASTENERS. SEE EXT ELEVATIONS FOR SIDING ORIENTATION.
WD-2	EXTERIOR WOOD SLAT	EXTERIOR SCREENS	RESAWN LUMBER	TAKU - SOLID STOCK	SEE DWGS	WEATHERED ALASKAN YELLOW CEDAR	TAKU	SEAL ALL SIDES. CONCEALED / BLIND SS FASTENERS. SEE EXT ELEVATIONS FOR SIDING ORIENTATION.
WD-3	SOLID WOOD	INTERIOR SLATS / SCREENS / DOOR FRAMES	CUSTOM	-	SEE DWGS	LIVE SAWN AMERICAN WHITE OAK, MATCH WD-1	CLEAR MATTE POLYURETHANE	
WD-4	WOOD FLOORING	BED 1 & LEVEL 02 FLOOR	MADERA	TBD	3/4" x 8"	LIVE SAWN WHITE OAK	DANIELLE	
WD-5	WOOD VENEER	CASEWORK / DOORS / WALL PANELS	GL VENEER	-	-	TO BE SELECTED BY ARCHITECT	TO BE SELECTED BY ARCHITECT	CLEAR PREMIUM GRADE; SOLID WOOD TRANSITION PIECES AS NEEDED; ARCHITECT TO SELECT VENEERS AND LAYOUT; SOURCED FROM GL VENEERS IN LOS ANGELES, CA VENEERS TO BE LAID UP IN SEQUENCE PER ARCHITECT INSTRUCTIONS AND CUSTOM MOUNTED TO BALTIC BIRCH PLYWOOD; BOOKMATCHED AND USED IN SEQUENCE THROUGHOUT ROOMS

450 WOOD RIVER

OWNER:

450-490 WOOD RIVER, LLC
ATTN: FRAZIER CAVNESS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:

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LANDSCAPE ARCHITECT:

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722 N. ROUSE AVENUE
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TEL: 406.551.2098

STRUCTURAL ENGINEER:

LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700

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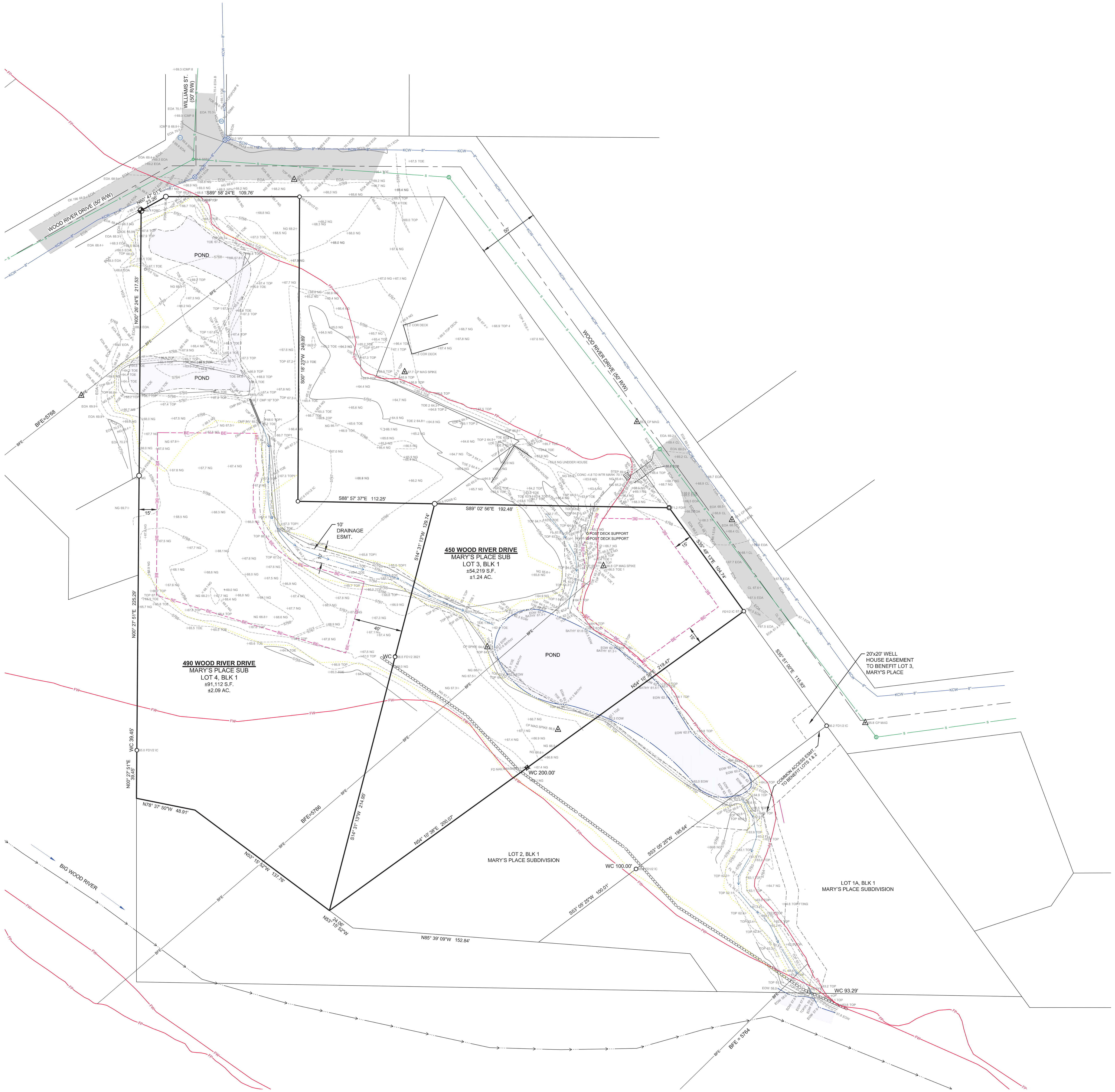
KETCHUM, ID 83340

PROJECT NUMBER
2108

DRAWING TITLE:
FINISH MATERIAL SCHEDULE

DRAWING NUMBER:
G-105

NOT FOR CONSTRUCTION



GRAPHIC SCALE

0 30 60

Scale in Feet

LEGEND

- Property Line
- Adjoiner's Lot Line
- Centerline of Right of Way
- Building Envelope
- Easement, type and width as shown
- CNTRL = Survey Control
- FDBC = Found Brass Cap
- FD5/8 = Found 5/8" Rebar
- FD1/2 = Found 1/2" Rebar
- 5' Contour Interval
- 1' Contour Interval
- FL = Flow Line of Creek/Ditch
- Building
- Asphalt
- Wetlands, per Sawtooth Environmental 2016 Study
- Pavers
- Approximate Surface Water at time of Survey
- Thalweg, Big Wood River, per FEMA 2010
- Base Flood Elevation, per FEMA 2010
- Floodplain, per FEMA 2010
- Floodway, per FEMA 2010
- EOW = Approximate Edge of Water
- Sewer Main
- SMH = Sewer Manhole
- SDMH = Storm Drain Manhole
- Culvert
- Ketchum City Water Line (8")
- WV = Water Valve

CMP = Corrugated Metal Pipe
COR = Corner
EOA = Edge of Asphalt
EOP = Edge of Pavers
FL = Flow Line
NG = Natural Ground
TOE = Toe of Slope
TOP = Top of Slope
WC = Witness Corner

NOTES

1. The purpose of this map is to show topographical information as it existed on the date the field survey was performed. Changes may have occurred to site conditions since survey date (09/23/2022).
2. Boundary information is based on Found Monumentation, the recorded plat of Mary's Place Subdivision, Instrument Number 445345, records of Blaine County, Idaho, and the Record of Survey Showing Lots 2, 3, & 4, Block 1, Mary's Place Subdivision, Instrument Number 679251, records of Blaine County, Idaho. Refer to the Plat Notes, Conditions, Covenants, and Restrictions on the Original Plat.
3. Underground utility locations are based on above ground appurtenances, utilities visible at the time of the survey, and City Maps. Utilities should be located prior to any excavation.
4. Galena Engineering Inc. has not received a Title Policy from the client and has not been requested to obtain one. Relevant information that may be contained within a Title Policy may therefore not appear on this map and may affect items shown hereon. It is the responsibility of the client to determine the significance of the Title Policy information and determine whether it should be included. If the client desires for the information to be included they must furnish said information to Galena Engineering, Inc. and request it be added to this map.
5. Benchmark is top of Found Brass Cap marking the northwest corner of lot 4, elevation = 5768.11. Point elevations shown are truncated (i.e. 47.3 is 5747.28). Vertical Datum is NAVD 1988.

A TOPOGRAPHIC MAP SHOWING LOT 3 & 4, BLK 1, MARY'S PLACE SUBDIVISION (450 AND 490 WOOD RIVER DRIVE)

LOCATED WITHIN SECTION 13, T.4 N., R.17 E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO
PREPARED FOR PRESIDIO VISTA PROPERTIES, LLC

PROJECT INFORMATION
P:\sdskproj\7193-01\dwg\Topo\7193-01-topo.dwg 10/27/22 4:52:47 PM

PROFESSIONAL LAND SURVEYOR LICENSED 16670 10/27/22 STATE OF IDAHO MARK E. PHILLIPS

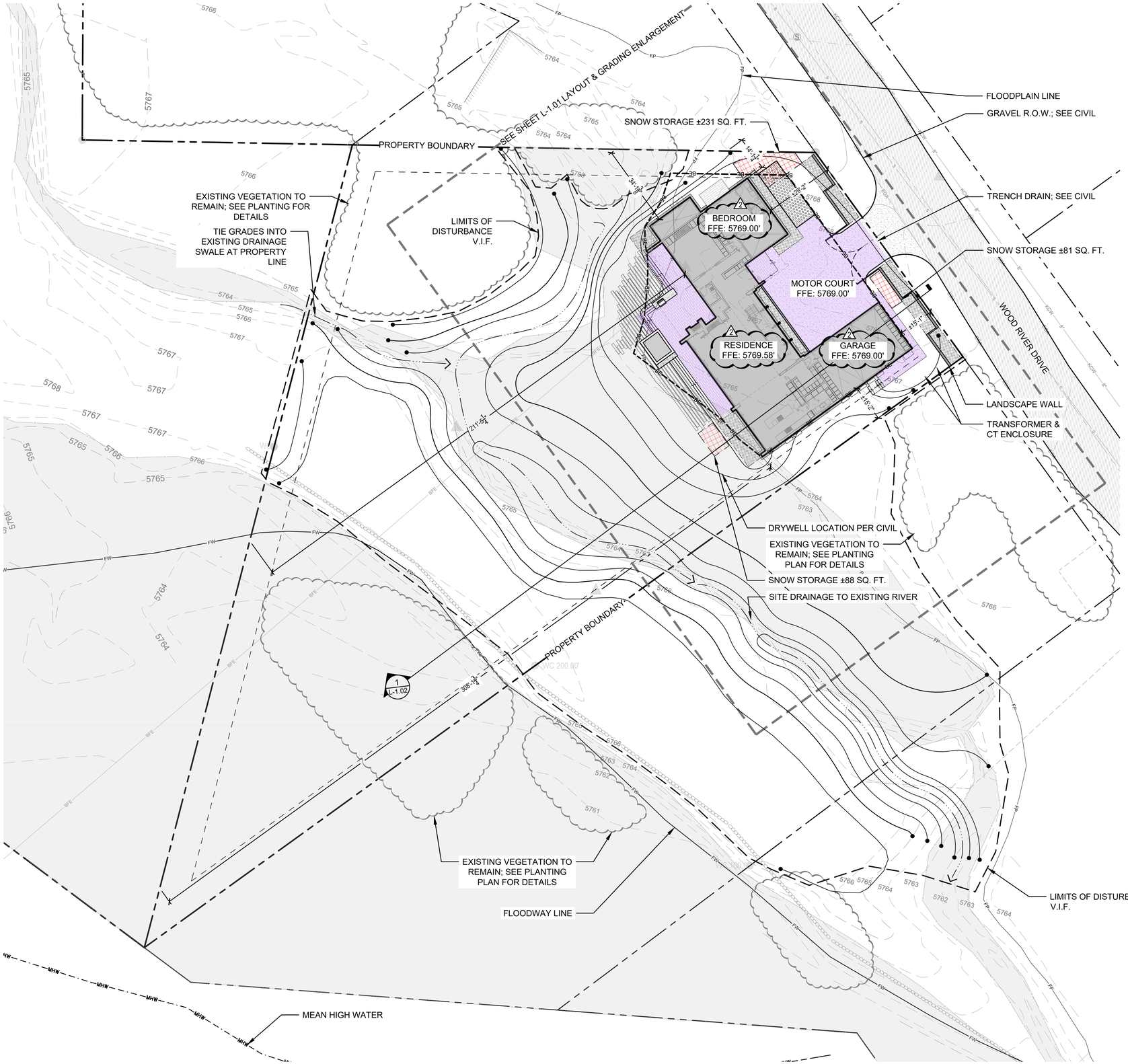
DESIGNED BY IDV / MS
DRAWN BY MEP
CHECKED BY

GALENA ENGINEERING, INC.
Civil Engineers & Land Surveyors
317 N. River Street
Hailey, Idaho 83333
(208) 788-1705
email galena@galena-engineering.com

PURPOSE:

NO	DATE	BY	REVISIONS

TOPO



LEGEND

- CONCRETE, ±2,353 SF, V.I.F
- STONE PAVER; ±1,714 SF, V.I.F.
- PAVERS WITH PLANTED JOINTS; ±260 SF, V.I.F.
- 12" HORIZONTAL CRUSHED AGGREGATE
- PROPERTY BOUNDARY
- BUILDING ENVELOPE
- LIMITS OF DISTRUBANCE
- VEGETATION TO REMAIN
- EXISTING CONTOURS
- SWALE
- PROPOSED CONTOUR
- LANDSCAPE WALL
- PLANTING AREA; *SEE PLANTING PLANS*
- JURISDICTIONAL WETLAND; ±98,465 SF *SEE ARMY CORP JOINT APPLICATION TO RESTORATION PLAN*

SNOW STORAGE CALCULATIONS	
SNOW STORAGE PROVIDED (AS PERCENTAGE OF DRIVEWAY/PEDESTRIAN AREA)	30.00%
DRIVEWAY & PEDESTRIAN AREA	±4,067 SQ. FT.
SNOWMELT AREA	±2,840 SQ. FT.
NON-SNOWMELT AREA	±1,226 SQ. FT.
SNOW STORAGE REQUIRED	**±368 SQ. FT.**
1 SNOW STORAGE PROVIDED - SEE DIMENSIONS ON L-1.01	**±400 SQ. FT.**

THESE CALCULATIONS ARE IN COMPLIANCE WITH CITY OF KETCHUM CODE

FIELD STUDIO LANDSCAPE ARCHITECTS
722 N.ROUSE AVE.
BOZEMAN, MT 59715
(406)551-2098
www.fieldstudiola.com

PROJECT NUMBER: 2219

450 WOOD RIVER DRIVE
KETCHUM, ID

DATE • ISSUE	
2023.11.29	FDP SET
1 2024.02.14	FDP REV.
2 2024.04.15	FDP REV.
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SHEET TITLE

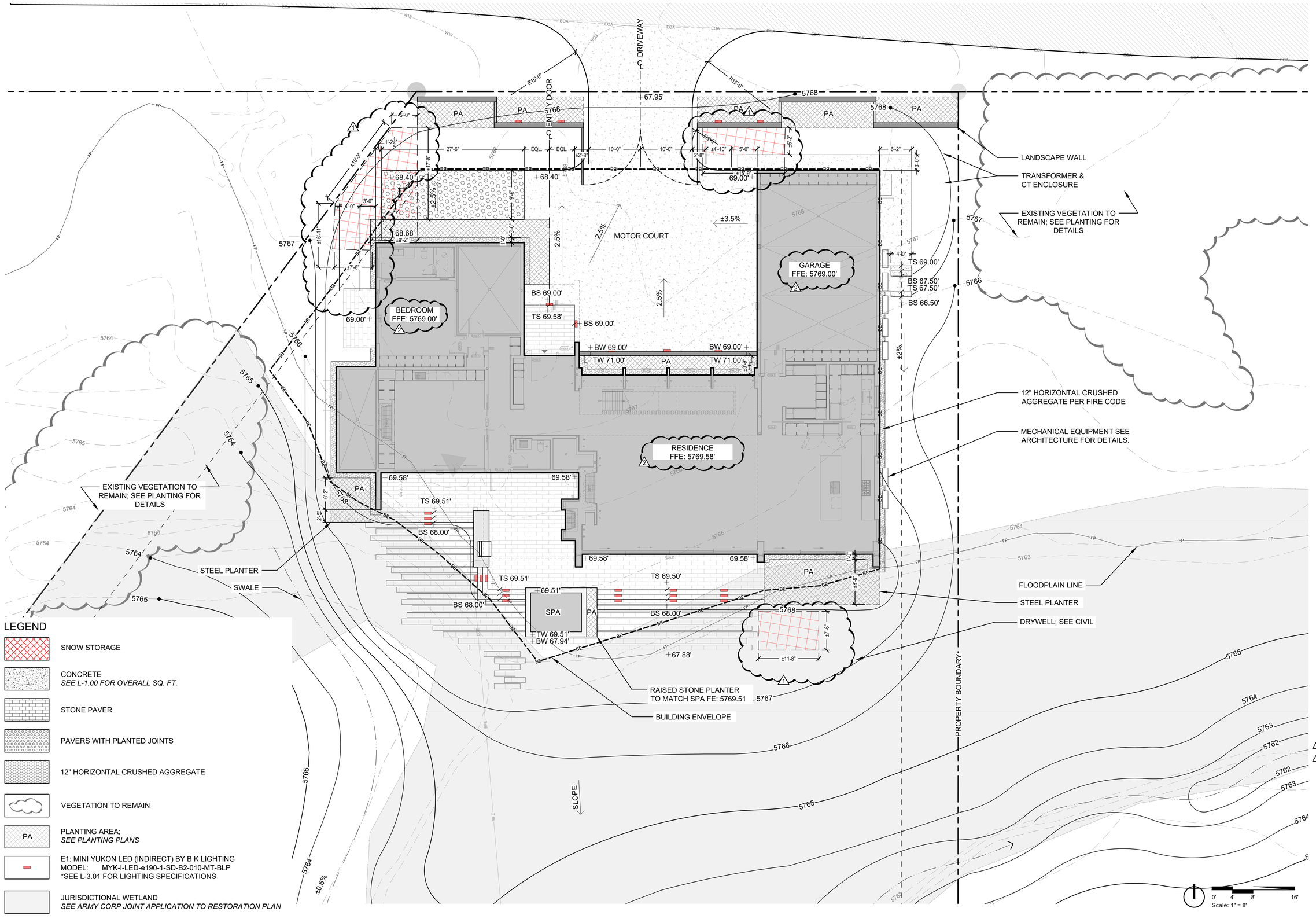
OVERALL MATERIALS & GRADING

Scale: 1" = 20'

SHEET 1 OF 6

L-1.00

PRELIMINARY • NOT FOR CONSTRUCTION



LEGEND

- SNOW STORAGE
- CONCRETE
  SEE L-1.00 FOR OVERALL SQ. FT.
- STONE PAVER
- PAVERS WITH PLANTED JOINTS
- 12" HORIZONTAL CRUSHED AGGREGATE
- VEGETATION TO REMAIN
- PA — PLANTING AREA;
  SEE PLANTING PLANS
- E1: MINI YUKON LED (INDIRECT) BY B K LIGHTING
  MODEL: MYK-I-LED-e190-1-SD-B2-010-MT-BLP
  *SEE L-3.01 FOR LIGHTING SPECIFICATIONS
- JURISDICTIONAL WETLAND
  SEE ARMY CORP JOINT APPLICATION TO RESTORATION PLAN

Scale: 1" = 8'

PRELIMINARY • NOT FOR CONSTRUCTION

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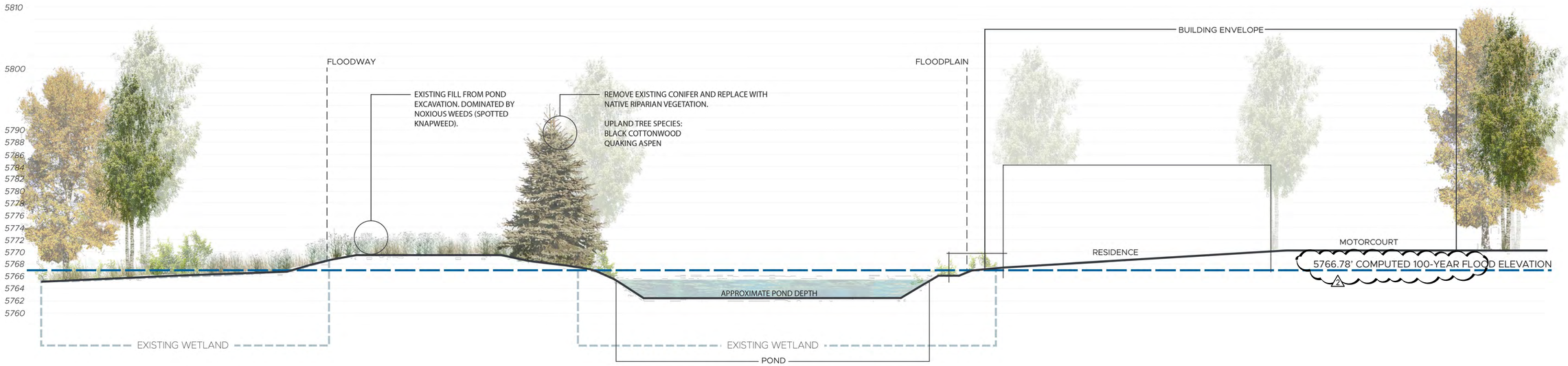
SHEET TITLE

2 LAYOUT & GRADING ENLARGEMENT

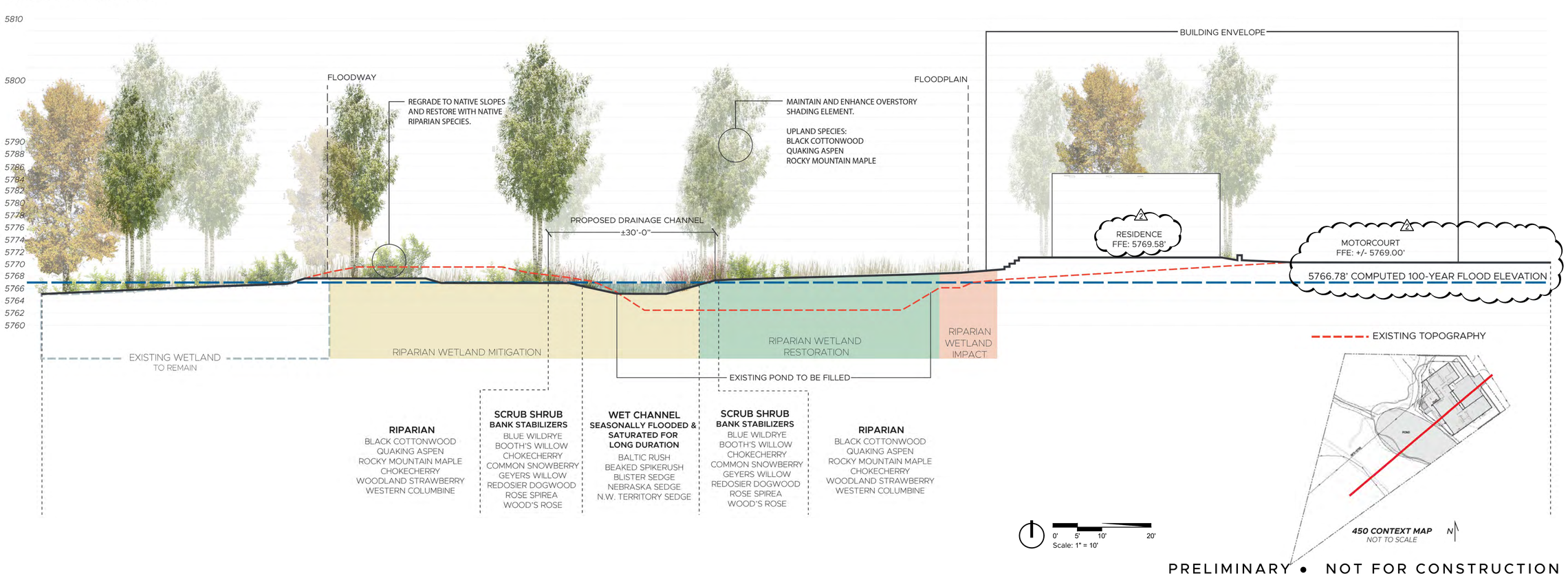
SHEET 2 OF 6

L-1.01

EXISTING CONDITIONS



PROPOSED CONDITIONS



0' 5' 10' 20'
Scale: 1" = 10'

EXISTING TOPOGRAPHY

450 CONTEXT MAP
NOT TO SCALE

PRELIMINARY • NOT FOR CONSTRUCTION

FIELD STUDIO
LANDSCAPE ARCHITECTS
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SHEET TITLE

CROSS SECTION

SHEET 3 OF 6

L-1.02

	Variety	Lbs/Ac
WETLAND MEADOW SEED MIX AREA: ±46,017 SF (± 1.05 ACRES)	*Deschampsia cespitosa*/Tufted Hairgrass	1
	Elymus glaucus/Blue Wildrye	4
	Juncus balticus/Baltic Rush	0.25
	Carex utriculata/Beaked Sedge	2.0
	Carex nebrascensis/Nebraska Sedge	2.0
	Calamagrostis canadensis/Bluejoint Reedgrass	0.50

PERENNIAL/SHRUB PLANTER BEDS				
	Deschampsia capitosa/Tufted Hairgrass	#1	TBD	PER PLAN
	Festuca glauca/Blue Fescue	#1	TBD	PER PLAN
	Galium odoratum/Sweet Woodruff	#1	TBD	PER PLAN
	Lavandula angustifolia/English Lavender	#1	TBD	PER PLAN
	Panicum virgatum/Switchgrass	#1	TBD	PER PLAN
	Talictrum dasycarpum/Purple Meadowrue	#1	TBD	PER PLAN

SYMBOL	CODE	BOTANICAL NAME/COMMON NAME	CONT.	QTY.	SPACING
RIPARIAN SHRUBS					
	CS	*Cornus sericea*/Red-Osier Dogwood	#5	65	PER PLAN
	PV	*Prunus virginiana*/Common Chokecherry	#15-#25/ MULTI STEM	30	PER PLAN
	RW	*Rosa woodsii*/Woods' Rose	#5	60	PER PLAN
	SB	*Salix boothii*/Booth's Willow (15-20')	#5	50	PER PLAN
	SA	*Symphoricarpus albus*/Common Snowberry	#5	85	PER PLAN

TREES					
	AT	*Alnus tenuifolia*/Thinleaf Alder (15-30')	#15	5	PER PLAN
	PE	*Picea engelmannii*/Engelmann Spruce	8'-12' HT	4	PER PLAN
	PT	*Populus tremuloides*/Quaking Aspen	2" - 4" CAL.	40	PER PLAN
	PTC	*Populus trichocarpa*/Black Cottonwood	#5-#15	14	PER PLAN
	PTM	*Populus tremuloides*/Quaking Aspen	10' -14' HT/ MULTI-STEM	8	PER PLAN

PROPERTY BOUNDARY

EXISTING TREES TO REMAIN; CONTRACTOR TO CLEAR DEADWOOD, PRUNE EXISTING VEGETATION & LIMB AS NECESSARY

LIMITS OF DISTURBANCE V.I.F.

MIXED PERENNIAL/SHRUBS SEE LEGEND, TYP.

WOOD RIVER DRIVE

EXISTING VEGETATION TO REMAIN

12" HORIZONTAL CRUSHED AGGREGATE PER FIRE CODE

10' CANOPY OFFSET FROM ARCHITECTURE ROOFLINE PER FIRE CODE

MIXED PERENNIAL/SHRUBS SEE LEGEND, TYP.

LIMITS OF DISTURBANCE V.I.F.

PROPERTY BOUNDARY

EXISTING TREES TO REMAIN CONTRACTOR TO CLEAR DEADWOOD, PRUNE EXISTING VEGETATION & LIMB AS NECESSARY

LEGEND

- VEGETATION TO REMAIN
- PROPOSED TREES
- PROPERTY BOUNDARY
- BUILDING ENVELOPE
- LIMITS OF DISTRUBANCE
- 12" HORIZONTAL CRUSHED AGGREGATE

NOTES:

1. ALL TAKE-OFFS ARE APPROXIMATE AND SHOULD BE USED AS REFERENCE ONLY. CONTRACTOR TO VERIFY QUANTITIES AND COORDINATE WITH L.A. PRIOR TO PURCHASE AND INSTALLATION.
2. TREES AND RESTORATION AREAS TO BE STAKED IN FIELD; LOCATIONS TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

0' 8' 16' 32'
Scale: 1" = 16'

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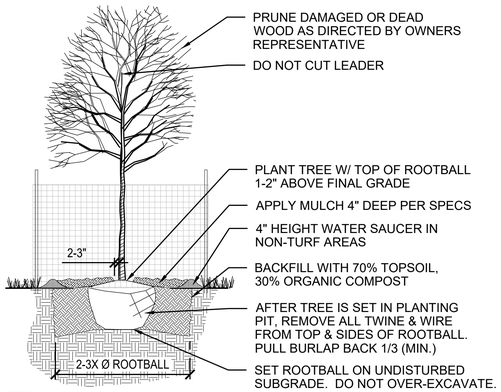
SHEET TITLE

OVERALL PLANTING

SHEET 5 OF 6

L-4.00

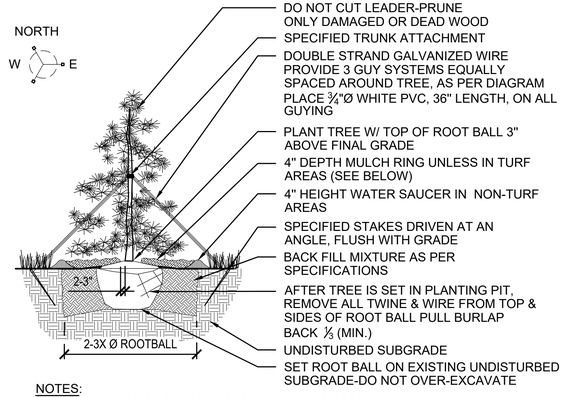
PRELIMINARY • NOT FOR CONSTRUCTION



NOTES:
1. MULCH SHOULD BE 4" DEEP.
2. ALL TREES 3" DIAMETER OR LARGER MAY BE STAKED FOR ONE YEAR IF PROPOSED BY LANDSCAPE CONTRACTOR AND/OR APPROVED BY OWNER'S REPRESENTATIVE.

1 DECIDUOUS TREE PLANTING

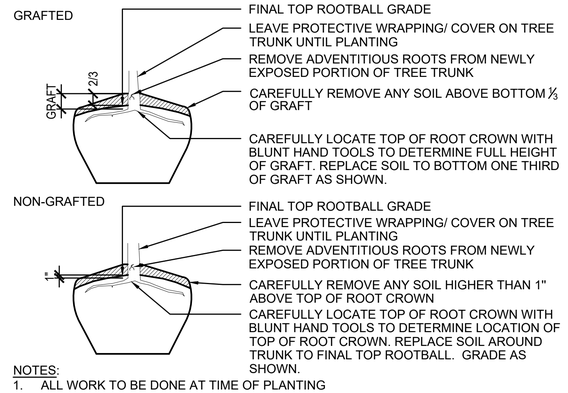
SCALE: 1/4" = 1'-0"



NOTES:
1. PULL MULCH BACK 2" TO 3" FROM TRUNK OF TREE
2. INSTALL SPECIFIED MULCH TO DRIP LINE OF TREE WHERE PLANTED IN LAWN AREAS. MULCH TO BE 2" DEEP IN LAWN AREAS.
3. DO NOT PROVIDE WATER BASIN IN IRRIGATED LAWN AREAS.

2 EVERGREEN TREE PLANTING

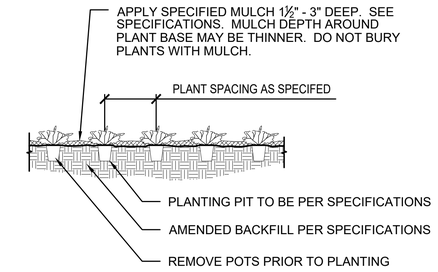
SCALE: 1/4" = 1'-0"



NOTES:
1. ALL WORK TO BE DONE AT TIME OF PLANTING
2. PEEL BACK ONLY TOP OF BURLAP REQUIRED TO PERFORM WORK. REPLACE BURLAP BEFORE MOVING TREE INTO PLANTING PIT. DO NOT REMOVE WIRE BASKET UNTIL INSIDE PLANTING PIT.
3. MEASURE NEW HEIGHT OF ROOTBALL AND DIG PLANTING PIT SO FINAL TOP ROOTBALL GRADE IS 3" ABOVE FINAL GRADE SURROUNDING BALL.

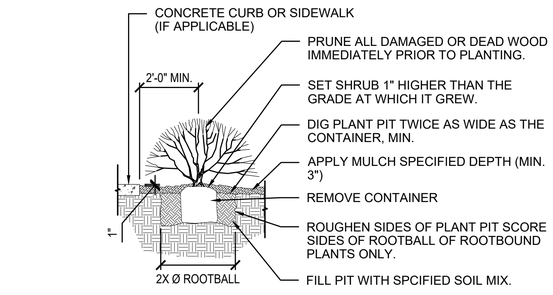
3 FINAL TOP OF ROOTBALL GRADE

SCALE: 1/2" = 1'-0"



4 PERENNIALS AND GROUNDCOVERS

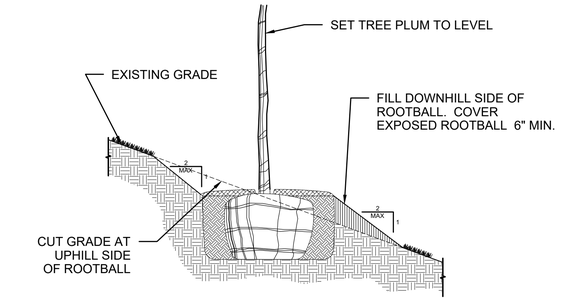
SCALE: 1/4" = 1'-0"



NOTES:
1. ANY BROKEN OR CRUMBLING ROOTBALLS WILL BE REJECTED.
2. REMOVING THE CONTAINERS WILL NOT BE AN EXCUSE FOR DAMAGED ROOTBALLS.
3. HOLD GRADE 1" BELOW EDGE OF WALK OR CURB

5 SHRUB PLANTING

SCALE: 1/4" = 1'-0"

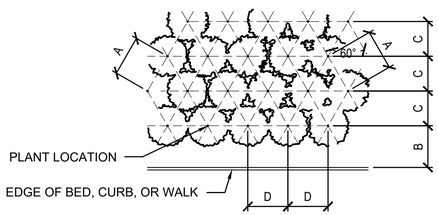


NOTES:
1. REFER TO VARIOUS SPECIFIC TREE INSTALLATION DETAILS FOR STAKING, GUYING, MULCHING, ETC.
2. THIS INSTALLATION SHALL APPLY TO ALL TREE TYPES AND SIZES PLANTED ON SLOPES LESS THAN 2:1.

6 TREE PLANTING ON SLOPE

SCALE: 1/4" = 1'-0"

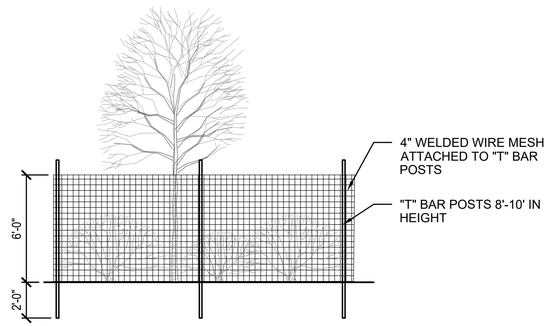
PLANT SPACING	A	B	C	D
6"	6"	6"	5"	6"
8"	8"	6"	7"	8"
12"	12"	8"	10"	12"
18"	18"	9"	15½"	18"
24"	24"	18"	21"	24"
30"	30"	15"	26"	30"
36"	36"	30"	31"	36"
48"	48"	30"	42"	48"
60"	60"	36"	52"	60"



NOTES:
1. ALIGN FRONT ROW PARALLEL TO BED LINE

7 TRIANGULAR SPACING FOR PLANTING LAYOUT

SCALE: 1/4" = 1'-0"



NOTES:
1. FINAL DESIGN AND LOCATION TO BE COORDINATED AND APPROVED IN FIELD BY LANDSCAPE ARCHITECT
2. "T" BAR POSTS TO BE SPACED APPROPRIATELY TO ENSURE INTEGRITY OF FENCE.
3. ALL TREES 2" DIAMETER OR LARGER MAY BE STAKED FOR ONE YEAR

8 WILDLIFE PROTECTION FENCING

SCALE: 1/4" = 1'-0"

FIELD STUDIO
LANDSCAPE ARCHITECTS
722 N.ROUSE AVE.
BOZEMAN, MT 59715
(406)551-2098
www.fieldstudiola.com

PROJECT NUMBER: 2219

450 WOOD RIVER DRIVE

KETCHUM, ID

DATE • ISSUE	
2023.11.29	FDP SET
1 2024.02.14	FDP REV.
2 2024.04.15	FDP REV.
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SHEET TITLE

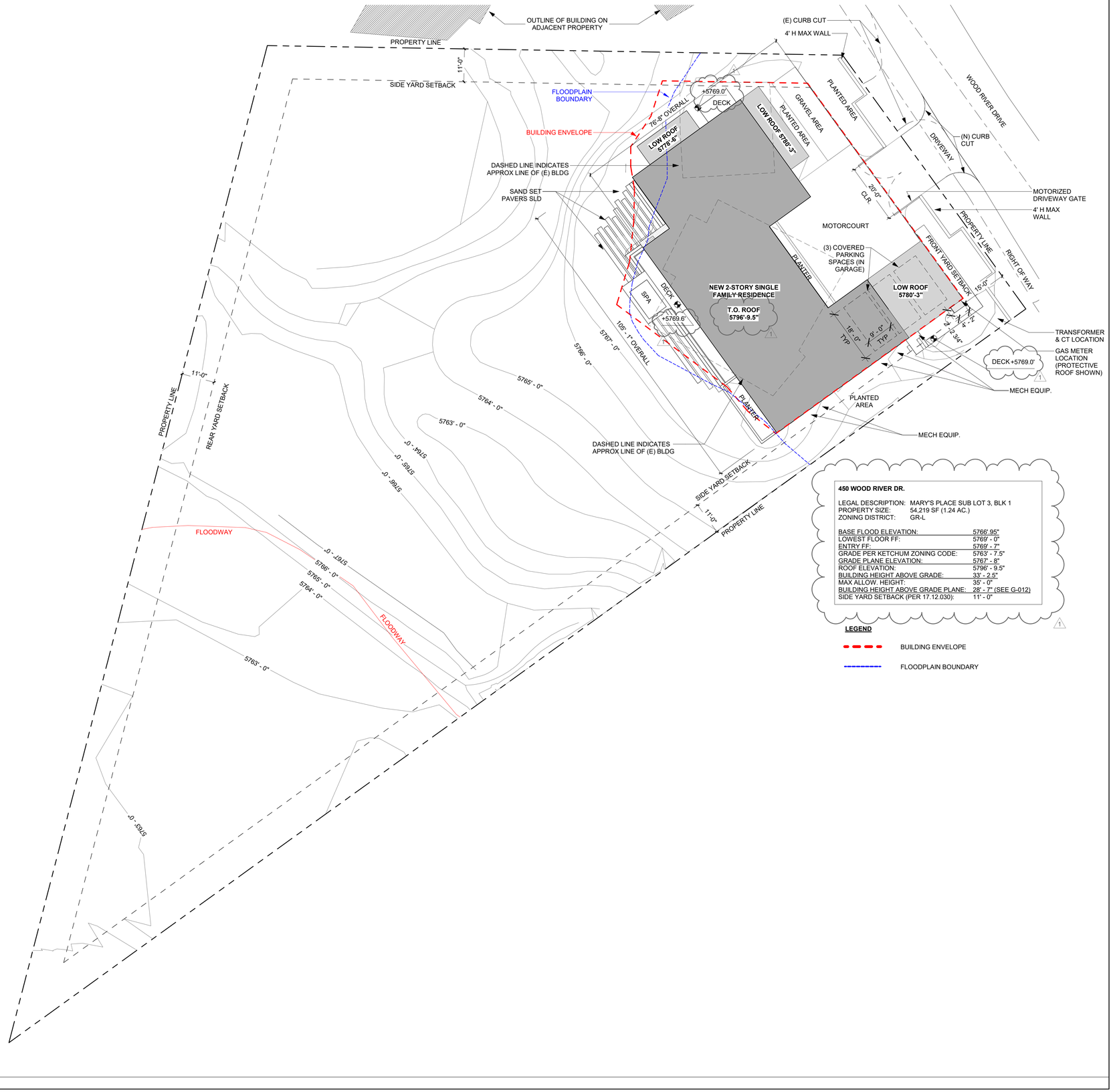
PLANTING DETAILS

SHEET 6 OF 6

L-4.01

PRELIMINARY • NOT FOR CONSTRUCTION

Tue 04/16/24 9:17:34 AM



450 WOOD RIVER DR.

LEGAL DESCRIPTION:	MARY'S PLACE SUB LOT 3, BLK 1
PROPERTY SIZE:	54,219 SF (1.24 AC.)
ZONING DISTRICT:	GR-L
BASE FLOOD ELEVATION:	5766'.95"
LOWEST FLOOR FF:	5769' - 0"
ENTRY FF:	5769' - 7"
GRADE PER KETCHUM ZONING CODE:	5763' - 7.5"
GRADE PLANE ELEVATION:	5767' - 8"
ROOF ELEVATION:	5796' - 9.5"
BUILDING HEIGHT ABOVE GRADE:	33' - 2.5"
MAX ALLOW. HEIGHT:	35' - 0"
BUILDING HEIGHT ABOVE GRADE PLANE:	28' - 7" (SEE G-012)
SIDE YARD SETBACK (PER 17.12.030):	11' - 0"

LEGEND

BUILDING ENVELOPE

FLOODPLAIN BOUNDARY

SITE PLAN NOTES:

1. SEE LANDSCAPE PLAN FOR (E) AND (N) TREE LOCATIONS
2. SEE CIVIL DRAWINGS FOR DRIVEWAY LAYOUT, PROFILE & SITE DRAINAGE INFORMATION.
3. SEE ROOF PLAN FOR MORE ROOF INFORMATION.
4. SEE G-010 & G-011 FOR SITE COVERAGE AND HEIGHT CALCULATIONS
5. SEE G-013 FOR TRPA SCENIC ANALYSIS
6. LAKE PIER UNDER SEPARATE PERMIT, SHOWN FOR REFERENCE ONLY.
7. ALL MATERIALS TO BE NON-GLARE FINISH.
8. SEE GENERAL CONTRACTOR STAGING PLAN FOR ALL STAGING INFORMATION.
9. PER DEED RESTRICTION, THE TOTAL COVERAGE FOR ALL THREE PARCELS CANNOT EXCEED 5,091 SF OF BASE ALLOWABLE IPES COVERAGE.
10. PER WASHOE COUNTY 438.45 ALL RETAINING WALLS WITHIN THE FRONT YARD SET BACK LIMITED TO 4.5', ALL RETAINING WALLS WITHIN THE SIDEYARD SETBACK LIMITED TO 6'. CONTACT ARCH FOR ANY ON-SITE DISCREPANCIES.
11. AN EXCAVATION AND ENCROACHMENT PERMIT IS REQUIRED PRIOR TO ANY IMPROVEMENTS N THE COUNTY RIGHT-OF-WAY, PERMIT MUST BE OBTAIN BY COUNTY APPROVED CONTRACTOR.

