REQUEST FOR CONDITIONAL USE PERMIT

COMPLETE ALL FIELDS AND ATTACH CHECKLIST – PLEASE PRINT LEGIBLY \$245 NON-REFUNDABLE APPLICATION FEE + COSTS

* 1. MUDDYMOLANDIN	G LLC		
Print Name (Property Owner 109 W PARKWAY	-)	Print Name (Potential Buyer/Lessee/Represe	entative)
Address		Address	
COLUMBIA	MO		
City - State - Zip	PHONE	City - State - Zip	PHONE
Jay@acivilgroup.com	m		
EMAIL ADDRESS		EMAIL ADDRESS	
	se attach copy of the cu	al Use Permit application is made, including Section urrent ownership deed and, if available, a survey.	·n,
* 3. Present zoning REC	Current la	nd use Marina with existing CUP (see	attached)
* 4. Lot/tract size 1.1 acres		A-1 North & S	outh A-2 East
* 7. Reason and justification for t		itted: (Attach additional page(s) if necessary)	
* 8. Approximate size, use and lo	ocation of all structures		
Existing:			
Proposed:			
* 9. Type of wastewater system:	DNR Approved drip irrigation was	te water plant	
10. Additional fees to be paid by:	MUDDYMOLANDING C/C	Richard King 109 W. Parkway, Columbia MO 65203	
	Name	Address Pl	none Number
	I have not submitted th	my knowledge. I have completed and submitted the erequired documentation by the specified deadline	
Owner's Signature	Date	Potential Buyer's/Lessee's Signature	Date
		etches, permits, names and addresses as required rial(s) will result in the invalidation of this application	
Received by Boone County Re	source Management	Date 8/26/1024	

REQUEST FOR CONDITIONAL USE PERMIT ADDITIONAL INFORMATION

Line 2. Legal Description:

A TRACT OF LAND DESCRIBED BY A QUIT-CLAIM DEED RECORDED IN BOOK 488, PAGE 517, STATED BY SAID DEED TO BE IN THE MIDDLE PART OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 34, TOWNSHIP 47 NORTH, RANGE 13 WEST, BOONE COUNTY, MISSOURI AND ACTUALLY BEING PART OF PART OF SPANISH GRANT #1726 (ALSO KNOWN AS NEW MADRID CLAIM #1726). SAID TRACT OF LAND IS THAT PART OF THE TRACT DESCRIBED BY SAID QUIT-CLAIM DEEDLYING NORTH OF THE WESTERLY EXTENSION OF THE LINE BETWEEN BOONE COUNTY SURVEYS #4749 AND #5150, WEST OF THE M-K-T RAILROAD RIGHT-OF-WAY, NOW THE KATY TRAIL STATE PARK, AND EAST OF THE EAST BANK OF THE MISSOURI RIVER, KNOWN AS THE HIGH BANK, AND BEING THE FIRST PART OF THAT DESCRIBED BY A GENERAL WARRANTY DEED RECORDED IN BOOK 4872, PAGE 92, ALL OF THE RECORDS OF BOONE COUNTY, MISSOURI.

a) Attach Deed (included)

Line 6. Proposed uses:

- Marina
- Incidental retail sales
- Travel Trailer Park
- Camping
- Restaurant
- Bar

Line 7. Reason and justification for the request:

Cooper's Landing is one of the premiere venues for local entertainment, outdoor recreation, and conservation education in Boone County. Visited by hundreds of thousands of local and out-of-state visitors annually, Cooper's Landing contributes to the enrichment of the diversity of recreation, encourages community participation, and is a ready contributor to the county tax base. Cooper's landing provides free services that benefit the Missouri Department of Natural Resources, Columbia Parks and Recreation, and Missouri River Relief initiatives. Located halfway between Kansas City and St. Louis along the Missouri River, Cooper's Landing is:

- 1. The only fuel station for river travel between Kansas City and St. Louis
- 2. Headquarters to Missouri River Relief programs for all age groups https://riverrelief.org/mornings-at-the-river/
- 3. A critical way point for Katy Trail short and long distance travelers (biking, hiking, trekking etc.)
 - a. Offers free bathrooms and showers
 - b. Overnight camping accommodations
 - c. Water refill stations *
- 4. A participant and launch point for many charity events over the years that benefit local campaigns
- 5. An attractive venue for musical performances, voted the number 1 music venue in Columbia in 2023
- 6. A family friendly location that promotes environmental stewardship, outdoor activities, local businesses, community engagement, and clean entertainment

- 7. Has been significantly improved since it's purchase by Richard King in 2019
 - a. Removal of condemned and unsafe building structures
 - b. Installment of state-of-the-art septic system designed to withstand flooding
 - c. Upheld health and safety standards as set forth by the Department of Health and Food Safety

In order to continue to provide value to the community and continuous improvement to health and safety both for patrons as well as the environment, a conditional use that allows for Cooper's to continue to serve the public as it has been, and also increase offerings, Muddy Mo Missouri requests a well-rounded use agreement to serve the purposes of a marina, general store, education and entertainment venue.

Line 8. Approximate size, use and location of structures:

The site consists of a general store, outside performance stage, outdoor picnic space; designated tent and RV camping, a marina with boat docks and fuel station. Southwest of Columbia approximately 1 mile north of Easley on the west side of Easley River Rd between the Katy Trail and the Missouri River. Middle part of the Southwest Quarter of the Northwest Quarter of Section 34, T47N, R13W, Boone County, Missouri and part of Spanish Grant #1726 (also known as New Madrid Claim #1726). Said tract of land is that part of the tract described by said quit-claim deed lying North of the westerly extension of the line between Boone County surveys #4749 and #5150, West of the M-K-T railroad right-of-way, now the Katy Trail State Park, and East of the East bank of the Missouri River, known as the High Bank, and being the first part of that tract described by a general warranty deed recorded in Book 4872, Page 92.

- 1. The main structure will maintain the existing footprint with two stories at approximately 1,200 sqft. The building is adjacent to the property line between the Trail and Missouri River.
- 2. The stage will remain as is, at approximately 215sqft feet. The stage is at approximately 20 feet south of the main building's southwest corner, running adjacent to the Missouri River.

Proposed Condition List:

- 1. No mobile homes may be used for any purpose on the site.
- 2. Lighting is oriented inward and downward so as to minimize light leaving the site except at the boat landing and dock.
- 3. The number of travel trailer slots is limited to a maximum of 12.
- 4. Comply with all site requirements of the Boone County Fire Protection District.
- 5. Comply with all requirements of the building code.
- 6. Must meet Health Department requirements for food service and wastewater
- 7. A site plan be made of the property by a licensed engineer that addresses the conditions and activities and is to the satisfaction of the director of Boone County Resource Management.

Summary:

The conditional use requirements set forth in 2005 have been addressed upon Muddy Mo's acquisition of the property in 2019 and are as follows:

1. No singlewide mobile homes may be used for any purpose on the site except as a residence in compliance with the applicable regulations. Only the existing occupied mobile home is allowed on the site and when it is removed for any reason it is not to be replaced with a singlewide.