1 | 1/16" = 1'-0" | **SITE PLAN**

450 WOOD RIVER

OWNER:

450-490 WOOD RIVER, LLC
ATTN: MATT SCOGGINS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:

BENCHMARK ASSOCIATES
100 BELL DRIVE
KETCHUM, ID 83340
TEL: 208.726.9512

LANDSCAPE ARCHITECT:

FIELD STUDIO LANDSCAPE ARCHITECTS
722 N. ROUSE AVENUE
BOZEMAN, MT 59715
TEL: 406.551.2098

STRUCTURAL ENGINEER:

LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700

MEP ENGINEER:

CONSULTING ENGINEERING SERVICES (CES)
1001 W OAK BLDG
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

AV:

AUDIO VIDEO SYSTEMS, INC.
2700 HOMESTEAD RD
PARK CITY, UT 84098
TEL: 801.649.5200

SEAL:

LICENSED ARCHITECT AR 987568
JASON RO
STATE OF IDAHO

NO	DATE	ISSUE
1	04.16.2024	FDP APP RESUBMITTAL
	12.13.2023	FDP APPLICATION

PROJECT:

450 WOOD RIVER

450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER

2108

DRAWING TITLE:

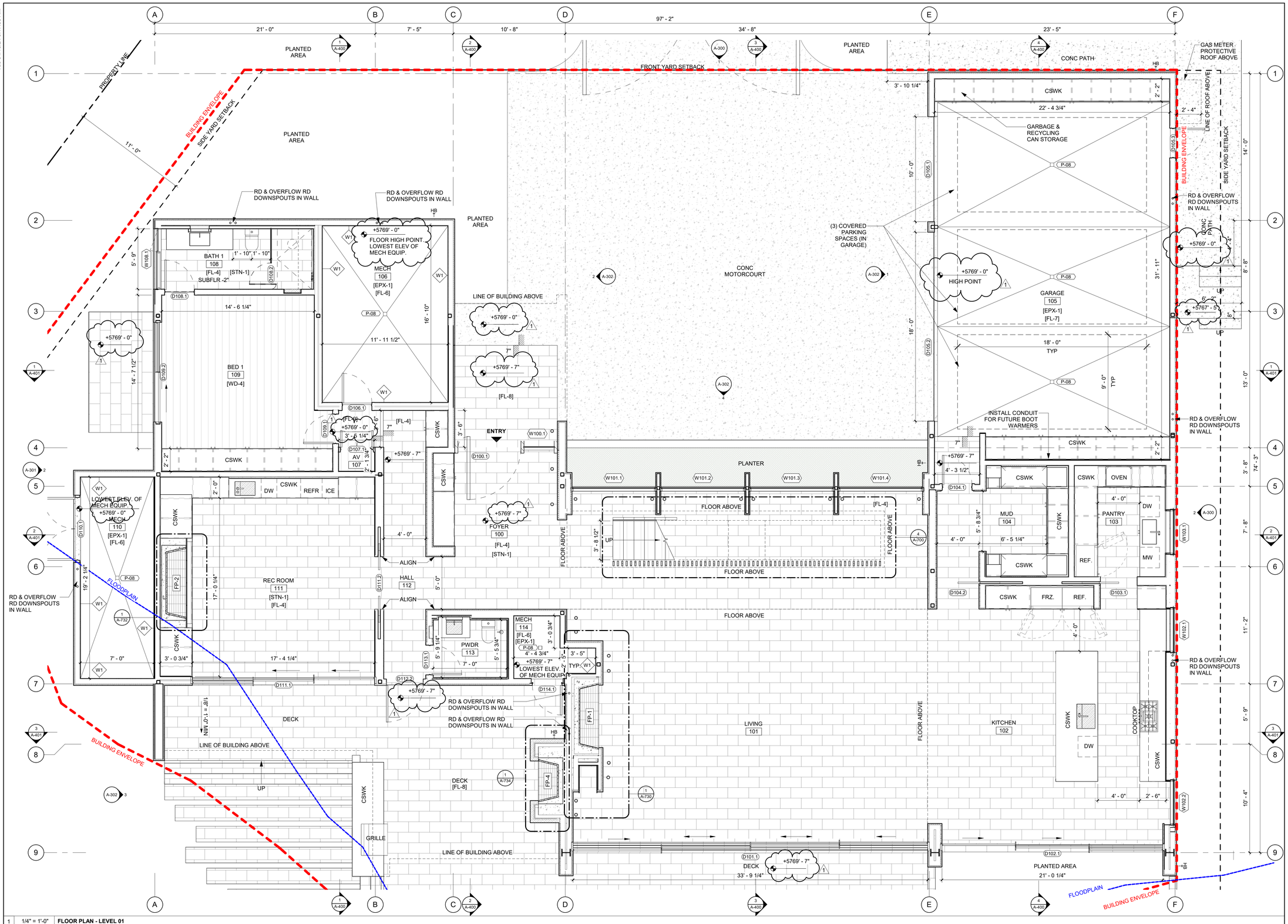
SITE PLAN

DRAWING NUMBER:

A-000

NOT FOR CONSTRUCTION

Tue 04/16/24 9:17:35 AM



1 | 1/4" = 1'-0" | **FLOOR PLAN - LEVEL 01**

FLOOR PLAN NOTES:

1. ALL DIMENSIONS TAKEN FROM FINISH FACE, UNO
2. SEE FRAMING PLANS FOR FRAMING AND LAYOUT
3. SEE STRUCTURAL DRAWINGS FOR EXACT SIZE AND LOCATION OF STRUCTURAL COLUMNS, BEAMS, GIRDERS, ETC.
4. SEE G-200 AND G-201 FOR WALL AND FLOOR ASSEMBLIES
5. CONTACT ARCHITECT WITH ANY FINISH ALIGNMENT ISSUES
6. SEE A-800S ENLARGED FLOOR PLANS AND INTERIOR ELEVATIONS
7. SEE G-108 FOR FIREPLACE SCHEDULE.

450 WOOD RIVER

OWNER:

450-490 WOOD RIVER, LLC
ATTN: FRAZIER CAVNESS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:

BENCHMARK ASSOCIATES
100 BELL DRIVE
KETCHUM, ID 83340
TEL: 208.726.9512

LANDSCAPE ARCHITECT:

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BOZEMAN, MT 59715
TEL: 406.551.2098

STRUCTURAL ENGINEER:

LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700

MEP ENGINEER:

CONSULTING ENGINEERING SERVICES (CES)
1001 W OAK BLDG
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING:

KGM ARCHITECTURAL LIGHTING
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LICENSED ARCHITECT
AR 987568
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STATE OF IDAHO

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	12.13.2023	FDP APPLICATION

PROJECT:

450 WOOD RIVER

450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER

2108

DRAWING TITLE:

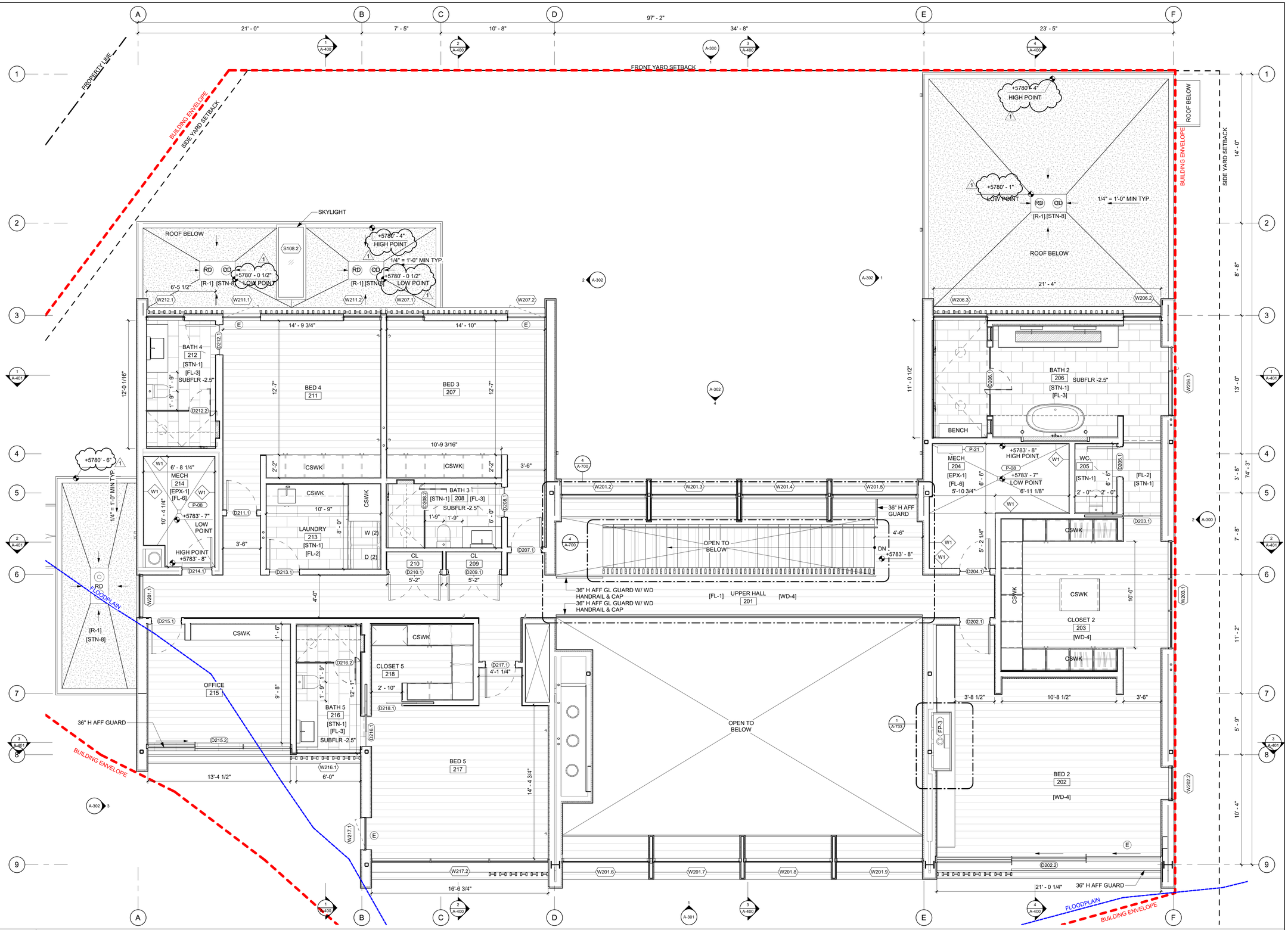
FLOOR PLAN / LEVEL 01

DRAWING NUMBER:

A-101

NOT FOR CONSTRUCTION

Tue 04/16/24 9:17:39 AM



1 | 1/4" = 1'-0" | **FLOOR PLAN - LEVEL 02**

FLOOR PLAN NOTES:

1. ALL DIMENSIONS TAKEN FROM FINISH FACE, UNO
2. SEE FRAMING PLANS FOR FRAMING AND LAYOUT
3. SEE STRUCTURAL DRAWINGS FOR EXACT SIZE AND LOCATION OF STRUCTURAL COLUMNS, BEAMS, GIRDERS, ETC.
4. SEE G-200 AND G-201 FOR WALL AND FLOOR ASSEMBLIES
5. CONTACT ARCHITECT WITH ANY FINISH ALIGNMENT ISSUES
6. SEE A-800S ENLARGED FLOOR PLANS AND INTERIOR ELEVATIONS
7. SEE G-108 FOR FIREPLACE SCHEDULE.

450 WOOD RIVER

OWNER:

450-490 WOOD RIVER, LLC
ATTN: FRAZIER CAVNESS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:

BENCHMARK ASSOCIATES
100 BELL DRIVE
KETCHUM, ID 83340
TEL: 208.726.9512

LANDSCAPE ARCHITECT:

FIELD STUDIO LANDSCAPE ARCHITECTS
722 N. ROUSE AVENUE
BOZEMAN, MT 59715
TEL: 406.551.2098

STRUCTURAL ENGINEER:

LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700

MEP ENGINEER:

CONSULTING ENGINEERING SERVICES (CES)
1001 W OAK BLDG
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

AV:

AUDIO VIDEO SYSTEMS, INC.
2700 HOMESTEAD RD
PARK CITY, UT 84098
TEL: 801.649.5200

SEAL:

LICENSED ARCHITECT
AR 987568
JASON RO
STATE OF IDAHO

NO	DATE	ISSUE
1	04.16.2024	FDP APP RESUBMITTAL
	12.13.2023	FDP APPLICATION

PROJECT:

450 WOOD RIVER

450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER
2108

DRAWING TITLE:

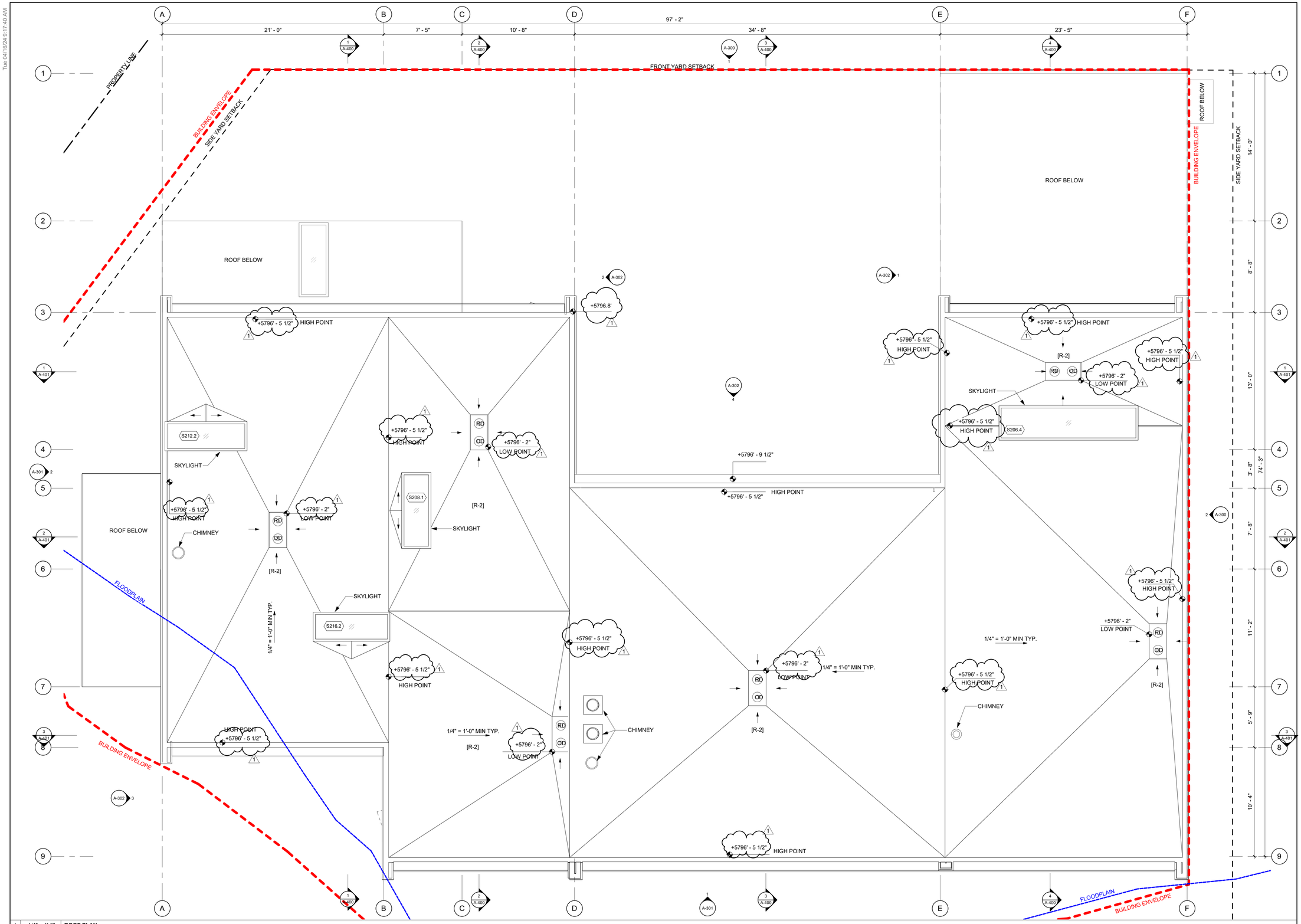
FLOOR PLAN / LEVEL 02

DRAWING NUMBER:

A-102

NOT FOR CONSTRUCTION

Tue 04/16/24 9:17:40 AM



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

FLOOR PLAN NOTES:

1. ALL DIMENSIONS TAKEN FROM FINISH FACE, UNO
2. SEE FRAMING PLANS FOR FRAMING AND LAYOUT
3. SEE STRUCTURAL DRAWINGS FOR EXACT SIZE AND LOCATION OF STRUCTURAL COLUMNS, BEAMS, GIRDERS, ETC.
4. SEE G-200 AND G-201 FOR WALL AND FLOOR ASSEMBLIES
5. CONTACT ARCHITECT WITH ANY FINISH ALIGNMENT ISSUES
6. SEE A-800S ENLARGED FLOOR PLANS AND INTERIOR ELEVATIONS
7. SEE G-108 FOR FIREPLACE SCHEDULE.

450 WOOD RIVER

OWNER:

450-490 WOOD RIVER, LLC
ATTN: FRAZIER CAVNESS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:

BENCHMARK ASSOCIATES
100 BELL DRIVE
KETCHUM, ID 83340
TEL: 208.726.9512

LANDSCAPE ARCHITECT:

FIELD STUDIO LANDSCAPE ARCHITECTS
722 N. ROUSE AVENUE
BOZEMAN, MT 59715
TEL: 406.551.2098

STRUCTURAL ENGINEER:

LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700

MEP ENGINEER:

CONSULTING ENGINEERING SERVICES (CES)
1001 W OAK BLDG
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

AV:

AUDIO VIDEO SYSTEMS, INC.
2700 HOMESTEAD RD
PARK CITY, UT 84098
TEL: 801.649.5200

SEAL:

LICENSED ARCHITECT
AR 987568
JASON RO
STATE OF IDAHO

NO	DATE	ISSUE
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	12.13.2023	FDP APPLICATION

PROJECT:

450 WOOD RIVER

450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER

2108

DRAWING TITLE:

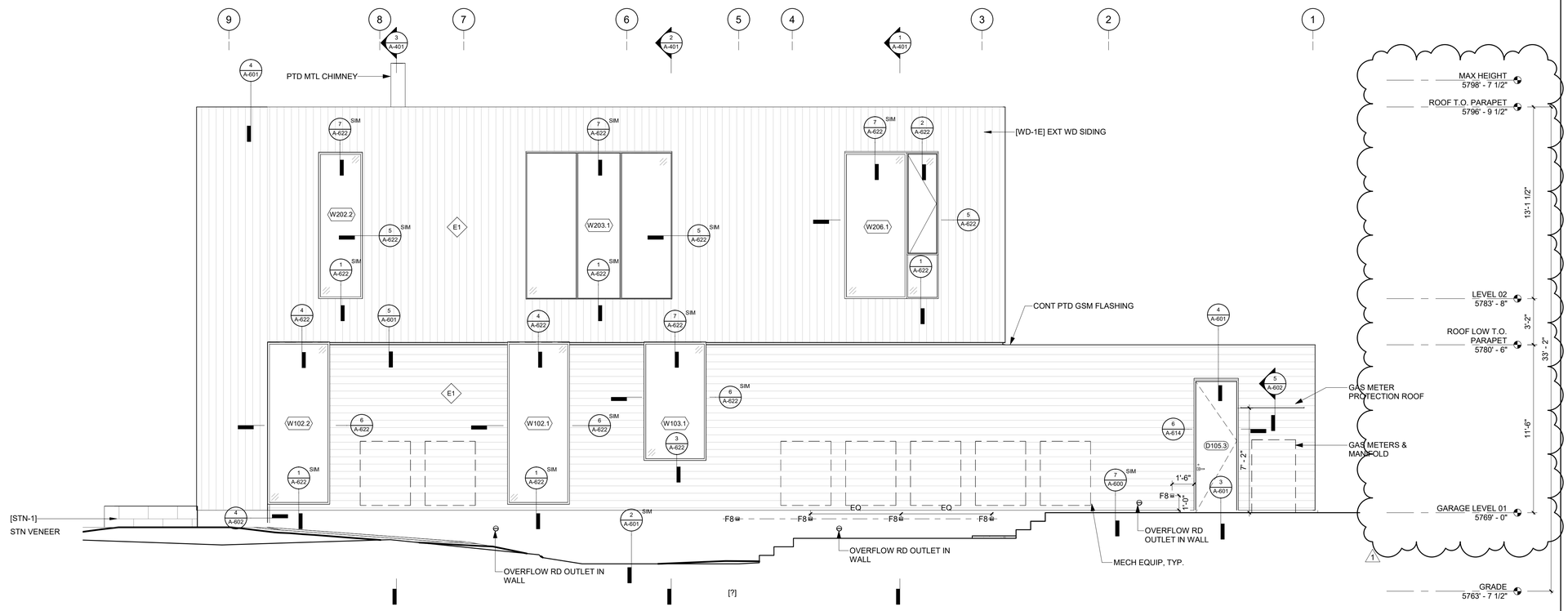
ROOF PLAN

DRAWING NUMBER:

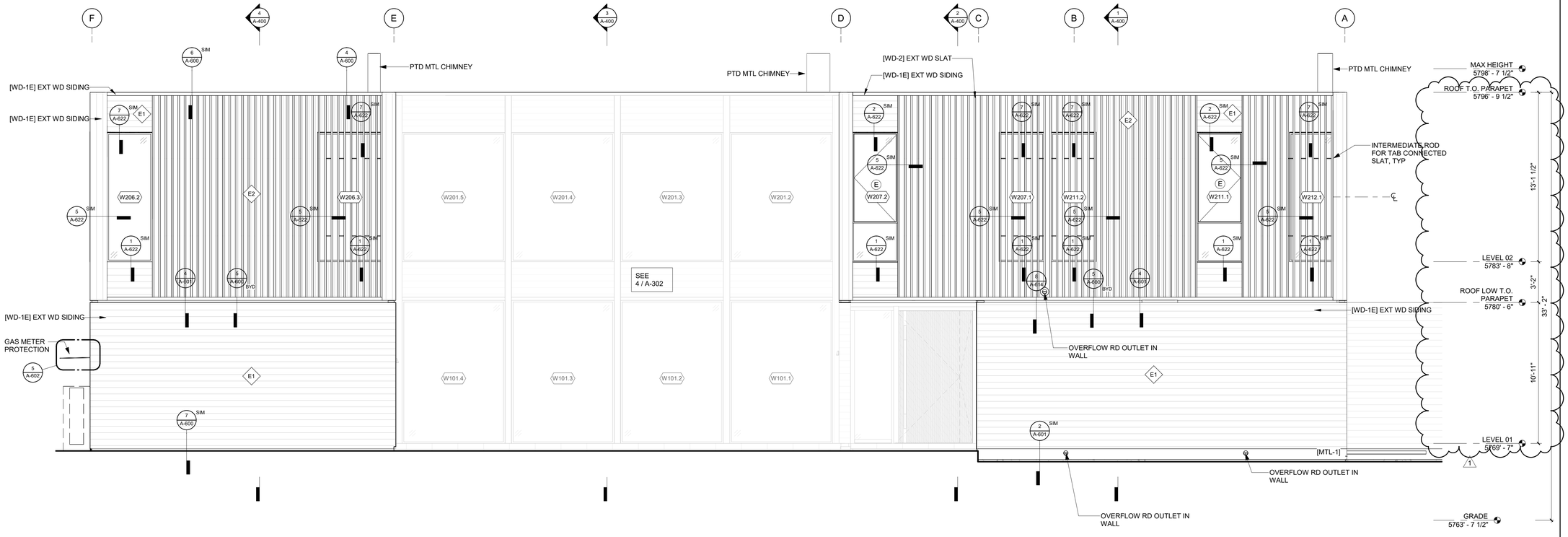
A-103

NOT FOR CONSTRUCTION

Tue 04/16/24 9:17:42 AM



2 | 1/4" = 1'-0" | **EXTERIOR ELEVATION - EAST**



1 | 1/4" = 1'-0" | **EXTERIOR ELEVATION - NORTH**

450 WOOD RIVER

OWNER:

450-490 WOOD RIVER, LLC
ATTN: FRAZIER CAVNESS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:

BENCHMARK ASSOCIATES
100 BELL DRIVE
KETCHUM, ID 83340
TEL: 208.726.9512

LANDSCAPE ARCHITECT:

FIELD STUDIO LANDSCAPE ARCHITECTS
722 N. ROUSE AVENUE
BOZEMAN, MT 59715
TEL: 406.551.2098

STRUCTURAL ENGINEER:

LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700

MEP ENGINEER:

CONSULTING ENGINEERING SERVICES (CES)
1001 W OAK BLDG
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

AV:

AUDIO VIDEO SYSTEMS, INC.
2700 HOMESTEAD RD
PARK CITY, UT 84098
TEL: 801.649.5200

SEAL:

LICENSED ARCHITECT
AR 987568
JASON RO
STATE OF IDAHO

NO	DATE	ISSUE
1	04.16.2024	FDP APP RESUBMITTAL
	12.13.2023	FDP APPLICATION

PROJECT:

450 WOOD RIVER

450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER

2108

DRAWING TITLE:

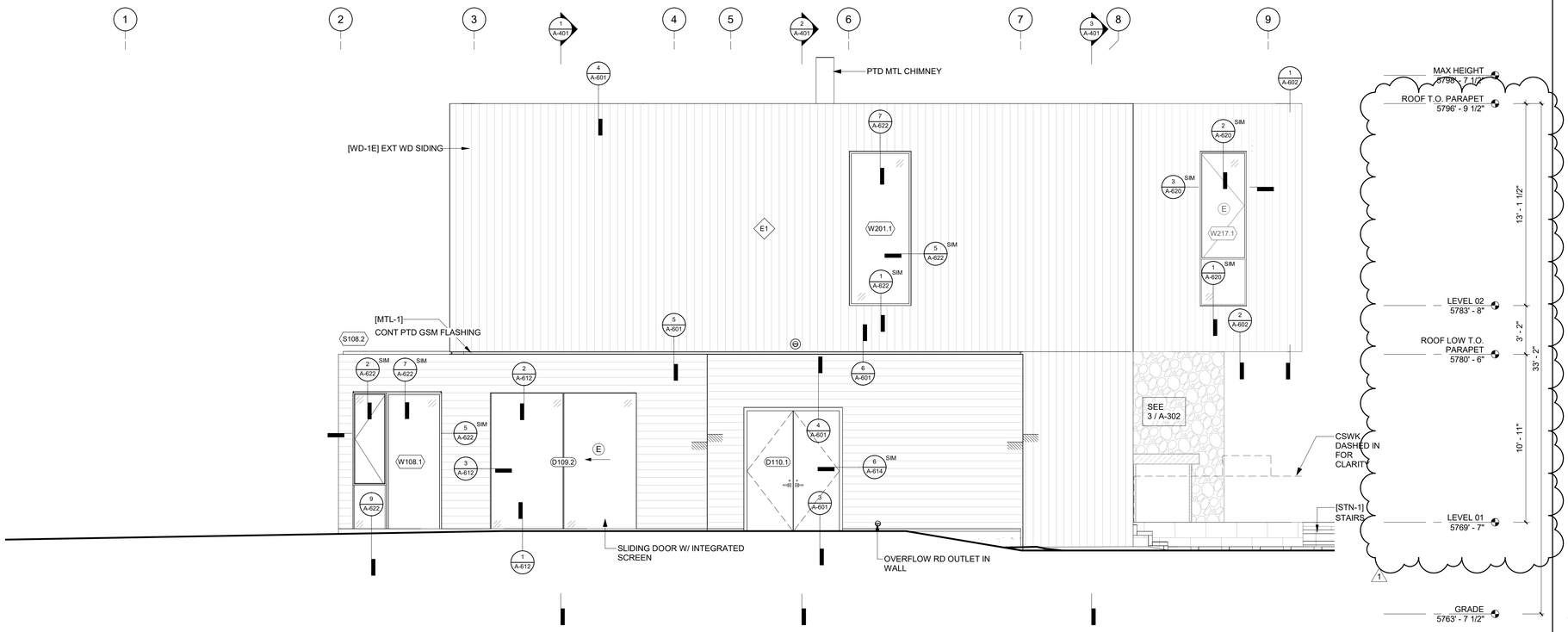
EXTERIOR ELEVATIONS

DRAWING NUMBER:

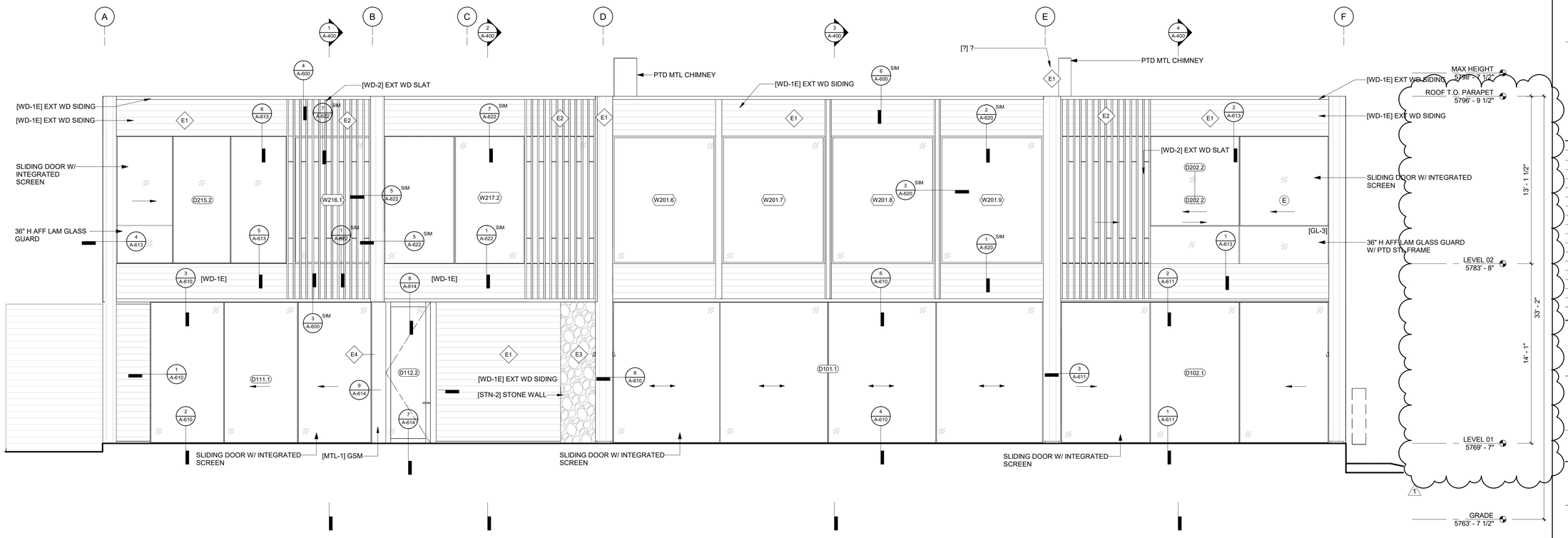
A-300

NOT FOR CONSTRUCTION

Tue 04/16/24 9:17:45 AM



2 | 1/4" = 1'-0" | **EXTERIOR ELEVATION - WEST**



1 | 1/4" = 1'-0" | **EXTERIOR ELEVATION - SOUTH**

450 WOOD RIVER

OWNER:

450-490 WOOD RIVER, LLC
ATTN: FRAZIER CAVNESS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:

BENCHMARK ASSOCIATES
100 BELL DRIVE
KETCHUM, ID 83340
TEL: 208.726.9512

LANDSCAPE ARCHITECT:

FIELD STUDIO LANDSCAPE ARCHITECTS
722 N. ROUSE AVENUE
BOZEMAN, MT 59715
TEL: 406.551.2098

STRUCTURAL ENGINEER:

LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700

MEP ENGINEER:

CONSULTING ENGINEERING SERVICES (CES)
1001 W OAK BLDG
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

AV:

AUDIO VIDEO SYSTEMS, INC.
2700 HOMESTEAD RD
PARK CITY, UT 84098
TEL: 801.649.5200

SEAL:

LICENSED
ARCHITECT
AR 987568
JASON RO
STATE OF IDAHO

NO	DATE	ISSUE
1	04.16.2024	FDP APP RESUBMITTAL
	12.13.2023	FDP APPLICATION

PROJECT:

450 WOOD RIVER

450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER

2108

DRAWING TITLE:

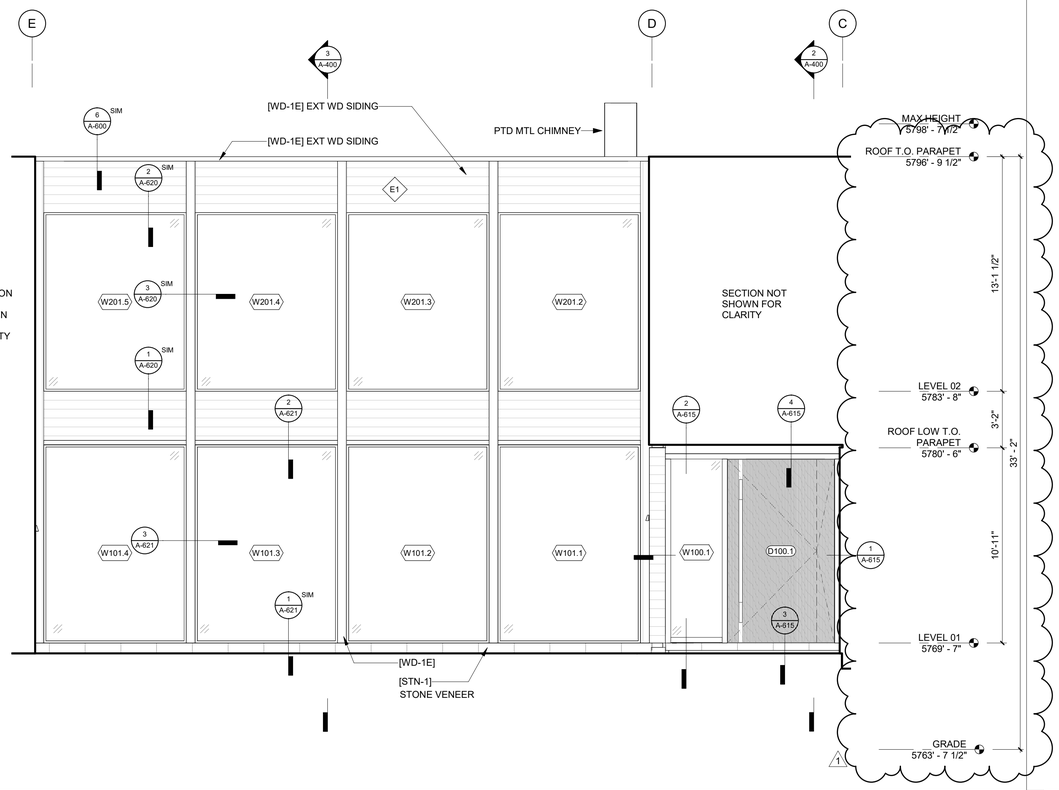
EXTERIOR ELEVATIONS

DRAWING NUMBER:

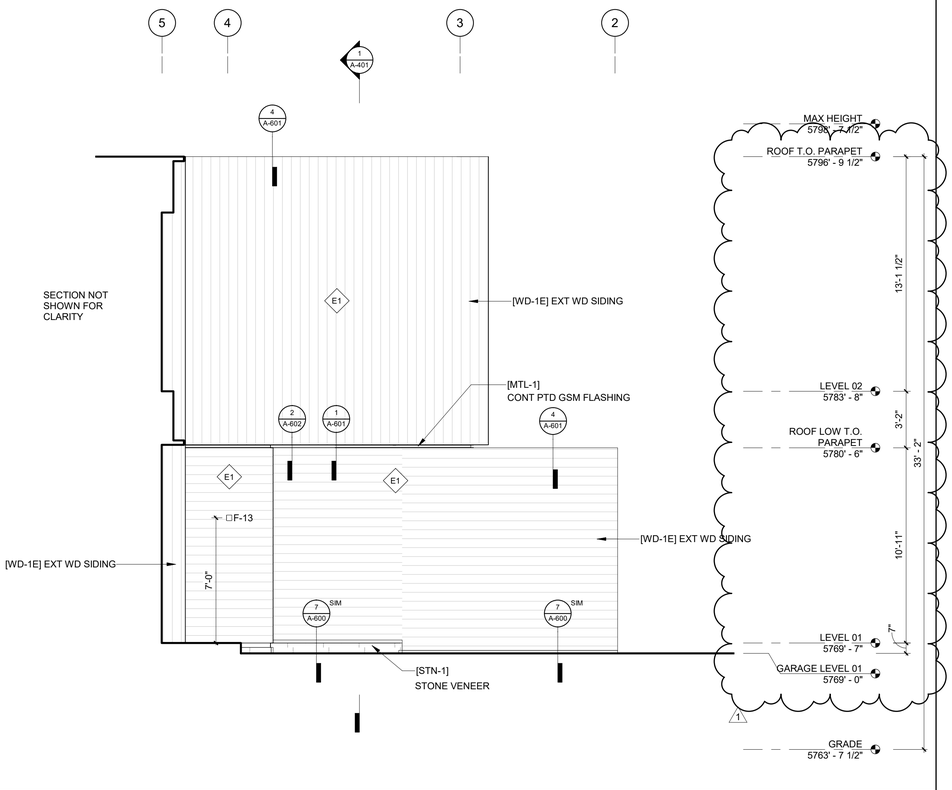
A-301

NOT FOR CONSTRUCTION

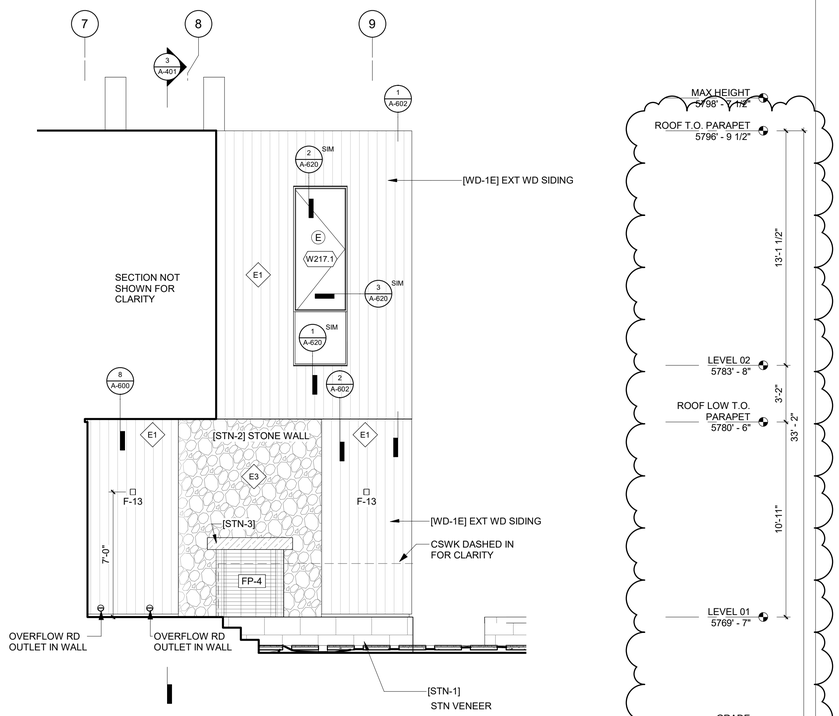
Tue 04/16/24 9:17:47 AM



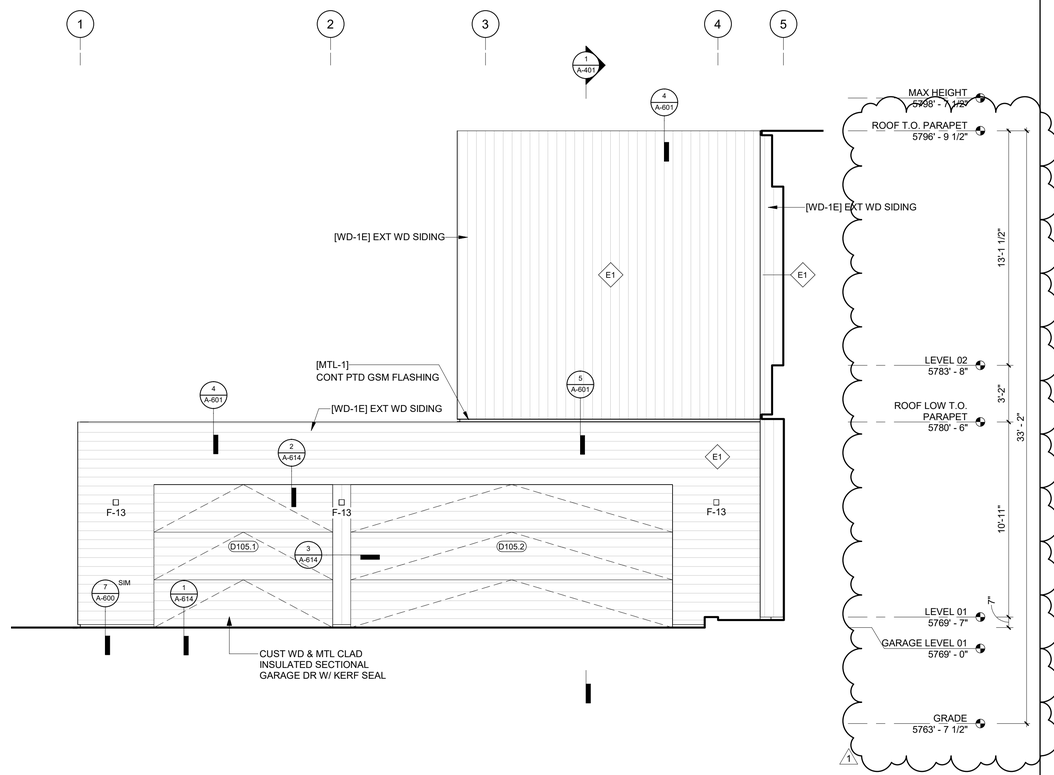
4 | 1/4" = 1'-0" | **EXTERIOR ELEVATION - NORTH ENTRANCE**



2 | 1/4" = 1'-0" | **EXTERIOR ELEVATION - EAST - MOTORCOURT**



3 | 1/4" = 1'-0" | **EXTERIOR ELEVATION - WEST DECK**



1 | 1/4" = 1'-0" | **EXTERIOR ELEVATION - WEST - MOTORCOURT**

450 WOOD RIVER

OWNER:

450-490 WOOD RIVER, LLC
ATTN: FRAZIER CAVNESS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:

BENCHMARK ASSOCIATES
100 BELL DRIVE
KETCHUM, ID 83340
TEL: 208.726.9512

LANDSCAPE ARCHITECT:

FIELD STUDIO LANDSCAPE ARCHITECTS
722 N. ROUSE AVENUE
BOZEMAN, MT 59715
TEL: 406.551.2098

STRUCTURAL ENGINEER:

LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700

MEP ENGINEER:

CONSULTING ENGINEERING SERVICES (CES)
1001 W OAK BLDG
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

AV:

AUDIO VIDEO SYSTEMS, INC.
2700 HOMESTEAD RD
PARK CITY, UT 84098
TEL: 801.649.5200

SEAL:

LICENSED ARCHITECT
AR 987568
JASON RO
STATE OF IDAHO

NO	DATE	ISSUE
1	04.16.2024	FDP APP RESUBMITTAL
	12.13.2023	FDP APPLICATION

PROJECT:

450 WOOD RIVER

450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER

2108

DRAWING TITLE:

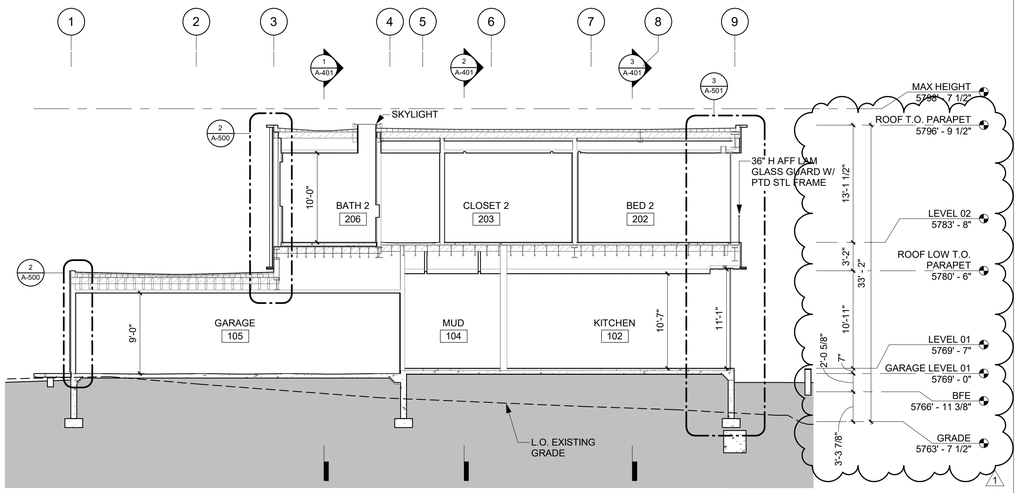
EXTERIOR ELEVATIONS

DRAWING NUMBER:

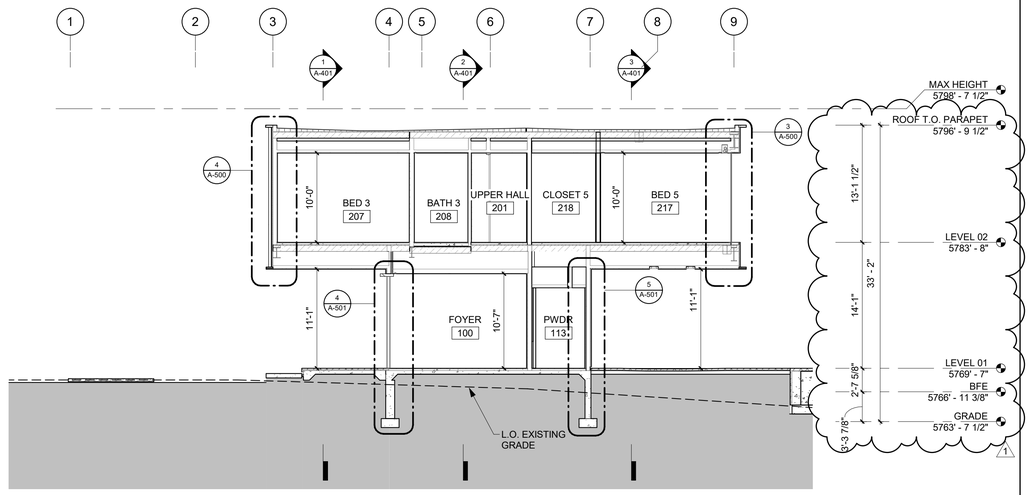
A-302

NOT FOR CONSTRUCTION

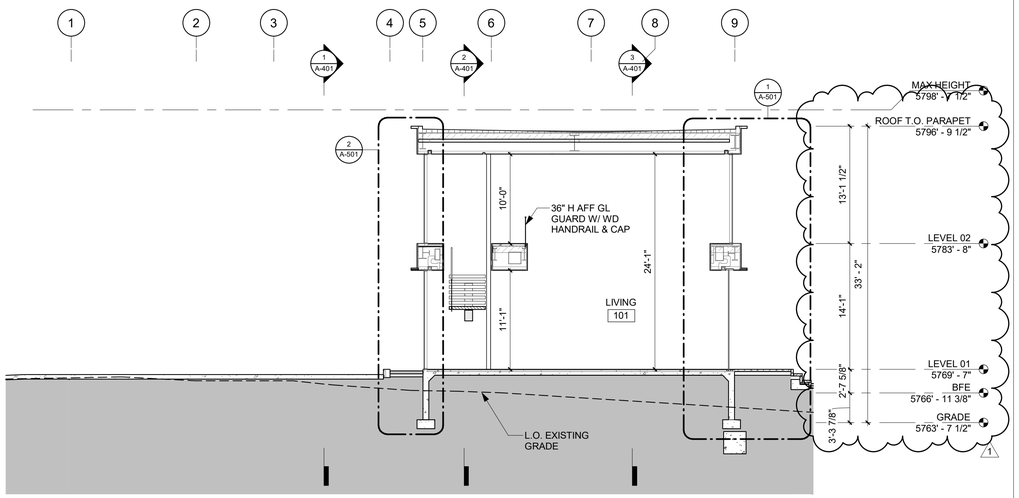
Tue 04/16/24 9:17:49 AM



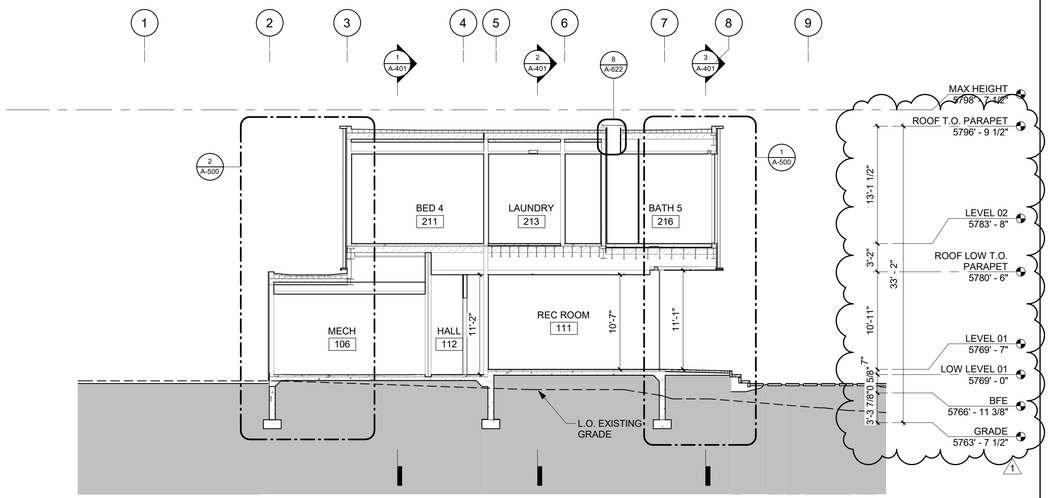
4 | 1/8" = 1'-0" | **BUILDING SECTION - EAST**



2 | 1/8" = 1'-0" | **BUILDING SECTION - ENTRY**



3 | 1/8" = 1'-0" | **BUILDING SECTION - LIVING N-S**



1 | 1/8" = 1'-0" | **BUILDING SECTION - WEST**

450 WOOD RIVER

OWNER:

450-490 WOOD RIVER, LLC
ATTN: FRAZIER CAVNESS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:

BENCHMARK ASSOCIATES
100 BELL DRIVE
KETCHUM, ID 83340
TEL: 208.726.9512

LANDSCAPE ARCHITECT:

FIELD STUDIO LANDSCAPE ARCHITECTS
722 N. ROUSE AVENUE
BOZEMAN, MT 59715
TEL: 406.551.2098

STRUCTURAL ENGINEER:

LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700

MEP ENGINEER:

CONSULTING ENGINEERING SERVICES (CES)
1001 W OAK BLDG
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

AV:

AUDIO VIDEO SYSTEMS, INC.
2700 HOMESTEAD RD
PARK CITY, UT 84098
TEL: 801.649.5200

SEAL:

NO	DATE	ISSUE
1	04.16.2024	FDP APP RESUBMITTAL
	12.13.2023	FDP APPLICATION

PROJECT:

450 WOOD RIVER

450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER

2108

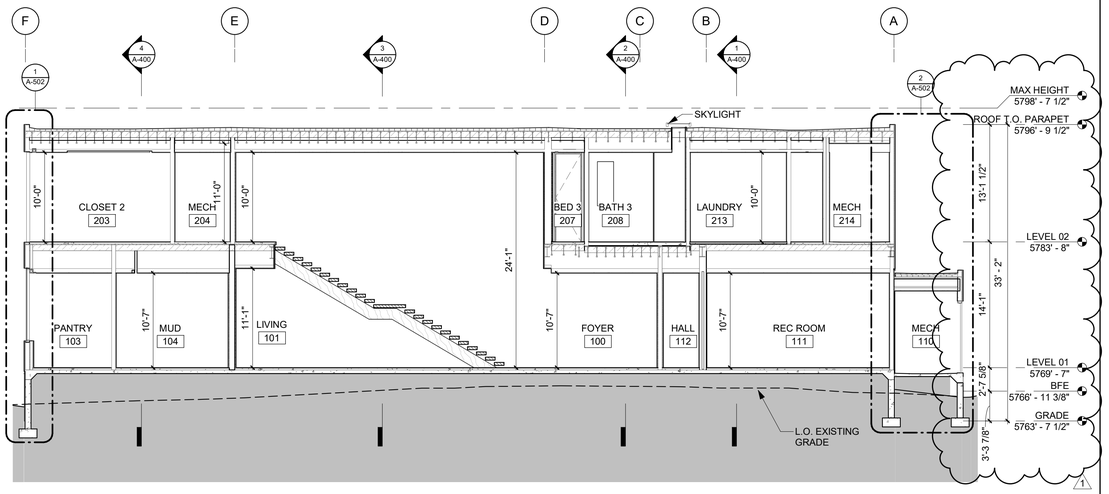
DRAWING TITLE:

BUILDING SECTIONS

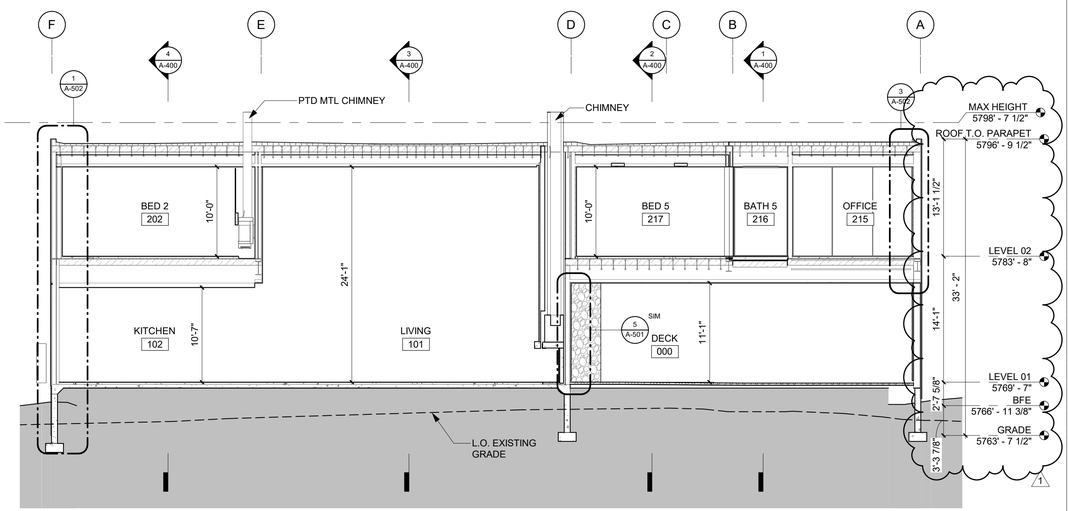
DRAWING NUMBER:

A-400

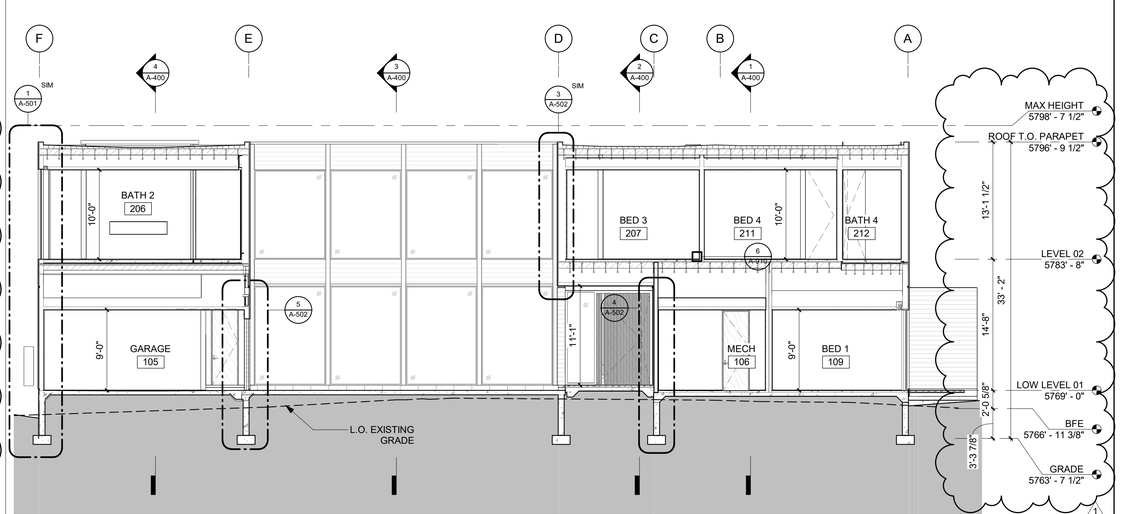
NOT FOR CONSTRUCTION



2 | 1/8" = 1'-0" | **BUILDING SECTION - STAIR**



3 | 1/8" = 1'-0" | **SECTION - KITCHEN & LIVING E-W**



1 | 1/8" = 1'-0" | **BUILDING SECTION - NORTH**

450 WOOD RIVER

OWNER:

450-490 WOOD RIVER, LLC
ATTN: FRAZIER CAVNESS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:

RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:

BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:

BENCHMARK ASSOCIATES
100 BELL DRIVE
KETCHUM, ID 83340
TEL: 208.726.9512

LANDSCAPE ARCHITECT:

FIELD STUDIO LANDSCAPE ARCHITECTS
722 N. ROUSE AVENUE
BOZEMAN, MT 59715
TEL: 406.551.2098

STRUCTURAL ENGINEER:

LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700

MEP ENGINEER:

CONSULTING ENGINEERING SERVICES (CES)
1001 W OAK BLDG
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING:

KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

AV:

AUDIO VIDEO SYSTEMS, INC.
2700 HOMESTEAD RD
PARK CITY, UT 84098
TEL: 801.649.5200

SEAL:

NO	DATE	ISSUE
1	04.16.2024	FDP APP RESUBMITTAL
	12.13.2023	FDP APPLICATION

PROJECT:

450 WOOD RIVER

450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER

2108

DRAWING TITLE:

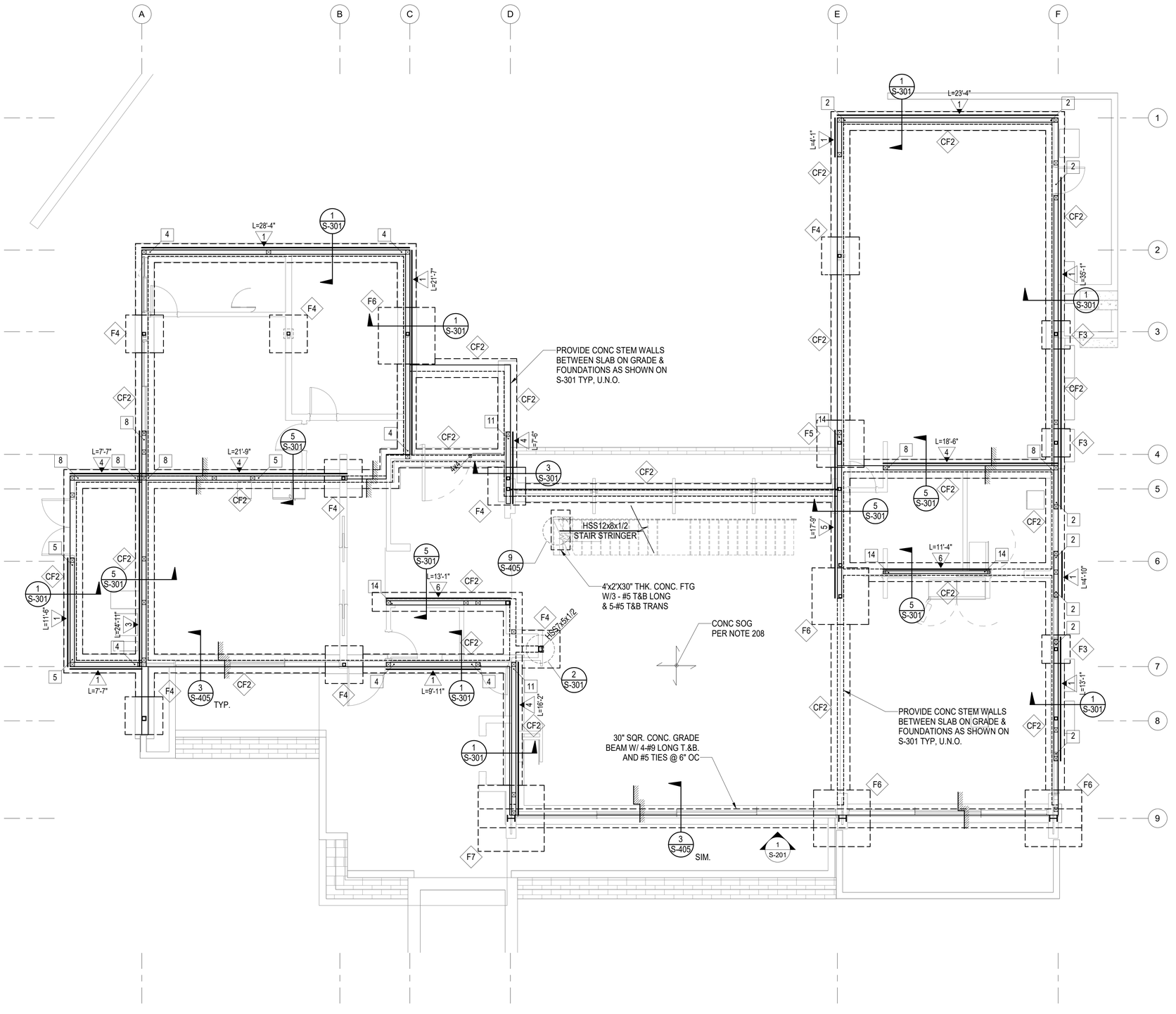
BUILDING SECTIONS

DRAWING NUMBER:

A-401

NOT FOR CONSTRUCTION

12/1/2023 11:25:58 AM



1 FOUNDATION/LEVEL 1 PLAN
S-101 3/16" = 1'-0"

PLAN NOTES - SHEETS AND GENERAL:

101. GENERAL NOTES AND TYPICAL DETAILS SHEETS: SEE S0.01 THRU S0.62 SHEETS. GENERAL NOTES & TYPICAL DETAILS APPLY TO ALL PARTS OF THE WORK EXCEPT WHERE SPECIFICALLY DETAILED OR U.N.O. ON THE FLOOR PLANS AND PLAN NOTES.

102. VERIFY ALL DIMENSIONS, ELEVATIONS, SLAB EDGES, SLAB DEPRESSIONS, SLAB OPENINGS, CURBS, FOOTING, PENETRATIONS, WALL OPENINGS WITH ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL & CIVIL DRAWINGS.

103. FOR ALL DIMENSIONS & ROOF SLOPES S.A.D.

104. NON-BEARING WALLS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. FOR NON-BEARING WALL LOCATIONS S.A.D.

PLAN NOTES - FOUNDATION:

201. ALL GRADING & FOUNDATION WORK MUST BE OBSERVED AND APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF STEEL REINFORCEMENT AND POURING CONCRETE.

202. RECOMMENDED MATERIAL IS NATIVE SOIL BELOW THE FROST LINE.

203. IF FOR LIMITS AND EXTENT OF OVER EXCAVATION SEE CIVIL DRAWINGS.

204. U.N.O. TOP OF CONC. FOOTING ELEVATION SHALL BE 32" BELOW THE LOWEST GRADE. FOR TOP OF SLAB ELEVATION SEE ARCH'L DRAWINGS.

205. ALL HOLDOWN HARDWARE IS TO BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION. HOLDOWNS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING PLATE WASHERS ARE REQUIRED FOR ALL HOLDOWNS.

206. FOR SLAB ON GRADE SUB-GRADE PREPARATION SEE SOILS REPORT.

207. FOR VAPOR BARRIER AT INTERIOR SPACES S.A.D. SPECIFICATIONS/DRAWINGS.

208. CONCRETE SLAB ON GRADE: 5" THICK, REINFORCED WITH #5 BARS AT 16" O.C. EACH WAY.

209. THE BUILDING HAS BEEN DESIGNED TO BE ANCHORED INTO THE BEARING MATERIAL PER THE DESIGN REQUIREMENTS OF ASCE 24-14.

210. THE ONLY STRUCTURAL MATERIAL OCCURING BELOW THE B.F.E. IS REINFORCED CONCRETE, WHICH IS WITHIN THE ACCEPTABLE MATERIALS LIST FOR FLOORS AND WALLS IN TABLE 2 OF THE FEMA TECHNICAL BULLETIN.

SYMBOLS - FOUNDATION

- INDICATES CHANGE IN FLOOR ELEVATION
- INDICATES CONCRETE WALL
- INDICATES CONCRETE WALL BELOW
- INDICATES CONCRETE FOOTING
- S S — INDICATES STEPPED FOOTING PER 18/S1.01
- GB-# — INDICATES CONCRETE GRADE BEAM PER SCHEDULE THIS SHEET
- F# — INDICATES CONCRETE FOOTING PER SCHEDULE THIS SHEET
- GB-# — INDICATES CONCRETE GRADE BEAM PER SCHEDULE THIS SHEET

CONC. FOOTING SCHEDULE

MARK	SIZE AND REINFORCEMENT
F3	3'-0" SQUARE x 18" THICK W/ 4-#5 BOTTOM EACH WAY
F4	4'-0" SQUARE x 18" THICK W/ 6-#5 BOTTOM EACH WAY
F5	5'-0" SQUARE x 18" THICK W/ 7-#6 BOTTOM EACH WAY
F6	6'-0" SQUARE x 18" THICK W/ 8-#5 BOTTOM EACH WAY
F7	7'-0" SQUARE x 18" THICK W/ 9-#5 BOTTOM EACH WAY
CF2	2'-0" WIDE x 12" THICK W/ 3-#5 T&B LONG TOP & BOTTOM.

450 WOOD RIVER

OWNER:
450-490 WOOD RIVER, LLC
ATTN: MATT SCOGGINS
P.O. BOX 14001-174
KETCHUM, ID 83340

PROJECT ARCHITECT:
RO | ROCKETT DESIGN
1031 W. MANCHESTER BLVD. UNIT 6
INGLEWOOD, CA 90301
TEL: 213.784.0014

CONTRACTOR:

GEOTECHNICAL ENGINEER:
BUTLER ASSOCIATES, INC.
P.O. BOX 1034
KETCHUM, ID 83340
TEL: 208.720.6432

CIVIL ENGINEER:
BENCHMARK ASSOCIATES
100 BELL DRIVE
KETCHUM, ID 83340
TEL: 208.726.9512

LANDSCAPE ARCHITECT:
FIELD STUDIO LANDSCAPE ARCHITECTS
722 N. ROUSE AVENUE
BOZEMAN, MT 59715
TEL: 406.551.2098

STRUCTURAL ENGINEER:
LABIB FUNK & ASSOCIATES
319 MAIN STREET
EL SEGUNDO, CA 90245
TEL: 213.239.9700
LFA Job #22777

MEP ENGINEER:
CONSULTING ENGINEERING SERVICES (CES)
1001 W OAK BLDG
BOZEMAN, MT 59715
TEL: 406.272.0352

LIGHTING:
KGM ARCHITECTURAL LIGHTING
270 CORAL CIRCLE
EL SEGUNDO, CA 90245
TEL: 310.552.2191

AV:

SEAL:
PROFESSIONAL ENGINEER LICENSED P-21490 STATE OF IDAHO DAVID L. FUNK
DATE SIGNED12/01/2023

NO	DATE	ISSUE
	12/01/2023	PLAN CHECK RESUBMITTAL
	05/05/2023	PLAN CHECK SUBMITTAL

PROJECT:
450 WOOD RIVER
450 WOOD RIVER DRIVE
KETCHUM, ID 83340

PROJECT NUMBER
2108

DRAWING TITLE:
FOUNDATION/LEVEL 1 PLAN

DRAWING NUMBER:
S-101

Attachment D:
Brockway Technical
Memo (8/13/23)

Project No. 1575-02-2021

Technical Narrative in Support of Floodplain Development Plan for 450 Wood River

Prepared for:

450-490 Wood River, LLC
Ketchum, Idaho

August 18, 2023

For information concerning this report, contact
Charles G. Brockway, Ph.D., P.E.

BROCKWAY ENGINEERING PLLC

CHARLES E. BROCKWAY, PH.D., P.E. (EMERITUS)
CHARLES G. BROCKWAY, PH.D., P.E.

2016 NORTH WASHINGTON, SUITE 4
TWIN FALLS, IDAHO 83301

Technical Narrative in Support of Floodplain Development Plan for 450 Wood River

Brockway Engineering, PLLC
August 18, 2023

A. Existing conditions and hydrology

The subject property is 450 Big Wood Drive, a platted lot within Mary's Place Subdivision in Ketchum, Idaho. The property includes an authorized building envelope, but some of the property is within the effective 100-year floodplain and subject to the pertinent requirements in the City of Ketchum municipal code. A residential structure is proposed to be constructed within the existing building envelope.

A small pond currently exists on both the subject property and on the adjacent lots to the south (440 and 430 Wood River). The pond is a perennial feature that contains water from the high groundwater table, but also receives surface water from a swale originating on 490 Wood River and flowing onto the subject property. Discharge from the pond occurs via an overflow that discharges to a channel that returns to the Big Wood River on 430 Wood River.

The pond is clearly an artificial feature that appears to have been installed in the early 1980s without any water right or other permit. The pond was created by excavating the land and placing the spoils adjacent to the pond on the river side, creating a mound of earth up to three feet in depth relative to the pre-pond existing grade. At the same time, it appears the inlet and outlet channels were created.

The pond is within the 100-year floodplain and will be inundated during extreme floods in the river. However, ordinary natural water supply for the pond is inadequate. The groundwater table is not regularly high enough to reach the overflow and enable flow through the pond. Surface water flow is intermittent and is dependent upon upstream conditions in the marshy areas on 490 Wood River, which fluctuate seasonally according to groundwater levels and levels in the adjacent Big Wood River, which is hydraulically connected with the shallow groundwater. Flow from these areas through the channel onto 450 Wood River varies and has been observed to follow the expected seasonal pattern: low or nonexistent in the late summer, fall, and winter, rising in the spring and early summer as river levels and infiltration increase.

Due to the inadequate water supply, the pond is stagnant and detrimental to the property. In addition, the policy of the Idaho Department of Water Resources is that any pond excavated into shallow groundwater, whether fed from an external source or not, requires a water right. No such right exists for the pond, and due to the moratorium on all new consumptive water rights, obtaining a new appropriation at this time is not reasonably possible. For these reasons, it is proposed to remove the pond in the course of this residential development. To preserve the

conveyance capacity for both ordinary flows and flood flows, the swale from 490 Wood River will be extended to connect to the channel on 440 Wood River that currently returns to the river.

Most of the property is within the 100-year effective floodplain defined by FEMA. Comparing the effective base flood elevations with LiDAR and other topographic data, it was determined that the effective floodplain limit is reasonably accurate. During the 100-year event, most of the land will be subject to shallow overland flow with the exception of the high area on the river side of the pond. This high area is recognized as being above the BFE in the "Draft" flood maps, prepared by FEMA and issued for informational purposes in September 2022 as part of the agency's comprehensive restudy of the Big Wood River and tributaries. The floodplain limits on the Draft map are similar to those on the effective map.

Portions of the property lie within the defined regulatory floodway. However, no grading or development is proposed within the floodway.

B. Proposed project

The proposed project includes the following elements:

1. **Construction of driveway to allow access to a residence.** This drive will lie wholly outside of the floodplain.

2. **Construction of residence within platted building envelope.** The building footprint will be partially within the floodplain limits. The finished floor elevation will be above the modeled 100-year flood elevations, either Effective or Draft, as described below. Fill within the floodplain will occur to a reasonable extent necessary to construct the residence, and a portion of this fill will be below the 100-year flood elevation.

3. **Removal of the unauthorized legacy pond.** The pond will be filled and graded using on-site excavated material. As noted, this pond has no water right and therefore cannot remain as a feature on the property. In addition, its removal will eliminate the stagnant water and overall aesthetic nuisance.

4. **Enhancement of the existing drainage channel in accordance with the grading shown on the plans.** This swale will have a bottom width of 7 feet, side slope of 4:1 or flatter, and overall slope of 0.7%. The enhanced swale will have an increased conveyance capacity and will provide a portion of the mitigation required for the hydraulic impact analysis and the compensatory storage analysis. The swale will be vegetated in accordance with plans prepared by Field Studio and Sawtooth Environmental. With an assumed roughness coefficient of 0.065, this swale will have a capacity of 68 cfs at a flow depth of 2.0 feet. Benefits of this activity include maintaining and enhancing the natural conveyance regime, providing more natural riparian habitat, and reducing nuisance water to adjacent landowners. This element is pursuant to and in accordance with plat note #7 regarding enhancement plans for relocation of drainage provisions.

Because a portion of the existing pond and proposed swale is located on 430 and 440 Wood River, the owner of these properties will need to concur with the proposed plan and allow construction to occur on his properties. The general plan has been reviewed with the owner and he has indicated concurrence with removing the nuisance pond and ensuring that flood flows are safely directed back to the river. Final concurrence of the specific plan will need to be obtained from the owner prior to commencement of the project construction.

C. HEC-RAS model analysis

HEC-RAS was used to model the existing conditions and the conditions with the proposed project including grading and structures. The purpose of this effort was to establish a baseline model representing existing conditions, and use this model to evaluate the effect of the project including proposed mitigation. Figure 1 shows an overall view of the model study area and cross-sections, and Figures 2a and 2b show close-in views of the project and grading plan. Inputs an assumptions for the model are described below.

C.1. Topographic data

Data used to develop cross-sections was derived from detailed ground survey and topographic contour mapping created by Galena Engineering for the project, as well as from the 2017 Blaine County LiDAR data. For the most part, the two sources were in close agreement, but where significant differences occurred, the ground shots were assumed to be the more accurate data. Once section was created from LiDAR as it was located off the property.

The model geometry upstream and downstream of the project was based on FEMA's draft model, made public in September 2022. New cross-sections representing current ground conditions were inserted, starting with Section 90690.8 as the downstream limit. These sections are shown on the attached map and Table 1.

Since the LiDAR data reflects the water surface rather than the channel bottom in the Big Wood River when the flight was made (which was at low water), the shape of the channel bottom was approximated by reference to the draft model sections and elevations adjusted according to channel slope.

C.1. 100-year peak annual flow

The "1% annual chance flow" or the 100-year flow is the discharge that forms the basis of modeling for current conditions and post-project conditions. The value in the effective model is 4,740 cfs. In the draft model, FEMA increased this flow to 6,363 cfs. For reasons related to statistical calculations on the stream gauge north of Ketchum, this value is not correct. Nevertheless, FEMA is continuing to use it for its analyses and therefore it was used for this project because the City of Ketchum has elected to use the draft maps for regulatory purposes.

In the course of developing the model for this project, it was discovered that the discharge used in FEMA's draft model is 6,879 cfs, which is incorrect for this reach. According to the

hydrology report prepared for FEMA by the U.S. Army Corps of Engineers, the 6,879 cfs value is supposed to be the discharge below Trail Creek. The discharge from the Warm Springs confluence downstream to Trail Creek is supposed to be 6,363 cfs. This is discussed further in a memo submitted to Blaine County and the City of Ketchum dated March 31, 2023.

Table 1. Cross-sections from upstream to downstream

River Station in FEMA model	Section No.	Remarks
93417.33	16	Section in FEMA draft model
92671.74	15.5	Inserted section from LiDAR
92471.74	15	Section in FEMA draft model
92232	14	Inserted section using ground shots and LiDAR
92123	13.5	Inserted section using ground shots and LiDAR
92065	13	Inserted section using ground shots and LiDAR. Generally aligns with access roadway, used for upstream section of existing culvert on 490
92021		Existing 16” culvert on 490
91977	12.5	Inserted section using ground shots and LiDAR. Used for downstream section of culvert on 490
91945	12	Inserted section using ground shots and LiDAR
91911	11.8	Inserted section using ground shots and LiDAR
91836	11.5	Near north boundary of 450. Inserted section using ground shots and LiDAR. Existing house to north blocked out.
91755	11.2	Inserted section using ground shots and LiDAR. Section through pond on 450, existing house, and new house.
91715	11	Inserted section using ground shots and LiDAR. Section through pond on 450, existing house, and new house.
91640	10.5	Inserted section using ground shots and LiDAR. Section through lower end of pond on 450.
91565	10	Inserted section using ground shots and LiDAR.
91427	9	Section in FEMA draft model
91103.24	8	Section in FEMA draft model
90690.8	7	Section in FEMA draft model

Rather than compound error upon error, a value of 6,363 cfs was used for the modeling of this project even though it differs from the FEMA model. FEMA has been notified that its model contains an error and the base flood elevations and floodplain delineation in the reach from Warm Springs to Trail Creek should be recomputed. Base flood elevations on the draft maps in this reach should not be relied upon.

C.2. Starting downstream WSE

The downstream water surface elevation at Section 7 (RS 90690.8) was set by the normal depth method with a slope of 0.005 ft/ft.