- No mobile homes are on site, and none are requested.
- 2. 4 parking spaces are required for the store plus 2 for the residence for a total of 6.
- There are more than the original number of required parking spaces provided on State owned property. Approval for maintaining existing parking as is has been granted by the department of resources.
- 3. All driveway, loading, and parking areas are to be dust free (minimum chip and seal).
- The requirement for dust free driveway, loading, and parking areas has been removed with a variance.
- 4. An engineered wastewater system for the activities including restaurant use must be designed and installed.
- An engineered and approved wastewater system has been installed.
- 5. Lighting is oriented inward and downward so as to minimize light leaving the site.
- Achieved and with intentions of maintaining and improving with new design.
- 6. The number of travel trailer slots is limited to a maximum of 12.
- 7. Comply with all site requirements of the Boone County Fire Protection District.
- Achieved and with intentions of maintaining and improving with new design.
- 8. Comply with all requirements of the building code.
- Exceptional attention to building code requirements especially in relation to flood-proofing have been determined and established through building plans.
- 9. Must meet Health Department requirements for food service and wastewater.
- Currently to code, any revisions to plan will be inclusive of maintaining proper health requirements.
- 10. A site plan be made of the property by a licensed engineer that addresses the conditions and activities and is to the satisfaction of the director of planning.
- This will be completed upon licensing

Granting the conditional use as requested will furthermore:

- a) The establishment, maintenance or operation of a conditional use permit will not be detrimental to or endanger the public health, safety, comfort or general welfare.
- b) The conditional use permit will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted by these regulations.
- c) The conditional use permit will not substantially diminish or impair property values of existing properties in the neighborhood.
- d) All necessary facilities will be available, including, but not limited to, utilities, roads, road access and drainage.
- e) The establishment of a conditional use permit will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the zoning district.
- f) The establishment of a conditional use permit will not hinder the flow of traffic or result in traffic congestion on the public streets. This will include the provision of points of access to the subject property.
- g) The conditional use permit shall in all other respects conform to the applicable regulations of the zoning

district in which it is located. The County Commission shall find that there is a public necessity for the conditional use permit. - Section 15 A (2)

IT IS THE APPLICANT'S RESPONSIBILITY TO DEMONSTRATE TO THE PLANNING AND ZONING COMMISSION AND THE COUNTY COMMISSION BY COMPETENT, SUBSTANTIAL EVIDENCE THAT THE REQUIREMENTS OF THE STANDARDS FOR GRANTING A CONDITIONAL USE PERMIT SET FORTH IN ZONING REGULATIONS SECTION 15. A (2) ARE SATISFIED.

May 24, 2021

Richard King Muddy MO Landing, LLC. 11505 Smith Hatchery Rd. Columbia, MO 65203

RE: Subsurface Drip Dispersal System – Cooper's Landing, MOG823175, Construction

Permit No. CP0002204, Boone County

Dear Richard King:

The Missouri Department of Natural Resources' Water Protection Program has reviewed the plans and specifications submitted by A Civil Group for Cooper's Landing. Please find enclosed Construction Permit No. CP0002204.

This permit will terminate 24 months from the date of issuance. In accordance with 10 CSR 20-6.010(5)(J), the Department may grant an extension. If you believe that an extension is necessary, you must submit a request and a justification in writing for the extension at least 30 days prior to the permit expiration date. Expired construction permits require submittal of a new application and fee.

This construction permit does not supersede any requirements of the operating permit or enforcement actions. Nothing in this permit removes any obligations to comply with county or other local ordinances or restrictions.

If you have any questions concerning this matter, please contact Leasue Meyers, of the Water Protection Program by phone at 573-751-7906 or by email at leasue.meyers@dnr.mo.gov. You may also submit questions or comments in writing to the Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102.

Richard King Page 2

Thank you for your efforts to help ensure clean water in Missouri.

Sincerely,

WATER PROTECTION PROGRAM

Cindy LePage, P.E., Chief Engineering Section

CL:lmt

Enclosures

c: Kyle Shern, Bio-Gard, Inc.
Jay Gebhardt, P.E., A Civil Group
Will Scheible, A Civil Group
Tom Ratermann, P.E., Boone County Regional Sewer District
Sarah Jones, Missouri State Parks

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

The Missouri Department of Natural Resources hereby issues a permit to:

	Cooper's Landing 1505 Smith Hatchery Rd Columbia, MO 65203
for the construction of (described facil	lities):
See attached.	
Permit Conditions:	
See attached.	
regulation promulgated thereunder, or this permit may be	dance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and e revoked by the Department of Natural Resources (Department). of design or the efficiency of mechanical equipment, the issuance of this permit does not
include approval of these features.	of addign of the efficiency of mechanical equipment, the modules of any permit does not
A representative of the Department may inspect the work Department will be contingent on the work substantially	covered by this permit during construction. Issuance of a permit to operate by the adhering to the approved plans and specifications.
This permit applies only to the construction of water poll	ution control components; it does not apply to other environmentally regulated areas.
May 24, 2021 Effective Date	Edward B. Galbraith, Director, Division of Environmental Quality
May 23, 2023 Expiration Date	Chris Wieberg, Director, Water Protegion Program

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CONSTRUCTION PERMIT

I. CONSTRUCTION DESCRIPTION

Cooper's Landing is located at 11505 Smith Hatchery Rd, Columbia, in Boone County, Missouri. The facility has a design average flow of 1,614 gpd and serves a hydraulic PE of 16 people. Construction will include a 3,000 gallon 2 compartment septic tank with effluent filter, 3,000 gallon time dosed holding tank with passive filter, 3,200 gallon pump tank with a 20 gpm Myers Rustler pump. The subsurface drip system will dose 2 zones at 0.25 gpd/sq. ft, which provides 10 dosings per day. There will be 823 emitters per zone, for a total 1,645 emitters with a flow rate of 8.4 gpm per zone. The drip field area is 6,580 square feet and contains 3,290 linear feet with 4 air release valves. As the facility is located on the banks of the Missouri River, concrete ballasts with metal cables will be attached to the tanks to prevent floatation and protect the equipment.

This project will also include general site work appropriate to the scope and purpose of the project and all necessary appurtenances to make a complete and usable wastewater treatment facility.

II. COST ANALYSIS FOR COMPLIANCE

Pursuant to Section 644.145, RSMo, when issuing permits under this chapter that incorporate a new requirement for discharges from publicly owned combined or separate sanitary or storm sewer systems or publicly owned treatment works, or when enforcing provisions of this chapter or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., pertaining to any portion of a publicly owned combined or separate sanitary or storm sewer system or [publicly owned] treatment works, the Department of Natural Resources shall make a "finding of affordability" on the costs to be incurred and the impact of any rate changes on ratepayers upon which to base such permits and decisions, to the extent allowable under this chapter and the Federal Water Pollution Control Act. This process is completed through a cost analysis for compliance. Permits that do not include new requirements may be deemed affordable.

The Department is not required to complete a cost analysis for compliance because the facility is not a combined or separate sanitary sewer system for a publically-owned treatment works.

III. CONSTRUCTION PERMIT CONDITIONS

The permittee is authorized to construct subject to the following conditions:

- 1. This construction permit does not authorize discharge.
- 2. All construction shall be consistent with plans and specifications signed and sealed by A Civil Group and as described in this permit.