C.3. Roughness coefficients

Roughness coefficients for the new cross sections developed for this project were 0.04 for the channel and 0.06 to 0.10 for the overbanks, horizontally varying depending on the extent and nature of vegetation. For sections 10 through 13, the roughness coefficient was varied based on the 2022 aerial photo to correspond to areas of more or less vegetative cover. Overbank roughness was set to 0.06 or 0.08, and channel roughness was set to 0.04 or 0.06. For the post-project model, overbank coefficients were adjusted to reflect the fact that the regrading and channel improvements will slightly lower the roughness coefficient in some areas.

The FEMA draft model cross-sections generally have coefficients of 0.035 for the channel and 0.1 or 0.12 for overbanks. The channel coefficient is reasonable but an overbank coefficient of 0.12 is too high. The standard reference for roughness coefficients (Chow, 1959) indicates that a value of 0.12 would be characteristic of very dense brush, heavy tree growth, and downed trees. Nevertheless, these values were used where the draft model sections were directly used, i.e. Sections 7-9 and 15-16.

C.4. Ineffective flow

The ineffective flow option was used in the left overbank of section 13.5 to characterize the backwater area above the culvert, and at the upstream culvert section 13.

C.5. Culvert parameters

The culvert and roadway on 490 were modeled with entrance projecting from fill with an entrance loss coefficient of 0.9, an exit loss coefficient of 1.0, and a roughness coefficient of 0.022. The top of existing roadway is based on surveyed elevations. Ineffective flow areas were set, but do not come into play since the flow overtops the roadway.

The deck width in the direction of flow was computed as the average width of the roadway over which water flows. The standard weir coefficient of 2.6 was used for overtopping flow. Similarly, distances to upstream and downstream cross-sections represent averages for the culvert area.

C.6. Channel regrading

Regrading of the drainage swale was modeled by modifying all cross-sections where the swale is changing. The roughness coefficient for regraded swale areas was generally 0.06 to simulate the improved condition; however the proposed backyard fill area with low-growing grasses was set to 0.04.

C.7. Building obstruction

The existing structures and the proposed residential construction was modeled with the HEC-RAS blocked obstruction feature, and the adjacent grade was modeled by modifying the cross-sections to reflect the proposed fill around the building to a grade of 5767.0 feet. Since the building and associated fill was modeled as a complete obstruction, this adequately represents the proposed slab-on-grade construction.

C.8. Mitigation

Mitigation for project impacts takes two forms: compensatory storage (Section D), and mitigation of hydraulic impacts to the extent feasible. Hydraulic impacts arise due to fill or obstruction of flow, reducing the overall section conveyance and resulting increase in modeled water elevation during the 100-year event. In this case, the construction of the swale between the residence and the river provide both compensatory storage mitigation and hydraulic mitigation. The resulting net effect is discussed below.

C.9. Model results

The current conditions model results are reasonably consistent with the draft model, but not exactly the same due to the reasons discussed above. The new cross-sections better describe the channel changes and deposition that have occurred since the effective model development, and provide closer spacing in order to model the proposed grading plan. The baseline model is more detailed and simulates reality better than the draft model, and was deemed to be a suitable current-conditions model from which to evaluate changes due to proposed project grading.

With the building and grading plan as proposed, which includes the mitigation described above, the computed water surface elevations are either unchanged or slightly lower than for the existing conditions scenario (Table 2). The primary change occurs at Section 11.5, where the model predicts an increase of 0.19 feet, and at Section 11.2 where the modeled increase is 0.04 feet. These increases could not be eliminated with reasonable grading. The project is not within the regulatory floodway and subject to FEMA's "no-rise" requirement. The impact should be acceptable as it is 1) highly localized, 2) a necessary consequence of constructing a residence on an authorized, platted building envelope, and 3) offset by the significant restorative benefits to the riparian area, much of which is in poor condition.

No water is predicted to flow over the driveway access.

Table 2. Model-computed water surface elevations.

Section	River Sta	Water surface elevation (ft)			FEMA Draft 2022*
		Existing Conditions	With Project	Change	
16	93417.33	5776.17	5776.17	0.00	5777.63
15.5	92671.74	5773.22	5773.22	0.00	
15	92471.74	5770.90	5770.90	0.00	5770.67
14	92232	5769.40	5769.40	0.00	
13.5	92123	5768.94	5768.94	0.00	
13	92065	5767.85	5767.85	0.00	
Culvert	92021				
12.5	91977	5767.58	5767.58	0.00	
12	91945	5766.73	5766.74	0.02	
11.8	91911	5766.80	5766.84	0.04	
11.5	91836	5766.34	5766.53	0.19	5766.71
11.2	91755	5766.14	5766.17	0.03	
11	91715	5765.77	5765.69	-0.08	
10.5	91640	5765.40	5765.31	-0.09	
10	91565	5764.98	5765.00	0.02	
9	91427	5764.80	5764.80	0.00	
8	91103.24	5761.89	5761.89	0.00	5762.08
7	90690.8	5759.68	5759.68	0.00	5761.33

* Shown for information only, not comparable to project modeling since incorrect discharge was used in FEMA model.

D. Compensatory storage and fill mitigation

Because of the City's requirement for 1-for-1 compensatory storage, the volumes of cut and fill within the floodplain and below the base flood were balanced to ensure no loss of floodplain storage. Several factors were considered in making this calculation:

1. The gross volumes of cut and fill were based on the existing cross-sections and proposed project cross sections utilized for the hydraulic modeling.

2. Volumes were calculated for areas above the natural grade and below the model-calculated base flood elevation for the proposed conditions.

3. Calculating fill above natural grade is complicated by the presence of an unauthorized pond that must be removed in any event. Restoring the land to the original condition puts right what should not have been done. It seems reasonable to view this as a necessary restoration of natural conditions, and then the restored natural grade will be used as the baseline for the

compensatory storage analysis for the residential development.

4. Based on current guidance from the city, it is understood that the fill associated with a residential foundation, including both within the footprint and the fill needed to create a reasonable grading away from the foundation, will not be counted in the compensatory storage analysis. A definition of fill associated with "reasonable grading" away from the foundation is proposed as follows: 5% slope for 10 feet away from the foundation (based on the IRC), and a 4:1 slope further away from the foundation until intersection with natural grade. This definition may not be universally applicable, but appears to give reasonable results in this case. The foundation fill volume based on this criteria and that is also below the BFE was subtracted from the gross fill.

The cross-sectional areas of gross cut, gross fill, and reasonable associated foundation fill are illustrated on Figure 3, and calculations are shown in Table 3. Note that the distances between sections in Table 3 are not necessarily the same as those in the model, because the modeling represents an average for the entire section whereas the cut/fill calculations are specific to a small area. The computed cut volume is 436 cy and the fill volume accounting for reasonable associated house grading is 250 cy, indicating that the compensatory storage requirement can be met.

Table 3. Cut and fill balance below calculated post-project BFE.

Section	Station (ft)	Avg dist between Sections (ft)	Cut Area (ft2)	Fill Area (ft2)	Delta V (cy)		Associated House Fill*	
					Cut	Fill	Area (ft2)	Delta V (cy)
Start grading (prop line)	0		0.0	0.0			0	
11.5	40	40	115.4	0.0	57.0	0.0	0.0	0.0
11.2	106	66	16.9	121.2	143.8	98.8	31.3	25.5
11	152	46	1.5	28.1	13.3	117.9	13.7	37.3
10.5	227	75	42.4	25.6	48.0	74.6	0.0	12.7
10	302	75	71.7	0.0	156.7	23.7	0.0	0.0
End grading - 9.5	334	32	0.0	0.0	16.8	10.1	0.0	0.0
Subtotals					435.6	325.1		75.5
TOTAL GROSS CUT					435.6	cy		
TOTAL GROSS FILL					325.1	cy		
ASSOCIATED HOUSE FILL					75.5	cy		
NET FILL (gross fill minus associated house fill)					249.6	cy		
NET CUT-FILL BALANCE					**186.0**	**cy**		

* 5% slope for 10 feet away from the foundation (based on the IRC), and a 4:1 slope further away from the foundation until intersection with natural grade

E. Wetland and vegetation plan

Sawtooth Environmental has prepared a Joint Application for Permits, including a plan for wetlands management to meet the requirements of the Corps of Engineers. The plan includes a revegetation plan for the project, including site preparation and planting of native species appropriate for riparian and wetland environments. This plan will be implemented in conjunction with coordinated plans prepared by the landscape architect.

Path: F:\Projects\Presidio Vista\ArcMap\Figure 1.mxd

FIGURE 1

1 in = 110 ft

CITY OF KETCHUM- FLOODPLAIN DEVELOPMENT PERMIT
450 WOOD RIVER

2022 BLAINE COUNTY NEARMAP AERIAL

N

BROCKWAY ENGINEERING, PLLC.
EMP - Date: 8/15/2023

F:\Projects\Presidio Vista\CAD\450 CAD\Working map 450 2023-8-8.dwg

LEGEND

- FEMA DRAFT FLOODPLAIN 2022 — FP22
- PROPERTY LINE
- FLOODWAY
- EXT'G CONTOURS
- PROPOSED GRADING
- BROCKWAY MODEL SECTIONS AND CALCULATED BFE WITH PROJECT
- BUILDING ENVELOPE — BE
- EXST'G STRUCTURE - REMOVE
- POND - REMOVE

WOOD RIVER DRIVE (50' R/W)

450 WOOD RIVER DRIVE
MARY'S PLACE SUB
LOT 3, BLK 1
±54,219 S.F.
±1.24 AC.

440 WOOD RIVER DRIVE
MARY'S PLACE SUB
LOT 2, BLK 1

430 WOOD RIVER DRIVE
MARY'S PLACE SUB
LOT 1A, BLK 1

LOT 2, BLK 1
MARY'S PLACE SUBDIVISION

POND

SECTION 12 5766.74
SECTION 11.8 5766.84
SECTION 11.5 5766.53
SECTION 11.2 5766.17
SECTION 11 5765.69
SECTION 10.5 5765.31
SECTION 10 5765.00
SECTION 9 - REPLACE PC 5764.80

S89° 02' 56"E 192.48'
S14° 31' 13"W 129.74'
S14° 31' 13"W 214.95'
N54° 10' 38"E 200.07'
N54° 10' 38"E 219.47'
S35° 51' 00"E 115.93'
S53° 05' 25"W 195.64'
S53° 05' 25"W 100.01'
N85° 39' 09"W 152.84'

±0.6%
±6%
±0.5%

N

0 50 100
SCALE IN FEET

REV	DESCRIPTION	DATE
A	ISSUE FOR PERMITTING	8/15/2023

NOT FOR CONSTRUCTION

SCALE AS SHOWN (11 X 17 DWG ONLY)
DESIGNED BY CGB
DRAFTED BY CGB

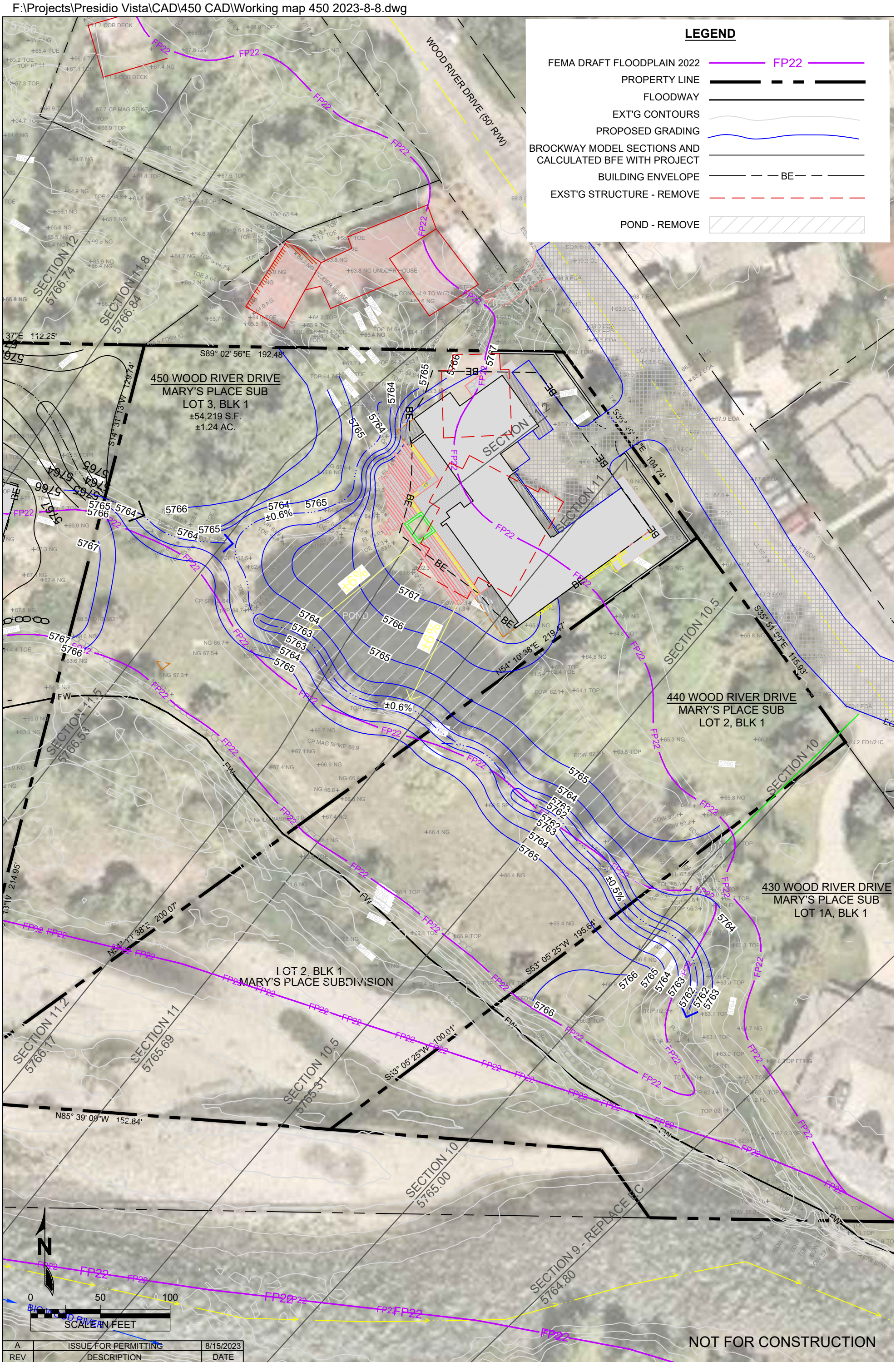
BROCKWAY ENGINEERING, PLLC
HYDRAULICS - HYDROLOGY - WATER RESOURCES
2016 NORTH WASHINGTON, SUITE 4
TWIN FALLS ID, 83301
(208) 736-8543

FLOODPLAIN DEVELOPMENT PERMIT
450 WOOD RIVER

FIGURE 2. SITE PLAN, PROJECT ELEMENTS WITH GRADING.

PROJECT # 1575-01-2021
DWG # 1
REV A

F:\Projects\Presidio Vista\CAD\450 CAD\Working map 450 2023-8-8.dwg



REV	DESCRIPTION	DATE
A	ISSUE FOR PERMITTING	8/15/2023

SCALE AS SHOWN (11 X 17 DWG ONLY)

DESIGNED BY CGB

DRAFTED BY CGB

BROCKWAY ENGINEERING, PLLC
HYDRAULICS - HYDROLOGY - WATER RESOURCES
2016 NORTH WASHINGTON, SUITE 4
TWIN FALLS ID, 83301
(208) 736-8543

FLOODPLAIN DEVELOPMENT PERMIT
450 WOOD RIVER

PROJECT # 1575-01-2021

FIGURE 2. SITE PLAN, PROJECT ELEMENTS WITH GRADING.

DWG # 1

REV A

Appendix A
HEC-RAS Output and Cross-Sections

Presidio Vista - 450 Wood River HEC-RAS Model Output

8/15/2023

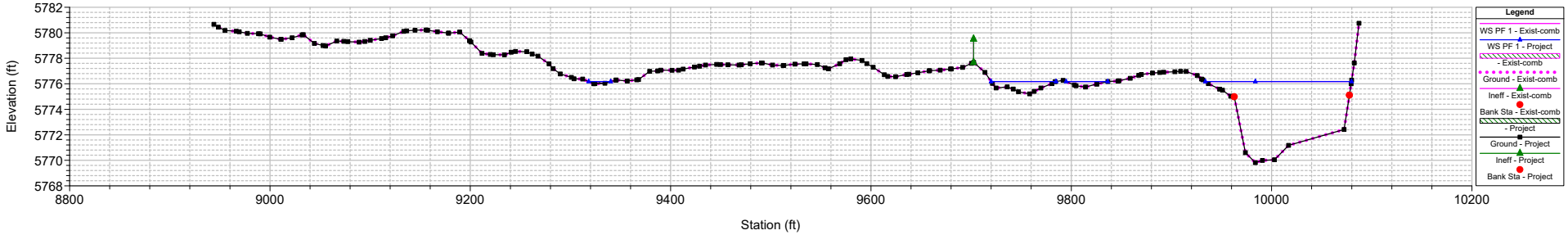
BASELINE EXISTING CONDITIONS

Sec No	Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)
16	Reach-1	93417.33	PF 1	6363	5769.82	5776.17	5776.17	5778.2	0.009273	11.49	612.51	274.18
15.5	Reach-1	92671.74	PF 1	6363	5765	5773.22	5771.45	5773.86	0.002402	6.79	1516.95	550.9
15	Reach-1	92471.74	PF 1	6363	5763.7	5770.90	5770.38	5772.95	0.00722	11.54	611.6	554.57
14	Reach-1	92232	PF 1	6363	5762.2	5769.40	5768.91	5770.61	0.009666	8.9	775.68	313.54
13.5	Reach-1	92123	PF 1	6363	5761.6	5768.94	5768.00	5769.62	0.006205	6.74	1036.11	494.29
13	Reach-1	92065	PF 1	6363	5761.3	5767.85	5767.85	5769.02	0.016779	8.82	804.5	413.79
	Reach-1	92021		Culvert								
12.5	Reach-1	91977	PF 1	6363	5760.4	5767.58	5766.42	5768.08	0.004349	5.81	1312.41	534.71
12	Reach-1	91945	PF 1	6363	5760	5766.73	5766.73	5767.8	0.012563	8.52	856.43	408.89
11.8	Reach-1	91911	PF 1	6363	5759.7	5766.80	5766.02	5767.32	0.006427	6.1	1297.81	525.33
11.5	Reach-1	91836	PF 1	6363	5758.42	5766.34	5765.45	5766.86	0.005793	5.94	1211.62	463.33
11.2	Reach-1	91755	PF 1	6363	5757.8	5766.14	5764.60	5766.47	0.003453	4.96	1471.74	438.42
11	Reach-1	91715	PF 1	6363	5757.02	5765.77	5764.71	5766.27	0.005038	6.03	1232.67	407.42
10.5	Reach-1	91640	PF 1	6363	5757	5765.40	5764.23	5765.91	0.004718	6.05	1275.71	407.36
10	Reach-1	91565	PF 1	6363	5756.85	5764.98	5763.61	5765.61	0.003559	6.95	1172.05	351.6
9	Reach-1	91427	PF 1	6363	5756.85	5764.80	5762.28	5765.37	0.002357	6.29	1324.93	373.55
8	Reach-1	91103.24	PF 1	6363	5755.22	5761.89	5761.73	5763.89	0.009221	11.61	730.72	275.48
7	Reach-1	90690.8	PF 1	6363	5752.51	5759.68	5758.64	5760.93	0.005003	9.02	772.47	374.2

WITH PROJECT

Sec No	Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)
16	Reach-1	93417.33	PF 1	6363	5769.82	5776.17	5776.173	5778.2	0.009273	11.49	612.51	274.18
15.5	Reach-1	92671.74	PF 1	6363	5765	5773.22	5771.454	5773.86	0.002402	6.79	1516.95	550.9
15	Reach-1	92471.74	PF 1	6363	5763.7	5770.90	5770.378	5772.95	0.00722	11.54	611.6	554.57
14	Reach-1	92232	PF 1	6363	5762.2	5769.40	5768.914	5770.61	0.009666	8.9	775.68	313.54
13.5	Reach-1	92123	PF 1	6363	5761.6	5768.94	5767.999	5769.62	0.006208	6.74	1035.93	494.29
13	Reach-1	92065	PF 1	6363	5761.3	5767.85	5767.849	5769.02	0.016779	8.82	804.5	413.79
	Reach-1	92021		Culvert								
12.5	Reach-1	91977	PF 1	6363	5760.4	5767.58	5766.424	5768.08	0.004363	5.82	1310.58	533.92
12	Reach-1	91945	PF 1	6363	5760	5766.74	5766.727	5767.8	0.012352	8.46	862.63	409.9
11.8	Reach-1	91911	PF 1	6363	5759.7	5766.84	5766.024	5767.34	0.006167	6.02	1317.57	526.07
11.5	Reach-1	91836	PF 1	6363	5758.42	5766.53	5765.362	5766.93	0.004269	5.29	1418.52	506.29
11.2	Reach-1	91755	PF 1	6363	5757.8	5766.17	5764.953	5766.6	0.004155	5.47	1288.95	413.29
11	Reach-1	91715	PF 1	6363	5757.02	5765.69	5764.884	5766.35	0.006463	6.73	1054.53	375.26
10.5	Reach-1	91640	PF 1	6363	5757	5765.31	5764.322	5765.9	0.005422	6.39	1184.45	420.2
10	Reach-1	91565	PF 1	6363	5756.85	5765.00	5763.632	5765.59	0.003411	6.82	1241.27	393.78
9	Reach-1	91427	PF 1	6363	5756.85	5764.80	5762.283	5765.37	0.002357	6.29	1324.93	373.55
8	Reach-1	91103.24	PF 1	6363	5755.22	5761.89	5761.734	5763.89	0.009221	11.61	730.72	275.48
7	Reach-1	90690.8	PF 1	6363	5752.51	5759.68	5758.641	5760.93	0.005003	9.02	772.47	374.2

Presidio450 Plan: 1) Project 2) Exist-comb
RS = 93417.33 Section 16 / From draft model



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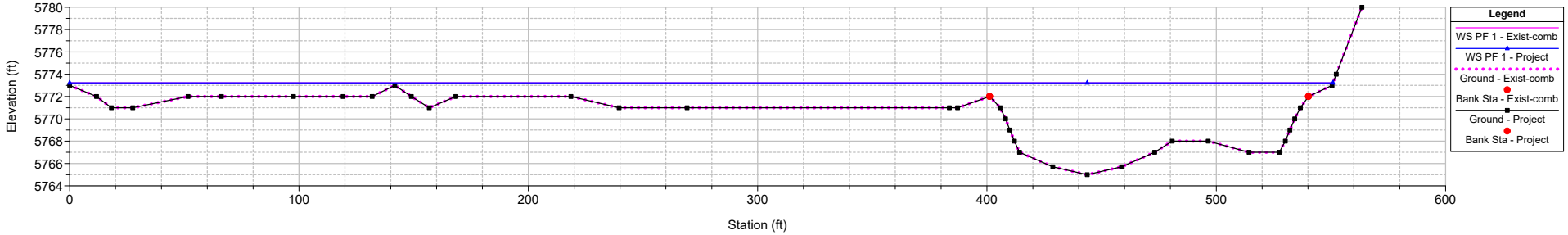

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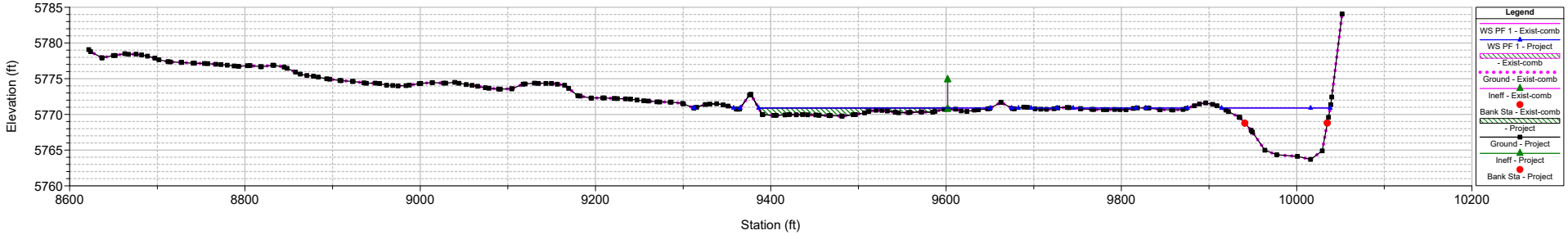

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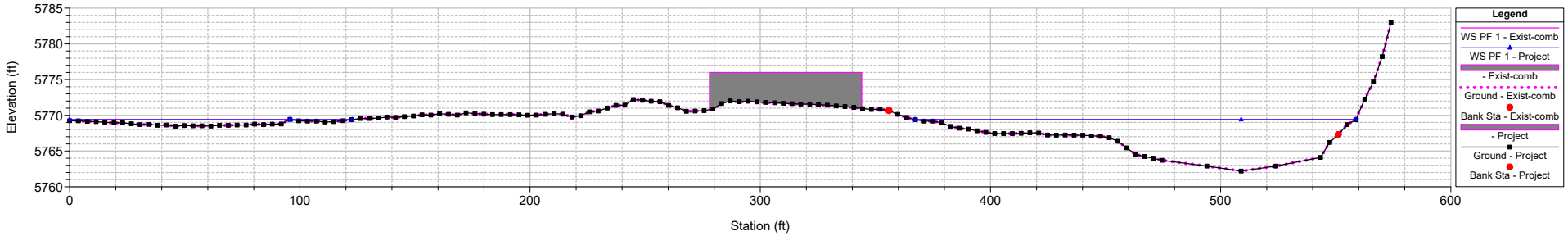

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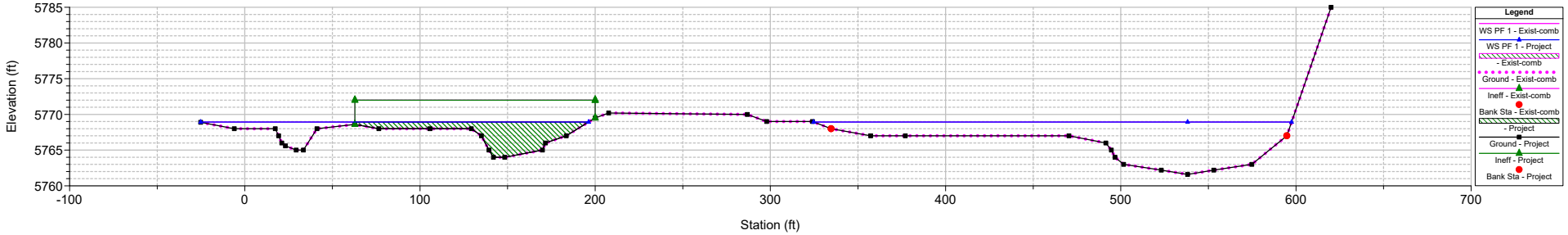

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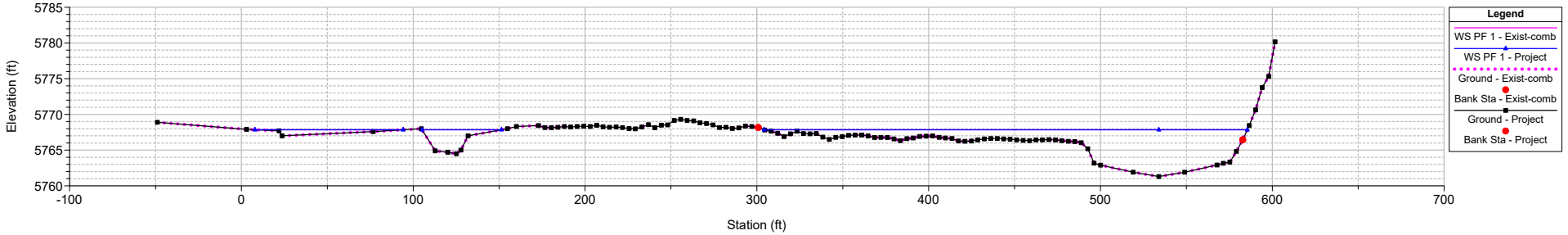
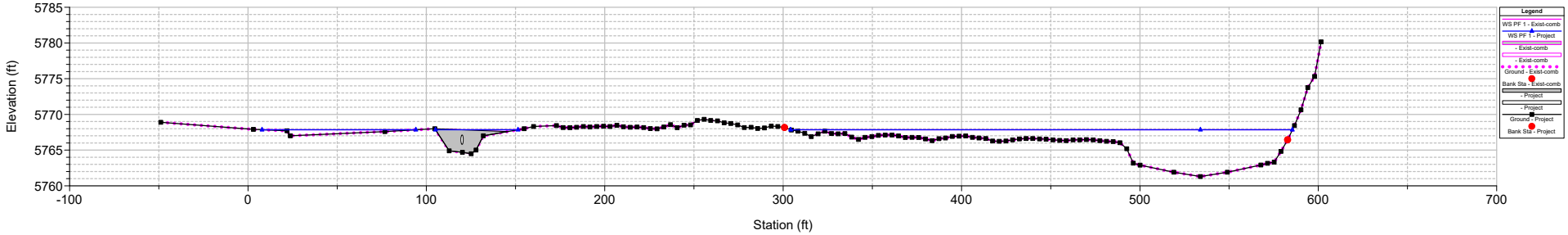


Presidio450 Plan: 1) Project 2) Exist-comb
RS = 92021 Culv



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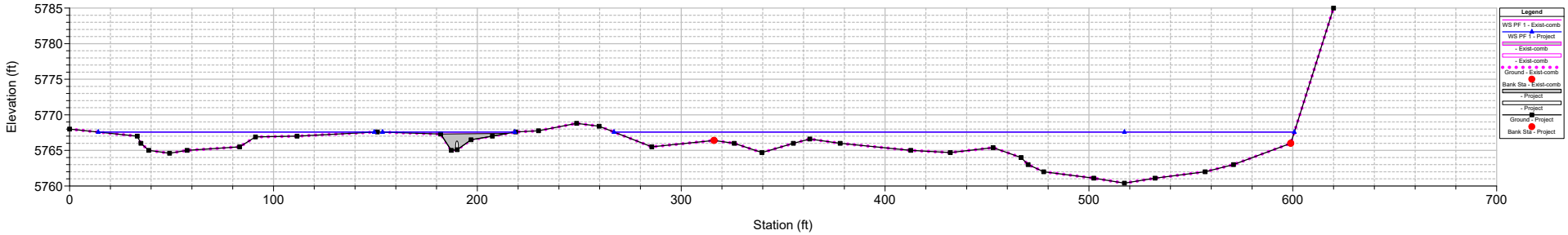

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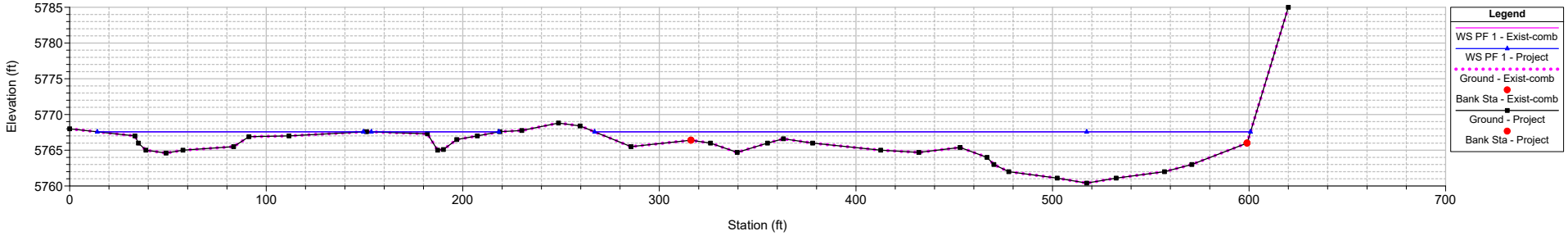

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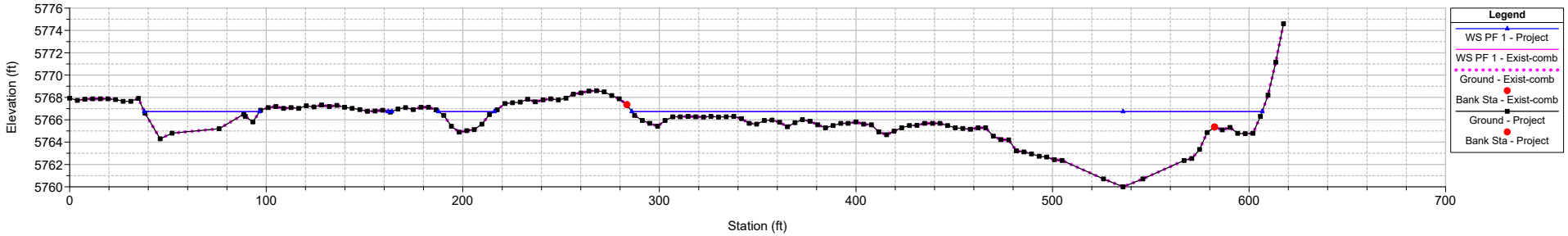

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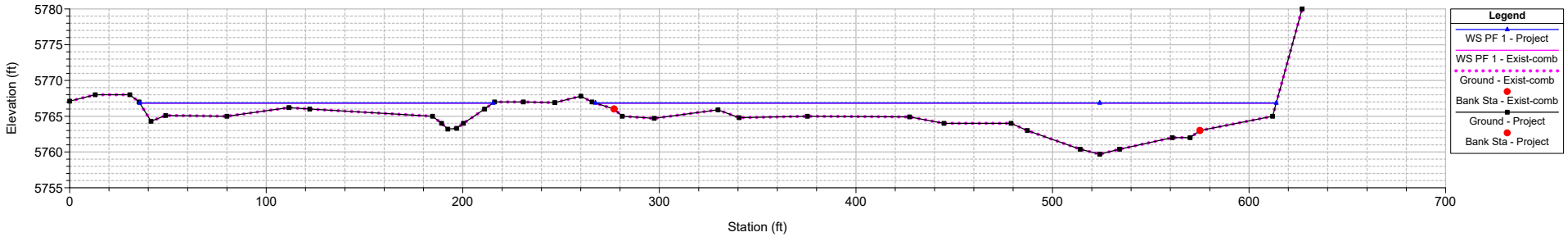

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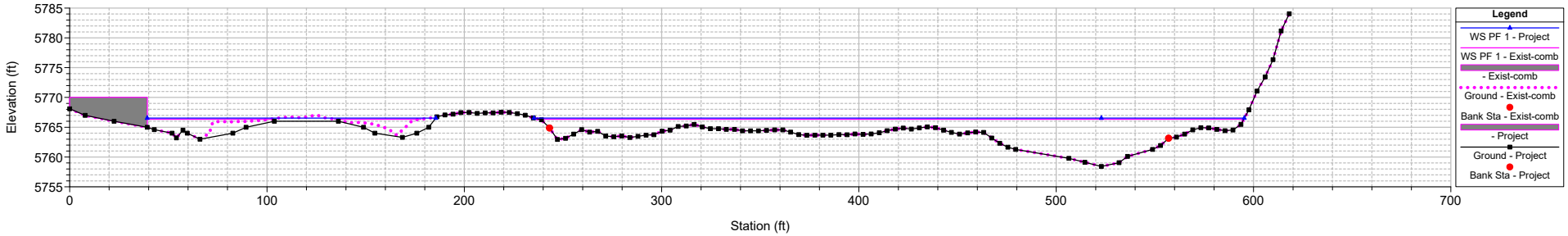

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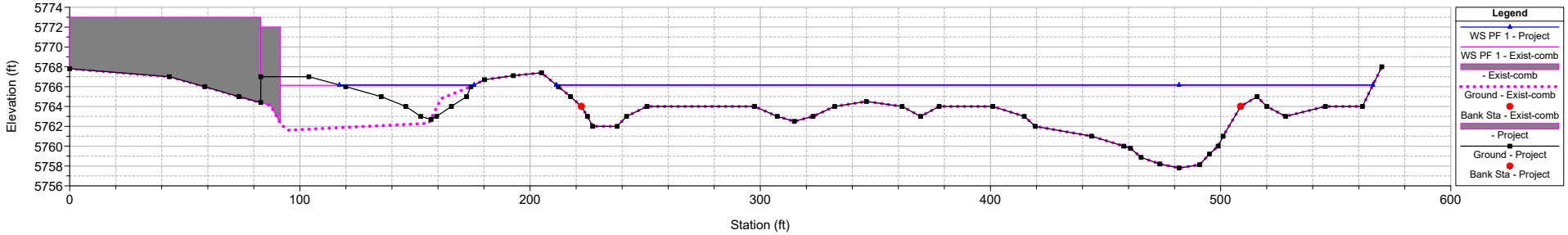

Presidio450 Plan: 1) Project 2) Exist-comb
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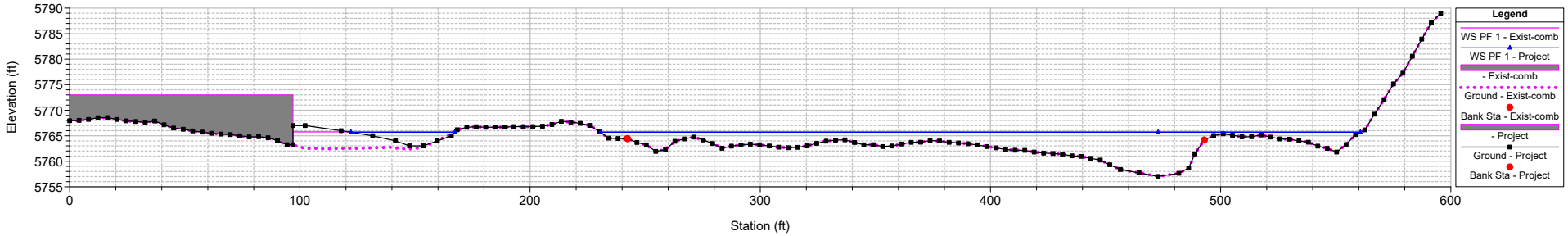

Presidio450 Plan: 1) Project 2) Exist-comb
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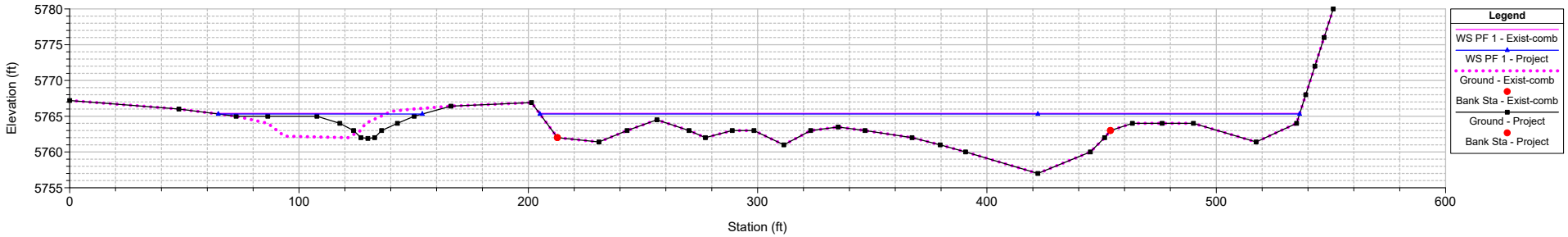

Presidio450 Plan: 1) Project 2) Exist-comb
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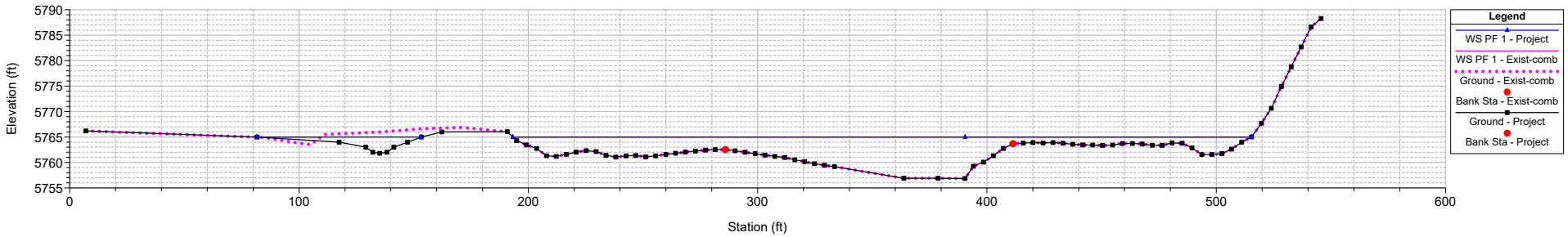

Presidio450 Plan: 1) Project 2) Exist-comb
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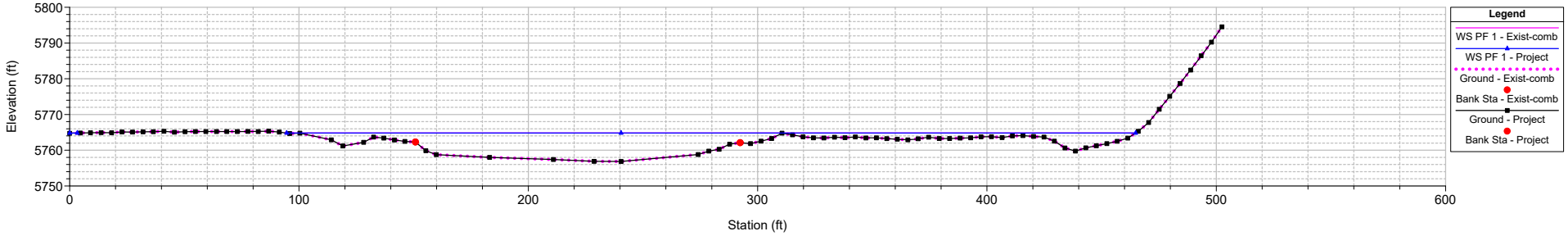
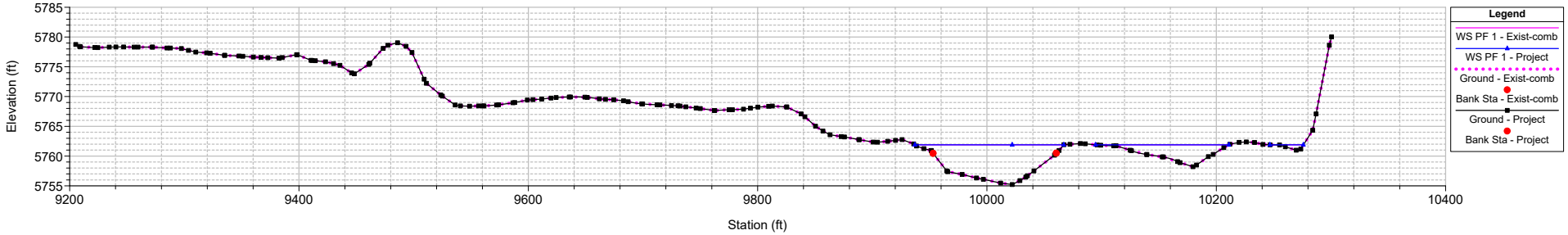
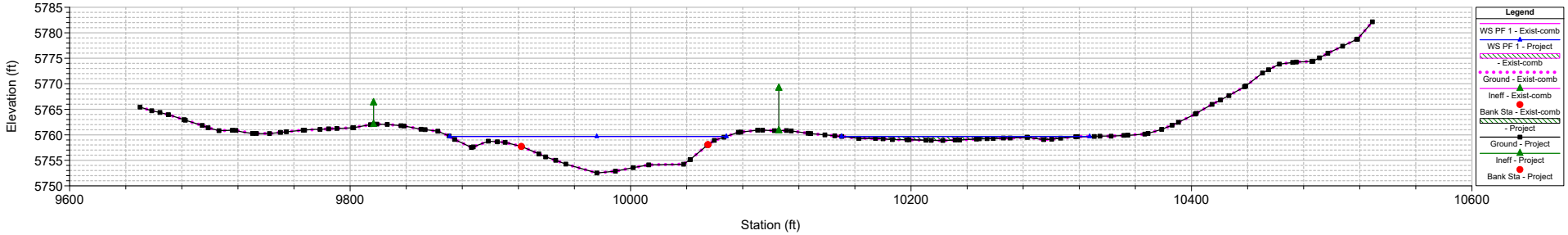


Presidio450 Plan: 1) Project 2) Exist-comb
RS = 91103.24 Section 8 / From draft model



Presidio450 Plan: 1) Project 2) Exist-comb
RS = 90690.80 Section 7 / From draft model



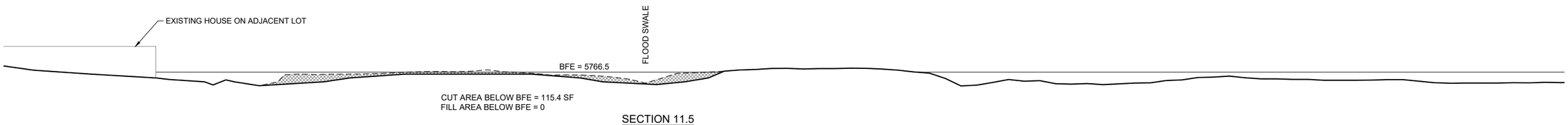
Appendix B
Cut-Fill Analysis

F:\Projects\Presidio Vista\450 FP Development\Cut-fill-450project-2023-08-08.dwg

EXISTING GRADE
PROJECT GRADE
BASELINE BFE CALCULATED
FILL BELOW BFE
CUT BELOW BFE
ADDITIONAL CUT RIVER SIDE
ESTIMATED PRE-POND NATURAL

CUT/FILL ANALYSIS - 450 WOOD RIVER

BFE = COMBINED FLOW ANALYSIS, PROPOSED CONDITIONS MODEL 8/10/2023
HOUSE IN EXISTING BUILDING ENVELOPE, POND FILL, SWALE ADDED

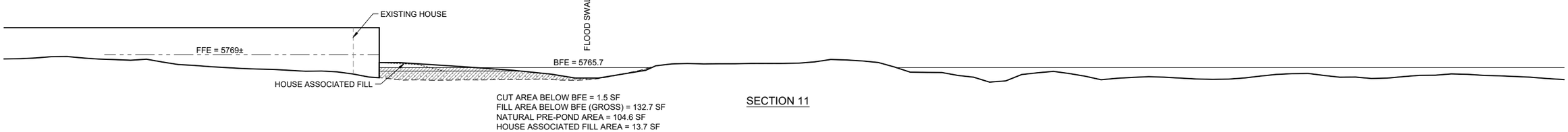


CUT AREA BELOW BFE = 115.4 SF
FILL AREA BELOW BFE = 0

SECTION 11.5

CUT AREA BELOW BFE = 16.9 SF
FILL AREA BELOW BFE (GROSS) = 261.9 SF
NATURAL PRE-POND AREA = 140.7 SF
HOUSE ASSOCIATED FILL AREA = 31.3 SF

SECTION 11.2

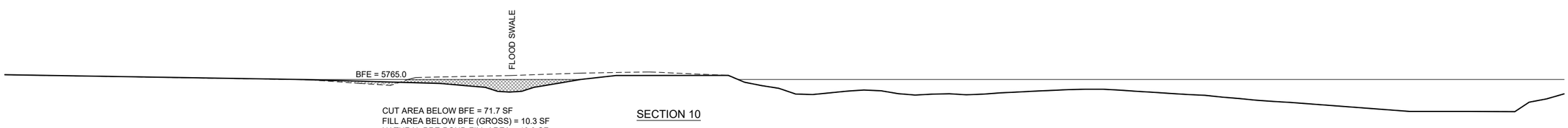


CUT AREA BELOW BFE = 1.5 SF
FILL AREA BELOW BFE (GROSS) = 132.7 SF
NATURAL PRE-POND AREA = 104.6 SF
HOUSE ASSOCIATED FILL AREA = 13.7 SF

SECTION 11

CUT AREA BELOW BFE = 42.4 SF
FILL AREA BELOW BFE (GROSS) = 94.1 SF
NATURAL PRE-POND FILL AREA = 68.5 SF

SECTION 10.5



CUT AREA BELOW BFE = 71.7 SF
FILL AREA BELOW BFE (GROSS) = 10.3 SF
NATURAL PRE-POND FILL AREA = 10.3 SF

SECTION 10

REV	DESCRIPTION	DATE	APPD.
A	HOUSE IN EXISTING BLDG ENVELOPE	8/15/2023	

DESIGNED BY CGB | DRAFTED BY CGB

NO SCALE

BROCKWAY ENGINEERING, PLLC.
HYDRAULICS - HYDROLOGY - WATER RESOURCES
2016 NORTH WASHINGTON, SUITE 4
TWIN FALLS, ID. 83301
(208) 736-8543

450 WOOD RIVER
FLOODPLAIN DEVELOPMENT PERMIT

CUT AND FILL AREAS BELOW CALCULATED BFE (100-YEAR FLOW)

PROJECT # 1575-01-2021

DWG # FIGURE 3

REV A

Analysis of Cut and Fill Volume Below BFE

Pre-Pond Natural Baseline

450 standalone project
BFE calculated with PROPOSED CONDITIONS model
Volumes calculated using frustum formula
CGB 8/15/2023

Section	Station	Avg dist between sections	Cut Area (ft2)	Fill Area (ft2)	Delta V (cy) Cut	Delta V (cy) Fill	Associated house fill* Area (ft2)	Associated house fill* Delta V
Start grading (prop line)	0		0.0	0.0			0	
11.5	40	40	115.4	0.0	57.0	0.0	0.0	0.0
11.2	106	66	16.9	121.2	143.8	98.8	31.3	25.5
11	152	46	1.5	28.1	13.3	117.9	13.7	37.3
10.5	227	75	42.4	25.6	48.0	74.6	0.0	12.7
10	302	75	71.7	0.0	156.7	23.7	0.0	0.0
End grading - 9.5	334	32	0.0	0.0	16.8	10.1	0.0	0.0
				Totals	435.6	325.1		75.5

Total gross cut	435.6	cy
Total gross fill	325.1	cy
Associated house fill	75.5	cy
Net fill (gross minus associated house fill)	249.6	cy
Net cut-fill balance excluding associated house fill	**186.0**	**cy**

Attachment E:

Brockway Technical

Memo (3/8/24)

BROCKWAY ENGINEERING PLLC

Technical Memo

To: City of Ketchum
From: Charles G. Brockway, P.E.
Cc:
Date: March 8, 2024
Re: Additional technical information for 450 Wood River Drive Floodplain Development Permit Application

This memo provides additional information in response to a memo from Harmony Design and Engineering dated January 11, 2024, and in response to a comment letter from the City of Ketchum planning staff dated January 22, 2024, Floodplain Development Review Comments, Items #1 and #7.

A. Response to Harmony memo.

The Harmony memo included comments on the modeling and calculations for the project that were described in a memo to the City dated August 15, 2023. Each number below corresponds to an item in the Harmony memo:

1. A flow of 6,879 cfs will be used.

2. A review of the roughness coefficients indicates they appear to be reasonable. General guidelines for selection were based on Chow (1959) and were: 0.1 for very rough brush/tree areas, 0.08 for natural moderately rough areas, 0.06 for either natural lightly brushed areas or modified areas with expected riparian vegetation, 0.04 for modified areas with landscaping. The main change is a move from 0.06 to 0.04 behind the house. This area is currently an algae-filled pond with heavy growth along the banks, and will be converted to relatively smooth lawn. This change in roughness coefficient seems realistic and does assist with meeting the no-rise. A copy of the HEC-RAS model is being provided for review.

3. Response to be provided by Galena-Benchmark.

4. The model was revised to eliminate all rise.

Toward this goal it was decided to develop a more refined model that analyzes the east leg independently since it is topographically isolated from the main channel. The calculation of the discharge in the east channel during the 100-year event in the Big Wood River was based on an analysis previously submitted to the city, as follows. The lateral outflow from the main river to the east leg was assumed to be reasonably represented as a weir stretching between the east floodplain boundary and the high area between Sections 15 and 15.5, i.e. at the upstream "entrance" to the east flow path. The elevations were taken from the LiDAR topography, with the crest elevation varying from 5770.5 to 5772.0 feet, averaging about 5771.0 feet. The weir coefficient was taken to be 2.0, representing a wide, flat, broad-crested weir with a very rough surface. The starting station for the lateral outflow was set equal to the Section 15 station. In general, the location and parameters were selected to ensure that this approach did not

underestimate the discharge in the east flow area. The above approach resulted in an east leg discharge of 473 cfs.

The previous grading plan from the August 15, 2023 memo was adjusted to eliminate all modeled increases in flood height when compared to the existing condition. This revised grading plan is shown on the attached sheet. The model predicts changes in flood height ranging from zero to -0.40 feet relative to the baseline pre-project condition. The larger decreases occur near the lower end of the legacy pond, where the new channel will be excavated well below the current overflow elevation of the pond. The small increases that were predicted at cross-sections 11.5 and 11.8 have been eliminated. Computed profiles are shown in Figure 1 for the existing (base) and post-project models. Model output is shown on the attached sheet.

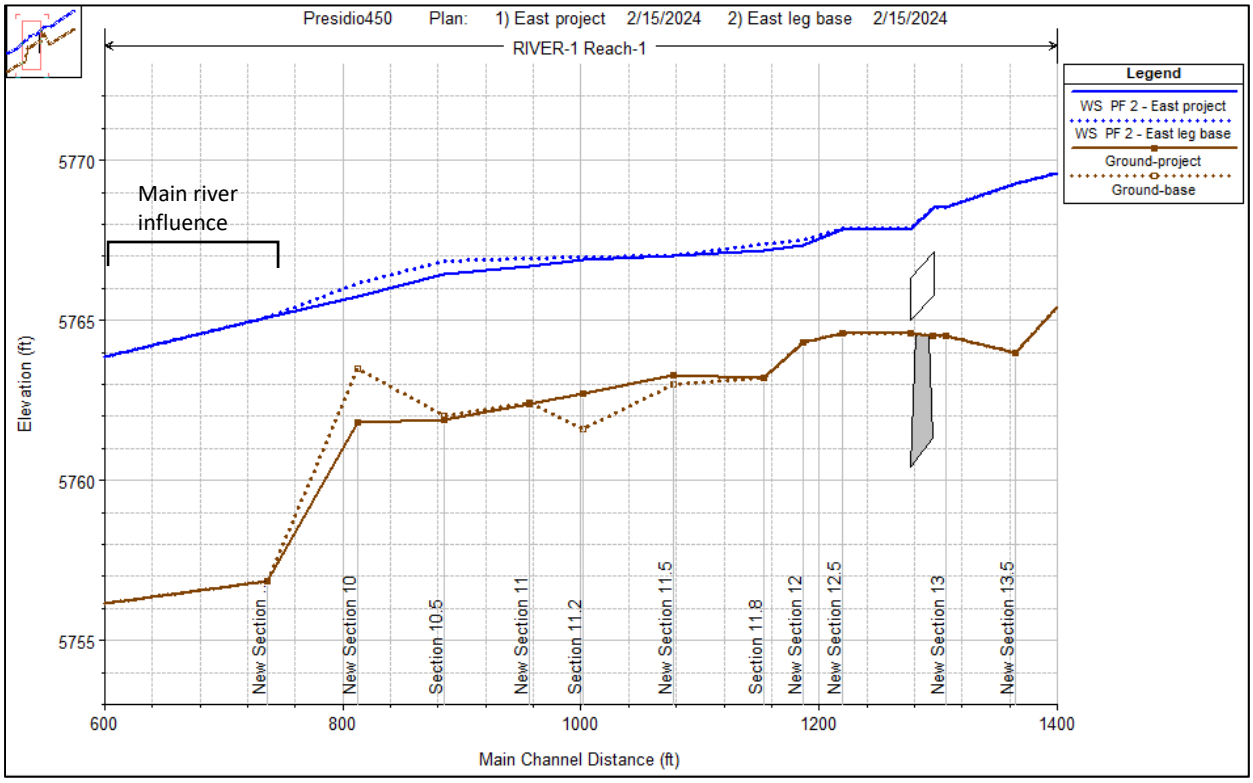


Figure 1. Computed water surface profiles.

B. Cut-fill recalculation

The compensatory storage analysis was recalculated based on the same methodology set forth in the August 15, 2023 memo, but using the higher water surface elevations calculated by the revised model and the revised grading plan developed to achieve a no-rise condition. The revised cross-sections and section areas are shown on the attached sheet, and Table 1 shows the revised calculation.

Table 1. Cut and fill balance below calculated post-project BFE.

Section	Station (ft)	Avg dist between Sections (ft)	Cut Area (ft2)	Fill Area (ft2)	Delta V (cy)		Associated House Fill*	
					Cut	Fill	Area (ft2)	Delta V (cy)
Start grading (prop line)	0		0.0	0.0			0	
11.5	40	40	123.2	1.9	60.8	0.9	0.0	0.0
11.2	106	66	50.8	78.1	206.2	75.1	36.9	30.1
11	152	46	12.9	59.0	50.7	116.4	24.5	51.9
10.5	227	75	52.1	33.3	84.2	126.5	0.0	22.7
10	302	75	106.3	0.0	215.6	30.8	0.0	0.0
End grading - 9.5	334	32	0.0	0.0	20.6	13.2	0.0	0.0
Subtotals					638.1	363.0		104.7
TOTAL GROSS CUT					638.1	cy		
TOTAL GROSS FILL					363.0	cy		
ASSOCIATED HOUSE FILL					104.7	cy		
NET FILL (gross fill minus associated house fill)					258.3	cy		
NET CUT-FILL BALANCE					**379.9**	**cy**		

* 5% slope for 10 feet away from the foundation (based on the IRC), and a 4:1 slope further away from the foundation until intersection with natural grade

C. Response to planning staff letter, Floodplain Development Review Comments, Items #1 and #7

Item #1

The elevation of 5765.93 feet was the corresponding calculated elevation on one of the cross-sections prepared by the landscape architect to illustrate the proposed grading plan; it was not intended to represent the governing BFE for the project. The revised model with the higher flow calculates an elevation of 5766.88 at Section 11.2 and 5767.00 at Section 11.5. The most upstream point on the building is between these two cross-sections, and the interpolated elevation at that point that should be used for the building is 5766.95.

Item #7

Ketchum Municipal Code 17.88.060.B.10 requires that compensatory storage meet four criteria. The criteria a. through d. are listed below, with statements of how the proposed plan adheres to each criteria.

a. Provide equivalent volume at equivalent elevations to that being displaced. For this purpose, "equivalent elevation" means having similar relationship to ordinary high water and the best available 100-year water surface profiles;

The proposed floodplain storage enhancement is located within the same area and near the same elevations as the fill proposed for the residential project. It is within the floodplain that currently exists without the project.

b. Be hydraulically connected to the source of flooding;

The proposed floodplain storage enhancement is within the same flow path as currently exists during flooding periods and is not isolated or disconnected from the floodplain.

c. Provide compensatory storage in the same construction season as when the displacement of flood storage volume occurs and before the flood season begins.

The swale grading plan can take place in the same season as the house construction, house-associated fill, and grading plan fill, thus assuring that flood carrying capacity will not be impaired for the following flood season.

d. The newly created storage area shall be graded and vegetated to allow fish access during flood events without creating fish stranding sites.

In the proposed grading plan, a shallow swale is contemplated with a continuous slope toward the river. During times when the swale is carrying water, fish passage from the river will be possible. No ponded areas or similar fish stranding sites are proposed. Removal of the unauthorized pond with its elevated overflow will enhance fish passage potential. The area will be revegetated with appropriate riparian vegetation as indicated in the application materials.

Attachment F:
Brockway Technical
Memo (4/15/24)

BROCKWAY ENGINEERING PLLC

Technical Memo

To: City of Ketchum
From: Charles G. Brockway, P.E.
Cc:
Date: April 15, 2024
Re: Updates to model and cut/fill analysis for 450 Wood River Drive Floodplain Development Permit Application

This memo describes updated modeling and calculations to reflect a revised grading plan developed by Field Studio for the 450 Wood River Drive project. The grading adjustments include minor adjustments at cross-sections 11 and 11.2, made necessary by the increased design BFE for the residence. The HEC-RAS model previously described in a Brockway Engineering memo dated March 8, 2024 was adjusted and re-run. The model indicates a change in water surface elevation change compared to the previous model of 0.01 feet at Sections 11 and 11.2. The model continues to show no increase compared to pre-project conditions. The analysis of cut and fill was adjusted accordingly, and continues to indicate a substantial balance of cut over fill below the BFE. Model files are being provided to the city.

Attachments:
Model output table
Cut/fill cross-section analysis
Cut/fill tabulation

Presidio Vista - 450 Wood River HEC-RAS Model Output

4/15/2024 MODELING EAST LEG ONLY TO ACHIEVE NO-RISE, Q=473 CFS 4/15/2024 MINOR GRADING ADJUSTMENTS FROM FSLA

BASELINE EXISTING CONDITIONS

Sec No	Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
16	Reach-1	93417.33	PF 2	6879	5769.82	5777.10	5776.53	5778.62	0.005656	10.09	901.18	561.55	0.75
15.5	Reach-1	92671.74	PF 2	6879	5765	5771.76	5771.76	5773.49	0.008458	10.68	773.76	358.53	0.88
15	Reach-1	92471.74	PF 2	473	5763.7	5770.37	5765.46	5770.38	0.000055	0.95	511.45	284.31	0.07
14	Reach-1	92232	PF 2	473	5768.47	5770.24	5769.66	5770.33	0.005146	2.45	193	217.67	0.46
13.5	Reach-1	92123	PF 2	473	5764	5769.27	5768.60	5769.45	0.014269	3.69	145.25	223.67	0.44
13	Reach-1	92065	PF 2	473	5764.5	5768.54	5767.78	5768.61	0.014338	2.46	245.42	277.4	0.34
	Reach-1	92021		Culvert									
12.5	Reach-1	91977	PF 2	473	5764.6	5767.87	5766.43	5767.92	0.009059	1.82	268.75	227.9	0.27
12	Reach-1	91945	PF 2	473	5764.3	5767.50	5766.38	5767.57	0.013518	2.11	223.95	188.12	0.34
11.8	Reach-1	91911	PF 2	473	5763.2	5767.38	5765.77	5767.4	0.00229	1.24	391.04	224.27	0.15
11.5	Reach-1	91836	PF 2	473	5763	5767.02	5765.68	5767.1	0.008434	2.24	214.56	148.9	0.32
11.2	Reach-1	91755	PF 2	473	5761.6	5766.97	5763.15	5766.99	0.000446	1.29	366.95	97.02	0.11
11	Reach-1	91715	PF 2	473	5762.43	5766.93	5763.85	5766.97	0.000678	1.52	316.45	115.99	0.14
10.5	Reach-1	91640	PF 2	473	5762	5766.85	5763.97	5766.89	0.001592	1.73	320.74	184.18	0.16
10	Reach-1	91565	PF 2	473	5763.5	5766.14	5766.14	5766.53	0.048758	5.6	106	129.34	0.95
9	Reach-1	91427	PF 2	6879	5756.85	5765.11	5762.49	5765.69	0.002294	6.4	1442.96	403.95	0.43
8	Reach-1	91103.24	PF 2	6879	5755.22	5762.11	5762.07	5764.21	0.009228	11.96	795.14	318.24	0.94
7	Reach-1	90690.8	PF 2	6879	5752.51	5759.92	5758.90	5761.25	0.005002	9.3	820.75	415.01	0.7

WITH PROJECT

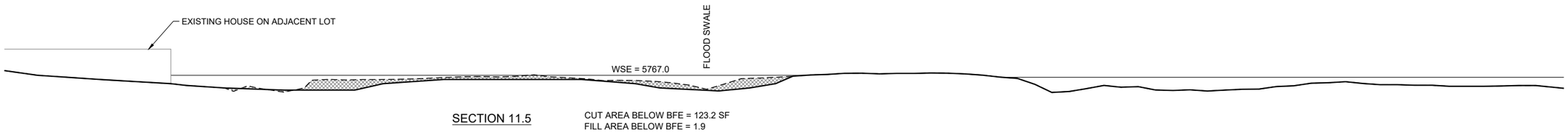
Sec No	Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Ch	Delta WSE (ft)
16	Reach-1	93417.33	PF 2	6879	5769.82	5777.10	5776.526	5778.62	0.005656	10.09	901.18	561.55	0.75	0.00
15.5	Reach-1	92671.74	PF 2	6879	5765	5771.76	5771.76	5773.49	0.008458	10.68	773.76	358.53	0.88	0.00
15	Reach-1	92471.74	PF 2	473	5763.7	5770.37	5765.462	5770.38	0.000055	0.95	511.45	284.31	0.07	0.00
14	Reach-1	92232	PF 2	473	5768.47	5770.24	5769.66	5770.33	0.005146	2.45	193	217.67	0.46	0.00
13.5	Reach-1	92123	PF 2	473	5764	5769.27	5768.604	5769.45	0.014269	3.69	145.25	223.67	0.44	0.00
13	Reach-1	92065	PF 2	473	5764.5	5768.54	5767.781	5768.61	0.014338	2.46	245.42	277.4	0.34	0.00
	Reach-1	92021		Culvert										0.00
12.5	Reach-1	91977	PF 2	473	5764.6	5767.83	5766.433	5767.89	0.009973	1.87	260.33	226.01	0.29	-0.04
12	Reach-1	91945	PF 2	473	5764.3	5767.35	5766.375	5767.44	0.020514	2.41	196.25	184.29	0.41	-0.15
11.8	Reach-1	91911	PF 2	473	5763.2	5767.17	5765.767	5767.2	0.00328	1.39	344.6	217.13	0.18	-0.21
11.5	Reach-1	91836	PF 2	473	5763.3	5767.00	5764.923	5767.03	0.001569	1.42	333.53	150.07	0.17	-0.02
11.2	Reach-1	91755	PF 2	473	5762.7	5766.87	5764.826	5766.94	0.000962	2.08	227.98	94.95	0.23	-0.10
11	Reach-1	91715	PF 2	473	5762.4	5766.68	5765.401	5766.86	0.002881	3.33	142.9	72.31	0.4	-0.25
10.5	Reach-1	91640	PF 2	473	5761.9	5766.46	5765.266	5766.54	0.005902	2.45	214.96	140.62	0.29	-0.40
10	Reach-1	91565	PF 2	473	5761.8	5765.75	5764.964	5765.92	0.013309	3.32	155.52	125.1	0.44	-0.39
9	Reach-1	91427	PF 2	6879	5756.85	5765.11	5762.489	5765.69	0.002294	6.4	1442.96	403.95	0.43	0.00
8	Reach-1	91103.24	PF 2	6879	5755.22	5762.11	5762.069	5764.21	0.009228	11.96	795.14	318.24	0.94	0.00
7	Reach-1	90690.8	PF 2	6879	5752.51	5759.92	5758.898	5761.25	0.005002	9.3	820.75	415.01	0.7	0.00

F:\Projects\Presidio Vista\450 FP Development\Cut-fill-450project-2024-04-15.dwg

EXISTING GRADE
PROJECT GRADE
BASELINE BFE CALCULATED
FILL BELOW BFE
CUT BELOW BFE
ESTIMATED PRE-POND NATURAL

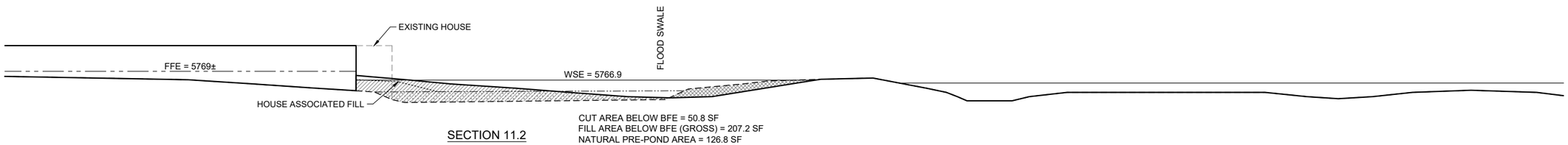
CUT/FILL ANALYSIS - 450 WOOD RIVER

BFE = EAST LEG FLOW ANALYSIS, PROPOSED CONDITIONS MODEL, GRADING ADJUSTMENTS 4/15/2024
HOUSE IN EXISTING BUILDING ENVELOPE, POND FILL, SWALE ADDED



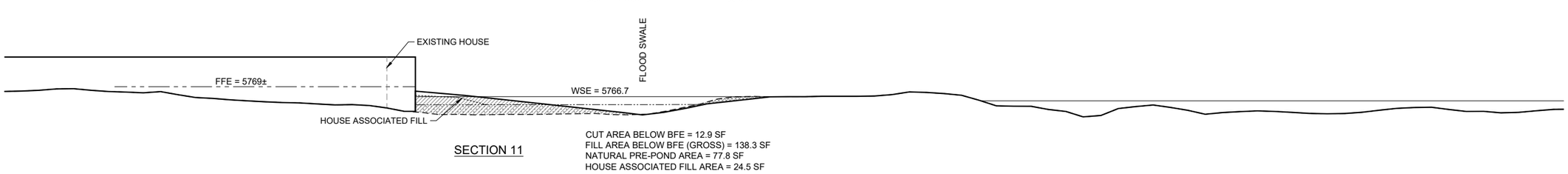
SECTION 11.5

CUT AREA BELOW BFE = 123.2 SF
FILL AREA BELOW BFE = 1.9



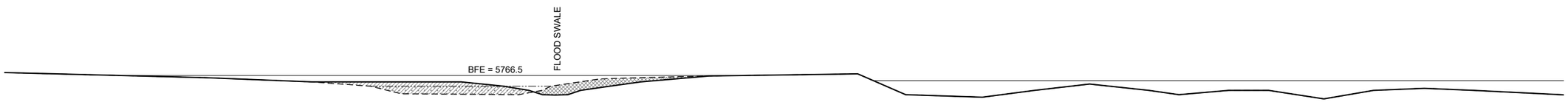
SECTION 11.2

CUT AREA BELOW BFE = 50.8 SF
FILL AREA BELOW BFE (GROSS) = 207.2 SF
NATURAL PRE-POND AREA = 126.8 SF
HOUSE ASSOCIATED FILL AREA = 36.9 SF



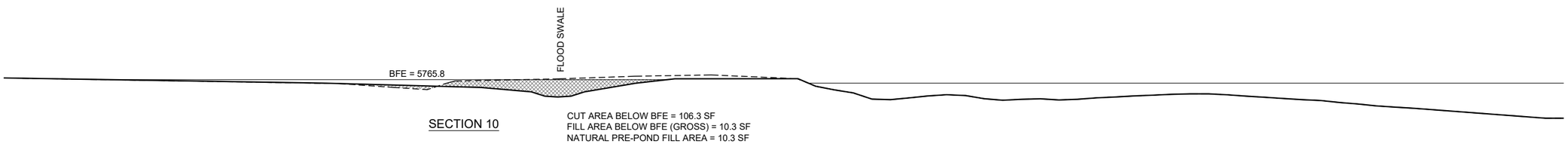
SECTION 11

CUT AREA BELOW BFE = 12.9 SF
FILL AREA BELOW BFE (GROSS) = 138.3 SF
NATURAL PRE-POND AREA = 77.8 SF
HOUSE ASSOCIATED FILL AREA = 24.5 SF



SECTION 10.5

CUT AREA BELOW BFE = 52.1 SF
FILL AREA BELOW BFE (GROSS) = 94.1 SF
NATURAL PRE-POND FILL AREA = 60.8 SF



SECTION 10

CUT AREA BELOW BFE = 106.3 SF
FILL AREA BELOW BFE (GROSS) = 10.3 SF
NATURAL PRE-POND FILL AREA = 10.3 SF

REV	DESCRIPTION	DATE	APPD.
C	REVISED, EAST LEG MODEL, NEW GRADING	4/15/2024	
B	REVISED, EAST LEG MODEL, NEW GRADING	2/15/2024	
A	HOUSE IN EXISTING BLDG ENVELOPE	8/15/2023	

DESIGNED BY CGB | DRAFTED BY CGB

NO SCALE

BROCKWAY ENGINEERING, PLLC.
HYDRAULICS - HYDROLOGY - WATER RESOURCES
2016 NORTH WASHINGTON, SUITE 4
TWIN FALLS, ID. 83301
(208) 736-8543

450 WOOD RIVER
FLOODPLAIN DEVELOPMENT PERMIT

CUT AND FILL AREAS BELOW CALCULATED BFE (100-YEAR FLOW)

PROJECT # 1575-01-2021

DWG # FIGURE 3

REV C

Analysis of Cut and Fill Volume Below BFE

Pre-Pond Natural Baseline

450 standalone project

BFE calculated with PROPOSED CONDITIONS model, east leg flow only

Volumes calculated using frustum formula

CGB 4/15/2024 - FSLA grading adjustments

Section	Station	Avg dist between sections	Cut Area (ft2)	Fill Area (ft2)	Delta V (cy) Cut	Fill	Associated house fill* Area (ft2)	Delta V
Start grading (prop line)	0		0.0	0.0			0	
11.5	40	40	123.2	1.9	60.8	0.9	0.0	0.0
11.2	106	66	50.8	80.4	206.2	77.1	36.9	30.1
11	152	46	12.9	60.5	50.7	119.6	24.5	51.9
10.5	227	75	52.1	33.3	84.2	128.4	0.0	22.7
10	302	75	106.3	0.0	215.6	30.8	0.0	0.0
End grading - 9.5	334	32	0.0	0.0	20.6	13.2	0.0	0.0
				Totals	638.1	370.1		104.7

Total gross cut	638.1	cy
Total gross fill	370.1	cy
Associated house fill	104.7	cy
Net fill (gross minus associated house fill)	265.4	cy
Net cut-fill balance excluding associated house fill	**372.7**	**cy**

Attachment G:

Galena-Benchmark

Drainage Memo

(3/4/24)

Galena-Benchmark Engineering

ENGINEERING, PLANNING, SURVEYING & MAPPING
PO Box 733
100 Bell Drive
Ketchum, Idaho 83340
208-726-9512

MEMORANDUM

Date: 3/04/2024

To: City of Ketchum

From: Phoebe Johannessen, PE – Galena Benchmark Engineering

Subject: On-site Drainage at 450 Wood River Drive

The following memo has been put together to provide the City of Ketchum with information to show the proposed residence at 450 Wood River Drive meets the Ketchum Code standard 17.124.170 (A). Calculations for proposed site conditions for the single-family dwelling as well as predeveloped flow are included in this memo. Using an infiltration rate of 2-inches per minute provided by the project's geotechnical engineer, the proposed drywell was calculated to infiltrate drainage from the new impervious areas on the site. These impervious areas include the house, driveway and patios which equate to approximately 0.22 acres.

The pre-developed flow rate for the 25-year storm is 0.59 cfs as calculated using the rational method. The developed condition runoff is 0.26 with a drywell infiltrating runoff from the proposed house, driveway and patios. Calculations are provided on page 2 of this memo. Thus the project will have an overall reduction in the 25-year on-site flow rate from 0.59 cfs to 0.26 cfs. A portion of this flow reduction is due to the removal of the existing pond, which will be replaced with a conveyance swale.

The drywell will be 5 feet deep with a 24" diameter perforated standpipe and a 3.5-ft-thick envelope of drain rock surrounding the pipe. Drainage from the driveway will be collected in a trench drain and piped through a series of catch basins to the drywell. Roof drains will tie into the 6" storm drain along the SE side of the house. Due to potential high groundwater tables during the spring, this drywell may overflow into the proposed channel downslope from the drywell. The channel drains to the Big Wood River. During normal conditions, the drywell is expected to infiltrate the site's stormwater runoff.

Mary's Place Subdivision Lot 3 - Predeveloped

BY: S.Smith
DATE: 2/15/2024

Storm Intensity: 2.3 in/hr
(25-year storm)

Runoff Coefficients
C: 0.95 (Pond)
C: 0.1 (unimproved)

Lot 3	Area (AC)	Flow Rate (cfs)
unimproved	1.09	0.25
pond	0.16	0.34
Total =	**1.24**	**0.59**

Mary's Place Subdivision Lot 3 Proposed Development

BY: S.Smith
DATE: 2/14/2024

Storm Intensity: 2.3 in/hr
(25 year storm)

Runoff Coefficients
C: 0.2 Landscaped
C: 0.9 Impervious
C: 0.1 Undisturbed

Lot 3	Area (AC)	Flow Rate (cfs)
House & Driveway Patios	0.22	0.45
Landscape	0.12	0.06
Undisturbed	0.91	0.21
Total =	**1.24**	**0.71**
Drywell Infiltration =		(0.45)
Devloped Flow with Drywell =		**0.26**

Infiltration System Sizing Worksheet
450 Wood River Drive

Date: 3/1/2024

By: P. Johannessen

DRYWELL 1

Onsite Native Soil Infiltration

Infiltration Rate:	120	in/hr
Factor of Safety:	1.5	
Design Infiltration Rate:	80	in/hr

Site Infiltration Sizing

Land Use	Runoff Coeff (C)	Area (AC)
Undeveloped	0.1	0.00
Landscape	0.2	0.00
Impervious	0.9	0.22
Total Area		**0.22**

Weighted runoff coefficient: 0.90

Storage Volume Requirement

25-Year Storm Event

Duration	Precip depth	Accumulated Flow Volume	Bottom Infiltration Rate	Bottom Infiltration Volume	Required Storage (Subtotal)*	Water Depth	Sidewall Infiltration Rate	Sidewall Infiltration Volume	Drywell Infiltration Volume	Required Storage	Available Storage
(min)	(in)	(cf)	(cfs)	(cf)	(cf)	(ft)	(cfs)	(cf)	(cf)	(cf)	(cf)
5	0.24	172	0.12	35	137	2.2	0.11	34	69	103	137
10	0.38	273	0.12	71	202	3.2	0.17	100	171	102	137
15	0.48	345	0.12	106	239	3.8	0.20	177	283	62	137
30	0.67	482	0.12	212	269	4.2	0.22	399	611	0	137
60	0.84	604	0.12	424	180	2.8	0.15	532	956	0	137
120	1.01	726	0.12	848	0	0	0	0	848	0	137
180	1.15	827	0.12	1272	0	0	0	0	1272	0	137
360	1.50	1078	0.12	2545	0	0	0	0	2545	0	137
720	2.05	1473	0.12	5089	0	0	0	0	5089	0	137
1440	2.60	1869	0.12	10179	0	0	0	0	10179	0	137

*Storage requirement with bottom infiltration only.

Drywell Storage Requirement	103	Cu. Ft.
Drywell Storage Volume Provided	137	Cu. Ft.

Storage Volume Proveded by Drywell 1

Drywell Structure Dimensions

Drywell Manhole Diameter:	2.0	ft
Drain Rock Thickness:	3.5	ft
Drain Rock Void Ratio:	0.4	
Depth of Rock:	5.0	ft

MH Base Area:	3.1	sf
Total Base Area:	63.6	sf
Drain Rock Annular Area:	60.5	sf
Drain Rock Circumference:	28.3	ft
Drywell Storage Volume:	137	Cu. Ft.

Attachment H:
IDWR & USACE Joint Application

Mary's Place Subdivision, Lot 3, Block 1
450 Wood River Drive
City of Ketchum, Blaine County, Idaho

March 2023

450 - 490 Wood River, LLC
Presidio Vista Properties
P.O. Box 10092
Ketchum, ID 83340

Pre-construction notification is being submitted on behalf of 450 - 490 Wood River, LLC owners of Lot 3, Block 1, of the Mary's Place Subdivision, located 450 Wood River Drive, within Section 13, Township 4N., Range 17E., City of Ketchum, Blaine County, Idaho. Applicant request permit approval for residential development within existing platted building envelope.

450 Wood River Dr. residential development project, a cooperative resource reclamation project. Proposed project applications will result in impacts to WOTUS, fill unauthorized [excavated] pond and associated wetland margin. Identified jurisdictional resources located on 450, 440 and 430 Wood River Drive in Ketchum Idaho. Impacts include: construction of residential home, attendant landscape elements, associated grading applications and floodplain/riparian/wetland restoration applications. Project applications within identified WOTUS (wetlands) area of impact, approx. 0.27 ac (11,765 sq. ft.): permanent impact [fill] approx. 0.052 ac. (2,300 sq. ft.), and floodplain/riparian/wetland restoration applications approx. 0.22 ac. (9,465 sq. ft.). Proposed riparian/wetland mitigation applications will reclaim (restore/create/enhance) approximately 0.67 ac. (29,000 sq. ft.) of floodplain/riparian/wetland habitat resources.

Proposed development applications are considered to be the best alternative to provide for reasonable use of the existing platted building envelope. Proposed project applications will remove (fill) unauthorized pond, restore pond site to natural conditions and work to reclaim natural floodplain/riparian/wetland functions and value throughout the greater project site. Mitigation to offset for the proposed wetland impacts [permanent fill] will be implemented in conjunction with the City of Ketchum Floodplain Development regulations and requirements.

Due to the proposed wetland mitigation applications, locations of proposed development applications, site drainage characteristics and preserved vegetative buffers, changes to wetland functions, hydrological characteristics and processes are not anticipated.

Project will incorporate all applicable Best Management Practices (BMPs) such as silt fence and straw wattles to protect resource values and ensure compliance with Water Quality Standards and applicable environmental regulations. All disturbed areas will be reclaimed and vegetated with native riparian wetland plant species.