- 3. The Department must be contacted in writing prior to making any changes to the plans and specifications that would directly or indirectly have an impact on the capacity, flow, system layout, or reliability of the proposed wastewater treatment facilities or any design parameter that is addressed by 10 CSR 20-8, in accordance with 10 CSR 20-8.110(11).
- 4. State and federal law does not permit bypassing of raw wastewater, therefore steps must be taken to ensure that raw wastewater does not discharge during construction. If a sanitary sewer overflow or bypass occurs, report the appropriate information to the Department's Northeast Regional Office per 10 CSR 20-7.015(9)(G).
- 5. The completed project shall be field tested to verify actual pumped volume of each dose. The timer controls shall be set to ensure a dosing rate not to exceed the allowable rate of 0.25 gallons per square foot per day.
- 6. The wastewater treatment facility shall be located at least fifty feet (50') from any dwelling or establishment.
- 7. The wastewater treatment facility shall be located above the twenty-five (25)-year flood level.
- 8. The wastewater facility structures, electrical equipment, and mechanical equipment shall be protected from physical damage by not less than the one hundred- (100-) year flood elevation per 10 CSR 20-8.140(2)(B). The minimum distance between wastewater treatment facilities and all potable water sources shall be at least three hundred feet (300') per 10 CSR 20-8.140(2)(C)1.
- 9. In addition to the requirements for a construction permit, 10 CSR 20-6.200 requires land disturbance activities of 1 acre or more to obtain a Missouri state operating permit to discharge stormwater. The permit requires best management practices sufficient to control runoff and sedimentation to protect waters of the state. Land disturbance permits will only be obtained by means of the Department's ePermitting system available online at dnr.mo.gov/env/wpp/epermit/help.htm. See dnr.mo.gov/env/wpp/epermit/help.htm. See dnr.mo.gov/env/wpp/epermit/help.htm. See dnr.mo.gov/env/wpp/epermit/help.htm. See dnr.mo.gov/env/wpp/epermit/help.htm. See dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm for more information.
- 10. A United States (U.S.) Army Corps of Engineers (COE) permit (404) and a Water Quality Certification (401) issued by the Department or permit waiver may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied. If construction activity will disturb any land below the ordinary high water mark of jurisdictional waters of the U.S. then a 404/401 will be required. Since the COE makes determinations on what is jurisdictional, you must contact the COE to determine permitting requirements. You may call the Department's Water Protection Program at 573-751-1300 for more information. See dnr.mo.gov/env/wpp/401/ for more information.
- 11. All construction must adhere to applicable 10 CSR 20-8 (Chapter 8) requirements listed below.
 - Flood protection shall apply to new construction and to existing facilities undergoing major modification. The wastewater facility structures, electrical

- equipment, and mechanical equipment shall be protected from physical damage by not less than the one hundred- (100-) year flood elevation. 10 CSR 20-8.140 (2) (B)
- Unless another distance is determined by the Missouri Geological Survey or by the department's Public Drinking Water Branch, the minimum distance between wastewater treatment facilities and all potable water sources shall be at least three hundred feet (300'). 10 CSR 20-8.140 (2) (C) 1.
- No treatment unit with a capacity of twenty-two thousand five hundred gallons per day (22,500 gpd) or less shall be located closer than the minimum distance of 50' to a neighboring residence for all other discharging facilities. See 10 CSR 20-2.010(68) for the definition of a residence. 10 CSR 20-8.140 (2) (C) 2
- Facilities shall be readily accessible by authorized personnel from a public right—ofway at all times. 10 CSR 20-8.140 (2) (D)
- All outfalls shall be posted with a permanent sign indicating the outfall number (i.e., Outfall #001). 10 CSR 20-8.140 (6) (C)
- All wastewater treatment facilities shall be provided with an alternate source of electric power or pumping capability to allow continuity of operation during power failures. 10 CSR 20-8.140 (7) (A) 1.
- Electrical systems and components in raw wastewater or in enclosed or partially enclosed spaces where hazardous concentrations of flammable gases or vapors that are normally present, shall comply with the NFPA 70 National Electric Code (NEC) (2017 Edition), as approved and published August 24, 2016, requirements for Class I, Division 1, Group D locations. 10 CSR 20-8.140 (7) (B)
- An audiovisual alarm or a more advanced alert system, with a self-contained power supply, capable of monitoring the condition of equipment whose failure could result in a violation of the operating permit, shall be provided for all wastewater treatment facilities. 10 CSR 20-8.140 (7) (C)
- No piping or other connections shall exist in any part of the wastewater treatment facility that might cause the contamination of a potable water supply. 10 CSR 20-8.140 (7) (D) 1.
- A means of flow measurement shall be provided at all wastewater treatment facilities. 10 CSR 20-8.140 (7) (E)
- Effluent twenty-four (24) hour composite automatic sampling equipment shall be provided at all mechanical wastewater treatment facilities and at other facilities where necessary under provisions of the operating permit. 10 CSR 20-8.140 (7) (F)
- Adequate provisions shall be made to effectively protect facility personnel and visitors from hazards. The following shall be provided to fulfill the particular needs of each wastewater treatment facility:
 - Fencing. Enclose the facility site with a fence designed to discourage the entrance of unauthorized persons and animals; 10 CSR 20-8.140 (8) (A)
 - Gratings over appropriate areas of treatment units where access for maintenance is necessary; 10 CSR 20-8.140 (8) (B)
 - o First aid equipment; 10 CSR 20-8.140 (8) (C)
 - o Posted "No Smoking" signs in hazardous areas; 10 CSR 20-8.140 (8) (D)
 - o Appropriate personal protective equipment (PPE); 10 CSR 20-8.140 (8) (E)
 - Portable blower and hose sufficient to ventilate accessed confined spaces;
 10 CSR 20-8.140 (8) (F)

- All wastewater treatment facilities must have a screening device, comminutor, or septic tank for the purpose of removing debris and nuisance materials from the influent wastewater. 10 CSR 20-8.150 (2)
- All wastewater treatment facilities shall be provided with an alternate source of electric power or pumping capability to allow continuity of operation during power failures. 10 CSR 20-8.140 (7) (A) 1.
- A septic tank must have a minimum capacity of at least one thousand (1,000) gallons. 10 CSR 20-8.180 (2) (A)
- The septic tank shall be baffled. 10 CSR 20-8.180 (2) (B)
- Subsurface systems shall—
 - Exclude unstabilized fill and soils that have been highly compacted and/or disturbed, such as old road beds, foundations, or similar things; 10 CSR 20-8.200 (7) (A) 1. A.
 - o Provide adequate surface drainage where slopes are less than two percent (2%);10 CSR 20-8.200 (7) (A) 1. B.
 - o Provide surface and subsurface water diversion where necessary, such as a curtain or perimeter drain; 10 CSR 20-8.200 (7) (A) 1. C. and
 - Have a ten foot (10') buffer from the property line. 10 CSR 20-8.200 (7)
 (A) 1. D.
- The vertical separation between the bottom of the drip lines and/or the trench and a limiting layer, including but not limited to, bedrock; restrictive horizon; or seasonal high water table, shall be no less than:
 - o Twenty-four inches (24"); 10 CSR 20-8.200 (7) (A) 2. A. or
 - o Twelve inches (12") for systems dispersing secondary or higher quality effluent; 10 CSR 20-8.200 (7) (A) 2. B. or
 - o Forty-eight inches (48") where karst features are present unless the site can be reclassified. 10 CSR 20-8.200 (7) (A) 2. C.
- Subsurface systems shall be, at a minimum, preceded by preliminary treatment. 10 CSR 20-8.200 (7) (B)
- Loading rates shall not exceed the values assigned by the site and soil evaluation. 10 CSR 20-8.200 (7) (C)
- All network piping and low pressure distribution piping and fittings with polyvinyl chloride (PVC) shall meet ASTM Standard D 1785 Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, or 120 as approved and published August 1, 2015, or equivalent rated to meet or exceed ASTM D2466 Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings as approved and published August 1, 2017. These standards shall hereby be incorporated by reference into this rule, as published by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. This rule does not incorporate any subsequent amendments or additions. 10 CSR 20-8.200 (8) (A) 2.
- The location and size of the drains and buffers must be factored into the total area required for the drip dispersal system. 10 CSR 20-8.200 (9) (A) 1.
- The drip dispersal lines shall be placed at a minimum depth of six inches (6") below the surface. 10 CSR 20-8.200 (9) (B) 1.

• Emitters and drip dispersal lines shall be placed at a minimum on a two foot (2') spacing to achieve even distribution of the wastewater and maximum utilization of the soil. 10 CSR 20-8.200 (9) (B) 2.

12. Upon completion of construction:

- A. Muddy MO Landing, LLC will become the continuing authority for operation and maintenance of these facilities;
- B. Submit an electronic copy of the as builts if the project was not constructed in accordance with previously submitted plans and specifications; and
- C. Submit the enclosed form Statement of Work Completed to the Department in accordance with 10 CSR 20-6.010(5)(N) with a request to issue the general operating permit, MOG823.

IV. REVIEW SUMMARY

1. FACILITY DESCRIPTION

Cooper's Landing is located at 11505 Smith Hatchery Rd, Columbia, in Boone County, Missouri. The facility has a design average flow of 1,614 gpd and serves a hydraulic population equivalent of approximately 16 people. As a facility located adjacent to the KATY Trail State Park and providing entertainment opportunities, there is a peak daily flow 3,018 gpd and a non-peak day of 610 gpd

2. COMPLIANCE PARAMETERS

The proposed project meets the applicability requirements and will be subject to the permitting conditions of MOG823 with an expiration date of August 24, 2022. As a subsurface drip dispersal system with tanks, there are no monitoring requirements in MOG823, at this time.

3. REVIEW of MAJOR TREATMENT DESIGN CRITERIA

Construction will cover the following items:

- Flow Measurement Flow measurement will be by flow meter installed directly after the pump to the drip field.
- Sanitary Sewer Line Install approximately 190 ft of 4 inch PVC with appropriate fittings and cleanouts to connect bathroom and showerhouse to the septic tank.
- Septic Tank A septic tank provides passive primary treatment as the settleable solids in raw wastewater settle onto the bottom of the tank. Settled solids in the septic tank shall be removed by a contract hauler.
 - 1-3,000 gallon 2 compartment septic tank with effluent filter. Provides approximately 1.8 days of retention at design average flow and 1 day of retention at peak flow.

- Effluent filter-Polylok A100 12 series with 1/16 inch filtration.
- 1-3,000 gallon time dosed holding tank with passive filter. Provides approximately 1.8 days of retention at design average flow and 1 day of retention at peak flow.
 - Passive filter-located within the dosing tank, will be a Simtech A1 vault with filtration of 1/16 inch.
- o 3,200 gallon pump tank. Provides approximately 2 days of retention at design average flow and 1 day of retention at peak flow.
 - Pump tank will have a 20 gpm Myers Rustler pump with a TDH of 140.3 ft at 14.8 gpm.
 - Pump will be set for 10 minutes on and 128 minutes off.
 - The pump will have a micron disc filters that are within the JMN Technologies ACT C2005 Series Filtration/Distribution package, which has backflow rate of 12 gpm.
- Subsurface Soil Dispersal System The facility decided to use a design loading rate of 0.25gpd/sf for the entire system. Soil morphology review was conducted during the facility plan review and on site soils were determined to be acceptable for this system. The soil investigation was completed by G. MacBean, Certified Soil Scientist on January 23, 2020. This is in follow up to a previously completed soils report done by Dr. Randy Miles for the previous owner.
 - O Soils Report. In the soils investigation, there were 7 probes over the proposed site, along with a soil pit, surrounding the proposed area.
 - Specifications for placement of the fill prescribe a specific range of acceptable soil moisture content and the type of construction equipment (tracked) to be used to avoid over compaction.
 - O Drip The facility has selected the NETAFIM subsurface drip dispersal system.
 - The system will dose 2 zones at 0.25 gpd/sq. ft, which provides 10 dosings per day.
 - 823 emitters, for a total 1645 emitters with a flow rate of 8.4 gpm per zone (0.61 gph per emitter).
 - O The drip field area is 6,580 square feet and contains 3,290 linear feet of 1.25 inch PVC tubing fitted with emitters every 2 ft, installed 12 inches deep, with 4 air release valves.
 - At 1,614 gpd, a minimum of 6,456 square feet is required at 0.25 gpd/sq ft, which is less than the 6,580 square ft being utilized.
 - Return manifold is 1.25 inch PVC

The facility is located in FEMA Floodplain zone AE, which is a high risk area. As the facility is located on the banks of the Missouri River, to protect the equipment, concrete ballasts with metal cables are attached to the tanks to prevent floatation.

4. OPERATING PERMIT

After completion of construction project submit: statement of work completed, asbuilts if the project was not constructed in accordance with previously submitted plans and specifications, and ensure that Application Form B, and fee has been submitted. Missouri State Operating Permit, General Permit MO-G823xxx, will be issued after receipt of the above documents.

V. NOTICE OF RIGHT TO APPEAL

If you were adversely affected by this decision, you may be entitled to an appeal before the Administrative Hearing Commission (AHC) pursuant to Section 621.250 RSMo. To appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal should be directed to:

Administrative Hearing Commission U.S. Post Office Building, Third Floor 131 West High Street, P.O. Box 1557 Jefferson City, MO 65102-1557 Phone: 573-751-2422

> Fax: 573-751-5018 Website: https://ahc.mo.gov

Leasue Meyers, EI Engineering Section leasue.meyers@dnr.mo.gov

Cailie Carlile, P.E. Engineering Section cailie.carlile@dnr.mo.gov CODE ANALYSIS

ZONING BIQUITECHIENTE
201 ZONING GEIDHANGE IN EPPECT BOOME COUNTY, MEISOURE
ZONING DEROUPTION REC (RECREATION) EGST
MICHIGNAL LCT SEZ: NO MICHIGNAM BEQUITEZHENT
ACTUAL LOT REZE: 193,568 87 234 ACRES
MAZINAL BULLDING RECHT 354 ACRES
MAZINAL BULLDING RECHT 354 ACRES
ACTUAL BULLDING HEIGHT 3740*

PALEON REPOSENSITION

IN SPACES FOUNDED OF ACCESSIBLE SPACES

THES PROPRETY IS LLCCYED BY THE UP-THAN PLACO PLAN

ALL DRY YLCOD PROCESSION REVISED AND CENTERED WITH THE

PROPRETY IS LLCCYED BY THE UP-THAN PLACO PLAN

TITLE 44 OF THE U.S. CORE OF PERSEAL RESEALATIONS AT SECTION

OF PLACODE AMONOMEDITY CHEERLE AND PLACODE SHOPE

PROCESSION REVISED AND CONTROL OF ACCESSION REVISED AND PLACODE AMBRICATE PLACOP PROTECTION PRODUCTS ARE

PROCESSION REVISED AND CONTROL OF ACCESSION REVISED AND CONT

GENERAL BUILDING HEIGHTS & AREAS (CHAPTER 5)
USE GROUP AZE CONSTRUCTION TYPE IV

(AZXBEZBANE) 2 STORIES, 85 FT TOTAL ALLOWABLE BUILDING HEIGHT 3 STORIES, 35 FT BOONE COUNTY (REC) ZONING ACTUAL, BUILDING HEIGHT 2 STORY, 27-0* TYPES OF CONSTRUCTION (CHAPTER 6)
TYPES V (SECTION 6024)

MILANS OF EGREES (CHAPTER 19) 20,000 SF MAXIMUM PLOOR AREA ALLOWANCES PER OCCUPANT (TABLE

100.12.2.7
TABILLATIN
TOTAL OCCUPANTS = 1,800 SF GROSS TOTAL / 100 OCC (b) ,65F = 16 OCC TOTAL
BRIMGHIGH CLEAR WIDTH OF DOORS 30* (BECTION 1003.51-1)
BANABUM EXT. ACCESS TRAVEL. DISTANCE = (ft),75* (r*1006.2*1)
BRIMGHIGH MORRISE OF EXTIN SEQUENCE 27 (FAMEL 1003.2*1)

DISCIPLINE

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A CIVIL GROUP 3401 BROADWAY BUSINESS PARK 8TE 105 COLUMBIA MO 65203 Phone: 573-817-5750 E-Mail: jay@acivilgroup Contact: Jay Gabhardt

BUILDING AUTHORITY BOONE COUNTY PEROLING MINORE BOONE COUNTY RESOURCE MINOR BOLE WALNUT RM. 315 COLUMBIA, MISSOURI 65201-7732 Phone: 573.896.4330 Email: resmat@boonecountymo.org

CODE COMPLIANCE

2018 International Building Code 2018 International Existing Building Code 2018 International Energy Conservation Code 2018 International Mechanical Code