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 APPLICATIONS MAY NOT BE PROCESSED

1. CONTACT INFORMATION - APPLICANT Required:			2. CONTACT INFORMATION - AGENT:		
Name: Matt Scoggins - Presidio Vista Properties			Name: Trent A. Stumph		
Company: 450-490 Wood River, LLC			Company: SAWTOOTH ENVIRONMENTAL CONSULTING, LLC		
Mailing Address: P.O. Box 14001-174			Mailing Address: P.O. Box 2707, 540 North 1st. Avenue		
City: Ketchum	State: ID	Zip Code: 83340	City: Ketchum	State: ID	Zip Code: 83340
Phone Number *(include area code)*: 214-557-5533	E-mail: matt@presidiovistaproperties.com		Phone Number *(include area code)*: 208-727-9748	E-mail: trent@sawtoothenvironmentalcom	

3. PROJECT NAME or TITLE: 450 Wood River Drive - Residential Development			4. PROJECT STREET ADDRESS: 450 Wood River Drive	
5. PROJECT COUNTY: Blaine	6. PROJECT CITY: Ketchum	7. PROJECT ZIP CODE: 83340		8. NEAREST WATERWAY/WATERBODY: Big Wood River
9. TAX PARCEL ID#: RPK04740000030	10. LATITUDE: 43.673875° N LONGITUDE: -114.369850° W	11a. 1/4: SE	11b. 1/4: SE	11c. SECTION: 13
12a. ESTIMATED START DATE: June 2023	12b. ESTIMATED END DATE: July 2025	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.

Parcel approximately 0.85 miles from downtown Ketchum. From the Main Street and Sun Valley Rd. intersection head southwest on Sun Valley Road, 0.27 mi. turn left onto Third Ave., 0.11 mi. turn right on to 1st St. (West Wood River Dr.), follow W Wood River Drive 0.46 mi. project site destination on the left, 450 Wood River Drive.

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.

Residential development Mary's Place Subd., Lot 3, Block 1 [450 Wood River Dr]. Proposed home-site development, attendant landscape features and grading applications will impact identified WOTUS fill unauthorized excavated pond and wetland margin: approximately 0.27 ac. (11,765 sq. ft.). Proposed floodplain, riparian, wetland restoration and mitigation: total area 0.92 ac. (40,000 sq. ft.) reclaim/create functional riparian wetland habitat.

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.:

450 Wood River Dr. residential development project, cooperative resource reclamation project. Proposed project applications will result in impacts to WOTUS, identified jurisdictional resources located on 450, 440 and 430 Wood River Drive in Ketchum Idaho. Impacts include: construction of residential home, attendant landscape elements, associated grading applications and floodplain/riparian/wetland restoration applications. Project applications within identified WOTUS (wetlands) area of impact, approx. 0.27 ac (11,765 sq. ft.): permanent impact [fill] approx. 0.052 ac. (2,300 sq. ft.), and floodplain/ riparian/wetland restoration applications approx. 0.22 ac. (9,465 sq. ft.). Proposed riparian/wetland mitigation applications will reclaim (restore/create/ enhance) approximately 0.67 ac. (29,000 sq. ft.) of floodplain/riparian/wetland habitat resources. Wetlands identified within the subject parcels are classified as Palutrine Unconsolidated Bottom Permanently Flooded Excavated (USFWS-NWI: PUBHx). Wetland characteristics associated with the identified wetland resources include open water (pond) and vegetated wetland margin (introduced and native vegetation).

Project applications involve the regrading (excavation) and placement of approximately 800 cu. yds. of material. Existing on-site material: soil/gravel/stone mix, fill associated with existing excavated pond. Subject material to be utilized to fill pond and regrade site. Standard construction equipment utilized to excavate, place and distribute materials (track excavator, loader and dozer).

Due to the locations of the proposed development applications, site drainage characteristics, proposed floodplain/riparian/wetland restoration and mitigation applications, and preserved vegetative buffers, changes to the hydrological characteristics and processes (periodic floodplain inundation and associated groundwater dynamics) are not anticipated.

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.

Proposed development applications are considered to be the best alternative to provide for reasonable use of the existing platted building envelope associated with the subject parcel(s). Proposed project applications will remove unauthorized pond (fill), restore pond site to natural condition and work to reclaim natural floodplain/riparian/wetland function and value throughout the greater project site.

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.

450 Wood River Drive residential development project has been designed to minimize impacts to the greatest extent practicable and reclaim (promote) natural system processes (floodplain/riparian/wetland). Mitigation to offset for the proposed project impacts [permanent fill] will be implemented in conjunction with City of Ketchum Floodplain Development regulations and FEMA requirements. On-site compensatory mitigation applications will be implemented throughout the greater project area. Due to the proposed mitigation applications, locations of proposed development applications, site drainage characteristics and preserved vegetative buffers, changes to wetland functions, hydrological characteristics and processes are not anticipated.

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

Dirt or Topsoil:	300	cubic yards
Dredged Material:		cubic yards
Clean Sand:		cubic yards
Clay:		cubic yards
Gravel, Rock, or Stone:	500	cubic yards
Concrete:		cubic yards
Other (describe):		cubic yards
Other (describe:		cubic yards

TOTAL: 800 cubic yards

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

Filling:	0.27	acres	11,765	sq ft.	800	cubic yards
Backfill & Bedding:		acres		sq ft.		cubic yards
Land Clearing:		acres		sq ft.		cubic yards
Dredging:		acres		sq ft.		cubic yards
Flooding:		acres		sq ft.		cubic yards
Excavation:		acres		sq ft.		cubic yards
Draining:		acres		sq ft.		cubic yards
Other:		acres		sq ft.		cubic yards

TOTALS: 0.27 acres 11,765 sq ft. 800 cubic yards

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

NONE

22. LIST ALL PREVIOUSLY ISSUED PERMIT AUTHORIZATIONS:

NONE

NOTE: Cooperative project between 450-490 Wood River LLC [Applicant], landowner 450 Wood River Drive and North Point Trust Company, landowner 440 and 430 Wood River Drive

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: _____ 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

Proposed project applications will incorporate all applicable Best Management Practices to protect resource values and to ensure compliance with local, state and Federal Water Quality Standards and applicable environmental regulations. The following applications will be implemented throughout the identified project areas during all construction phases of the project and site reclamation to ensure successful project results.

1) Project applications will be constructed and completed when conditions are favorable and project locations are suitable for construction applications.
2) Practical construction sequencing and appropriate BMP applications, silt fence and/or straw wattles utilized and placed in appropriate locations within and along delineated limits of disturbance [LOD] to ensure compliance with Federal, state and local regulations.
4) All construction equipment will be free of leaks and in good working order. Storage, fueling and any unexpected repairs of equipment will be completed outside of wetlands and other sensitive habitat areas.
5) An emergency spill kit will be kept on site during construction activities.
6) All disturbed areas outside of the identified development footprint will be reclaimed and vegetated with native grass, shrub and tree species, bare soils will be stabilized with broadcast seed applications and containerized plantings. Reclamation applications will occur as soon as the proposed construction activities are complete.
7) Preserve and maintain native vegetation buffers within sensitive areas not disturbed by proposed development applications.

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
NA	Big Wood River	Perennial	NONE	
			TOTAL STREAM IMPACTS (Linear Feet):	

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
Riparian wetland restoration	Open Water (PUBHx) and wetland margin (PSSC)	100 (+/-)	Fill existing pond (unauthorized) and landscape grading	9,465
			TOTAL WETLAND IMPACTS (Square Feet):	9,465

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

Name: City of Ketchum Mailing Address: PO Box 2315 City: Ketchum State: ID Zip Code: 83340 Phone Number (include area code): 208.726.3841 E-mail: participate@ketchumidaho.org	Name: North Point Trust Company Mailing Address: 333 W Blvd. Suite 305, 440 and 430 Wood River Drive City: Rapid City State: SD Zip Code: 57701 Phone Number (include area code): E-mail: gbraks@aol.com
Name: 450-490 Wood River LLC [Applicant] Mailing Address: PO Box 14001-174, 490 Wood River Drive City: Ketchum State: ID Zip Code: 83340 Phone Number (include area code): 214-557-5533 E-mail: matt@presidiovistaproperties.com	Name: Russell and Carol Newcomb Mailing Address: 3392 Highlawn Drive, City: Twin Falls State: ID Zip Code: 83301 Phone Number (include area code): E-mail:
Name: Don and Carole Armand Mailing Address: PO Box 5404, 460 Wood River Drive City: Ketchum State: ID Zip Code: 83340 Phone Number (include area code): E-mail:	Name: David Ward Mailing Address: PO Box 973 City: Sun Valley State: ID Zip Code: 83353 Phone Number (include area code): E-mail:
Name: Meadow Brook Condominium Owners Association Mailing Address: PO Box 254 City: Ketchum State: ID Zip Code: 83340 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: Matt Seddons for 450-490 Wood River LLC *Date:* 3/16/23

Signature of Agent: *Date:* MAR-17, 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*".

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
BOISE REGULATORY OFFICE
720 EAST PARK BOULEVARD, SUITE 245
BOISE, IDAHO 83712-7757

May 15, 2023

WALLA WALLA DISTRICT
REGULATORY DIVISION

SUBJECT: NWW-2023-00200, 450 Wood River Drive Residential Development

Matt Scoggins
Presidio Vista Properties
P.O. Box 14001-174
Ketchum, Idaho 83340

Dear Mr. Scoggins:

We have determined that your proposed project, 450 Wood River Drive Residential Development, is authorized in accordance with Department of the Army (DA) **Nationwide Permit (NWP) No. 29: Residential Developments**. This project is located at 450 Wood River Drive, within Section 13 of Township 4 North, Range 17 East, near coordinates 43.673875º N latitude and -114.369850º W longitude, in Ketchum, Blaine County, Idaho. Please refer to File Number NWW-2023-00200 in all future correspondence with our office regarding this project.

Project activities include the discharge of fill and dredged material within PSSC wetlands adjacent to the Big Wood River and an unauthorized pond, which may be considered waters of the United States. The purpose of the proposed project is to construct a driveway access, building pad and other amenities associated with residential development. The work will entail the placement of roadway materials to allow for the construction of a driveway access road, landscape grading applications and landscape elements associated with residential development. Additionally, an unauthorized excavated pond will be filled; the majority of the filled pond will be restored to the previous natural riparian wetland habitat.

The proposed work will result in the discharge of approximately 800 cubic yards of fill and dredged material. Proposed project activities will permanently fill approximately 0.052 acres of wetlands; wetland restoration activities will impact approximately 0.22 acres, impacting a total of approximately 0.27 acres of wetland resources. Additional impacts include the restoration of 0.67 acres of wetlands associated with the Wetland Mitigation Plan. All work shall be done in accordance with the enclosed drawings, titled: *450-490 Wood River, LLC Maps and Designs,* dated *March 14, 2023.*

DA permit authorization is necessary because your project may involve the discharge of fill material into waters of the U.S. This authorization is outlined in Section 404 of the Clean Water Act (33 U.S.C. 1344).

You must comply with all general, regional, and special conditions, for this verification letter to remain valid and to avoid possible enforcement actions. The general and regional permit conditions for *NWP No. 29: Residential Developments* are attached and also available online[1]. In addition, you must also comply with the special conditions listed below.

The following Special Conditions include:

Special Condition 1: Permittee shall mitigate for the impacts to 0.27 acres of wetlands by enhancing portions of the wetlands which occur on the parcel in accordance with the approved plan titled: *450-490 Wood River Wetland Mitigation Plan* dated *March 2023.*

Special Condition 2: Upon construction of the mitigation site, the Permittee shall submit a monitoring report to the Corps by January 1st of each year following construction for a period of three years or until the Corps has determined the mitigation site has met its performance standards as described in *450-490 Wood River Wetland Mitigation Plan* dated *March 2023.*

Special Condition 3: The permittee is responsible for all work done by any contractor. Permittee shall ensure any contractor who performs the work is informed of and follows all the terms and conditions of this authorization, including any Special Conditions listed above. Permittee shall also ensure these terms and conditions are incorporated into engineering plans and contract specifications.

You must also comply with the conditions detailed in the attached Section 401 Water Quality Certification (WQC) issued by the Idaho Department of Environmental Quality (IDEQ) on December 4, 2020. If you have any questions regarding the conditions set forth in the WQC, please contact IDEQ directly at 208-736-2190, Twin Falls Regional Office.

Nationwide Permit General Condition 30 (Compliance Certification) requires that every permittee who has received NWP verification must submit a signed certification regarding the completed work and any required mitigation. This Compliance Certification form is enclosed for your convenience and must be completed and returned to us within 30 days of your project's completion.

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[1] http://www.nww.usace.army.mil/Business-With-Us/Regulatory-Division/Nationwide-Permits/

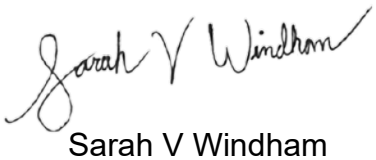
This letter of authorization does not convey any property rights, or any exclusive privileges and does not authorize any injury to property or excuse you from compliance with other Federal, State, or local statutes, ordinances, regulations, or requirements which may affect this work.

This verification is valid until **March 14, 2026**, unless the NWP is modified, suspended or revoked. If your project, as permitted under this NWP verification, is modified in any way you must contact our office prior to commencing any work activities. In the event that you have not completed construction of your project by March 14, 2026, please contact us at least 60-days prior to this date. A new application and verification may be required.

We actively use feedback to improve our delivery and provide you with the best possible service. If you would like to provide feedback, please take our online survey[2]. If you have questions or if you would like a paper copy of the survey, please contact the Walla Walla District Regulatory. For more information about the Walla Walla District Regulatory program, you can visit us online[3].

If you have any questions or need additional information about this permit authorization, you can contact me by phone at 208-433-4469, by mail at the address in the letterhead, or email at sarah.v.windham@usace.army.mil. For informational purposes, a copy of this letter has been sent to: Sean Woodhead with the Idaho Department of Environmental Quality, Aaron Golart with the Idaho Department of Water Resources, Trent Stumph, designated agent with Sawtooth Environmental Consulting, LLC and Kristine Hilt with Blaine County.

Sincerely,



Sarah V Windham
Project Manager, Regulatory Division

Encls
Transfer of Nationwide Permit Form
Compliance Certification

[2] https://regulatory.ops.usace.army.mil/customer-service-survey/
[3] http://www.nww.usace.army.mil/Business-With-Us/Regulatory-Division/

Drawings titled: *450-490 Wood River, LLC Maps and Designs,* dated *March 14, 2023.*
Nationwide Permit 29: Residential Developments general and regional conditions
IDEQ General Water Quality Certification dated December 04, 2020

TRANSFER OF NATIONWIDE PERMIT

When the structures or work authorized by this Nationwide Permit, **NWW-2023-00200 450 Wood River Drive Residential Development**, are still in existence at the time the property is transferred. The terms and conditions of this Nationwide Permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this Nationwide Permit, the associated liabilities and compliance with the terms and conditions the transferee must sign and date below.

Name of New Owner:

Street Address:

Mailing Address:

City, State, Zip:

Phone Number:

_____ _____

Signature of TRANSFEREE *DATE*

COMPLIANCE CERTIFICATION

US Army Corps of Engineers
Walla Walla District

Permit Number: NWW-2023-00200

Name of Permittee: Matt Scoggins – Presidio Vista Properties

Date of Issuance: May 15, 2023

Upon completion of the activity authorized by this permit and any mitigation required by the permit, please sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Walla Walla District
Boise Regulatory Office
720 East Park Blvd., Suite 245
Boise, Idaho 83712-7757

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with all terms and conditions of this permit, the permit is subject to suspension, modification, or revocation and you are subject to an enforcement action by this office.

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of the said permit. The required mitigation was also completed in accordance with the permit conditions.

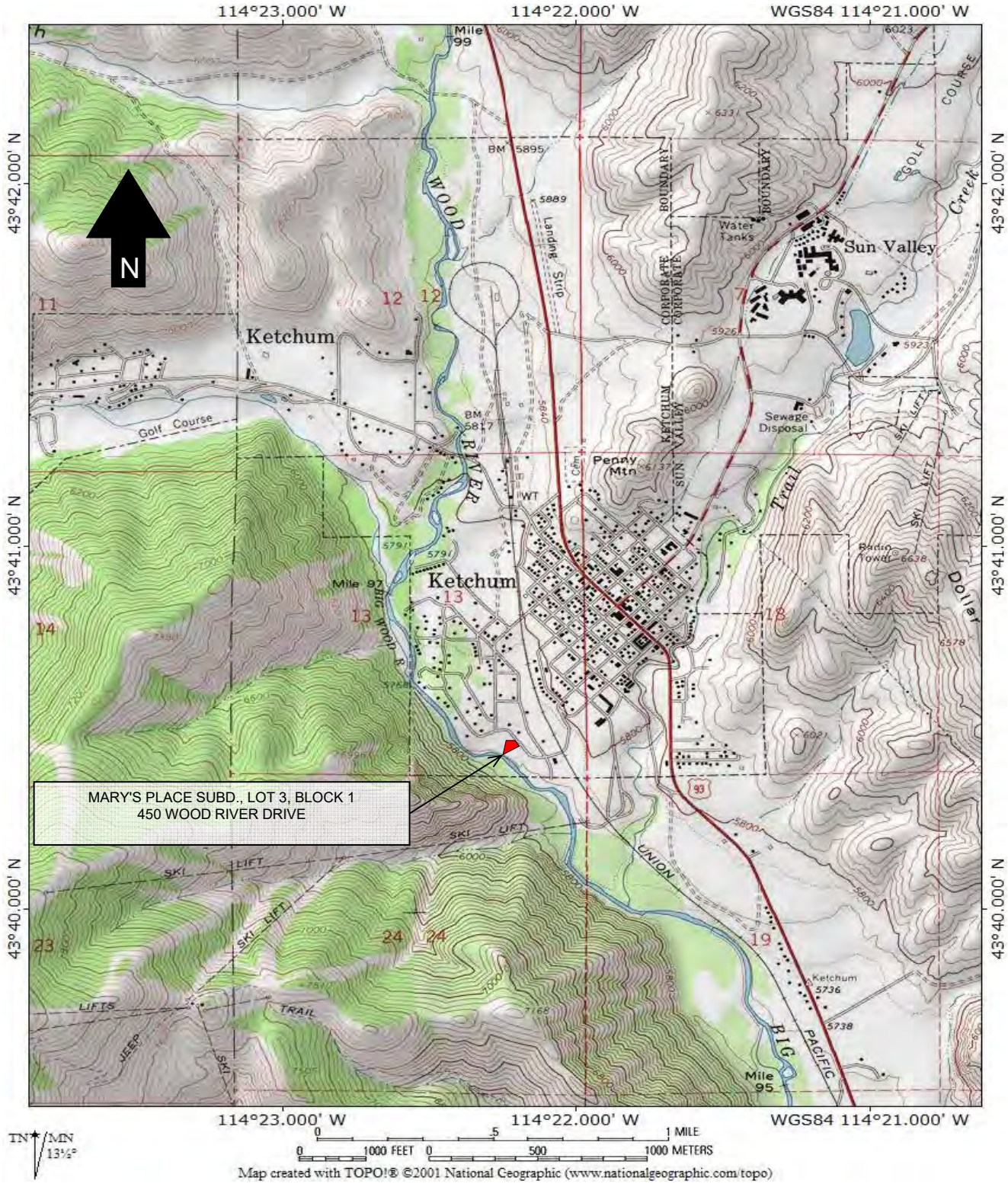
_____ _____

Signature of PERMITEE *DATE*

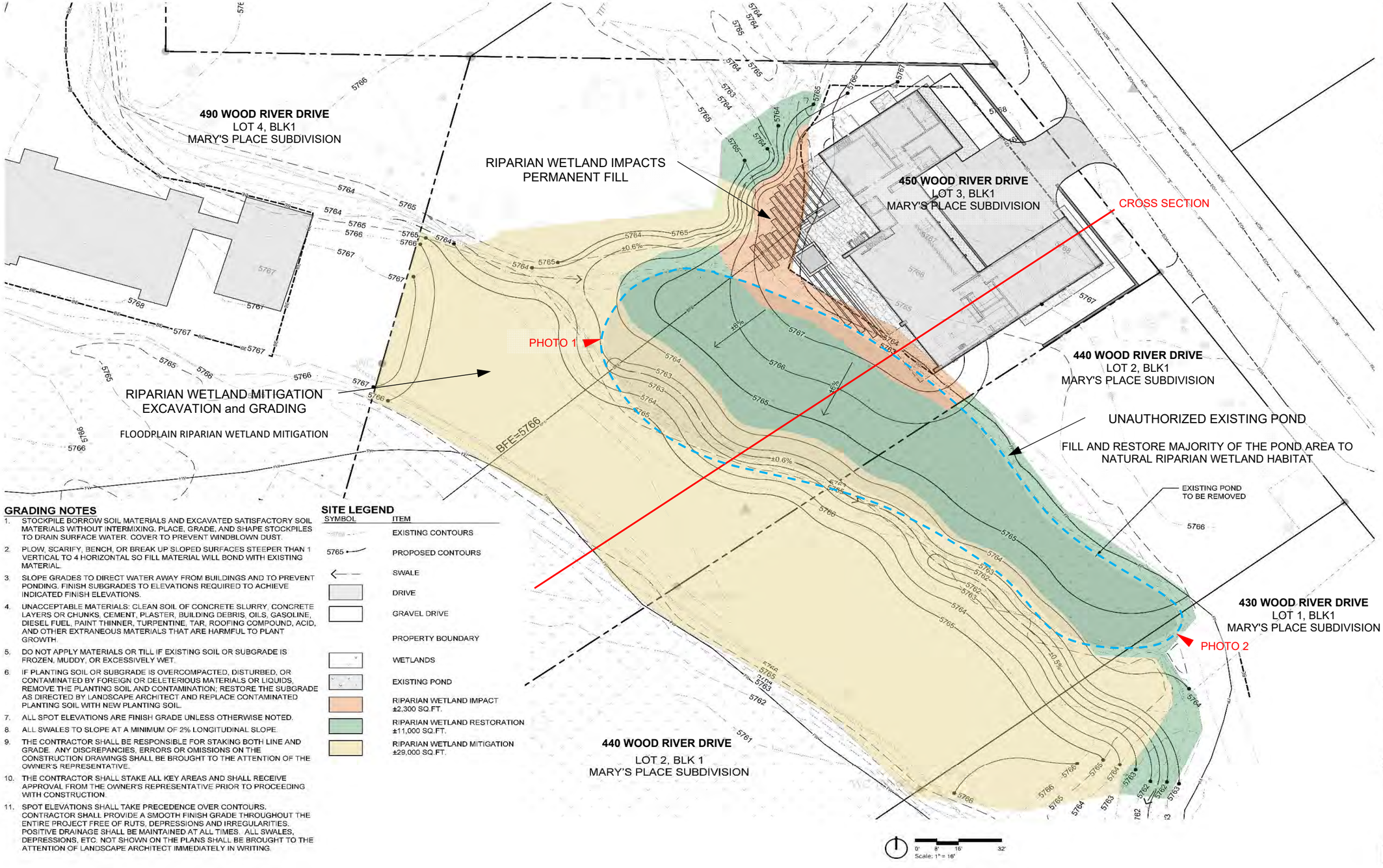
450 - 490 WOOD RIVER, LLC

450 WOOD RIVER DRIVE, MARY'S PLACE SUBDIVISION LOT 3, BLOCK 1 - RESIDENTIAL DEVELOPMENT

JOINT APPLICATION for PERMITS - PROJECT LOCATION VICINITY MAP



450 - 490 WOOD RIVER , LLC
450 Wood River Drive, Mary's Place Subdivision, Lot 3, Block 1
Section 13, TWN., 4N. RNG., 17E, City of Ketchum, Blaine County, ID



GRADING NOTES

1. STOCKPILE BORROW SOIL MATERIALS AND EXCAVATED SATISFACTORY SOIL MATERIALS WITHOUT INTERMIXING. PLACE, GRADE, AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST.
2. PLOW, SCARIFY, BENCH, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING MATERIAL.
3. SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING. FINISH SUBGRADES TO ELEVATIONS REQUIRED TO ACHIEVE INDICATED FINISH ELEVATIONS.
4. UNACCEPTABLE MATERIALS: CLEAN SOIL OF CONCRETE SLURRY, CONCRETE LAYERS OR CHUNKS, CEMENT, PLASTER, BUILDING DEBRIS, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE, TAR, ROOFING COMPOUND, ACID, AND OTHER EXTRANEOUS MATERIALS THAT ARE HARMFUL TO PLANT GROWTH.
5. DO NOT APPLY MATERIALS OR TILL IF EXISTING SOIL OR SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET.
6. IF PLANTING SOIL OR SUBGRADE IS OVERCOMPACTED, DISTURBED, OR CONTAMINATED BY FOREIGN OR DELETERIOUS MATERIALS OR LIQUIDS, REMOVE THE PLANTING SOIL AND CONTAMINATION; RESTORE THE SUBGRADE AS DIRECTED BY LANDSCAPE ARCHITECT AND REPLACE CONTAMINATED PLANTING SOIL WITH NEW PLANTING SOIL.
7. ALL SPOT ELEVATIONS ARE FINISH GRADE UNLESS OTHERWISE NOTED.
8. ALL SWALES TO SLOPE AT A MINIMUM OF 2% LONGITUDINAL SLOPE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING BOTH LINE AND GRADE. ANY DISCREPANCIES, ERRORS OR OMISSIONS ON THE CONSTRUCTION DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
10. THE CONTRACTOR SHALL STAKE ALL KEY AREAS AND SHALL RECEIVE APPROVAL FROM THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING WITH CONSTRUCTION.
11. SPOT ELEVATIONS SHALL TAKE PRECEDENCE OVER CONTOURS. CONTRACTOR SHALL PROVIDE A SMOOTH FINISH GRADE THROUGHOUT THE ENTIRE PROJECT FREE OF RUTS, DEPRESSIONS AND IRREGULARITIES. POSITIVE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES. ALL SWALES, DEPRESSIONS, ETC. NOT SHOWN ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF LANDSCAPE ARCHITECT IMMEDIATELY IN WRITING.

SITE LEGEND

SYMBOL	ITEM
	EXISTING CONTOURS
5765	PROPOSED CONTOURS
	SWALE
	DRIVE
	GRAVEL DRIVE
	PROPERTY BOUNDARY
	WETLANDS
	EXISTING POND
	RIPARIAN WETLAND IMPACT ±2,300 SQ.FT.
	RIPARIAN WETLAND RESTORATION ±11,000 SQ.FT.
	RIPARIAN WETLAND MITIGATION ±29,000 SQ.FT.

FIELD STUDIO
722 N. ROUSE AVE.
BOZEMAN, MT 59715
(406)551-2098
www.fieldstudiola.com

PROJECT NUMBER: 2219

450 WOOD RIVER DRIVE
KETCHUM, ID

DATE	ISSUE
2022.11.30	PD SET
2023.01.27	PD SET
2023.02.14	REV. GRADING
2023.02.22	REV. GRADING
2023.03.16	REV.

SHEET TITLE

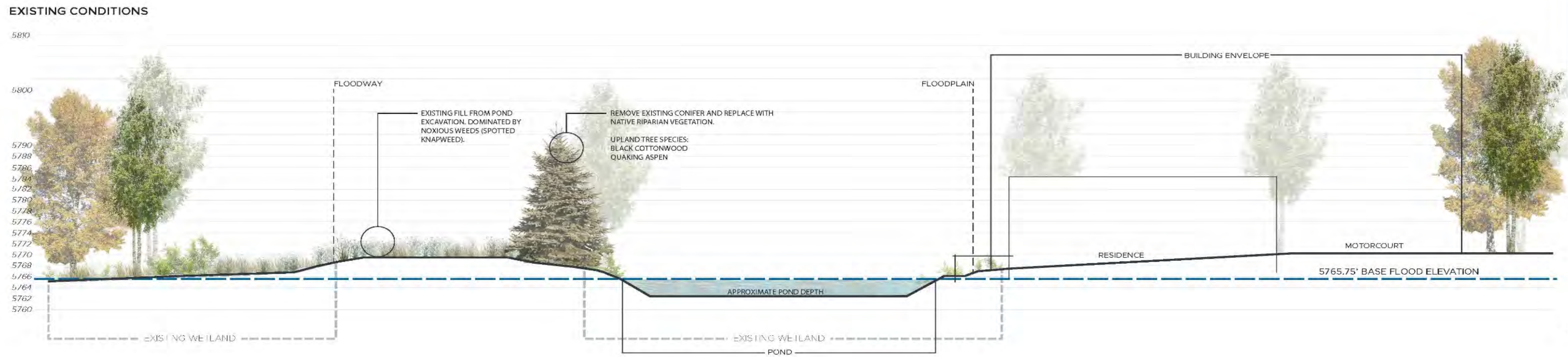
SITE WETLAND IMPACT

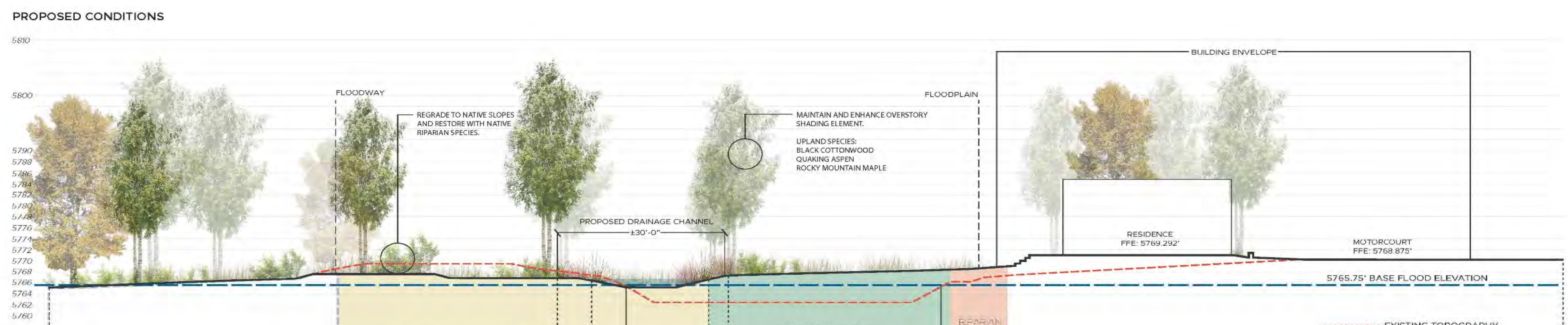
SHEET 2 OF 3

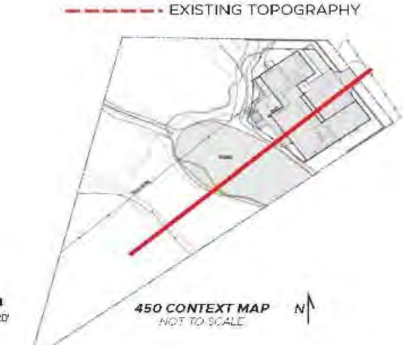
L-2.01

PRELIMINARY • NOT FOR CONSTRUCTION

450 - 490 WOOD RIVER, LLC
450 WOOD RIVER DRIVE, MARY'S PLACE SUBDIVISION LOT 3, BLOCK 1 - RESIDENTIAL DEVELOPMENT
JOINT APPLICATION for PERMITS - WETLAND CROSS SECTION







FIELD STUDIO
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PROJECT NUMBER: 2219

450 WOOD RIVER DRIVE
KETCHUM, ID

DATE	ISSUE
2022.11.30	PD SET
2023.01.27	PD SET
2023.02.14	REV. GRADING
2023.03.09	REV.
2023.03.16	REV.

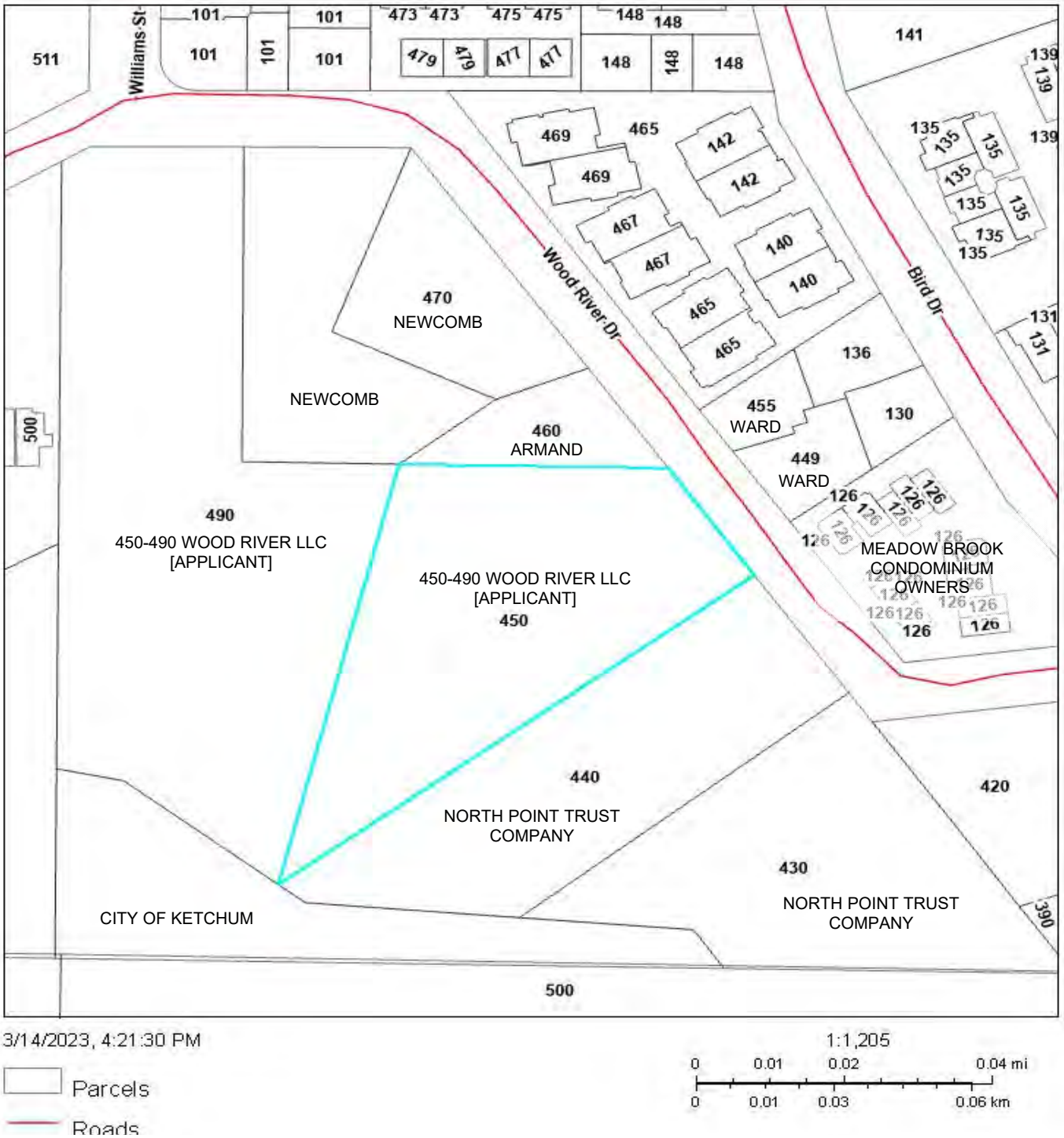
SHEET TITLE
CROSS SECTION

SHEET 3 OF 3
L-2.03

PHOTO 1 - 450 WOOD RIVER DRIVE. Exisitng unauthorized pond [WOTUS] and associated site characteristics. Looking east towards existing residential infrastructure and proposed building site (Latham - Brockway Eng. August 2022).

PHOTO 2 - 450 WOOD RIVER DRIVE. Exisitng unauthorized pond [WOTUS] and associated site characteristics. Looking north from existing pond outlet (Latham - Brockway Eng. August 2022).

450 - 490 WOOD RIVER, LLC
450 WOOD RIVER DRIVE, MARY'S PLACE SUBDIVISION LOT 3, BLOCK 1 - RESIDENTIAL DEVELOPMENT
JOINT APPLICATION for PERMITS - ADJACENT LANDOWNER MAP



450 - 490 WOOD RIVER , LLC
450 Wood River Drive, Mary's Place Subdivision, Lot 3, Block 1
Section 13, TWN., 4N. RNG., 17E, City of Ketchum, Blaine County, ID

NATIONWIDE PERMIT 29

Residential Developments:

Discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of a single residence, a multiple unit residential development, or a residential subdivision. This NWP authorizes the construction of building foundations and building pads and attendant features that are necessary for the use of the residence or residential development. Attendant features may include but are not limited to roads, parking lots, garages, yards, utility lines, storm water management facilities, septic fields, and recreation facilities such as playgrounds, playing fields, and golf courses (provided the golf course is an integral part of the residential development).

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters.

Subdivisions: For residential subdivisions, the aggregate total loss of waters of United States authorized by this NWP cannot exceed 1/2-acre. This includes any loss of waters of the United States associated with development of individual subdivision lots.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

WATER QUALITY CERTIFICATION, NWP 29:

Agency responsible for administration of water quality, based on project location is listed below. If DENIED, then an Individual Water Quality Certification or Waiver of Certification is required, prior to the commencement of any work activities and/or issuance of a DA verification, authorization and/or permit.

State of Idaho: **PARTIALLY DENIED**;
Activities Denied Certification:
- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in a loss in excess of ½ acre of jurisdictional wetlands

Coeur d'Alene Tribal Lands: **DENIED**

Shoshone-Bannock Tribal Lands: **DENIED**

U.S. Environmental Protection Agency for all other Tribal Lands: **DENIED**

2021 Nationwide Permits
Regional Conditions
Walla Walla District Regulatory Division (State of Idaho)

March 15, 2021

The following Nationwide Permit (NWP) regional conditions are required in the state of Idaho and apply to all 2021 NWPs[1]. Regional conditions are established by individual Corps Districts to ensure projects result in no more than minimal adverse impacts to the aquatic environment and to address local resources concerns. This document also includes regional additions to the NWP General Conditions, notification procedures pertaining to certain NWP's, and regional additions to the definitions.

REGIONAL CONDITIONS

A. Watersheds Requiring Pre-Construction Notification, Specific to Anadromous Fish

This Regional Condition applies to all 2021 NWPs.

- Pre-construction notification (PCN) will be required for the above listed nationwide permits in the geographic area as shown on Figure 1: *Watersheds Requiring Pre-Construction Notification*, dated January 6, 2021.

B. Vegetation Preservation and Replanting

- To avoid impacts to aquatic habitat and to reduce sedimentation and erosion, permittee shall avoid and minimize the removal of vegetation in waters of the U.S. to the maximum extent practicable. Areas subject to temporary vegetation removal in waters of the U.S. during construction shall be replanted with appropriate native[2] species by the end of the first growing season, unless conditioned otherwise. Permittee shall avoid introducing or spreading noxious or invasive plants[3].

- Replanted vegetation that does not survive the first growing season shall be replanted before the end of the next growing season. Re-plantings shall continue to occur until desired vegetation densities are achieved. Re-vegetation densities should be based on reference conditions.

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[1] For the list of 2017 Nationwide Permits please see: https://www.nww.usace.army.mil/Business-With-Us/Regulatory-Division/Nationwide-Permits/

[2] Idaho Department of Transportation, Native Plants for Idaho Roadside Restoration and Revegetation Programs: https://itd.idaho.gov/wp-content/uploads/2016/06/RP171Roadside_Revegetation.pdf

[3] U.S. Department of Agriculture, Natural Resource Conservation Service Plant Database of introduced, invasive, and noxious plants for Idaho: https://plants.usda.gov/java/noxious?rptType=State&statefips=16.

C. De-watering & Re-watering (as applicable)

- Cofferdams shall be constructed of non-erosive material such as concrete jersey barriers, bulk bags, water bladders, sheet pile, and other similar non-erosive devices. Cofferdams may not be constructed by using mechanized equipment to push streambed material through flowing water.

- Diversion channels constructed to bypass flow around the construction site shall be lined with plastic, large rock, pipe or otherwise protected from erosion prior to releasing flows into or through the diversion channel.

- Water removed from within the coffered area shall be pumped to a sediment basin or otherwise treated to remove suspended sediments prior to its return to the waterway.

- To prevent unwanted passage of state or federally-protected fish, if present, from the coffered area, Water pipe intakes shall be screened with openings measuring < 3/32 inch to prevent entrainment of fish trapped in the coffered area.