2017 National Electrical Code (NEC) 2018 International Fire Code

11505 SMITH HATCHERY RD BOONE COUNTY, MISSOURI

SHEET INDEX

ARCHITECTURAL DRAWINGS Cover Sheet, Project Notes

A1.0 Site Plan A2 1 Upper Level Floor Flan A3.0 Elevations

Elevations A4.0 Sections Sections A4.2 Sections A4.3 Sections

A5.0 Stair Details /L.U.L.A A5.1 Bathroom Details A6.0 Door Window Details

Proprietary Flood Protection

CIVIL DRAWINGS

STRUCTURAL DRAWINGS

MEP DRAWINGS

VIEW

The project is located at 11505 Smith Hatchery Road in Boone County Missouri, the zoning is REC (Recrustion), there is no change of building use or occupancy type. A renovation of an existing commercial building with a new stage structure located in the 100 year flood plain. The structures are of Type IV concrete mesonry units exterior wall. (2hr) w heavy timber flooring and roof (1 hr). Construction methods and materials are in

accordance with "dry flood proofing" methods and requirements ISO 9001:2015 (Certified quality menagement system)

National Flood Barrier Testing & Certification Program - Platinum Level FM/ANSI 2510 Approved on Five Products

LIT LDC NEPA 252 for Fire Rated Flood Dones

Certified Welders (mild steel, stainless steels, alum The Main level has 1,200 sf of floor space. The Upper Level has 680 sf.

DRY FLOOD PROOFING METHODS ARE NOTED WITH A RECTANGULAR BOX AROUND ANNOTATION.

VICINITY MAP



design development

.819.7950 hitect@gmail.com

\$

Cooper's Landing 11505 Smith Hatchery | Boone County, Misso

AO.

YARD REQUIREMENTS: PRONT YARD EXIST REC REAR YARD EXIST REC SIDE YARD: EXIST REC

PARKING REQUESTMENTS:

CODE REQUIREMENTS

CODE IN EFFECT IBC 2618 - BOONE COUNTY, MO
USE & OCCUPANCY CLASHIFFCATION (CRAPTER 3)
ORGUP A-29 (SECTION 303.1 1)(008.1.2) EXIST
ACCESSORY USE TO MARDIA AND ASEMBLY AREA

YAMULAR ALLOWABLE BUILDING HEIGHT (TABLE 500) (AUYES/PENE) 7 STORIES, 85 PT

PRES-RESISTANCE RATED CONSTRUCTION (CHAPTER 7) 2 HOUR EXTERIOR WALLS 1 HOUR PLOOR ROOFS HT

1 HOUR PLOOR BOOR HT

DITTERIOR DIVIDENTS (CEAPTER 5)

BITTERIOR DIVIDENTS (CEAPTER 5)

BITTERIOR DIVIDENTS (CEAPTER 5)

BITTERIOR WALL A CHILDAG FORIGHT REQUIREMENTS (TABLE 805 1.3)

FLOOD RESERVANT MATTERIALS (80%)

VERTICAL ENTITS A ENTY PLASHAGEM VITS ("CLASH A

EXT ACTESS CONRULONAS OTHER EXIT MAYS" CLASH A

CLASH A ROMAN A ENCLISION DIVIDENTS CLASH A

CLASH A ROMAN A ENCLISION DIVIDENT CLASH A

FIRE PROTECTION SYSTEM (CHAPTER 9)
THIS BUILDING DOES NOT REQUIRE AUTOMATIC SPRINKLER SYSTEM
503.2 1.2 GROUP A-2)

ACCESSIBLE ROUTE FROM PARKING TO ALL LEVELS OF LIKE A MOT REQUIRED.

PROJECT NOTES

All work shall comply with federal, state and local laws, codes and ordinances.

Temporary space heating shall be the contractor's responsibility and shall be done in a safe, sensible manner with periodic checks to all systems.

Contractors shall early be lefter risk, overhear's compensation, contractor's labelity, personal unjury, comprehensive automobile and properly damage insurance.

Contractor to verify all demensions and conductors shown of these drawings with those at the site, any variation which requires a physical change shall be brought to the attention of the

These documents do not include the necessary components for construction safety.

systems into flood waters, and on-site waste disposal systems be located so as to avoid impairment or contamination; and

These documents do not scalable the necessary components for constructions safety,
afterly, care of utilities and adjacent properties during construction, and compliance with federal and state safety regulations are the responsibility of the contractor.

Do not dig - verify location of all utilities before diagong.
Where required by constructions extribute, cut, patch and repair existing conditions as required, match existing finishes where required, maintain existing five ratings where necessary.
The organization of the drawings shall not control the contractor in dividing the work smong sub-contractors, or in establishing the work to be performed by any trade.
Contractor and absorbinator shall be responsible for local code compliances, cuberned data and vivatem compensant design as required reference of easier.

Owner provided oquipment shows in these drawings is not part of the general construction contract.

Contractor and and absorbinator and absorbination and an extraction of the structure and appropriate and-contractors, are responsible for confinition, restrictioning in with, rough-in, and terminal book-up of owner provided equipment of the structure of the structure resulting from hydrodynamic and hydrotistic foods, including the effects of biosynery.

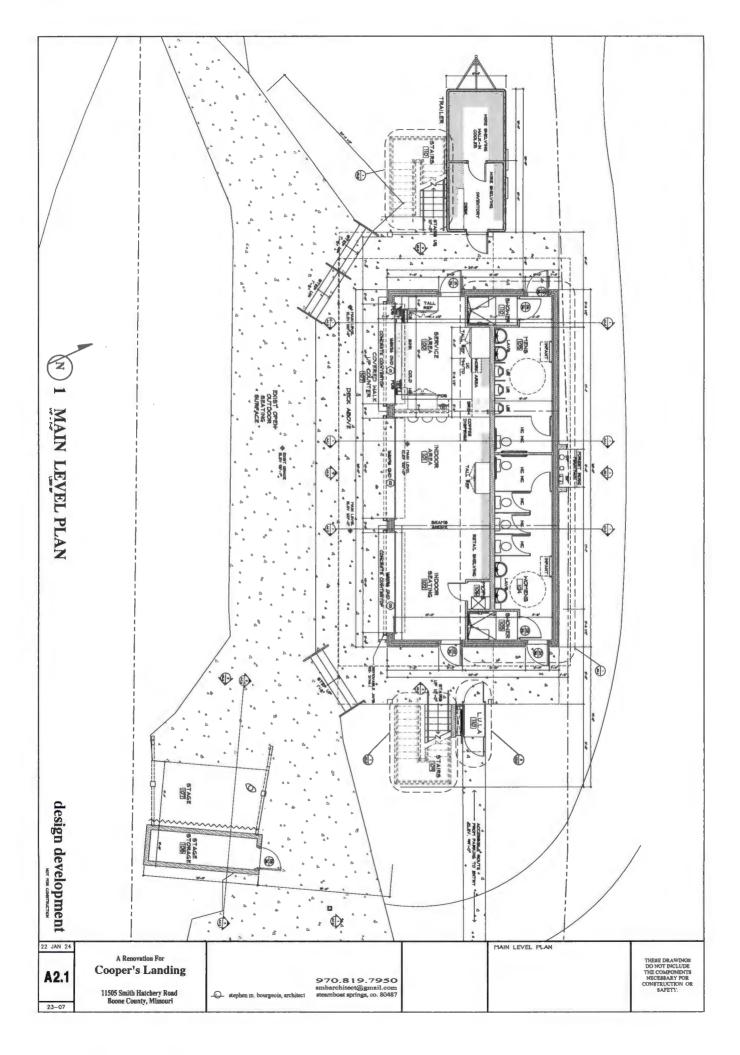
Unitation of methods and methods and methods that transitions food damases:

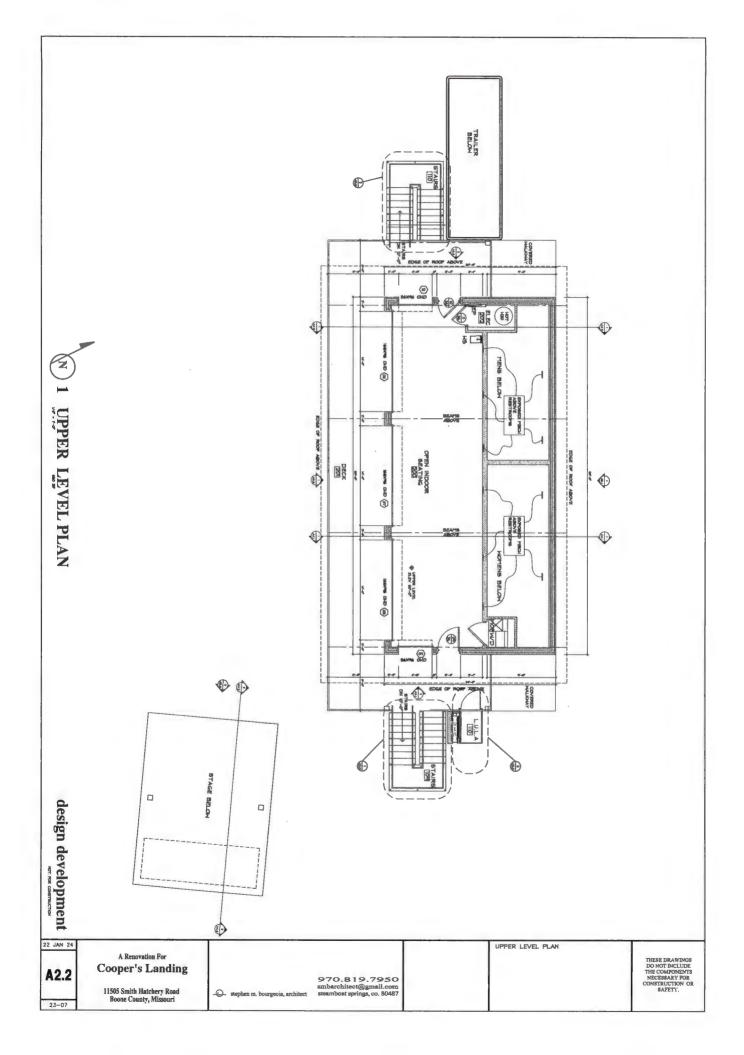
Lithyration of methods and practices that minimize flood damages

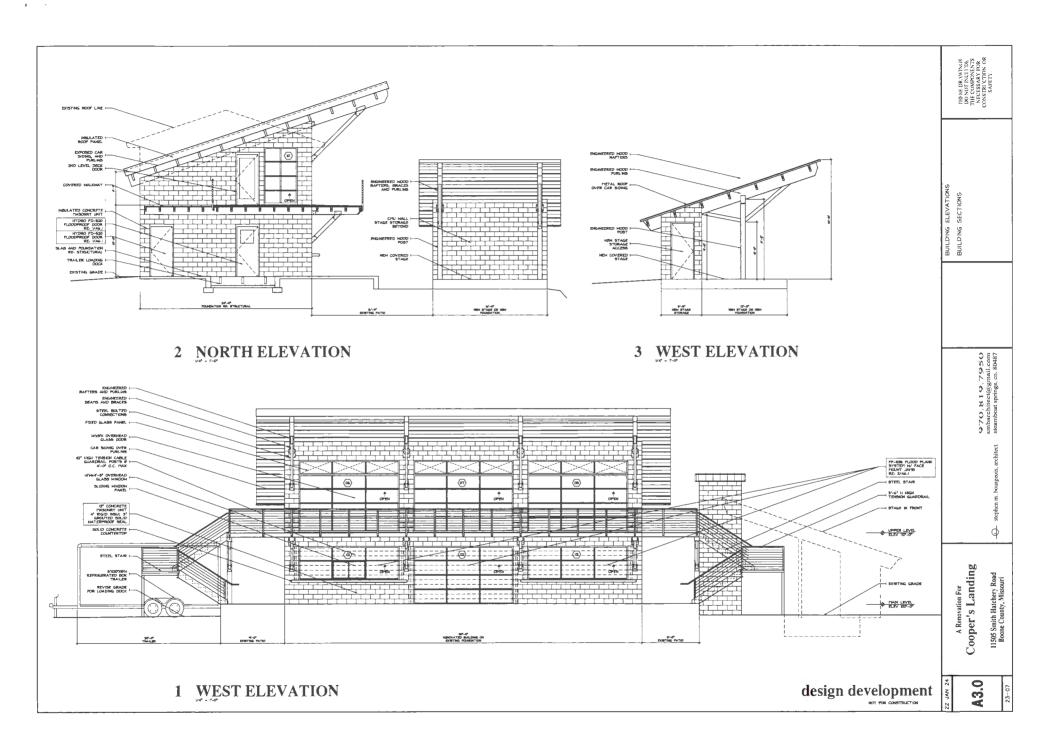
United above of methods and practicate that minimizes Tocked demangers;
All electrical, having, ventilation, pulmenting, aut-conditioning equipment, and other service facilities be designed and/or located so as to prevent water from entaring or accumulating wifitin the components during conditions of Tocked water and/or statistics services and accumulation of the components during conditions of Tocked water water upon your statistics water and/or statistics services and discharges from the

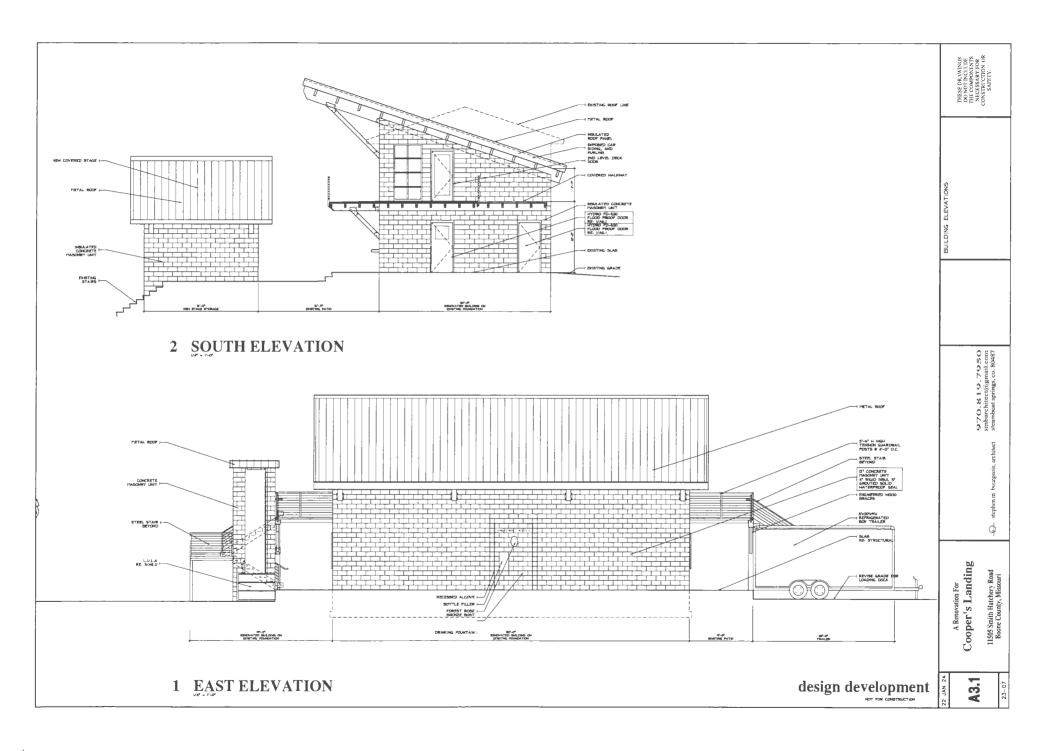
FREST Z SITE PLAN design development 22 JAN 24 SITE PLAN A Renovation For THESE DRAWINGS DO NOT INCLUDE THE COMPONENTS NECESSARY FOR CONSTRUCTION OR SAFFTY Cooper's Landing A1.0 970.819.7950 smbarchitect@gmail.com steamboat springs, co. 80487 11505 Smith Hatchery Road Boone County, Missouri stephen m bourgeois, architect

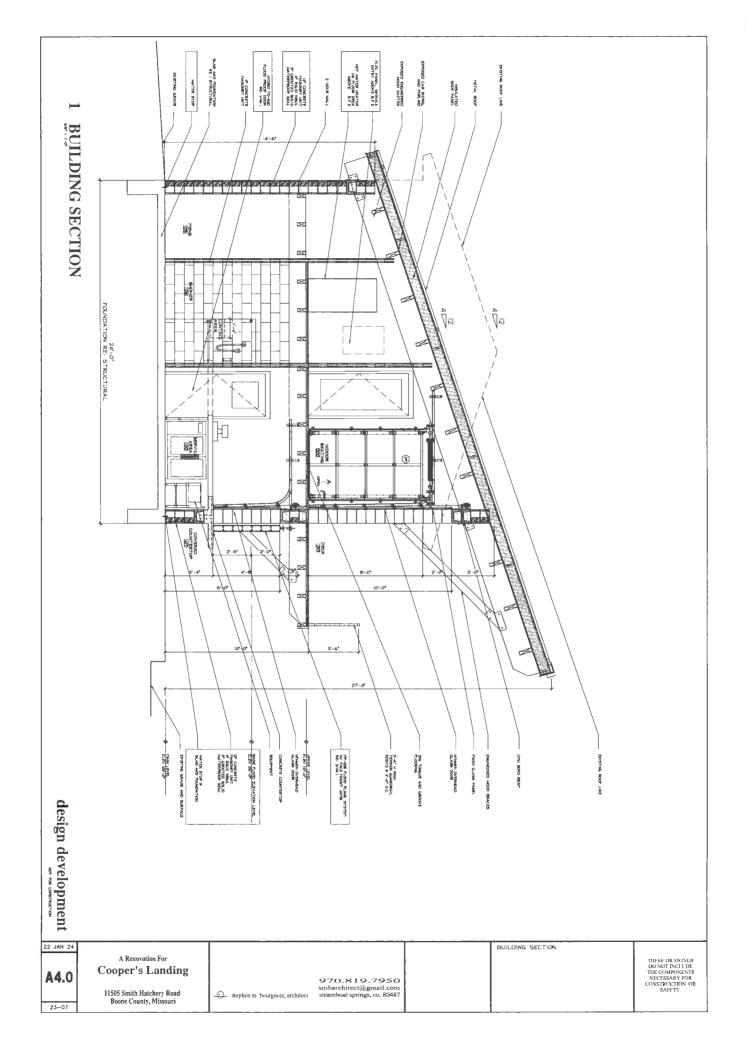
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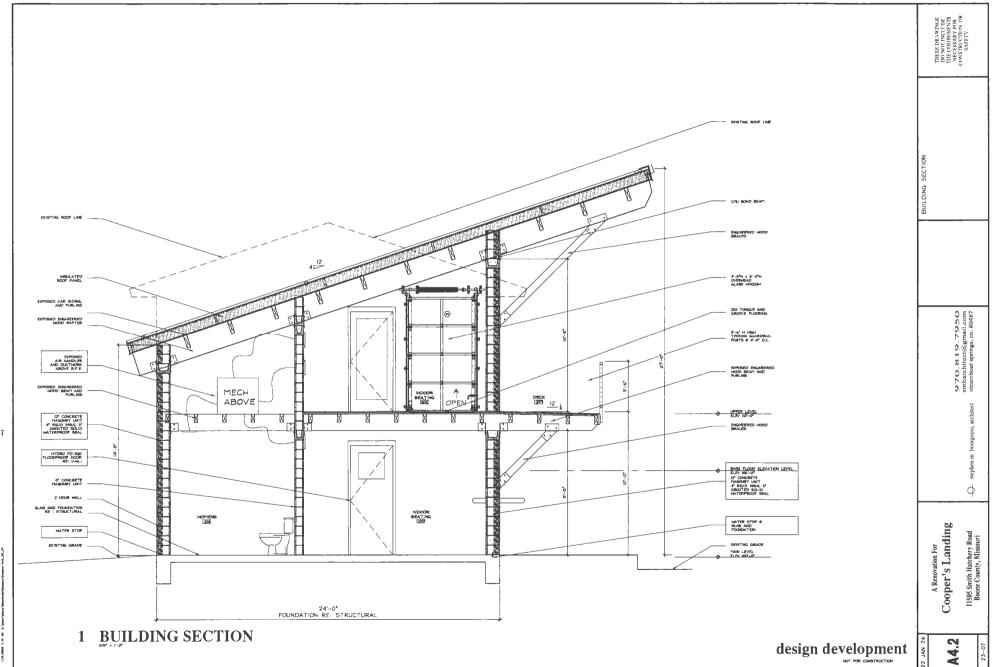


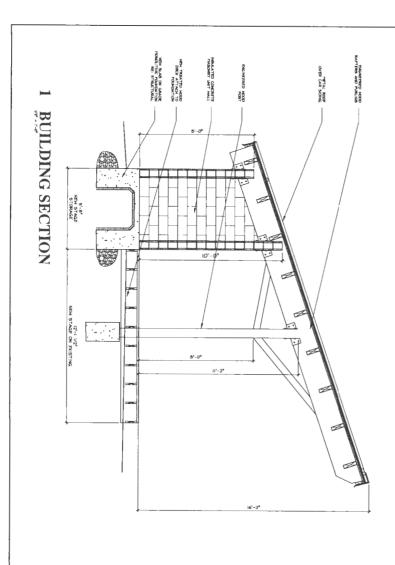




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11505 Smith Hatchery Road Boone County, Missouri





design development

23-07

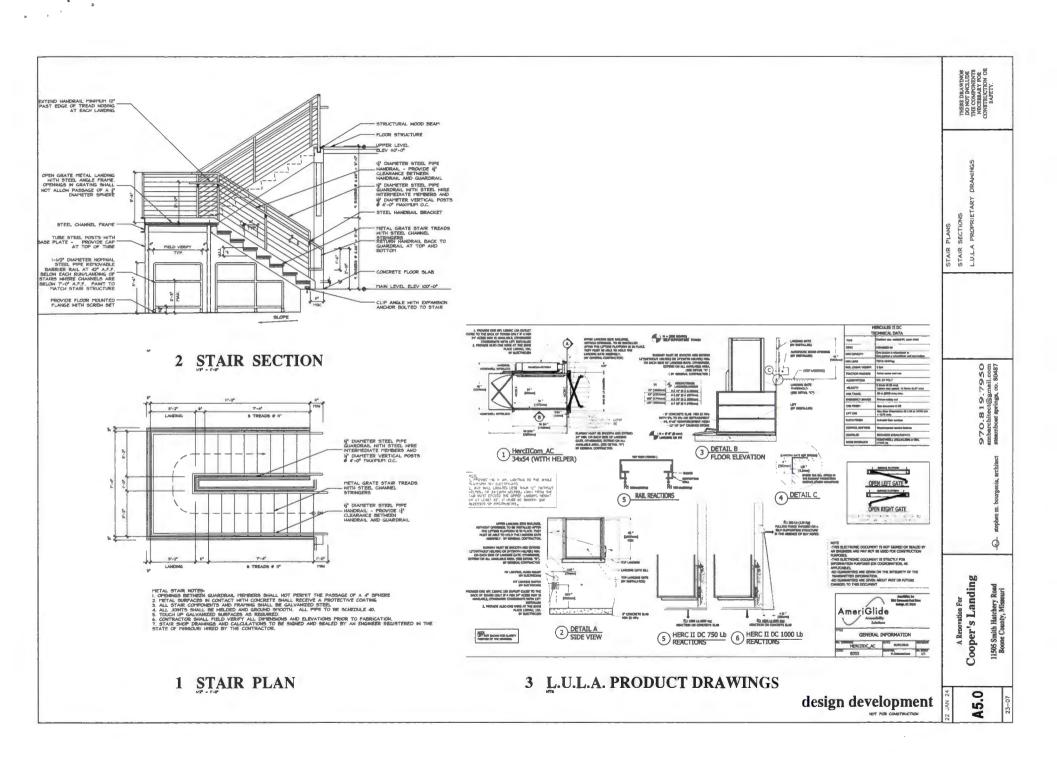
22 JAN 24 A Renovation For Cooper's Landing A4.3