- Should fish be present within the coffered areas contact your local Idaho Department of Fish and Game (IDFG) office prior to performing fish removal or salvage. Fish shall be collected by electrofishing, seining or dip net, or otherwise removed and returned to the waterway upstream of the project area. If electrofishing is used, the National Marine Fisheries Service (NMFS) guidelines for electrofishing should be followed[4], unless conditioned otherwise.

- Stream channels that have been dewatered during project construction shall be re-watered slowly to avoid lateral and vertical erosion of the de-watered channel, prevent damage to recently reclaimed work areas and/or damage to permitted work.

- Temporary stockpiles in waters of the United States shall be removed in their entirety so as not to form a berm or levee parallel to the stream that could confine flows or restrict overbank flow to the floodplain.

D. In-Water Structures and Complexes

- PCN notification in accordance with General Condition 32 is required for all non-federal applicants with activities involving gabion baskets placed below the ordinary high water mark.
- Stream meanders, riffle and pool complexes, pool stream structures, rock/log barbs, rock J-hooks, drop structures, sills, engineered log jams or similar structures/features when used shall be site specifically designed by an appropriate professional with experience in hydrology or fluvial geomorphology.

[4] Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act (June 2000) https://archive.fisheries.noaa.gov/wcr/publications/reference_documents/esa_refs/section4d/electro2000.pdf

E. Temporary Sidecasting

- Materials from exploratory trenching and installation of utility lines may be temporarily side cast into a de-watered coffered area for up to 30 days but not within flowing waters. Material from exploratory trenching and installation of utility lines in wetlands may be temporarily side cast for up to 30 days.

F. Suitability of Sediments for Open Water Disposal and us as Fill

- Sampling for determination of suitability of sediments for open water disposal or for use as fill, must comply with the Sediment Evaluation Framework for the Pacific Northwest (SEF)[5].

G. Avoidance and Minimization

- In addition to information required under General Condition 32(b), the applicant shall include information about previous discharges of fill material into waters of the United States within the project area. This is only for non-federal applicants where a PCN is required.

- Discharges of dredged or fill material into waters of the U.S., including wetlands, to meet set back requirements are not authorized under NWP.

H. Erosion Control

- Erosion control blanket or fabric used in or adjacent to waters of the U.S. shall be comprised of biodegradable material, to ensure decomposition and reduced risk to fish, wildlife and public safety, unless conditioned otherwise. If the applicant proposes to use materials other than as indicated above they must demonstrate how the use of such materials will not cause harm to fish, wildlife and public safety.

I. Reporting Requirement for Federal Permittees

- Federal Agencies with projects that require compensatory mitigation for loss of waters of the U.S. and who propose to purchase credits from an approved wetland and/or stream mitigation bank must provide proof of purchase within 30 days of when the credits were purchased. Purchase of credits from an approved mitigation bank must be IAW the Mitigation Banking Instrument of Record.

[5] Northwest Regional Sediment Evaluation Team (RSET) 2016. Sediment Evaluation Framework for the Pacific Northwest. Prepared by the RSET Agencies, July 2016, 160 pp plus appendices. http://nwd.usace.army.mil/Missions/Civil-Works/Navigation/RSET/SEF

REGIONAL ADDITIONS TO THE GENERAL CONDITIONS

General Condition 4. Migratory Bird Breeding Areas. Regional Addition: For additional information please contact the US Fish and Wildlife Service at the following field office locations: State Office (Boise) at (208) 387-5243; Northern Idaho Field Office (Spokane) at (509) 891-6839; or the Eastern Idaho Field Office (Chubbuck) at (208) 237-6975. https://www.fws.gov/idaho/promo.cfm?id= 177175802

General Condition 6. Suitable Material. Regional Addition: Erosion control blanket or fabric used in or adjacent to waters of the U.S. shall be comprised of biodegradable material, to ensure decomposition and reduced risk to fish, wildlife and public safety, unless conditioned otherwise. If the applicant proposes to use materials other than as indicated above they must demonstrate how the use of such materials will not cause harm to fish, wildlife and public safety.

General Condition 9. Management of Water Flows. Regional Addition: To obtain information on State of Idaho definition of high water refer to Idaho Department of Water Resources (IDAPA 37.03.07. Rule 62.03.04.a). For culverts or bridges located in a community qualifying for the national flood insurance program, the minimum size culvert shall accommodate the 100-year flood design flow frequency (IDAPA 37.03.07. Rule 62.03.04.c).

General Condition 12. Soil Erosion and Sediment Controls. Regional Addition: For additional information refer to the Idaho Department of Environmental Quality Catalog of Stormwater Best Management Practices for Idaho Cities and Counties, available online at: https://www.deq.idaho.gov/public-information/laws-guidance-and-orders/guidance/.

General Condition 18. Endangered Species. Regional Addition: For additional information on ESA listed species in north Idaho please contact the US Fish and Wildlife Service (USFWS) Northern Idaho Field Office (Spokane) at (509) 893-8009, for all other counties in Idaho contact the USFWS State Office (Boise) at (208) 378-5388.

General Condition 20. Historic Properties. Regional Addition: Property is generally considered “historic” if it is at least 50 years old, and is not limited to buildings. For additional information on the potential for cultural resources in proximity to the project site, contact the Idaho State Historic Preservation Office at (208) 334-3847 located in Boise, Idaho.

NOTIFICATION PROCEDURES BY THE CORPS FOR CERTAIN NATIONWIDE PERMITS

Waivers: For nationwide permits with a waiver provision, District coordination with Idaho Department of Environmental Quality (IDEQ) and Environmental Protection Agency (tribal lands) will be conducted prior to the District Engineer making a waiver determination to ensure the proposed activity is in compliance with Section 401 Water Quality Standards.

Select Waters and Wetlands: The Corps will coordinate with the Idaho Department of Fish and Game (IDFG) for activities in the following waters and wetlands that require notification and are authorized by NWP:

- Waters: Anadromous waters as shown on Figure 1: *Watersheds Requiring Pre-Construction Notification*, dated January 6, 2021; Henry's Fork of the Snake River and its tributaries; South Fork Snake River and its tributaries; Big Lost River and its tributaries upstream of the US 93 crossing; Beaver, Camas, and Medicine Lodge Creeks; Snake River; Blackfoot River above Blackfoot Reservoir; Portneuf River; Bear River; Boise River including South Fork, North Fork and Middle Fork; Payette River including South Fork, North Fork and Middle Fork; Coeur d'Alene River, including the North Fork; St. Joe River; Priest River; Kootenai River; Big Wood River; and Silver Creek and its tributaries.

- Wetlands identified in Idaho Department of Fish and Game, Wetland Conservation Strategy as Class I, Class II and Reference Habitat Sites[6].

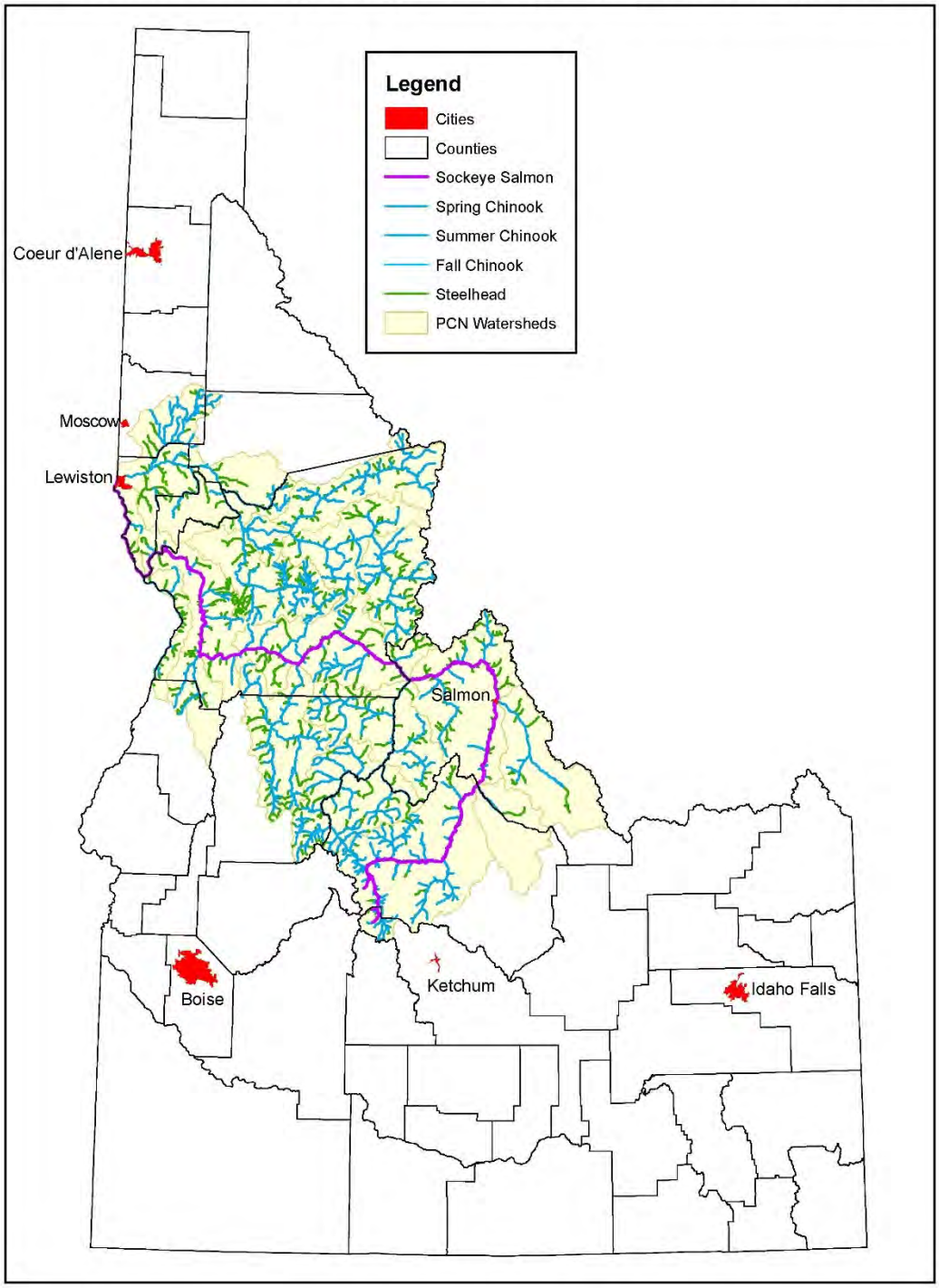
- Wetlands identified in the Idaho Wetland Conservation Prioritization Plan-2012[7].

[6] Idaho Department of Fish and Game (IDFG) Wetland Conservation Strategies have been developed for the Henrys Fork Basin, Northern Idaho, Big Wood River, Southeast Idaho, East-Central Idaho and Spokane River Basin, Middle and Western Snake River and tributaries, and the Upper Snake River–Portneuf Drainage, Weiser River Basin, and West Central Mountain Valleys and adjacent wetlands. Closed basins of Beaver-Camas Creeks, Medicine Lodge Creek, Palouse River and lower Clearwater River sub-basins, Middle Fork and South Fork Clearwater Basins and Camas Prairie in northern Idaho. Refer to the internet site at: http://fishandgame.idaho.gov/content/page/wetlands-publications-idaho-natural-heritage-program#reports

[7] Murphy, C., J. Miller and A. Schmidt. 2012. https://idfg.idaho.gov/species/bibliography/project/wetlands

Figure 1

Watersheds Requiring Pre-Construction Notification



0 20 40 80 Miles

US Army Corps of Engineers

6 January 2021

2021 Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation

(a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements

No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas

Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas

Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds

No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material

No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes

No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments

If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows
To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains
The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment
Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls
Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Structures and Fills
Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance
Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project
The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers
(a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency

with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. Tribal Rights

No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species

(a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding "activities that are reasonably certain to occur" and "consequences caused by the proposed action."

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be

affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-Federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take'' means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at

http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively.

19. Migratory Birds and Bald and Golden Eagles

The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties

(a) No activity is authorized under any NWP which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)).

Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts

Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by an NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters

Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment,

additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. <u>Mitigation</u>

The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of

streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14)

must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. <u>Safety of Impoundment Structures</u>

To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have

been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality

(a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed discharge must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed discharge in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed discharge is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge, the permittee must submit a copy of the certification to the district engineer. The discharge is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied by the issuance of a water quality certification or a waiver.

(c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management.

In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions

The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits

The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

(a) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States cannot exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated

bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1⁄3-acre.

(b) If one or more of the NWPs used to authorize the single and complete project has specified acreage limits, the acreage loss of waters of the United States authorized by those NWPs cannot exceed their respective specified acreage limits. For example, if a commercial development is constructed under NWP 39, and the single and complete project includes the filling of an upland ditch authorized by NWP 46, the maximum acreage loss of waters of the United States for the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States due to the NWP 39 and 46 activities cannot exceed 1 acre.

29. Transfer of Nationwide Permit Verifications

If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____

_____

(Transferee)

_____

_____

(Date)

30. Compliance Certification

Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory

mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States

If an NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification

(a) *Timing*. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification*: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial and intermittent streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining

why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatenedspecies (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) *Form of Pre-Construction Notification*: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) *Agency Coordination*: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iii)

NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 N Hilton Street, Boise, ID 83706
(208) 373-0502

Brad Little, Governor
Jess Byrne, Director

December 4, 2020

Kelly J. Urbanek, Chief
U.S. ACOE Regulatory Division
Walla Walla District
720 East Park Boulevard, Suite 245
Boise, Idaho 83712-7757

Subject: Final §401 Water Quality Certification for 2020 Nationwide Permits in Idaho

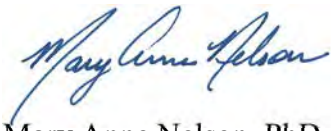
Dear Ms. Urbanek:

Enclosed please find the Idaho Department of Environmental Quality (DEQ) final water quality certification for the 2020 Nationwide Permits in Idaho. DEQ offered a 21-day public comment period, beginning on November 2, 2020, and ending on November 23, 2020.

DEQ received a single comment letter. After review of the comments received, minor modifications were made to the final certification in order to provide additional clarity.

If you have any questions or concerns regarding this certification, please contact Jason Pappani at (208) 373-0515 or via email at jason.pappani@deq.idaho.gov.

Sincerely,



Mary Anne Nelson, PhD
Surface and Wastewater Division Administrator

MAN:JP:lf

cc: Jason Pappani, DEQ State Office
DEQ Regional Administrators
James Joyner, ACOE Walla Walla District
Brent King, Idaho Attorney General's Office

Idaho Department of Environmental Quality

Final §401 Water Quality Certification

December 4, 2020

2020 U.S. Army Corps of Engineers §404 Nationwide Permits (NWPs)

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. Section 1341(a)(1); and Idaho Code §§ 39-101 et seq. and 39-3601 et seq., the Idaho Department of Environmental Quality (DEQ) has authority to review activities receiving Section 404 dredge and fill permits and issue water quality certification decisions.

Based upon its review of the proposed 2020 Nationwide Permits published in the Federal Register on September 15, 2020, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permits, including the Regional Conditions set forth by the Army Corps of Engineers (ACOE), along with the conditions set forth in this water quality certification, then activities will comply with the applicable water quality requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits, including without limitation, the approval from the owner of a private water conveyance system, if one is required, to use the system in connection with the permitted activities.

1 Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

- Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier I review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).

- Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

1.1 Pollutants of Concern

The primary pollutant of concern, for projects permitted under the 2020 NWPs administered by the ACOE, is sediment. In locations where heavy metals are present due to mining activities, or where high concentrations of nutrients may be associated with sediments, additional considerations may be necessary. If the project reduces riparian vegetation, then temperature (thermal loading) may also be of concern.

The procedures outlined in the Sediment Evaluation Framework for the Pacific Northwest[1] may be applied to assess and characterize sediment to determine the suitability of dredged material for unconfined aquatic placement, to determine the suitability of post dredge surfaces, and to predict effects on water quality during dredging (See Section 2.4 for more details).

As part of the Section 401 water quality certification, DEQ is requiring the applicant to comply with various conditions to protect water quality and to meet Idaho WQS, including the criteria applicable to sediment.

1.2 Receiving Water Body Level of Protection

The ACOE NWPs authorize construction activities in waters of the United States. In Idaho, jurisdictional waters of the state can potentially receive discharges either directly or indirectly from activities authorized under the NWPs. DEQ applies a water body by water body approach to determine the level of antidegradation protection a water body will receive. (IDAPA 58.01.02.052.05).

All waters in Idaho that receive discharges from activities authorized under a NWP will receive, at minimum, Tier I antidegradation protection because Idaho's Tier I antidegradation policy applies to all state waters (IDAPA 58.01.02.052.01). Water bodies that fully support their aquatic life or recreational uses are considered *high quality waters* and will receive Tier II antidegradation protection (IDAPA 58.01.02.051.02). Because of the statewide applicability, the antidegradation review will assess whether the NWP permit complies with both Tier I and Tier II antidegradation provisions (IDAPA 58.01.02.052.03).

Although Idaho does not currently have any Tier III designated outstanding resource waters (ORWs), it is possible for a water body to be designated as an ORW during the life of the NWPs.

[1] Northwest Regional Sediment Evaluation Team (RSET). 2018. Sediment Evaluation Framework for the Pacific Northwest. *Prepared by* the RSET Agencies, May 2018, 183 pp plus appendices.

Because of this potential, the antidegradation review also assesses whether the permit complies with the outstanding resource water requirements of Idaho's antidegradation policy (IDAPA 58.01.02.051.03).

To determine the support status of the receiving water body, the most recent EPA-approved Integrated Report, available on Idaho DEQ's website, is to be used: http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report/. (IDAPA 58.01.02.052.05).

High quality waters are identified in Categories 1 and 2 of the Integrated Report. If a water body is in either Category 1 or 2, it is a Tier II water body.

Unassessed waters are identified in Category 3 of DEQ's Integrated Report. These waters require a case by case determination to be made by DEQ based on available information at the time of the application for permit coverage (IDAPA 58.01.02.052.05.b). For activities occurring on unassessed waters under this certification, DEQ has determined that complying with the conditions of the NWP, the regional conditions, and this certification will ensure the provisions of IDAPA 58.01.02.052 are met.

Impaired waters are identified in Categories 4 and 5 of the Integrated Report. Category 4(a) contains impaired waters for which a TMDL has been approved by EPA. Category 4(b) contains impaired waters for which controls other than a TMDL have been approved by EPA. Category 5 contains waters which have been identified as "impaired", for which a TMDL is needed. These waters are Tier I waters, for the use which is impaired. With the exception, if the aquatic life uses are impaired for any of these three pollutants—dissolved oxygen, pH, or temperature—and the biological or aquatic habitat parameters show a healthy, balanced biological community, then the water body shall receive Tier II protection, in addition to Tier I protection, for aquatic life uses (IDAPA 58.01.02.052.05.c.i).

DEQ's webpage also has a link to the state's map-based Integrated Report which presents information from the Integrated Report in a searchable, map-based format: http://www.deq.idaho.gov/assistance-resources/maps-data/.
Water bodies can be in multiple categories for different causes. If assistance is needed in using these tools, or if additional information/clarification regarding the support status of the receiving water body is desired, please feel free to contact your nearest DEQ regional office or the State Office (Table 1).

Table 1. Idaho DEQ Regional and State Office Contacts

Regional Office	*Address*	*Phone Number*	*Email*
Boise	1445 N. Orchard Rd., Boise 83706	208-373-0550	kati.carberry@deq.idaho.gov
Coeur d'Alene	2110 Ironwood Parkway, Coeur d'Alene 83814	208-769-1422	chantilly.higbee@deq.idaho.gov
Idaho Falls	900 N. Skyline, Suite B., Idaho Falls 83402	208-528-2650	troy.saffle@deq.idaho.gov
Lewiston	1118 "F" St., Lewiston 83501	208-799-4370	sujata.connell@deq.idaho.gov
Pocatello	444 Hospital Way, #300 Pocatello 83201	208-236-6160	matthew.schenk@deq.idaho.gov
Twin Falls	650 Addison Ave. W., Suite 110, Twin Falls 83301	208-736-2190	balthasar.buhidar@deq.idaho.gov
State Office	1410 N. Hilton Rd., Boise 83706	208-373-0502	jason.pappani@deq.idaho.gov

1.3 Protection and Maintenance of Existing Uses (Tier I Protection)

A Tier I review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires demonstration that existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected (IDAPA 58.01.02.051.01; 052.01 and 04). The numeric and narrative criteria in the WQS are set at levels that ensure protection of existing and designated beneficial uses.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment (IDAPA 58.01.02.055.02). Once a TMDL is completed, discharges of causative pollutants shall be consistent with the allocations in the TMDL (IDAPA 58.01.02.055.05). Prior to the completion of a TMDL, the WQS require the application of the antidegradation policy and implementation provisions to maintain and protect beneficial uses (IDAPA 58.01.02.055.04).

The general (non-numeric) effluent limitations in the NWPs and associated Regional Conditions for the ACOE Walla Walla District address best management practices (BMPs) aimed at minimizing impacts to the aquatic environment, especially sediment and turbidity impacts including: vegetation protection and restoration, de-watering requirements, erosion and sediment controls, soil stabilization requirements, pollution prevention measures, prohibited discharges, and wildlife considerations. Although the NWPs do not contain specific (numeric) effluent limitations for sediment or turbidity, the conditions identified in the permits and in this water quality certification will ensure compliance with DEQ's water quality standards, including the narrative sediment criteria (IDAPA 58.01.02.200.08) and DEQ's turbidity criteria (IDAPA 58.01.02.250.02.e).

In order to ensure compliance with Idaho WQS, DEQ has included a condition requiring the permittee(s) to comply with Idaho's numeric turbidity criteria, developed to protect aquatic life

uses. The criterion states, "Turbidity shall not exceed background turbidity by more than 50 nephelometric turbidity units (NTU)[2] instantaneously or more than 25 NTU for more than 10 consecutive days" (IDAPA 58.01.02.250.02.e). DEQ is requiring turbidity monitoring when project activities result in a discharge to waters of the United States that causes a visible sediment plume (IDAPA 58.01.02.054.01) (See Section 2.5 for more details).

If an approved TMDL exists for a receiving water body that requires a load reduction for a pollutant of concern, then the project must be consistent with the provisions of that TMDL (IDAPA 58.01.02.055.05).
For authorized activities requiring a pre-construction notification (PCN), the Corps will have the opportunity to evaluate the NWP activities on a case by case basis to ensure that the activity will not cause more than a minimal adverse environmental effect, individually and cumulatively. The Corps has agreed to forward the verification letters to the appropriate DEQ regional office (Table 1) for all authorized activities including the NWP activities that require a PCN. This will better inform DEQ of the authorized activities that are occurring throughout the state and determine if additional conditions will need to be implemented when the ACOE reissues the NWPs.

1.3.1 DEQ's Determination

DEQ concludes that, given the nature of the activities authorized by the 2020 NWPs, such activities will comply with Idaho's Tier I requirements under IDAPA 58.01.02.051.01 and 58.01.02.052.07, provided the permitted activities are carried out in compliance with the limitations and associated requirements of the 2020 NWPs, Regional Conditions, and conditions set forth in this water quality certification.

1.4 Protection of High-Quality Waters (Tier II Protection)

Water bodies that fully support their beneficial uses are recognized as high-quality waters and will be provided Tier II protection in addition to Tier I protection (IDAPA 58.01.02.051.02; 58.01.02.052.05.a). Water quality parameters applicable to existing or designated beneficial uses must be maintained and protected under Tier II, unless a lowering of water quality is deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).

The ACOE does not authorize projects with more than minimal individual and cumulative impacts on the aquatic environment under a NWP (33 U.S.C.A. § 1344(e)). As required by the National Environmental Policy Act (NEPA) the Corps has analyzed the individual and cumulative effects for the NWP activities. DEQ recognizes that short term changes in water quality may occur with respect to sediment as a result of the authorized activities, but has determined that adherence to the terms and conditions imposed by the permits, including the Regional Conditions set forth by the Army Corps of Engineers (ACOE or Corps), along with the conditions set forth in this water quality certification will ensure that there are no long-term adverse changes to water quality or beneficial use support as a result of any activity authorized under this certification (IDAPA 58.01.02.052.03). As a general principle, DEQ believes degradation of water quality should be viewed in terms of permanent or long-term adverse

[2] *NTU is a unit of measure of the concentration of suspended particles in the water (turbidity). It is determined by shining a light through a sample and measuring the incident light scattered at right angles from the sample.*

changes. Short-term or temporary reductions in water quality, if reasonable measures are taken to minimize them (such as the certification conditions in Section 2), may occur without triggering a Tier II analysis (IDAPA 58.01.02.052.03; 080.02).

To ensure proposed regulated activities will not cause more than minimal individual and cumulative impacts on the aquatic environment, certain NWPs require project proponents to notify district engineers (in the form of a PCN) of their proposed activities prior to conducting regulated activities. This level of review gives the district engineer the opportunity to evaluate activities on a case by case basis to determine whether additional conditions or mitigation requirements are warranted to ensure that the proposed activity results in no more than the minimal individual and cumulative impacts on the aquatic environment.

DEQ has denied certification for NWP 16, NWP 23, and NWP 53 (see Section 3.1); and for certain activities associated with NWP 3, NWP 12, NWP 13, NWP 14, NWP 21, NWP 29, NWP 39, NWP 40, NWP 42, NWP 43, NWP 44, NWP 50, NWP 51, NWP 52, NWP C, NWP D, and NWP E (see Section 3.2). Projects seeking coverage under these NWPs will need to request individual certification from DEQ. DEQ will consider any additional conditions or denial of certification if necessary to ensure no lowering of water quality occurs for any of these projects proposed on Tier II water.

Additionally, if an authorized project causes a visible sediment plume then turbidity monitoring is required (see Section 2.5 for more details).

1.4.1 DEQ's Determination

DEQ concludes that the activities authorized by the 2020 NWPs and this certification will comply with Idaho's Tier II requirements under IDAPA 58.01.02.051.02 and 58.01.02.052.08 providing permitted activities are carried out in compliance with the limitations and associated requirements of the 2020 NWPs, Regional Conditions, and conditions of this water quality certification.

1.5 Protection of Outstanding Resource Waters (Tier III Protection)

Idaho's antidegradation policy requires that the quality of outstanding resource waters (ORWs) be maintained and protected from the impacts of point and nonpoint source activities (IDAPA 58.01.02.051.03). No water bodies in Idaho have been designated as ORWs to date. Because it is possible waters may become designated during the term of the 2020 NWPs, DEQ has evaluated whether the NWPs comply with the ORW antidegradation provision.

DEQ has denied certification for any activities on any Outstanding Resource Water (ORW) (see Section 3) and is requiring that any activities proposed on an ORW apply for individual certification (see Section 2.3).

1.5.1 DEQ's Determination

DEQ concludes that the activities authorized by the 2020 NWPs and this certification will comply with Idaho's Tier III requirements under IDAPA 58.01.02.051.03 providing permitted activities are carried out in compliance with the limitations and associated requirements of the 2020 NWPs, Regional Conditions, and conditions of this water quality certification.

2 Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

For all activities covered under this certification, the following conditions are necessary to ensure that permitted projects comply with water quality requirements.

2.1 Design, Implementation, and Maintenance of Appropriate Best Management Practices

Best Management Practices (BMPs) must be designed, implemented, and maintained by the permittee to fully protect and maintain the beneficial uses and ambient water quality of waters of the state and to prevent exceedances of WQS (IDAPA 58.01.02.350.01.a).

BMPs must be selected and properly installed. Proper installation and operation of BMPs are required to ensure the provisions of IDAPA 58.01.02.052 are met. In order to ensure that BMPs are operating properly and to demonstrate that degradation has not occurred, the permittee must monitor and evaluate BMP effectiveness daily during project activities to assure that water quality standards are being met.

Approved BMPs for specific activities (mining, forestry, stream channel alteration, etc.) are codified in IDAPA 58.01.02.350. Additionally, DEQ provides a catalog of storm water best management practices, available at: http://www.deq.idaho.gov/media/60184297/stormwater-bmp-catalog.pdf. This catalog presents a variety of BMPs that can be used to control erosion and sediment during and after construction. Other sources of information are also available and may be used for selecting project appropriate BMPs.

This condition is necessary meet the following water quality requirements:

Control of erosion, sediment, and turbidity to maintain beneficial use support and compliance with the following water quality standards:

- General Surface Water Criteria for Sediment (IDAPA 58.01.02.200.08)
- Numeric Turbidity Criteria for Aquatic Life (IDAPA 58.01.02.250.02.e)
- Numeric turbidity criteria for protection of domestic water supply (IDAPA 58.01.02.252.01.b)
- Point source wastewater treatment requirements (IDAPA 58.01.02.401.02)

2.2 TMDL Compliance

If there is an approved or established TMDL, then the permittee must comply with the established loads in the TMDL. Approved TMDLs can be found on DEQ's website (https://www.deq.idaho.gov/water-quality/surface-water/tmdls/table-of-sbas-tmdls/) or by contacting the appropriate regional office contact (Table 1).

This condition is necessary to meet the following water quality requirements:

Ensure projects are consistent with waste load and load allocations established in approved TMDLs (IDAPA 58.01.02.055.04 and .05).

2.3 Outstanding Resource Waters

If waters become designated as ORWs during the term of the NWPs, a permittee proposing a project on an ORW must contact the appropriate DEQ regional office and apply for individual certification.

This condition is necessary to meet the following water quality requirements:

Ensure there is no lowering of water quality in any ORW as required by the Idaho Antidegradation Policy (IDAPA 58.01.02.051.03).

2.4 Fill Material

Material subject to suspension, including suspended dredge material, shall be free of easily suspended fine material. The fill material to be placed in waters of the United States shall be clean material only. If dredged material is proposed to be used as fill material and there is a possibility the material may be contaminated, then the permittee must apply the procedures in the *Sediment Evaluation Framework for the Pacific Northwest* (RSET, 2018) to assess and characterize sediment to determine the suitability of dredged material for unconfined-aquatic placement; determine the suitability of post dredge surfaces; and to predict effects on water quality during dredging.

This condition is necessary to meet the following water quality requirements:

Prevent suspension of fine sediment and turbidity in order to provide beneficial use support and compliance with the following water quality standards:

- General Surface Water Criteria for Sediment (IDAPA 58.01.02.200.08)
- Numeric Turbidity Criteria for Aquatic Life (IDAPA 58.01.02.250.02.e)
- Numeric turbidity criteria for protection of domestic water supply (IDAPA 58.01.02.252.01.b)
- Point source wastewater treatment requirements (IDAPA 58.01.02.401.02)

Prevent suspension of hazardous, toxic, or deleterious materials or other pollutants that may be associated with fill material in order to ensure beneficial use support and compliance with the following water quality standards:

- General Surface Water Criteria for hazardous materials (IDAPA 58.01.02.200.01), toxic substances (IDAPA 58.01.02.200.02), deleterious materials (IDAPA 58.01.02.200.03), excess nutrients (IDAPA 58.01.02.200.06), or oxygen demanding materials (IDAPA 58.01.02.200.09)
- Numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210)

2.5 Turbidity

If no visible sediment plume is present, it is reasonable to assume that there is no potential violation of the water quality criteria for turbidity (IDAPA 58.01.02.250.02.e). Therefore, turbidity monitoring is only required when activities cause a visible sediment plume.

A properly and regularly calibrated turbidimeter is required for measurements analyzed in the field, but grab samples may be collected and taken to a laboratory for analysis. When monitoring is required a sample must be taken at an undisturbed area immediately up-current from in-water disturbance or discharge to establish background turbidity levels. Background turbidity, latitude/longitude, date, and time must be recorded prior to monitoring down-current. Then a sample must be collected immediately down-current from the in-water disturbance or point of discharge and within any visible sediment plume. The turbidity, latitude/longitude, date, and time must be recorded for each sample. The downstream sample must be taken immediately following the upstream sample in order to obtain meaningful and representative results.

Results from the down-current sampling point must be compared to the up-current or background level to determine whether project activities are causing an exceedance of state WQS. If the downstream turbidity is 50 NTUs or more greater than the upstream turbidity, then the project is causing an exceedance of the WQS (IDAPA 58.01.02.250.02.e).
Any exceedance of the turbidity standard must be reported to the appropriate DEQ regional office (Table 1) within 24 hours.

The following steps should be followed to ensure compliance with the turbidity standard:

1. If a visible plume is observed, collect turbidity measurements at 1) an upstream location; and, 2) from within the plume, and compare the results to Idaho's instantaneous numeric turbidity criterion (50 NTU over background).
2. If turbidity in the plume is less than 50 NTU instantaneously over the background turbidity continue monitoring as long as the plume is visible. If turbidity exceeds background turbidity by more than 50 NTU instantaneously then stop all earth disturbing construction activities immediately and proceed to Step 3. If turbidity exceeds background turbidity by more than 25 NTU, or if a visible plume is observed for more than 10 consecutive days, then stop all earth disturbing construction activities and proceed to Step 3.
3. Notify the appropriate DEQ regional office within 24 hours of any turbidity criteria exceedance. Take action to address the cause of the exceedance. That may include inspecting the condition of project BMPs. If the BMPs are functioning to their fullest capability, then the permittee must modify project activities and/or BMPs to correct the exceedance.
4. Earth disturbing activities may continue once turbidity readings return to within 50 NTU over background instantaneously; or, if turbidity has exceeded 25 NTU over background for more than ten consecutive days, once turbidity readings have no longer exceeded 25 NTU over background for at least 24 consecutive hours.

Copies of daily logs for turbidity monitoring must be available to DEQ upon request. The report must describe all exceedances and subsequent actions taken, including the effectiveness of the action.

This condition is necessary to meet the following water quality requirements:

Ensure that activities do not impair beneficial uses, and ensure and document compliance with the following water quality standards:

- General Surface Water Criteria for Sediment (IDAPA 58.01.02.200.08)
- Numeric Turbidity Criteria for Aquatic Life (IDAPA 58.01.02.250.02.e)
- Numeric turbidity criteria for protection of domestic water supply (IDAPA 58.01.02.252.01.b)

2.6 Mixing Zones

No mixing zones are authorized through this certification. If a mixing zone, or alternatively, a point of compliance, is desired, the permittee must apply for an individual certification and must contact the appropriate DEQ regional office (Table 1) to request authorization for a mixing zone.

This condition is necessary to meet the following water quality requirements:

Ensure any mixing zone is properly authorized in accordance with the Idaho Mixing Zone Policy (IDAPA 58.01.02.060).

2.7 Culverts

To prevent road surface and culvert bedding material from entering a stream, culvert crossings must include best management practices to retain road base and culvert bedding material. For perennial waters, the permittee should consider the Idaho Stream Channel Alterations rules (IDAPA 37.03.07). Another source of BMPs for culvert installation can be found in the Idaho Forest Practices Act (IDAPA 20.20.01). Examples of best management practices include, but are not limited to: parapets, wing walls, inlet and outlet rock armoring, compaction, suitable bedding material, anti-seep barriers such as bentonite clay, or other acceptable roadway retention systems.

This condition is necessary to meet the following water quality requirements:

Control of erosion, sediment, and turbidity to provide beneficial use support and compliance with the following water quality standards:

- General Surface Water Criteria for Sediment (IDAPA 58.01.02.200.08)
- Numeric Turbidity Criteria for Aquatic Life (IDAPA 58.01.02.250.02.e)
- Numeric turbidity criteria for protection of domestic water supply (IDAPA 58.01.02.252.01.b)

2.8 Wood Preservatives

DEQ's *Guidance for the Use of Wood Preservatives and Preserved Wood Products In or Around Aquatic Environments* must be considered when using treated wood materials in the aquatic environment. Within this guidance document DEQ references the *Best Management Practices*

for the Use of Treated Wood in Aquatic and Wetland Environments[3]. This document provides recommended guidelines for the production and installation of treated wood products destined for use in sensitive environments.

This condition is necessary to meet the following water quality requirements:

Ensure that toxic chemicals are not introduced into waters and to ensure compliance with the following water quality standards:

- General Surface Water Criteria for hazardous materials (IDAPA 58.01.02.200.01), toxic substances (IDAPA 58.01.02.200.02), and deleterious materials (IDAPA 58.01.02.200.03)
- Numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210)

2.9 Reporting of Discharges Containing Hazardous Materials or Deleterious Materials

All spills of hazardous material, deleterious material or petroleum products which may impact waters (ground and surface) of the state shall be immediately reported. Call 911 if immediate assistance is required to control, contain or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ regional office in Table 2 during normal working hours or Idaho State Communications Center after normal working hours. If the spilled volume is above federal reportable quantities, contact the National Response Center.

For immediate assistance: Call 911

National Response Center: (800) 424-8802

Idaho State Communications Center: (800) 632-8000

Table 2. Idaho DEQ regional contacts for reporting discharge or spill of hazardous or deleterious materials.

Regional Office	*Toll Free Phone Number*	*Phone Number*
Boise	888-800-3480	208-373-0550
Coeur d'Alene	877-370-0017	208-769-1422
Idaho Falls	800-232-4635	208-528-2650
Lewiston	877-541-3304	208-799-4370
Pocatello	888-655-6160	208-236-6160
Twin Falls	800-270-1663	208-736-2190

[3] Western Wood Preservers Institute, Wood Preservation Canada, Southern Pressure Treaters' Association, and Southern Forest Products Association. 2011. "Best Management Practices: For the Use of Treated Wood in Aquatic and Wetland Environments" Vancouver, WA: Western Wood Preservers Institute.

This condition is necessary to meet the following water quality requirements:

Ensure compliance with the following water quality standards:

- Hazardous Material Spills (IDAPA 58.01.02.850)
- Petroleum release reporting, investigation, and confirmation (IDAPA 58.01.02.851)
- Petroleum release response and corrective action (IDAPA 58.01.02.852)

2.10 Other Conditions

This certification is conditioned upon the requirement that if there are material modifications of the NWPs or the permitted activities—including without limitation, significant changes from the draft NWPs to final NWPs, or significant changes to the draft Regional Conditions, then DEQ must re-evaluate the certification to determine compliance with Idaho WQS and to provide additional certification pursuant to Section 401.

This condition is necessary to ensure that DEQ can evaluate any material modification to ensure it meets water quality requirements and complies with the Idaho antidegradation policy (IDAPA 58.01.02.051) and its implementation (IDAPA 58.01.02.052), general surface water quality criteria (200), numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210), numeric criteria for aquatic life (IDAPA 58.01.02.250), recreation (IDAPA 58.01.02.251), and water supply uses (IDAPA 58.01.02.252).

3 Projects for Which Certification Is Denied

DEQ cannot certify that the following activities will comply with water quality requirements, including State WQS and other appropriate requirements of state law, and is therefore denying certification for the activities listed below.

For activities for which certification has been denied, the applicant will be required to request an individual certification before the activity can be conducted. Individual certification requests will provide DEQ with the opportunity to review project details and determine if additional conditions are necessary to ensure that water quality requirements will be met.

Upon review and evaluation of individual certification requests, DEQ may 1) certify without condition, 2) provide individual certification with conditions necessary to ensure water quality requirements will be met, or 3) deny certification for projects that will not meet water quality requirements.

3.1 NWPs denied

DEQ denies certification for all activities proposed to occur on waters designated as ORWs during the term of the permit. This denial is necessary to ensure compliance with the water quality requirements of Idaho's antidegradation policy (IDAPA 58.01.02.051.03) and implementation procedures (IDAPA 58.01.02.052.09.g).

In addition, the following NWPs are denied certification for all Idaho waters. Projects seeking coverage under these NWPs must request individual certification from DEQ.

NWP 16 - Return Water from Upland Contained Disposal Areas

Basis for denial:

Return water from upland disposal areas has the potential to contribute turbidity, sediment, and other toxic and non-toxic pollutants to receiving waters.

To ensure that discharge from upland contained disposal areas meets water quality requirements, DEQ must evaluate the quality of the return water and evaluate the potential pollutants associated with return water on a case-by-case basis to determine compliance with general surface water quality criteria (IDAPA 58.01.02.200); numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210); and use specific criteria for aquatic life (IDAPA 58.01.02.250), recreation (IDAPA 58.01.02.251), and water supply uses (IDAPA 58.01.02.252).

NWP 23 - Approved Categorical Exclusions

Basis for denial:

DEQ is unable to determine that meeting the requirements for categorical exclusion under the National Environmental Policy Act will meet state water quality requirements.

DEQ will evaluate categorically excluded activities on a case-by-case basis to determine compliance with general surface water quality criteria (IDAPA 58.01.02.200); numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210); and use specific criteria for aquatic life (IDAPA 58.01.02.250), recreation (IDAPA 58.01.02.251), and water supply uses (IDAPA 58.01.02.252).

NWP 53 – Removal of Low-Head Dams

Basis for denial:

Material released from the removal of low head dams has the potential to contribute turbidity, sediment, and other toxic and non-toxic pollutants to receiving waters.

In order to ensure that release of materials from the removal of low head dams meets water quality requirements, DEQ must evaluate the potential pollutants associated with this release on a case-by-case basis to determine compliance with general surface water quality criteria (IDAPA 58.01.02.200); numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210); and use specific criteria for aquatic life (IDAPA 58.01.02.250), recreation (IDAPA 58.01.02.251), and water supply uses (IDAPA 58.01.02.252).

3.2 NWPs partially denied

The following activities have the potential to disturb significant areas and could disturb a significant fraction of entire Assessment Units, causing permanent and significant impairment of designated and existing beneficial uses. The conditions associated with the NWP, regional conditions, and the conditions associated with this certification are not sufficient to provide DEQ with assurance that projects of this magnitude would not result in impairment of existing or

designated beneficial uses in all waters, and potentially increase degradation in high quality (Tier II) waters.

In order to meet the requirements of Idaho's antidegradation implementation procedures (IDAPA 58.01.02.052), ensure that beneficial uses are not impaired, and ensure compliance with general surface water quality criteria for sediment (IDAPA 58.01.02.200.08), DEQ must evaluate these projects on a case-by-case basis and provide individual certification where applicable.

3.2.1 NWPs 3, 13, and 14

The 2020 NWPs 3, 13, and 14 require preconstruction notification (PCN) for certain activities when it is necessary for the district engineer to review activities to ensure only minimal adverse environmental effects.

While the additional district engineer review is intended to ensure that activities will cause only minimal adverse environmental effects, it is not reasonable to expect that the district engineer review will consider the requirements of Idaho's antidegradation implementation procedures (IDAPA 58.01.02.052) when making their determination. Consequently, DEQ cannot certify that activities requiring PCN under these NWPs would not cause degradation of water quality, and therefore cannot certify that these activities would meet Idaho's antidegradation implementation procedures (IDAPA 58.01.02.052).

Therefore, DEQ is denying certification for the following activities that require PCN under the proposed 2020 NWPs:

NWP 3 – Maintenance

Activities Denied Certification

- Activities authorized by paragraph (b) of NWP 3

NWP 13 – Bank Stabilization

Activities Denied Certification:

- activities involving discharge into special aquatic sites;
- activities in excess of 500 linear feet;
- activities that involve discharge of greater than one cubic yard per running foot measured along the length of the treated bank below the plane of the ordinary high water mark

NWP 14 – Linear Transportation Projects

Activities Denied Certification:

- activities resulting in the loss of waters of the United States in excess of 1/10 acre;
- discharge in a special aquatic site, including wetlands

3.2.2 NWPs 12, C, and D

The 2017 NWP 12 included activities proposed to be permitted under the 2020 NWPs C and D.

The 2017 NWP 12 required PCN for activities that, among other thresholds, involved mechanized clearing in forested wetlands, exceeded 500 linear feet, or that resulted in loss of greater than 1/10 acre of waters of the United States. The 2020 NWP proposes removal of these thresholds for PCN, and does not require additional review from the ACOE district engineer to ensure only minimal adverse environmental effects.

Without the requirement for PCN and additional review from the district engineer, DEQ cannot certify that these activities will not result in degradation. Therefore, DEQ is denying certification for the following activities:

NWP 12 – Oil or Natural Gas Pipeline Activities

Activities Denied Certification:

- activities that involve mechanized clearing of a wooded wetland;
- oil or natural gas pipelines in waters of the United States that exceed 500 linear feet or that run adjacent to a water body for greater than 500 linear feet;
- activities where discharge will result in loss of greater than 1/10-acre, as determined by ACOE, of waters of the United States

NWP C – Electric Utility Line and Telecommunications Activities

Activities Denied Certification:

- activities that involve mechanized clearing of a wooded wetland;
- electric utility line and telecommunications activities in waters of the United States that exceed 500 linear feet;
- activities where discharge will result in loss of greater than 1/10-acre, as determined by ACOE, of waters of the United States

NWP D – Utility Line Activities for Water and Other Substances

Activities Denied Certification:

- activities that involve mechanized clearing of a wooded wetland;
- utility line activities in waters of the United States that exceed 500 linear feet;
- activities where discharge will result in loss of greater than 1/10-acre, as determined by ACOE, of waters of the United States

3.2.3 NWPs 21, 29, 39, 40, 42, 43, 44, 50, 51, 52, and E

The 2017 NWPs for the following activities had a 300 linear foot limit for losses of stream bed. The 2020 NWP proposes removal of the 300 linear foot limit for losses of stream bed and instead rely solely on the ½ acre limit.

The median bankfull width measured from 48 wadeable streams monitored in 2010 as part of DEQ's Beneficial Use reconnaissance Program (BURP) was 19.7 feet. A loss of ½ acre at this stream width would correspond to 1,105 linear feet of loss, or the equivalent of 0.2 miles of stream. DEQ cannot certify that losses of this magnitude of stream bed, or that losses of stream

bed based solely on the ½ acre limit, would not result in permanent degradation. Therefore, DEQ is denying certification for the following activities that exceed the 300 linear foot limit previously imposed by the 2017 NWP:

NWP 21 – Surface Coal Mining Activities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 29 – Residential Developments

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 39 – Commercial and Institutional Developments

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 40 – Agricultural Activities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 42 – Recreational Facilities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 43 – Stormwater Management Facilities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 44 – Mining Activities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 50 – Underground Coal Mining Activities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 51 – Land Based Renewable Energy Generation Facilities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 52 – Water-Based Renewable Energy Generation Pilot Projects

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP E – Water Reclamation and Reuse Facilities

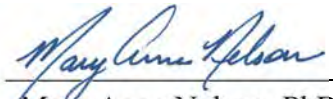
Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

4 Right to Appeal Final Certification

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the "Rules of Administrative Procedure before the Board of Environmental Quality" (IDAPA 58.01.23), within 35 days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to Jason Pappani, State Office IDEQ, at (208) 373-0515 or via email at jason.pappani@deq.idaho.gov.



Mary Anne Nelson, PhD
Surface and Wastewater Division
Administrator

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 N Hilton Street, Boise, ID 83706
(208) 373-0502

Brad Little, Governor
Jess Byrne, Director

MEMORANDUM

TO: James Joyner, Chief, Upper Snake and Idaho Panhandle Branch, U.S. Army Corps of Engineers

FROM: Mary Anne Nelson, Surface and Wastewater Division Administrator of the Department of Environmental Quality

DATE: 01/10/23

SUBJECT: 2020 Final § 401 Water Quality Certification Contact and Hyperlink Updates

The Department of Environmental Quality (DEQ) is submitting an update for agency contacts and hyperlinks to be included as an attachment to the § 401 Water Quality Certification dated December 4, 2020, upon authorization of a federal permit or license.

Table 1. DEQ state and regional office contacts.

Regional Office	Address	Phone Number	Email
Boise	1445 N. Orchard St., Boise, ID 83706	(208) 373-0490	*chase.cusack@deq.idaho.gov*
Coeur d'Alene	2110 Ironwood Parkway, Coeur d'Alene, ID 83814	(208) 666-4605	*chantilly.higbee@deq.idaho.gov*
Idaho Falls	900 N. Skyline, Suite B., Idaho Falls, ID 83402	(208) 528-2679	*alex.bell@deq.idaho.gov*
Lewiston	1118 "F" St., Lewiston, ID 83501	(208) 799-4874	*sujata.connell@deq.idaho.gov*
Pocatello	444 Hospital Way, #300 Pocatello, ID 83201	(208) 239-5007	*matthew.schenk@deq.idaho.gov*
Twin Falls	650 Addison Ave. W., Suite 110, Twin Falls, ID 83301	(208) 737-3877	*sean.woodhead@deq.idaho.gov*
State Office	1410 N. Hilton St., Boise, ID 83706	(208) 373-0570	*tambra.phares@deq.idaho.gov*

Table 2. Updated hyperlinks.

Section	Hyperlink
1.2	*Integrated Report*
1.2	*Final 2022 Integrated Report Interactive Mapper*
2.1	*Catalog of Storm Water Best Management Practices*
2.2	*Approved TMDLs*
2.8	*Guidance for the Use of Wood Preservatives and Preserved Wood Products In or Around Aquatic Environments*
2.8	*Best Management Practices for the Use of Treated Wood in Aquatic and Wetland Environments*

Please direct questions or comments about the actions taken in the 2020 Final § 401 Water Quality Certification to Tambra Phares, State Office DEQ, (208) 373-0187, or email at *tambra.phares@deq.idaho.gov*.

APPROVAL: 01/10/2023

Mary Anne Nelson, PhD
Department of Environmental Quality
Surface and Wastewater Division Administrator

Date

Attachment I:
Floodplain Development
Criteria Evaluation

Floodplain Development Permit Requirements				
1. Evaluation Standards: 17.88.050€				
Compliant			Standards and Staff Comments	
Yes	No	N/A	Guideline	City Standards and *Staff Comments*
☒	☐	☐	17.88.050(E)1	The proposal preserves or restores the inherent natural characteristics of the river, floodplain, and riparian zone, including riparian vegetation and wildlife habitat. Development does not alter river channel unless all stream alteration criteria for evaluation are also met.
			Staff Comments	*The project does not alter the main channel of the river, and it preserves the inherent natural characteristics of the floodplain by including native wetland plantings and maintaining a system of drainage channels and culverts to allow for historic flow of floodwaters through the site.*
☐	☐	☒	17.88.050(E)2	No temporary construction activities, encroachment or other disturbance into the 25-foot riparian zone, including encroachment of below grade structures, shall be permitted, with the exception of approved stream stabilization work and restoration work associated with a riparian zone that is degraded.
			Staff Comments	*While the subject property does contain riparian zone, this area is over 100 feet from the project site. Staff will confirm at time of building permit submittal that the riparian zone is not impacted by construction activities*
☐	☐	☒	17.88.050(E)3	No permanent development shall occur within the 25-foot riparian zone, with the exception of approved stream stabilization work and restoration work associated with permit issued under this title, or exceptions as described below: a. Access to a property where no other primary access is available; b. Emergency access required by the fire department; c. A single defined pathways or staircases for the purpose of providing access to the river channel and in order to mitigate multiple undefined social paths; d. Development by the City of Ketchum.
			Staff Comments	*The project does not propose any improvements within the riparian zone*
☐	☐	☒	17.88.050(E)4	New or replacement planting and vegetation in the riparian zone shall include plantings that are low growing and have dense root systems for the purpose of stabilizing stream banks and repairing damage previously done to riparian vegetation. Examples of such plantings most commonly include: red osier dogwood, common chokecherry, serviceberry, elderberry, river birch, skunk bush sumac, Beb's willow, Drummond's willow, little wild rose, gooseberry, and honeysuckle. However, in rare instances the distance from the top-of-bank to the mean high water mark is significant and the native vegetation appropriate for the riparian zone are low growing, drought resistant grasses and shrubs. Replacement planting and

Floodplain Development Permit Requirements				
1. Evaluation Standards: 17.88.050€				
Compliant			Standards and Staff Comments	
Yes	No	N/A	Guideline	City Standards and *Staff Comments*
				vegetation shall be appropriate for the specific site conditions. Proposal does not include vegetation within the 25-foot riparian zone that is degraded, not natural, or which does not promote bank stability.
			Staff Comments	*No riparian restoration is proposed. Still, the project does contain wetlands and proposes species associated with riparian habitat.*
☒	☐	☐	17.88.050(E)5	Landscaping and driveway plans to accommodate the function of the floodplain allow for sheet flooding. Surface drainage is controlled and shall not adversely impact adjacent properties including driveways drained away from paved roadways. Culvert(s) under driveways may be required. Landscaping berms shall be designed to not dam or otherwise obstruct floodwaters or divert same onto roads or other public pathways.
			Staff Comments	*The driveway is located entirely outside of the floodplain. Converting existing pond to swale and other landscape/site improvements allow for sheet flooding to occur over portions of the property which contain floodplain*
☒	☐	☐	17.88.050(E)6	Flood water carrying capacity is not diminished by the proposal.
			Staff Comments	*The proposed development has more excavation (638.1 cubic yards) than fill (265.4 cubic yards) resulting in a net cut-fill balance of 372.7 cubic yards. The proposed swale allows for sheet flow to occur in a northwest to southeast movement as historically has been the case as a result of evening out the grade where currently the existing pond has more steep topography. All cut and fill considered for floodwater carrying capacity is below the Base Flood Elevation (BFE). The HEC-RAS model for the site shows no increase in floodwaters on adjacent properties to the north & south.*
☒	☐	☐	17.88.050(E)7	Impacts of the development on aquatic life, recreation, or water quality upstream, downstream or across the stream are not adverse.
			Staff Comments	*The wetland plantings will be beneficial to water quality and aquatic life. No work is proposed within the floodway or stream. No downstream impacts or across stream impacts will be associated with the approved landscape plan.*
☒	☐	☐	17.88.050(E)8	Building setback in excess of the minimum required along waterways is encouraged. An additional ten-foot building setback beyond the required 25-foot riparian zone is encouraged to provide for yards, decks and patios outside the 25-foot riparian zone.
			Staff Comments	*The proposed residence is setback from the riparian zone over 200'.*
☒	☐	☐	17.88.050(E)9	The top of the lowest floor of a building located in, or partially within, the SFHA shall be at or above the flood protection elevation (FPE). A

Floodplain Development Permit Requirements				
1. Evaluation Standards: 17.88.050€				
Compliant			Standards and Staff Comments	
Yes	No	N/A	Guideline	City Standards and *Staff Comments*
				building is considered to be partially within the SFHA if any portion of the building or appendage of the building, such as footings, attached decks, posts for upper story decks, are located within the SFHA. See section 17.88.060, figures 1 and 2 of this chapter to reference construction details. See chapter 17.08 of this title for definition of "lowest floor." a. In the SFHA where base flood elevations (BFEs) have been determined, the FPE shall be 24 inches above the BFE for the subject property; 24 inches or two feet is the required freeboard in Ketchum City Limits. b. In the SFHA where no BFE has been established, the FPE shall be at least two feet above the highest adjacent grade.
			Staff Comments	*The top of the lowest floor (finished floor) is elevated 24" above the Base Flood Elevation of 5766.95 as shown on Sheets A-400 & A-401. As the proposed elevation is located within the AE zone the top of the lowest floor is required to be 24" above the BFE.*
☒	☐	☐	17.88.050(E)10	The backfill used around the foundation in the SFHA floodplain shall provide a reasonable transition to existing grade but shall not be used to fill the parcel to any greater extent. a. Compensatory storage shall be required for any fill placed within the floodplain. b. A CLOMR-F shall be obtained prior to placement of any additional fill in the floodplain.
			Staff Comments	*Backfill used around the foundation which provides a reasonable transition to existing grade is not considered as part of the compensatory storage requirement. The proposed cut on the site is 638.1 cubic yards cubic yards while the proposed fill not associated with the residence is 265.4 cubic yards, resulting in a net cut-fill balance of 372.7 cubic yards. The proposed cut occurs around modified drainage channels and wetlands which are hydraulically connected to the Big Wood River.*
☒	☐	☐	17.88.050(E)11	All new buildings located partially or wholly within the SFHA shall be constructed on foundations that are designed by a licensed professional engineer.
			Staff Comments	*The proposed residence will be constructed with concrete slab on grade foundations designed by David Funk who is a licensed professional engineer within Idaho.*
☒	☐	☐	17.88.050(E)12	Driveways shall comply with City of Ketchum street standards; access for emergency vehicles has been adequately provided for by limiting flood depths in all roadways to one foot or less during the one percent annual chance event.

Floodplain Development Permit Requirements				
1. Evaluation Standards: 17.88.050€				
Compliant			Standards and Staff Comments	
Yes	No	N/A	Guideline	City Standards and *Staff Comments*
			Staff Comments	*Driveway is entirely outside of floodplain. Driveway complies with City of Ketchum street standards. The Fire & Streets Departments have both approved the proposed driveway design.*
☒	☐	☐	17.88.050(E)13	Landscaping or revegetation shall conceal cuts and fills required for driveways and other elements of the development.
			Staff Comments	*Landscaping is proposed on all areas of the property including around the proposed swale which will experience grading. The landscaping will conceal any cuts and fill which are required.*
☐	☐	☒	17.88.050(E)14	(Stream Alteration) The proposal is shown to be a permanent solution and creates a stable situation.
			Staff Comments	*N/A - Stream Alteration is not proposed.*
☐	☐	☒	17.88.050(E)15	(Stream alteration.) No increase to the one percent annual chance flood elevation at any location in the community, based on hydrologic and hydraulic analysis performed in accordance with standard engineering practice and has been certified and submitted with supporting calculations and a No Rise Certificate, by a registered Idaho engineer.
			Staff Comments	*N/A - Stream Alteration is not proposed.*
☐	☐	☒	17.88.050(E)16	(Stream alteration.) The project has demonstrated no adverse impact or has demonstrated all impacts will be mitigated.
			Staff Comments	*N/A - Stream Alteration is not proposed.*
☐	☐	☒	17.88.050(E)17	(Stream alteration.) The recreational use of the stream including access along any and all public pedestrian/fisher's easements and the aesthetic beauty shall not be obstructed or interfered with by the proposed work.
			Staff Comments	*N/A - Stream Alteration is not proposed.*
☐	☐	☒	17.88.050(E)18	(Stream alteration) Fish habitat is maintained or improved as a result of the work proposed.
			Staff Comments	*N/A - Stream Alteration is not proposed.*
☐	☐	☒	17.88.050(E)19	(Stream alteration.) The proposed work shall not be in conflict with the local public interest, including, but not limited to, property values, fish and wildlife habitat, aquatic life, recreation and access to public lands and waters, aesthetic beauty of the stream and water quality.
			Staff Comments	*N/A - Stream Alteration is not proposed.*

Floodplain Development Permit Requirements				
1. Evaluation Standards: 17.88.050€				
Compliant			Standards and Staff Comments	
Yes	No	N/A	Guideline	City Standards and *Staff Comments*
☐	☐	☒	17.88.050(E)20	(Stream alteration.) The work proposed is for the protection of the public health, safety and/or welfare such as public schools, sewage treatment plant, water and sewer distribution lines and bridges providing particularly limited or sole access to areas of habitation.
			Staff Comments	*N/A - Stream Alteration is not proposed.*
☒	☐	☐	17.88.050(E)21	(Wetlands) Where development is proposed that impacts any wetland the first priority shall be to move development from the wetland area. Mitigation strategies shall be proposed at time of application that replace the impacted wetland area with an equal amount and quality of new wetland area or riparian habitat improvement.
			Staff Comments	*Project site contains wetlands as delineated by Trent Stumph with Sawtooth Environmental. The proposed development will impact, permanently fill approximately 2,300 square feet of wetlands with proposed wetland mitigation of 29,000 square feet and wetland restoration of 11,000 square feet. Wetlands include species such as Black Cottonwood, Red-osier Dogwood, Quaking Aspen, and many other riparian grasses, shrubs and trees.*
☒	☐	☐	17.88.060.A.1	A. General Standards: In all areas of special flood hazard, the following standards are required: 1. Anchoring: a. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. b. All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over the top or frame ties to ground anchors (reference the Federal Emergency Management Agency's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).
			Staff Comments	*The proposed development is a single-family home that will be constructed on site and attached to a foundation designed by a professional engineer. Note 209 on Sheet S-111 indicates foundation has been designed to meet standards of this section. The new construction will be anchored to prevent flotation, collapse, or lateral movements.*
☒	☐	☐	**17.88.060.A.2**	**2. Construction Materials And Methods:** **a. All structural and nonstructural building materials utilized at or below the base flood elevation must be flood**

Floodplain Development Permit Requirements				
1. Evaluation Standards: 17.88.050€				
Compliant			Standards and Staff Comments	
Yes	No	N/A	Guideline	City Standards and *Staff Comments*
				resistant. Flood damage resistant materials must be used for all building elements subject to exposure to floodwaters, including floor joists, insulation, and ductwork. If flood damage resistant materials are not used for building elements, those elements must be elevated above the base flood elevation. This requirement applies regardless of the expected or historical flood duration. **b. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.** **c. Electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.**
			Staff Comments	*A. Proposed materials below the BFE as listed on Sheets G-002 & S-101 include reinforced concrete, ferrous metal, and steel panels with waterproof adhesives. All materials are acceptable per FEMA Technical Bulletin 2.* *B. This project consists of new construction. All floodplain development regulations required by Ketchum Municipal Code will be met.* *C. The mechanical room and all mechanical equipment are to be located above the BFE and outside of the SFHA. No HVAC or electrical panels will be located below the BFE. Any plumbing and electrical leading from mains to the residence will be watertight and located underground.*
☒	☐	☐	**17.88.060.A.3**	***3. Utilities:*** ***a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;*** ***b. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters; and*** ***c. On site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.***
			Staff Comments	*Water and sewer services into the residence will be located underground and built to required plumbing codes*

Floodplain Development Permit Requirements				
1. Evaluation Standards: 17.88.050€				
Compliant			Standards and Staff Comments	
Yes	No	N/A	Guideline	City Standards and *Staff Comments*
☐	☐	☒	**17.88.060.B.1**	***1. All construction in AO zones shall be designed and constructed with drainage paths around structures to guide water away from structures***
			Staff Comments	*Proposed residence is within the AE zone, not the AO.*
☒	☐	☐	**17.88.060.B.2.a**	***2. Residential Construction:*** ***a. New construction and substantial improvement of any residential structure in any A1-30, AE and AH zone shall have the top of the lowest floor, including basement, elevated a minimum of twenty four inches (24") above the base flood elevation.***
			Staff Comments	*The top of the lowest floor (finished floor) will be elevated 24" above the Base Flood Elevation of 5766.95'. As the proposed elevation is located within the AE zone the top of the lowest floor is required to be 24" above the BFE. Sheets A-400 & A-401 show lowest floor elevated above BFE by at least 24".*
☐	☐	☒	***17.88.060.B2.b***	**b. New construction and substantial improvement of any residential structure in any AO zone shall have the lowest floor, including basement, elevated to or above the highest adjacent grade at least as high as the FIRM's depth number plus twenty four inches (24").**
			Staff Comments	*N/A. Proposed residence is within the AE zone, not the AO*
☐	☐	☒	***17.88.060.B2.c.***	c. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria (see figures 1, "Preferred Crawl Space Construction", and 2, "Below Grade Crawl Space Construction", of this section):
			Staff Comments	*N/A. No enclosed areas below the lowest floor are proposed.*
☐	☐	☒	***17.88.060.B2.c.(1)***	**(1) A minimum of two (2) openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. Openings shall be placed on at least two (2) walls to permit entry and exit of floodwaters.**
			Staff Comments	*N/A. No enclosed areas below the lowest floor are proposed.*
☐	☐	☒	***17.88.060.B2.c.(2)***	(2) The bottom of each flood vent opening shall be no higher than one foot (1') above the lowest adjacent exterior grade.
			Staff Comments	*N/A. No enclosed areas below the lowest floor are proposed.*

Floodplain Development Permit Requirements				
1. Evaluation Standards: 17.88.050€				
Compliant			Standards and Staff Comments	
Yes	No	N/A	Guideline	City Standards and *Staff Comments*
☐	☐	☒	***17.88.060.B2. c.(3)***	(3) Engineered flood vents are required.
			Staff Comments	*N/A. No enclosed areas below the lowest floor are proposed.*
☐	☐	☒	***17.88.060.B2. c.(4)***	(4) Portions of the building below the base flood elevation shall be constructed with material resistant to flood damage.
			Staff Comments	*N/A. No enclosed areas below the lowest floor are proposed.*
☐	☐	☒	***17.88.060.B2. c.(5)***	(5) The interior grade of a below grade crawl space (see figure 2, "Below Grade Crawl Space Construction", of this section) below the base flood elevation shall not be more than two feet (2') below the lowest adjacent exterior grade.
			Staff Comments	*N/A. No crawlspace proposed.*
☐	☐	☒	***17.88.060.B2. c.(5)***	6) The height of a below grade crawl space, measured from the interior grade of the crawl space to the top of the crawl space foundation wall, shall not exceed four feet (4') at any point.
			Staff Comments	*N/A. No crawlspace proposed.*
☐	☐	☒	***17.88.060.B2. c.(5)***	(7) A below grade crawl space shall have an adequate drainage system that removes floodwaters from the interior area of the crawl space within a reasonable time after a flood event.
			Staff Comments	*N/A. No crawlspace proposed.*
			17.88.060.B2. c.(6)	**(8) The velocity of floodwaters at the site should not exceed five feet per second for any crawlspace**
			Staff Comments	*N/A. No crawlspace proposed.*

Attachment J:
Zoning and Dimensional Standards Evaluation

Compliance with Zoning and Dimensional Standards				
Compliant			Standards and Findings	
Yes	No	N / A	Ketchum Municipal Code	City Standards and Findings
☒	☐	☐	17.12.030	Minimum Lot Area
			Finding	**Required:** 8,000 square feet minimum **Existing:** 54,219 square feet
☒	☐	☐	17.12.030	Building Coverage
			Finding	**Permitted:** 35% **Proposed:** 10% (5,422 square feet / 54,219 square feet lot area)
☒	☐	☐	17.12.030	Minimum Building Setbacks
			Finding	**Minimum Required Setbacks:** Front: 15' Side: > of 1' for every 3' in building height, or 5' (11' required) Rear: > of 1' for every 3' in building height, or 15' **Proposed:** Front (Wood River Dr): 15' Side (north): 11' Side (south): 11' Rear (west): >100'
☒	☐	☐	17.12.030	Building Height
			Finding	**Maximum Permitted:** 35' **Proposed:** 33' 2"
☒	☐	☐	17.125.030.H	Curb Cut
			Finding	**Permitted:** A total of 35% of the linear footage of any street frontage can be devoted to access off street parking. **Proposed:** 19.1% (20-foot-wide driveway/104.74 feet of frontage along Wood River Drive)
☒	☐	☐	17.125.020.A.2 & 17.125.050	Parking Spaces
			Finding	Off-street parking standards of this chapter apply to any new development and to any new established uses. **Required:** Residential one family dwelling: 2 parking spaces per dwelling unit **Proposed:** 3
☒	☐	☐	17.124.170.A	Drainage
			Finding	**Required:** 1. All stormwater shall be retained on site.

				2. Drainage improvements constructed shall be equal to the length of the subject property lines adjacent to any public street or private street 3. The City Engineer may require additional drainage improvements as necessary, depending on the site unique characteristics of a site. 4. Drainage facilities shall be constructed per City standards. Proposed: 1. Through trench drains, catch basins and a drywell, the proposed project is able to maintain stormwater generated by the proposed impervious surfaces 2. The project proposes constructing right-of-way improvements the full length of the property along Wood River Dr 3. The City Engineer has not found the site to need any additional drainage improvements 4. The City Engineer has reviewed and found all proposed drainage facilities to be constructed per City standards. These facilities will be confirmed upon submittal of a building permit
☒	☐	☐	17.124.170.B	Utilities
				Required: 1. All utilities necessary for the development shall be improved and installed at the sole expense of the applicant. 2. Utilities shall be located underground and utility, power, and communication lines within the development site shall be concealed from public view. Proposed: 1. All utility extensions will be installed at the expense of the applicant 2. All utilities are to be located underground and no lines will be visible from public view
☒	☐	☐	17.124.170.C	Snow Storage
				Required: 1. Snow storage areas shall not be less than 30 percent of the improved parking and pedestrian circulation areas. 2. Snow storage areas shall be provided on site. 3. A designated snow storage area shall not have any dimension less than five feet and shall be a minimum of 25 square feet. 4. In lieu of providing snow storage areas, snowmelt and hauling of snow may be allowed.

				Proposed: 1. As shown on Sheet L-1.00, 4,067 square feet of driveway and pedestrian circulation area is proposed. Of this total, 2,840 square feet is proposed to be snowmelted, leaving 1,226 square feet of non snowmelted area. The required amount of snow storage is 368 square feet and the applicant has proposed 400 square feet. 2. Proposed snow storage is located on subject property. 3. All snow storage areas do not dimensions less than 5 feet and have an area greater than 25 square feet 4. As stated in standard #1, snowmelt is proposed for 2,840 square feet of the proposed driveway & pedestrian circulation area, resulting in 1,226 square feet of non snowmelted area.

Attachment K:

Mary's Place

Subdivision Plat Map

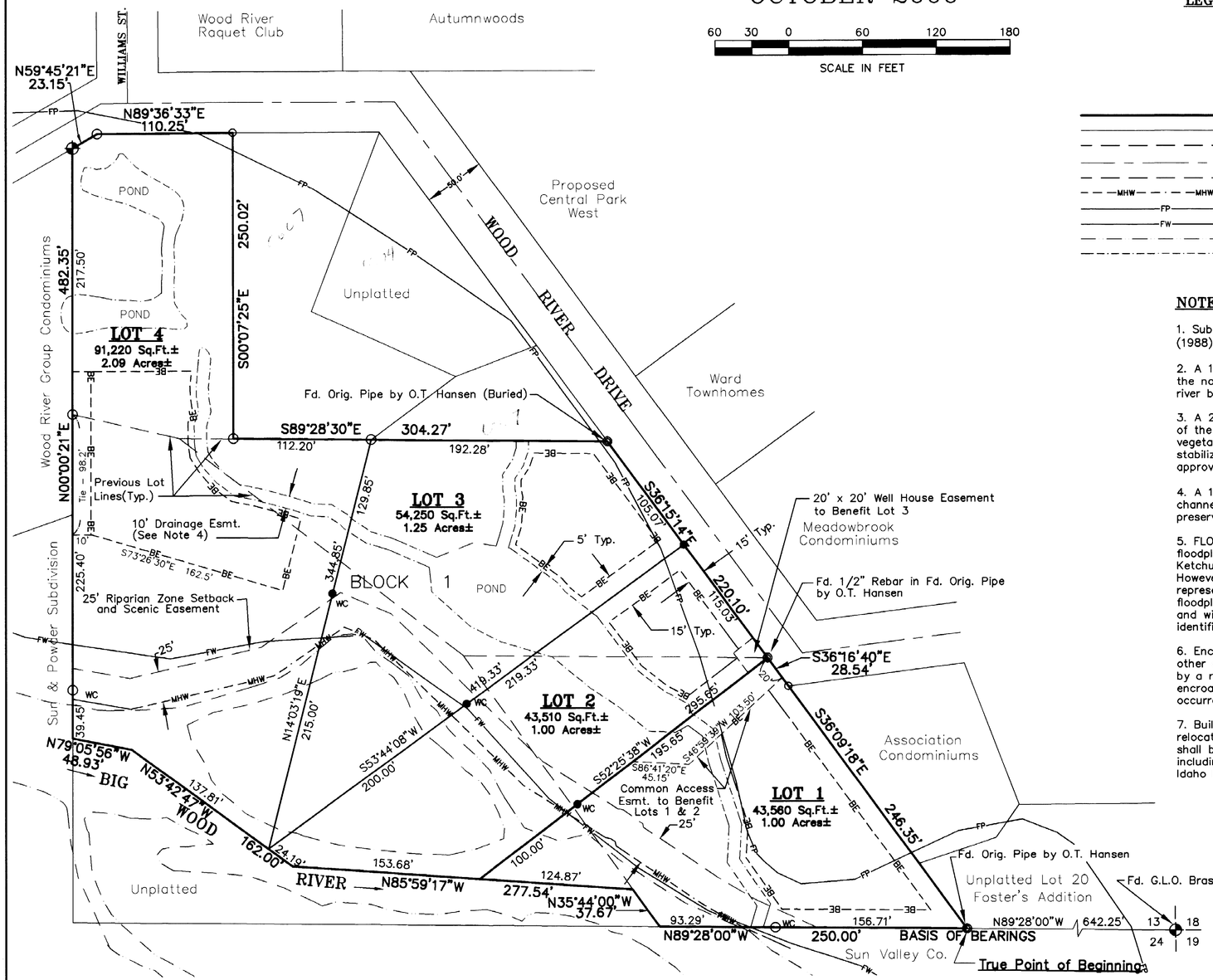
A LOT LINE SHIFT PLAT SHOWING

MARY'S PLACE SUBDIVISION

LOCATED WITHIN

GOVERNMENT LOT 4, SECTION 13, T.4 N., R.17 E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO

OCTOBER 2000



60 30 0 60 120 180

SCALE IN FEET

SCALE: 1" = 60'

LEGEND

- ● Set 1/2" Rebar , L.S. 3621
- ○ Found 1/2" Rebar
- ○ Found 5/8" Rebar
- ◎ Found 1.5" Iron Pipe
- WC Witness Corner
- Property Line Boundary
- Adjoiner's Property Line
- Previous Lot Line
- Centerline Road Right-of-Way
- 25' Riparian Zone Setback and Scenic Easement
- MHW Mean High Water
- FP Floodplain (per FEMA panel 0461C, March 17, 1997)
- FW Floodway (per FEMA panel 0461C, March 17, 1997)
- Water Course/Edge of Water
- 10' Drainage Easement (See Note 4)

NOTES

1. Subdivision Boundaries are based upon Record of Survey by Roger Kruger (1988), Instrument No. 301270, records of Blaine County, Idaho.

2. A 10-foot wide Fisherman's Access Easement is dedicated to the public along the northeasterly bank of the Big Wood River. Said easement shall shift with the river bank as it moves.

3. A 25-foot wide Scenic Easement and Riparian Setback exists along the banks of the Big Wood River within which no structure is permitted and riparian vegetation shall be maintained in its natural state for the protection and stabilization of the creek bank. Removal of trees or other vegetation is subject to approval by City of Ketchum.

4. A 10' wide Drainage Easement is reserved centered over existing drainage channels and 5 feet from edge of ponds to provide for maintenance and to preserve natural drainage through the property.

5. FLOODPLAIN NOTE: Portions of this property are subject to flood hazard. The floodplain area designated on this plat is considered by the Owner, the City of Ketchum and Galena Engineering, Inc. as reasonable for regulatory purposes. However, neither the Owner, the City of Ketchum nor Galena Engineering, Inc. represents, guarantees, warrants or implies that areas outside the designated floodplain area are safe and free from floods or flood danger. Sheet flooding can and will occur and flooding may extend beyond the floodplain boundary lines identified hereon.

6. Encroachments, including fill, new construction, substantial improvements and other development is prohibited within the regulatory floodway unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

7. Building Envelopes may be revised if the surface water courses and ponds are relocated, pursuant to an approved enhancement plan. Said enhancement plan shall be approved and proper permits obtained from the appropriate agencies, including, but not limited to, the City of Ketchum, the Army Corps of Engineers, Idaho Fish and Game Department, and Idaho Department of Water Resources.

HEALTH CERTIFICATE: Sanitary restrictions as required by Idaho Code Title 50, Ch. 13, have been satisfied. Sanitary restrictions may be reimposed in accordance with Idaho Code Title 50, Ch. 13, Sec. 50-1326, by issuance of a Certificate of Disapproval.

10-31-2000
Date

Robert W. Erickson
South Central District Health Dept., EHS

RICHARD D. FOSBURY, L.S. 3621

10/31/00

MARY'S PLACE SUBDIVISION

GALENA ENGINEERING, INC.
KETCHUM, IDAHO

SHEET 1 OF 2

Job No. 1727-01fplat

#445345
MARY'S PLACE SUBDIVISION
S13 T4N R17E

2 of 2

PLAN HOLD CORPORATION • IRVINE, CALIFORNIA
RECORDER BY NUMBER 07544

DRAWING NUMBER
Instrument # 445345
HAILEY, BLAINE, IDAHO
2000-11-22 04:01:00 No. of Pages: 2
Recorded for : SAWTOOTH TITLE
MARSHA RIEMANN Fee: 11.00
Ex-Officio Recorder Deputy
Index to: PLATS

IUMBER
• IRVINE, CALIFORNIA
07544

CERTIFICATE OF OWNERSHIP

This is to certify that the undersigned is the owner in fee simple of the following described parcel of land:

A parcel of land located within Section 13, Township 4 North, Range 17 East, Boise Meridian, City of Ketchum, Blaine County, Idaho; more particularly described as follows:

Commencing at a Brass Cap marking the Section corner common to Sections 13, 18, 19 and 24, thence continuing N89°28'00"W, 642.25 feet to an Iron Pipe by O.T. Hansen and the TRUE POINT OF BEGINNING;

thence N89°28'00"W, 250.00 feet;
thence N35°44'00"W, 37.67 feet;
thence N85°59'17"W, 277.54 feet;
thence N53°42'47"W, 162.00 feet;
thence N79°05'56"W, 48.93 feet;
thence N00°00'21"E, 482.35 feet;
thence N59°45'21"E, 23.15 feet;
thence N89°36'33"E, 110.25 feet;
thence S00°07'25"E, 250.02 feet;
thence S89°28'30"E, 304.27 feet;
thence S36°15'14"E, 220.10 feet;
thence S36°16'40"E, 28.24 feet;
thence S36°16'18"E, 246.35 feet to the TRUE POINT OF BEGINNING, containing 5.34 acres, more or less.

The easements indicated hereon are not dedicated to the public, but the right to use said easements is hereby reserved for the public utilities and for any other uses indicated hereon and no permanent structures are to be erected within the lines of said easements. I do hereby certify that the individual lots described in this plat will be served by individual wells and not by any water system common to one (1) or more of the lots.

It is the intent of the owner to hereby include said land in this plat.

Mary Pichon
Mary Pichon Trustee
Pichon Family Trust

ACKNOWLEDGMENT

STATE OF Idaho }
COUNTY OF Blaine } ss

On this 27th day of October, 2000, before me, a Notary Public in and for said State, personally appeared Mary Pichon, known or identified to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that she executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Marla G Mink
Notary Public in and for said State
Residing in Bellevue, Id.
My Commission Expires 12/01/2000

MARLA G. MINK NOTARY PUBLIC STATE OF IDAHO

MARLA G. MINK NOTARY PUBLIC STATE OF IDAHO

STATE OF Idaho }
COUNTY OF Blaine } ss

On this 21st day of November, 2000, before me, a Notary Public in and for said State, personally appeared Mary Pichon, known or identified to me to be the person whose name is subscribed to the within instrument as trustee of the Pichon Family Trust, and acknowledged to me that she executed the same as such trustee.

WITNESS my hand and official seal.

Marla G Mink
Notary Public in and for said State
Residing in Bellevue
My Commission Expires 12/01/2000.

SURVEYOR'S CERTIFICATE

I, Richard D. Fosbury, a duly licensed Land Surveyor in the State of Idaho, do hereby certify that the foregoing plat is a true and accurate map of the land surveyed under my direct supervision and that it is in accordance with the Idaho State Code relating to plats and surveys.

REGISTERED LAND SURVEYOR 3627 10/30/00 STATE OF IDAHO RICHARD D. FOSBURY

BLAINE COUNTY SURVEYOR'S APPROVAL

I, Jim W. Koonce, County Surveyor for Blaine County, Idaho, have checked the foregoing plat and computations for making the same and have determined that they comply with the laws of the State of Idaho relating thereto.

Jim W. Koonce 10/30/00
Blaine County Surveyor

KETCHUM CITY ENGINEER'S APPROVAL

The foregoing plat was approved by DAVID COLE, City Engineer for the City of Ketchum on this 31st day of OCTOBER, 2000.

David C. Cole P.E.
City Engineer

KETCHUM CITY COUNCIL'S APPROVAL

The foregoing plat was approved by the City Council of Ketchum on this 31st day of October, 2000.

Sandra E. Cady
City Clerk

CITY OF KETCHUM SEAL BLAINE COUNTY IDAHO

BLAINE COUNTY TREASURER'S APPROVAL

The taxes on the foregoing parcel of land have been paid to this date and this plat is hereby approved this 22nd day of November, 2000.

Becky Jones for Vicki D Dick
Blaine County Treasurer

BLAINE COUNTY RECORDER'S CERTIFICATE

STATE OF IDAHO }
COUNTY OF BLAINE } ss

This is to certify that the foregoing plat was filed in the office of the Recorder of Blaine County, Idaho on this _____ day of _____, 2000, at _____ M., and duly recorded under Instrument Number _____.

Instrument # 445345
HAILEY, BLAINE, IDAHO
2000-11-22 04:01:00 No. of Pages: 2
Recorded for : SAWTOOTH TITLE
MARSHA RIEMANN Fee: 11.00
Ex-Officio Recorder Deputy MPP
Index to: PLATS

Marla Payne
Ex-officio Recorder

Mary's Place Subdivision

Galena Engineering, Inc.
Ketchum, Idaho
Sheet 2 of 2
Job No. 1727-01fplat