11505 Smith Hatchery Road Boone County, Missouri

970.819.7950 smbarchitect@gmail.com steamboat springs, co. 80487

BUILDING SECTION BUILDING ELEVATION

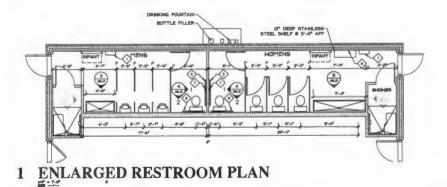
THESE DRAWINGS DO NOT INCLUDE THE COMPONENTS NECESSARY FOR CONSTRUCTION OR SAFETY.

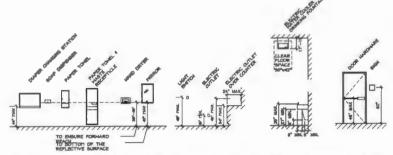


1 1/7 MAX

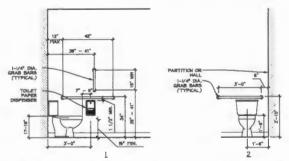
5 ACCESSIBLE SHOWER CLEARANCES



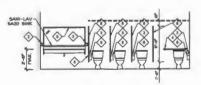




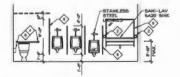
6 TYPICAL ACCESSIBLE MOUNTING HEIGHTS



4 ACCESSIBLE TOILET CLEARANCES

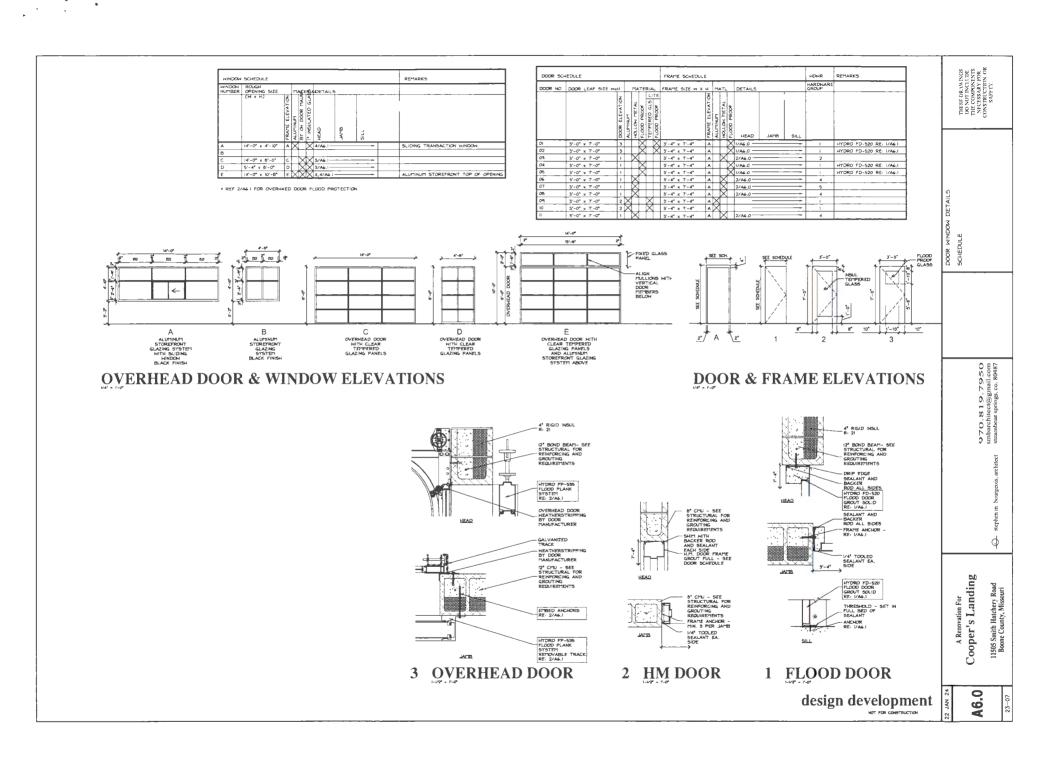


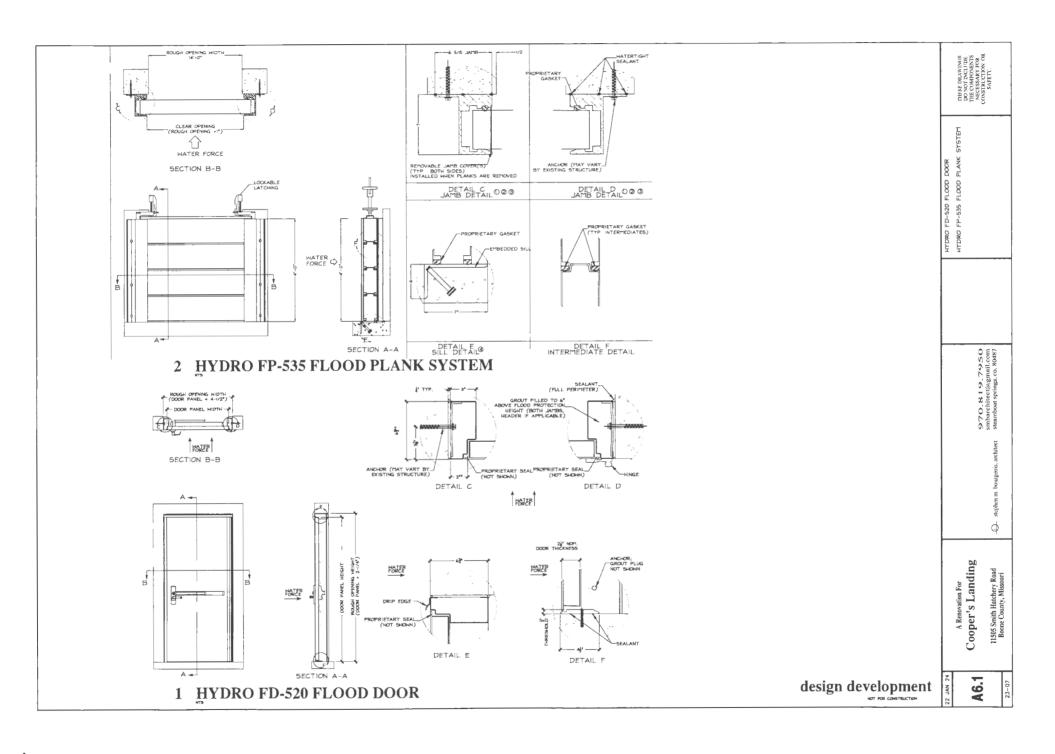
2 WOMENS



3 MENS

design development





Cooper's Landing Photos:









