Valley County Planning and Zoning Department

219 N. Main
PO Box 1350
Cascade, ID 83611
www.co.valley.id.us
cherrick@co.valley.id.us
208-382-7115

C.U.P. & Preliminary Plat Application

TO BE COMPLETED BY THE PLANNING AND ZONING DEPARTMENT

FILE # CUP 23-21

ACCEPTED BY _____

CROSS REFERENCE FILE(S): _____

☐ ADMINISTRATIVE PLAT

☐ SHORT PLAT

☒ FULL PLAT

☒ Check # 109 or ☐ Cash

FEE $ 600 + 200 (f. plat)

DEPOSIT $ 1000

DATE 4-17-2023

COMMENTS: 9 lots ± 20 acres

When an application has been submitted, it will be reviewed in order to determine compliance with application requirements. A hearing date will be scheduled only after an application has been accepted as complete.

Applicant's Signature: _____ **Date:** 4/17/23

The following must be completed and submitted with the conditional use permit application:

- ☐ A preliminary plat containing all of the necessary requirements according to the Valley County Subdivision Regulations.
- ☐ A phasing plan and construction timeline.
- ☐ One 8½ x 11" – 300 scale drawing of the proposed subdivision showing only the street names and lots.
- ☐ A plot plan, drawn to scale, showing existing utilities, streets, easements, ditches, and buildings.
- ☐ A landscaping plan, drawn to scale, showing elements such as trees, shrubs, ground covers, and vines. Include a plant list, indicating the size, quantity, location, and name (both botanical and common) of all plant material to be used.
- ☐ A site grading plan clearly showing the existing site topography and detailing the best management practices for surface water management, siltation, sedimentation, and blowing of dirt and debris caused by grading, excavation, open cuts, side slopes, and other site preparation and development.
- ☐ A lighting plan.
- ☐ A Wildfire Mitigation Plan.
- ☐ Names and mailing addresses of property owners within 300 feet of the property boundary. Information can be obtained through the Valley County GIS maps. Only one list is required.
- ☐ **Ten (10) copies of the application and additional materials are required.**

We recommend you review Title 9 and Title 10 of the Valley County Code online at www.co.valley.id.us/planning-zoning or at the Planning and Zoning Office, 219 North Main, Cascade, Idaho.
Subject to Idaho Statute 55-22 Underground Facilities Damage Prevention.

CONTACT INFORMATION

PROPOSED SUBDIVISION NAME: Moonview Ranch Phase 2

APPLICANT Emmers LLC PHONE _____
Owner ☑ Option Holder ☐ Contract Holder ☐
MAILING ADDRESS PO Box 710, McCall, Idaho ZIP 83638
EMAIL [redacted]

PROPERTY OWNER Same as Above
(if not the applicant)
MAILING ADDRESS _____ ZIP _____
EMAIL _____

Nature of Owner's Interest in this Development? _____

AGENT / REPRESENTATIVE Mathew Falvey PHONE [redacted]
MAILING ADDRESS PO Box 710, McCall, Idaho ZIP 83638
EMAIL [redacted]

ENGINEER Trevor Howard
MAILING ADDRESS 60 Difficult Drive, Idaho City, ID ZIP 83631
EMAIL [redacted] PHONE [redacted]

SURVEYOR Ralph Miller
MAILING ADDRESS 335 Deinhard Lane, McCall Idaho ZIP 83638
EMAIL [redacted] PHONE [redacted]

PROPERTY INFORMATION

1. SIZE OF PROPERTY 20.08 Acres
2. AMOUNT OF ACREAGE OF ADJACENT LAND HELD BY THIS OWNER 2.42 Acres
3. ANY RESTRICTIONS ON THIS PROPERTY? Must show all easements on plat.
   Easements See attached ATLA committment
   Deed Restrictions _____
   Liens or encumbrances _____
4. LEGAL DESCRIPTION See attached ATLA committment
5. TAX PARCEL NUMBER(S) RP18N03E297955

   Quarter _____ Section 28 Township 18N Range 3E

6. EXISTING LAND USES AND STRUCTURES ON THE PROPERTY:
Irrigated pasture, meadow & dry grazing

7. ARE THERE ANY KNOWN HAZARDS ON OR NEAR THE PROPERTY (such as canals, hazardous material spills, soil or water contamination)? If so, describe and give location: No

8. ADJACENT PROPERTIES HAVE THE FOLLOWING BUILDING TYPES AND/OR USES:
North Irrigated Pasture, McCall Activity Barn
South Rural Residential
East Rural Residential
West Irrigated pasture, dry grazing

9a. TYPE OF TERRAIN: Mountainous ☐ Rolling ☑ Flat ☑ Timbered ☐

9b. DOES ANY PORTION OF THIS PARCEL HAVE SLOPES IN EXCESS OF 15%? Yes ☐ No ☑

9c. DESCRIBE ANY SIGNIFICANT NATURAL RESOURCES SUCH AS ROCK OUTCROPPING, MARSHES, WOODED AREAS: None

10a. WATER COURSE: None

10b. IS ANY PORTION OF THE PROPERTY LOCATED IN A FLOODWAY OR 100-YR FLOODPLAIN? (Information can be obtained from the Planning & Zoning Office) Yes ☐ No ☑

10c. ARE THERE WETLANDS LOCATED ON ANY PORTION OF THE PROPERTY? Yes ☐ No ☑

10d. WILL ANY PART OF THE PROPERTY BE SUBJECT TO INUNDATION FROM STORMWATER OVERFLOW OR SPRING MELTING RUN-OFF? No

11a. NUMBER OF EXISTING ROADS: 1 Width 28' Public ☐ Private ☑
Are the existing road surfaces paved or graveled? Gravel ☑ Paved ☐

11b. NUMBER OF PROPOSED ROADS: 1 Proposed width: 28'
Will the proposed roads be Public ☐ Private ☐
Proposed road construction: Gravel ☐ Paved ☐

12a. EXISTING UTILITIES ON THE PROPERTY ARE AS FOLLOWS: None

12b. PROPOSED UTILITIES: Septic, individual well, power and communications

Proposed utility easement width _____ Locations _____

13. SOLID WASTE DISPOSAL METHOD: Individual Septic ☑ Central Sewage Treatment Facility ☐

14. POTABLE WATER SOURCE: Public ☐ Water Association ☐ Individual ☑

If individual, has a test well been drilled? _____ Depth _____ Flow _____ Purity Verified? _____
Nearest adjacent well _____ Depth _____ Flow _____

15. ARE THERE ANY EXISTING IRRIGATION SYSTEMS? Yes ☐ No ☑
Are you proposing any alterations, improvements, extensions or new construction? Yes ☐ No ☑
If yes, explain: _____

16. DRAINAGE (Proposed method of on-site retention): Roadside swales & on-site detention basins
Any special drains? No (Please attach map)
Soil type(s): Archabal/Donnelloam
(Information can be obtained from the Natural Resource Conservation Service: websoilsurvey.nrcs.usda.gov)

17. WILL STREETS AND OTHER REQUIRED IMPROVEMENTS BE CONSTRUCTED PRIOR TO THE RECORDING OF THE FINAL PLAT? Yes, and/or financial assurances
If not, indicate the type of surety that will be put up to ensure the construction of the improvements within one (1) year from the date of filing the plat: _____

16. OUTLINE OF PROPOSED RESTRICTIVE COVENANTS:

Setbacks: Front 50 feet Sides 20 feet Rear 20 feet
Mobile homes allowed? Yes ☐ No ☑
Minimum construction value N/A Minimum square footage N/A
Completion of construction required within 2 Days ☐ Months ☐ Years ☑
Resubdivision permitted? Yes ☐ No ☑
Other _____

17. LAND PROGRAM:

Open Areas and/or Common Areas Yes ☐ No ☐
Acreage in subdivision 20.08 Number of lots in subdivision 9
Typical width and depth of lots 200 x 300
Typical lot area 2 Minimum lot area 2 Maximum lot area 2+
Lineal footage of streets 525 Average street length per lot 144
Percentage of area in streets _____%
Dedicating road right-of-way to Valley County? Yes ☐ No ☑
Percentage of area of development to be public (including easements) 0 %
Maximum street gradient 10%
Is subdivision to be completely developed at one time? Yes ☑ No ☐ - Attach phasing plan and timeline.

18. COMPLETE ATTACHED PLAN FOR IRRIGATION if you have water rights &/or are in an irrigation district. Submit letter from Irrigation District, if applicable.

19. COMPLETE ATTACHED WEED CONTROL AGREEMENT.

20. COMPLETE ATTACHED IMPACT REPORT. It must address potential environmental, economic, and social impacts and how these impacts are to be minimized.

Irrigation Plan

(Idaho Code 31-3805)

This land: ☑ Has water rights available to it
☐ Is dry and has no water rights available to it.

Idaho Code 31-3805 states that when all or part of a subdivision is "located within the boundaries of an existing irrigation district or canal company, ditch association, or like irrigation water deliver entity … **no subdivision plat or amendment to a subdivision plat or any other plat or map recognized by the city or county for the division of land will be accepted, approved, and recorded unless:"**

A. The appropriate water rights and assessment of those water rights have been transferred from said lands or excluded from an irrigation entity by the owner; or

B. The owner filing the subdivision plat or amendment to a subdivision plat or map has provided for the division of land of underground tile or conduit for lots of one acre or less or a suitable system for lots of more than one acre which will deliver water to those landowners within the subdivision who are also within the irrigation entity with the appropriate approvals:

   1. For proposed subdivisions located within an area of city impact, both city and county zoning authorities must approve such irrigation system.

   2. For proposed subdivisions outside of negotiated areas of city impact, the delivery system must be approved by the Planning and Zoning Commission and the Board of County Commissioners with the advice of the irrigation entity charged with the delivery of water to said lands (e.g., irrigation district).

To better understand your irrigation request, we need to ask you a few questions. Additional pages can be added. A list of the map requirements follows the short questionnaire. **Any missing information may result in the delay of your request before the Planning and Zoning Commission and ultimately the approval of your irrigation plan by the Board of County Commissioners as part of final plat approval.**

1. Are you within an area of negotiated City Impact? _____ Yes X No

2. What is the name of the irrigation district/company and drainage entities servicing the property?
   Irrigation: Lake Irrigation District
   Drainage: Unknown

3. How many acres is the property being subdivided? 19.78

4. What percentage of this property has water? Unknown

5. How many inches of water are available to the property? Unknown

6. How is the land currently irrigated? ☑ surface ☐ sprinkler ☐ irrigation well
   ☑ above ground pipe ☐ underground pipe

7. How is the land to be irrigated after it is subdivided? ☐ surface ☐ sprinkler ☐ irrigation well
   ☐ above ground pipe ☐ underground pipe

8. Describe how the head gate/pump connects to the canal and irrigated land and where ditches &/or pipes go.
   N/A

9. Is there an irrigation easement(s) on the property? ☐ Yes ☐ No

10. How do you plan to retain storm and excess water on each lot? See Stormwater Plan

11. How do you plan to process this storm water and/or excess irrigation water prior to it entering the established drainage system? (i.e. oil, grease, contaminated aggregates)
No changes to existing conditions are anticipated beyond what is shown on the plans

Irrigation Plan Map Requirements

The irrigation plan **must be on a scalable map** and show all of the irrigation system including all supply and drainage structures and easements. Please include the following information on your map:

- ☐ All canals, ditches, and laterals with their respective names.
- ☐ Head gate location and/or point of delivery of water to the property by the irrigation entity.
- ☐ Pipe location and sizes, if any
- ☐ Rise locations and types, if any.
- ☐ Easements of all private ditches that supply adjacent properties (i.e. supply ditches and drainage ways).
- ☐ Slope of the property in various locations.
- ☐ Direction of water flow (use short arrows on your map to indicate water flow direction →).
- ☐ Direction of wastewater flow (use long arrows on your map to indicate wastewater direction ⟶).
- ☐ Location of drainage ponds or swales, if any where wastewater will be retained on property
- ☑ Other information: Water rights transfer Plan.

Also, provide the following documentation:

- ☐ Legal description of the property.
- ☐ Proof of ownership.
- ☐ A written response from the irrigation entity and/or proof of agency notification.
- ☐ Copy of any water users' association agreement which shows water schedules and maintenance responsibilities.
- ☐ Copy of all new easements ready for recording (irrigation supply and drainage).
- ☐ If you are in a city area of impact, please include a copy of the approvals by the city planning and zoning commission and city council of your irrigation plan.

==========**Applicant Acknowledgement**==========

I, the undersigned, agree that prior to the Planning and Zoning Department accepting this application, I am responsible to have all the required information and site plans.

I further acknowledge that the irrigation system, as approved by the Planning and Zoning Commission and ultimately the Board of County Commissioners, must be bonded and/or installed prior to the recording of the plat or building permit.

Signed: Matthew Talbert
Applicant

Date: 4/17/23

VALLEY COUNTY

WEED CONTROL AGREEMENT

The purpose of this agreement is to establish a cooperative relationship between Valley County and the undersigned Cooperator to protect the natural and economic values in the Upper Payette River watershed from damages related to the invasion and expansion of infestations of noxious weeds and invasive plants. This is a cooperative effort to prevent, eradicate, contain and control noxious weeds and invasive plants on public and private lands in this area. Factors related to the spread of weeds are not related to ownership nor controllable at agency boundaries. This agreement formalizes the cooperative strategy for management of these weeds addressed in Valley County's Integrated Weed Management Plan.

In this continuing effort to control Noxious Weeds, Valley County Weed Control will consult with the undersigned Cooperator and outline weed identification techniques, present optional control methods and recommend proper land management practices.

The undersigned Cooperator acknowledges that he/she is aware of any potential or real noxious weed problems on his/her private property and agrees to control said weeds in a timely manner using proper land management principles.

Valley County Weed Department can be contacted at 208-382-7199.

By: _____
Applicant

Date: 4/17/23

By: _____
Valley County Weed Control

Date: _____

IMPACT REPORT (from Valley County Code 9-5-3-D)

You may add information to the blanks below or attach additional sheets.

- An impact report shall be required for all proposed Conditional Uses.
- Answer all questions. Mark N/A if the question is not applicable to your application.
- The impact report shall address potential environmental, economic, and social impacts and how these impacts are to be minimized as follows:

1. Traffic volume, character, and patterns including adequacy of existing or proposed street width, surfacing, alignment, gradient, and traffic control features or devices, and maintenance. Contrast existing with the changes the proposal will bring during construction and after completion, build-out, or full occupancy of the proposed development. Include pedestrian, bicycle, auto, and truck traffic.

   The new 28' wide gravel road will accomodate nine (9) residential lots. The roadway gradient is minimal with a sufficient 3% crown and alignment with ROW amd access easement. The existing pathway access along the frontage of the property will remain unchanged for bicycle & pedestrian traffic. The owner (s) will be responsible for maintaining the roadway for shared access. A moderate increase in traffice flow will occur during construction activities.

2. Provision for the mitigation of impacts on housing affordability.

   The primary purpose for subdividing the property is to create residential lot development opportunities in an area that historically has had very few. It is anticipated that the affordability of the lots will be comparable to other similar developments within Valley County

3. Noise and vibration levels that exist and compare to those that will be added during construction, normal activities, and special activities. Include indoor and outdoor, day and night variations.

   Short term increase in daytime noise and vibration levels will occur during the construction process. There will be minimal noise increase due to traffic flows post-construction. Noise generated by the daily ongoings of residemtial dwellings will persist after residential development

4. Heat and glare that exist and that might be introduced from all possible sources such as autos in parking areas, outdoor lights, water or glass surfaces, buildings or outdoor activities.

   Short term increase in glare during the construction process due to equipment present. No permanent changes to heat or glare will be observed as a result of the roadway construction and proposed improvements once completed. Post residential home construction changes in heat and glare will occur due to buildings, homes and vehicles and will conform to Valley County standards at that time.

5. Particulate emissions to the air including smoke, dust, chemicals, gasses, or fumes, etc., both existing and what may be added by the proposed uses.

   Little to no net change in particulate emissions are expected outside of dust potential due to traffic on gravel roadway.

6. Water demand, discharge, supply source, and disposal method for potable uses, domestic uses, and fire protection. Identify existing surface water drainage, wetlands, flood prone areas and potential changes. Identify existing ground water and surface water quality and potential changes due to this proposal.

   Private well water supply will furnish water to properties for domestic, irrigation, and fire protection purposes. If wetland impacts are determined necessary, the will be permitted as required. Stormwater management associated with the roadway will be addressed per Valley County standards.

7. Fire, explosion, and other hazards existing and proposed. Identify how activities on neighboring property may affect the proposed use.

   Roadway development will serve as a firebreak and provide fire department access to the properties where currently there are no roads or access for fire suppression.

8. Removal of existing vegetation or effects thereon including disturbance of wetlands, general stability of soils, slopes, and embankments and the potential for sedimentation of disturbed soils.

   Existing vegetation removal mostly limited to removal of pasture/native grasses for roadway establishment and roadway is not anticipated to encounter wetlands.

9. Include practices that will be used to stabilize soils and restore or replace vegetation.

   Areas disturbed during construction activities on the site will be re-established with hard surface and re-vegetation/landscaping efforts.

10. Soil characteristics and potential problems in regard to slope stability, embankments, building foundation, utility and road construction. Include suitability for supporting proposed landscaping.

    There are no anticipated problems with existing soil suitability. Roadway construction will be supported by appropriate imported backfill material to stabilize sections as needed. Topsoil may be added to surface restoration areas to supplement existing soil conditions as needed for growth.

11. Site grading or improvements including cuts and fills, drainage courses and impoundments, sound and sight buffers, landscaping, fencing, utilities, and open areas.

    The site plan calls for creating cuts and fills for the roadway and vegetated stormwater swales and or detention basins if determined necessary. Fencing and other sight buffers will be addressed as part of the CC&Rs.

12. Visibility from public roads, adjoining property, and buildings. Include what will be done to reduce visibility of all parts of the proposal but especially cuts and fills and buildings. Include the impacts of shadows from new features on neighboring property.

    Future residential structures may be visible from adjacent roadways and adjoining properties depending on construction and will conform to Valley County standards at that time

13. Reasons for selecting the particular location including topographic, geographic and similar features, historic, adjoining land ownership or use, access to public lands, recreation, utilities, streets, etc., in order to illustrate compatibility with and opportunities presented by existing land uses or character.

    Site selection was based upon the availability of land with convenient access to McCall and Valley County. Access to recreational activities is desirable within the area including closed proximity to the McCall Activity Barn Recreational Area. The site is adjacent to other residential properties with similar land use.

    Type text here

14. Approximation of increased revenue from change in property tax assessment, new jobs available to local residents, and increased local expenditures.

Upon completion of the improvements, including the residential homes, the taxable value will increase significantly over the value of existing pastureland.

15. Approximation of costs for additional public services, facilities, and other economic impacts.

Demand on public services such as public school systems, fire and EMS for the development is anticipated to be minimal.

16. State how the proposed development will impact existing developments providing the same or similar products or services.

The proposed development will provide additional residential development lots in an area which historically has had very few opportunities

17. State what natural resources or materials are available at or near the site that will be used in a process to produce a product and the impacts resulting from the depletion of the resource. Describe the process in detail and describe the impacts of each part.

N/A

18. What will be the impacts of a project abandoned at partial completion?

The development will increase the value, access and utility of the property. If the project is abandoned, the remaining improvements will benefit another residential project.

19. Number of residential dwelling units, other buildings and building sites, and square footage or gross non-residential floor space to be available.

Nine (9) individual lots will be available for future planned development.

20. Stages of development in geographic terms and proposed construction time schedule.

The stages of construction will depend on the availability of building materials, contractors, surveyors, and utility companies scheduling. The project timing is subject to market changes and financing, but it is expected that the project will be complete by no later than the end of 2023. See attached phasing plan and construction timeline.

21. Anticipated range of sale, lease or rental prices for dwelling units, building or other site, or non-residential floor space in order to insure compatibility with adjacent land use and development.

Lot prices are expected to be competitive with other similar improvements in the County

Property Tax Exemption

New and expanding business ***may*** qualify for a property tax exemption for up to 5 years by meeting the qualifications in accordance with Idaho Code§ 63-602NN

Application must be filed with the Valley County Assessor's office before construction begins.

Protocols for qualifying property exemption in Valley County, Idaho:

- Application must be received prior to the start of construction (ex. Building Permits, excavation)
- Term of exemption, not to exceed 5 years, will be up to the discretion of the Valley County Board of Commissioners
- Retail sales business do not qualify
- Multi use may qualify excluding retail sale area
- Housing
  - Multi-family housing must have 5 units or more per structure.
  - Multi-Family housing units may qualify if more than one structure is built totaling 5 or more units
  - For local housing only (workforce)
  - Short term rentals not allowed
  - Units cannot be individually sold (e.g., no condominiums)
- Remodel and/or additions to existing businesses
  - Only the area of remodel/addition may qualify for exemption
  - Retail sales additions/remodel will not qualify

For further information regarding the 63-602NN application process and instructions, please contact the Valley County Assessor's office at 208-382-7126.

Phasing Plan and Construction Timeline

Moonview Ranch Subdivision Phase 2

The phasing timeline is dependent upon the availability of funds, contractors, surveyors and scheduling of utility companies. We currently believe that the following schedule can be achieved within reasonable expectations.

Phase 1 2023-2024

Gravel Roadway construction

Roadway drainage improvements and grading

By _____ Date: 4/17/23

Emmers LLC

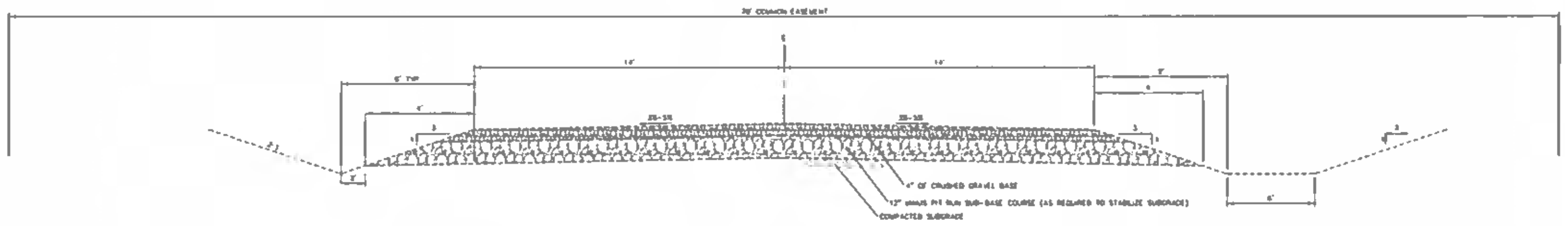
Landscaping Plan

Moonview Ranch Subdivision Phase 2

Currently there are no specific plans for landscaping within the development. All areas disturbed during the construction process will be re-vegetated utilizing native grasses, sod, landscaping, or any combination of the above.

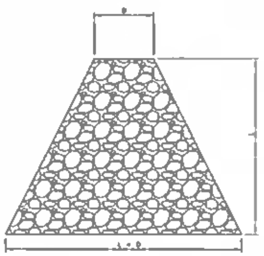
By:_____ Date: 4/17/23

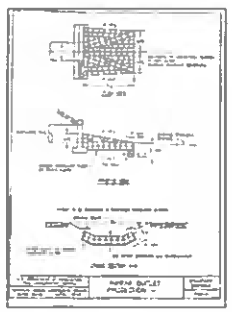
Emmers LLC+



TYPICAL PRIVATE ROAD SECTION

NTS

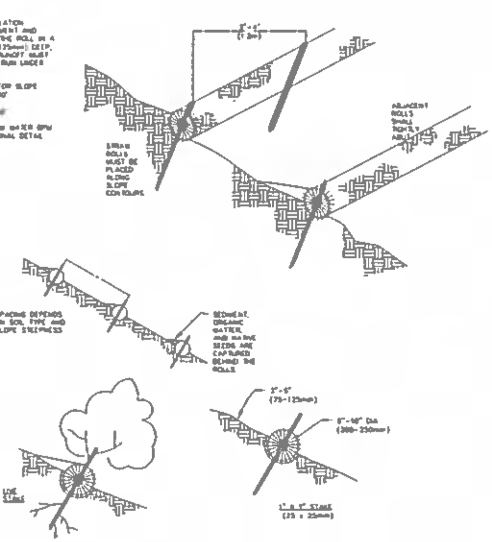


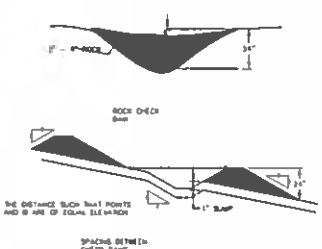


STRAW ROLL DETAIL

NOTE

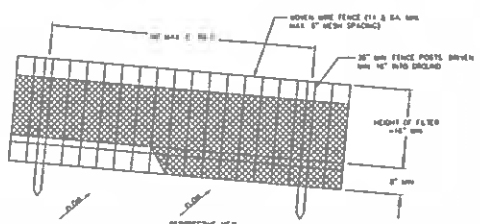
1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3"-5" (75-125mm) DEEP, [illegible] ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.
2. MAXIMUM SPACING FOR SLOPE
   - [illegible] 4:1 [illegible] 30'
   - 4:1 - 4:1 = 15'
   - > 2:1 [illegible]
3. REFER TO IDEQ STORM WATER BPM CATALOG FOR ADDITIONAL DETAIL

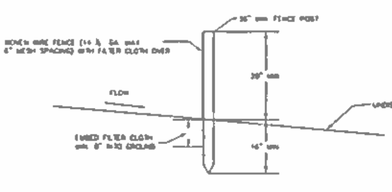




CULVERT OUTLET EROSION PROTECTION (PERMANENT)

NTS





CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT TOP AND MID-SECTION
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6 INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
5. REFER TO IDEQ STORM WATER BPM CATALOG FOR ADDITIONAL DETAIL

POSTS: STEEL EITHER "T" OR "U" TYPE OR 2" HARDWOOD

FENCE: WOVEN WIRE 14 GAGE, 6" MAX. MESH OPENING

FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE OR APPROVED EQUAL

ROADWAY NOTES

1. ALL ROAD CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT VALLEY COUNTY PRIVATE ROAD STANDARDS.
2. ALL PROPOSED ROADWAYS ARE PRIVATE ROADS.
3. CULVERTS SHOWN HEREON HAVE BEEN SIZED IN ACCORDANCE WITH VALLEY COUNTY STANDARDS.
4. FILL SLOPES SHALL BE NO STEEPER THAN 2:1, AND CONTAINED WITHIN THE RIGHT-OF-WAY.
5. CUT SLOPES SHALL BE NO STEEPER THAN 2:1, AND CONTAINED WITHIN THE RIGHT-OF-WAY.
6. ALL CUT AND FILL SLOPES WHEN FINISHED SHALL BE RE-SEEDED WITH AN APPROVED NATIVE GRASS SEED MIXTURE AT THE RECOMMENDED APPLICATION RATE.
7. ALL ROADWAY AREAS SHALL BE STRIPPED TO REMOVE THE ENTIRE ROOT ZONE. STRIPPING DEPTHS ARE ESTIMATED BETWEEN 6" AND 12", BUT SHOULD BE VERIFIED IN THE FIELD DURING CONSTRUCTION BY A QUALIFIED PERSON(S). STRIP DEPTHS MAY BE ADJUSTED AS APPROPRIATE. STOCK PILE SUITABLE TOPSOIL MATERIAL FOR LATER USE AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
8. ALL SUBGRADE SHALL BE PROOF ROLLED.
9. ALL FILL SHALL BE COMPACTED TO NOT LESS THAN NINETY-FIVE (95%) PER AASHTO T-99 PROCTOR DENSITY.

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC), AND VALLEY COUNTY STANDARDS, AND VALLEY COUNTY BEST MANAGEMENT PRACTICES MANUAL. VALLEY COUNTY STANDARDS WILL TAKE PRECEDENCE OVER ISPWC.
2. SEE THE PLAT FOR BOUNDARY AND LOT DIMENSIONS, EASEMENTS AND ADDITIONAL INFORMATION.
4. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE FACILITIES WITHIN THE CONSTRUCTION AREA UNTIL THE DRAINAGE IMPROVEMENTS ARE IN PLACE AND FUNCTIONING.
5. ALL CONTRACTORS WORKING WITHIN THE PROJECT BOUNDARIES ARE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE SAFETY LAWS OF ANY JURISDICTIONAL BODY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BARRICADES, SAFETY DEVICES AND CONTROL OF TRAFFIC WITHIN AND AROUND THE CONSTRUCTION AREA.
6. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. CONTACT DIGLINE (208) 342-1585.
7. ALL CONTRACTORS WORKING WITHIN THE PUBLIC ROAD RIGHT-OF-WAY ARE REQUIRED TO SECURE A RIGHT-OF-WAY CONSTRUCTION PERMIT FROM THE VALLEY COUNTY ROAD DEPARTMENT AND/OR THE IDAHO TRANSPORTATION DEPARTMENT AS APPROPRIATE.

BEST MANAGEMENT PRACTICES

BMP #1 Construction shall be scheduled during times of low erosion, potential and stabilization measures shall be implemented as construction progresses.

BMP #3 Preservation of existing vegetation– [illegible]

BMP #6 Dust Control– Construction shall minimize the amount of exposed soils. [illegible]

BMP #11 Mulching– [illegible]

Slope Roughening– [illegible]

BMP #20 [illegible]

BMP #35 [illegible]

BMP #36 Silt Fence will be placed at the perimeter of disturbed areas and/or along the toe of fill slopes to reduce the amount of sediment leaving the site.

ADDITIONAL ROAD WIDTH OF HORIZONTAL CURVES

RADIUS	1-LANE WIDENING	2-LANE WIDENING
40 FEET TO 79 FEET	5 FEET	5 FEET
80 FEET TO 99 FEET	3 FEET	3 FEET
100 FEET TO 149 FEET	2.5 FEET	2.5 FEET
150 FEET TO 249 FEET	1.5 FEET	1.5 FEET
250 FEET TO 400 FEET	1 FOOT	1 FOOT
MORE THAN 400 FEET	NOT REQUIRED	NOT REQUIRED

WIDENED TRAVELWAYS SHALL BE EASED BACK TO STANDARD WIDTHS BY TRANSITION FLARES WITH RATES OF CHANGE NOT GREATER THAN ONE FOOT OF WIDTH CHANGE PER TEN FEET OF LONGITUDINAL TRAVEL.

Bowers Land Surveys, Inc.

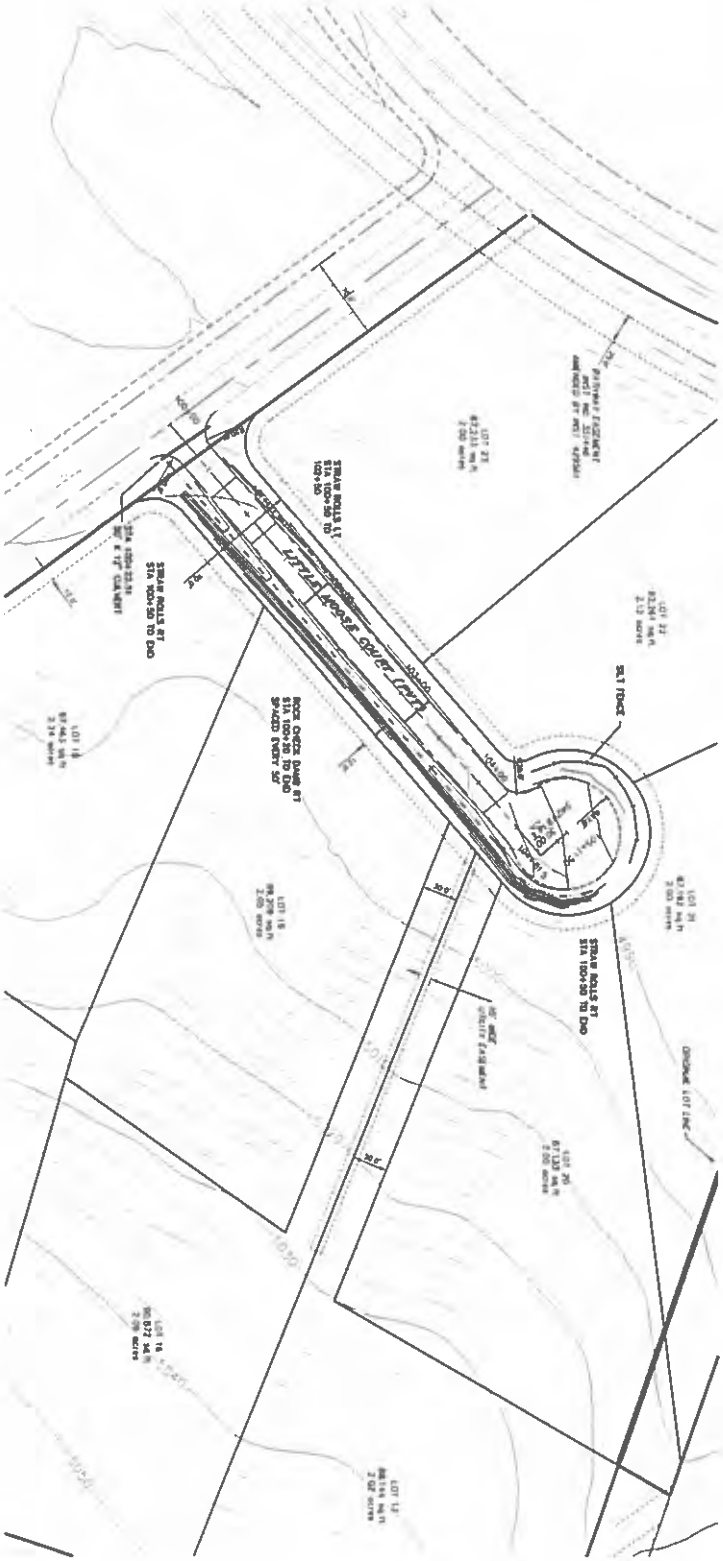
[redacted]

SITE GRADING AND DRAINAGE PLAN
for
MOON VIEW RANCH SUBDIVISION PHASE 2

DETAILS AND NOTES

NO.	REVISIONS	DATE

DATE 4/16/13 | P.M. CB
P.M. | CAD CB
SHEET NO. C1.1



NO.	REVISIONS	DATE

SITE GRADING AND DRAINAGE PLAN
for
MOON VIEW RANCH SUBDIVISION PHASE 2

SWPPP

Bowers Land Surveys, Inc.
[redacted]

PROFESSIONAL LAND SURVEYOR 13549 STATE OF IDAHO

DATE
P.M.
CAD

SHEET NO.
C3.0 SWPPP

Lighting Plan

Moonview Ranch Phase 2

The roadway will have no lighting. Residential dwellings will be fitted with external lighting secured to buildings conforming to Valley County standards.

By: _____ Date: 4/17/22

Emmers LLC

Wildfire Mitigation Plan

Moonview Ranch Phase 2

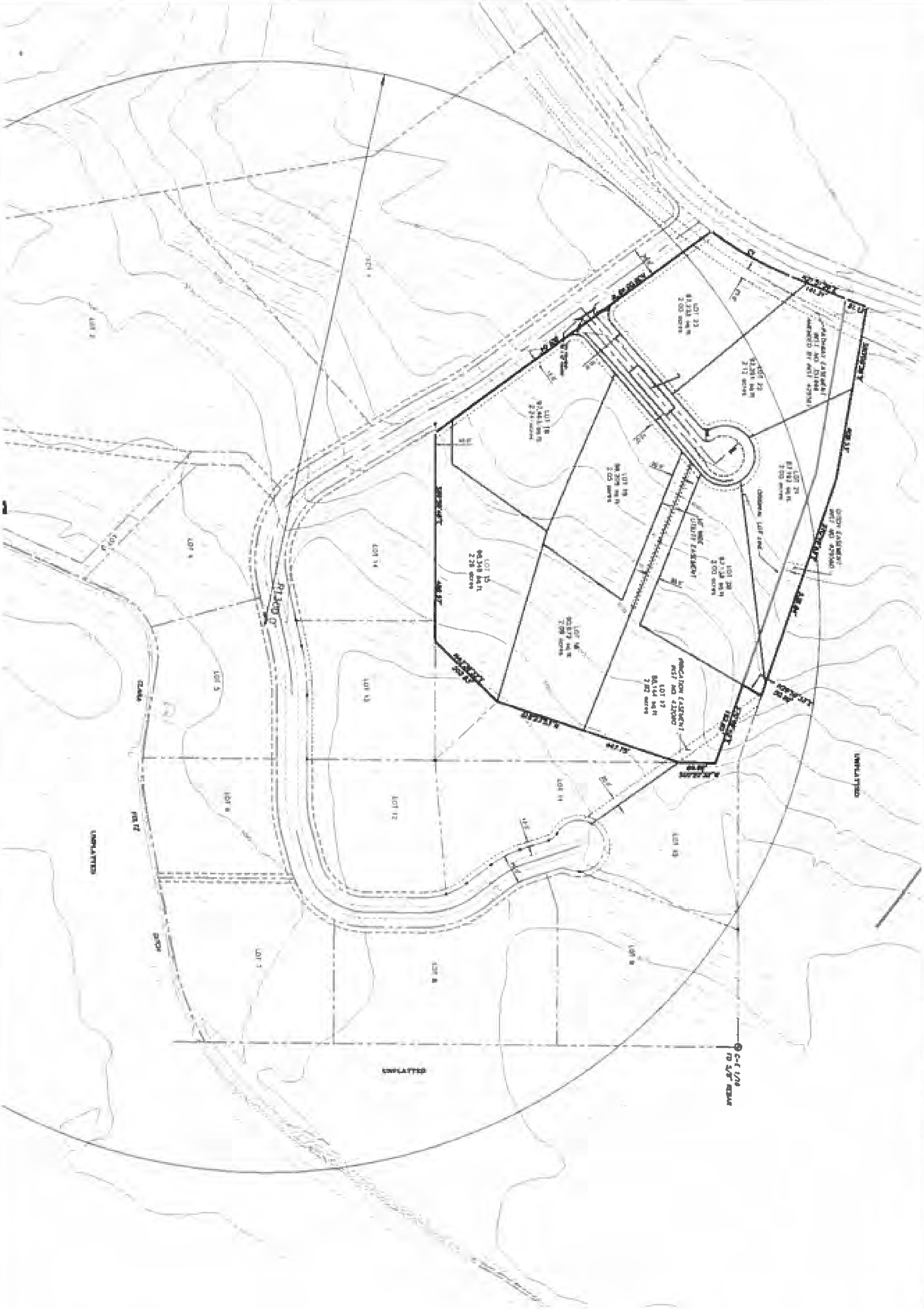
The roadway itself is a form of wildfire mitigation providing a long firebreak. The roadway will also provide emergency vehicles access to the property for fire suppression efforts. Development of roadways will conform to standards for required turn arounds and access points.

There is an existing 30,000 gallon water tank in Moonview Ranch Subdivision that will also be utilized in MoonView Ranch Subdivision Phase 2.

Site re-vegetation efforts will consist of native grasses, sod, landscaping and grading to improve upon existing irrigated grazing land conditions to further mitigate wildfire.

By: _____ Date 4/17/23

Emmers LLC



NO.	REVISIONS	DATE

MOON VIEW RANCH SUBDIVISION PHASE 2

FIRE TANK

Bowers Land Surveys, Inc.

[redacted]

SHEET NO.

FIRE TANK

Form 238-7
6/07

65

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D ~~93620~~ 93619
Drilling Permit No. 902568
Water right or injection well # ____

2. OWNER: Garrett Pavlus * "Fulton Chain Construction" listed on start card & NY state address
Name ____
Address PO Box 1765
City McCall State ID Zip 83638

3. WELL LOCATION:
Twp. 18 North ☒ or South ☐ Rge. 03 East ☒ or West ☐
Sec. 29 ____ 1/4 SE 1/4 SW 1/4
(10 acres / 40 acres / 160 acres)
* Gov't Lot ____ County Valley
Lat. 44 ° 51.7983N (Deg and Decimal minutes)
Long. 116 ° 07.0471W (Deg and Decimal minutes)
Address of Well Site ____
Moon Ridge Dr. City McCall
(Give street name or road + Distance to Road or Landmark)
Lot. 3 Blk. ____ Sub. Name Moon View

4. USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☐ Other ____

5. TYPE OF WORK:
☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other ____

6. DRILL METHOD:
☒ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other Dual Rotary

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure
Bentonite	0	60	1800	Pullback & Pour

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Material	Casing	Liner	Threaded	Welded
6	+2	340	.250	Steel	☒	☐	☐	☒
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 340

9. PERFORATIONS/SCREENS:
Perforations ☐ Y ☒ N Method ____
Manufactured screen ☒ Y ☐ N Type Wire Wound
Method of installation Set & Pullback

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
340	355	14		5	Stainless	.250

Length of Headpipe 8' Length of Tailpipe 2'
Packer ☒ Y ☐ N Type K

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method

11. FLOWING ARTESIAN:
Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) ____
Describe control device ____

12. STATIC WATER LEVEL and WELL TESTS:
Depth first water encountered (ft) 128 Static water level (ft) 128
Water temp. (°F) 50 Bottom hole temp. (°F) ____
Describe access port Sanitary Well Cap

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Test method: Pump	Bailer	Air	Flowing artesian
189	90	120	☐	☐	☒	☐
			☐	☐	☐	☐

Water quality test or comments: Ph=8.2, TDS=58, Fe=0, GPG=6

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water Y	Water N
10	0	6	Top Soil		X
10	6	10	Clay Tan		X
10/6	10	200	Sand & Gravel	X	
6	200	330	DCG Sand, Heaving	X	
6	330	332	Clay Gray		X
6	332	366	Gray & White Sand, Heaving	X	
6	366		Clay Tan		X
			* This GPS puts the well next to D00 93620		
			* Kept the original GPS coordinates from the Start card. -CJ 11/23/2021		
			RECEIVED NOV 10 2021 WATER RESOURCES BOISE		
			* 44° 51.7828 -116° 07.2180		

Completed Depth (Measurable): 357
Date Started: 10/26/2021 Date Completed: 10/29/2021

14. DRILLER'S CERTIFICATION:
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Cold Steel Mechanical Co. No. 793
*Principal Driller Alan Winebarger Date 11/17/2021
*Driller ____ Date ____
*Operator II ____ Date ____
Operator I ____ Date ____

* Signature of Principal Driller and rig operator are required.

Form 238-7
6/07

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D! D0093620
Drilling Permit No. 902705
Water right or injection well # ____

2. OWNER: Rick Nelson > WA State address on Start card.
Name ____
Address PO Box 915
City Old Forge State NY Zip 13420

3. WELL LOCATION:
Twp. 18 North ☒ or South ☐ Rge. 03 East ☒ or West ☐
Sec. 29 ____ 1/4 (10 acres) SE 1/4 (40 acres) SW 1/4 (160 acres)
Gov't Lot ____ County Valley
Lat. 44 ° 51.8413N (Deg. and Decimal minutes)
Long. 116 ° 07.0540W (Deg and Decimal minutes)
Address of Well Site ____
Moon Ridge Dr. City McCall
(Give at least name of road + Distance to Road or Landmark)
Lot 2 Blk. ____ Sub. Name Moon View

4. USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☐ Other ____

5. TYPE OF WORK:
☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other ____

6. DRILL METHOD:
☒ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other Dual Rotary

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method/procedure
Bentonite	0	60	1800	Pullback & Pour

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Material	Casing	Liner	Threaded	Welded
6	+2	319	.250	Steel	☒	☐	☐	☒
					☐	☐	☐	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 319

9. PERFORATIONS/SCREENS:
Perforations ☐ Y ☒ N Method ____
Manufactured screen ☒ Y ☐ N Type Wire Wound
Method of installation Set & Pullback

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
319	334	14		5	Stainless	.250

Length of Headpipe 8' Length of Tailpipe 2'
Packer ☒ Y ☐ N Type K

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	Placement method

11. FLOWING ARTESIAN:
Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) ____
Describe control device ____

12. STATIC WATER LEVEL and WELL TESTS:
Depth first water encountered (ft) 121 Static water level (ft) 121
Water temp. (°F) 50 Bottom hole temp. (°F) ____
Describe access port Sanitary Well Cap

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Test method: Pump	Bailer	Air	Flowing artesian
175	90	120	☐	☐	☒	☐
			☐	☐	☐	☐

Water quality test or comments: Ph=8.3, TDS=73, Fe=0, GPG=7

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water Y	Water N
10	0	3	Top Soil		X
10	3	6	Clay Brown		X
10/6	6	135	Sand & Gravel	X	
6	135	310	DCG Sand, Heaving	X	
6	310	312	Clay Orange		X
6	312	315	Clay Gray		X
6	315	351	Gray & White Sand, Heaving	X	
6	351	352	Clay Tan		X
			* GPS updated		

RECEIVED
NOV 17 2021
WATER RESOURCES
WESTERN REGION

Completed Depth (Measurable): 336
Date Started: 10/19/2021 Date Completed: 10/22/2021

14. DRILLER'S CERTIFICATION:
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Cold Steel Mechanical Co. No. 793
*Principal Driller Alan Winebarger Date 11/17/2021
*Driller ____ Date ____
*Operator II ____ Date ____
Operator I ____ Date ____

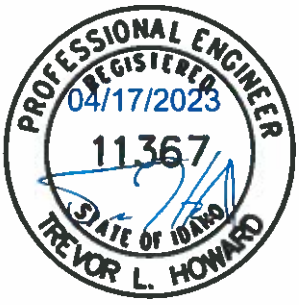
* Signature of Principal Driller and rig operator are required.

MOON VIEW RANCH, Phase 2
STORMWATER DRAINAGE REPORT

April 2023

Prepared for:

EMMERS, LLC



Prepared by:

Trevor Howard, PE
60 Difficult Dr
Idaho City, Id 83631

MOON VIEW RANCH, PHASE 2

STORMWATER DRAINAGE REPORT

APRIL 2023

TABLE OF CONTENTS

REPORT SUMMARY

CALCULATIONS

1. Volume
2. Peak Flow

DRAWINGS

Preliminary Plat
Preliminary Plans

MOON VIEW RANCH, PHASE 2

STORMWATER DRAINAGE REPORT

APRIL 2023

REPORT SUMMARY

This assessment of estimated storm water volume and peak flow generation resulting from the proposed Moon View Ranch, Phase 2 subdivision has been prepared in accordance with the USDA Urban Hydrology for Small Watersheds (TR-55) with reference to the McCall Drainage Management Guide. All stormwater management improvements have been designed in accordance with Valley County drainage guidelines[1].

The proposed development consists of 26.63 acres with 9 residential lots. The minimum lot size is 2 acres, and the average lot size is 2.1 acres. The lots will be accessed by a 450 ft long road (Little Moose Court) ending in a cul de sac.

The proposed design will utilize roadside swales and check dams to collect the runoff from the developed lots and proposed roadway to provide treatment of the first flush storm event and to detain the excess runoff generated by the project. Any runoff in excess of the design storm event will overflow the proposed swales and drain to the roadside ditches and culverts along Little Moose Court, Big Moose Road, and Moonridge Road. This report assumes that final build-out of the residential lots will include 5,000 square feet of impervious surface for each lot.

The downstream drainage system (including Moon View Ranch Phase 1 culverts and detention ponds) were not evaluated because the drainage system for this project is designed so that post development runoff is no larger than predevelopment runoff.

The site was divided into three drainage areas to identify onsite drainage and improve runoff modeling accuracy (See Figure 2). Estimation of runoff volumes and peak flows was accomplished using the Soil Conservation Society (SCS) Curve Number Method (TR-55) with reference to The City of McCall Drainage Management Guidelines (McCall DMG). The McCall DMG was considered to be a relevant reference because this project is 1.5 miles southwest of the City of McCall.

The increase in the 25-year storm runoff volume resulting from this proposed development (see Table 1) will be detained within drainage swales located alongside the proposed roadways (see Drainage Area Map).

The swales have been designed and will be constructed to detain the difference in the 25-yr event which happens to include 1st flush (2-year, 24 hour storm) storm event as required by the IDEQ Catalog of Stormwater Best Management Practices for Idaho Cities and Counties (September 2005).

All three drainage areas outlet to 2 15" culverts crossing Big Moose Road that were designed and installed with Moon View Ranch Phase 1. WinTR-55 was used to evaluate how this project impacts the flow at these culverts. This project reduces post development peak flow at the outlet.

- 25-year pre-development peak flow – 22.18 cfs
- 25 year post-development peak flow – 20.41 cfs

Drainage Area	Pre-Construction Volume (CF)		Post-Construction Volume (CF)		Required Volume (CF)		Available Volume (CF)
	First Flush	25-year	First Flush	25-year	First Flush	25-year	
A	14,021	37,242	15,335	39,871	1,314	2,629	2,772
B	12,871	34,187	14,077	36,601	1,207	2,413	2,769
C	Drainage area C is a portion of Moon View Ranch Phase 1 that is not altered by this project						0

Table 1

MODEL ASSUMPTIONS:

- Curve Number (CN) values: The following CN numbers were used to calculate the composite number for each drainage area:
  - Pasture: 79
  - Gravel road: 89
  - Roofs and other impervious areas: 98

- Manning's N-value: The following numbers were used to calculate the Time of Concentration, Sheet Flow time and Shallow Concentrated Flow Time:
  - Range (Natural): 0.13
  - Gravel: 0.011
  - Vegetated/landscaped ground: 0.24
  - Existing ground: 0.24

CALCULATIONS
Volume

Worksheet 1 RUNOFF CURVE NUMBER AND RUNOFF

Project: Moon View Ranch Subdivision Phase 2
Location: Valley County

Pre-Development

1. Runoff Curve Number

Area	Cover and Type of Hydraulic Condition	CN From Table II-4	Area (acres)	Product of CNxArea
A	Pasture, grassland, or Range- Fair	79	11.81	932.99
A	Streets and Roads: gravel	89	0.26	23.14
B	Pasture, grassland, or Range- Fair	79	10.74	848.46
B	Streets and Roads: gravel	89	0.34	30.26
C	Pasture, grassland, or Range- Fair	79	8.24	650.96
C	Streets and Roads: gravel	89	1.47	130.83
C	Paved Parking lots, roofs,driveways, etc	98	0.34	33.32
	Total		**33.20**	

CN (Weighted)= $\frac{\text{total Product=}}{\text{Total Area}}$

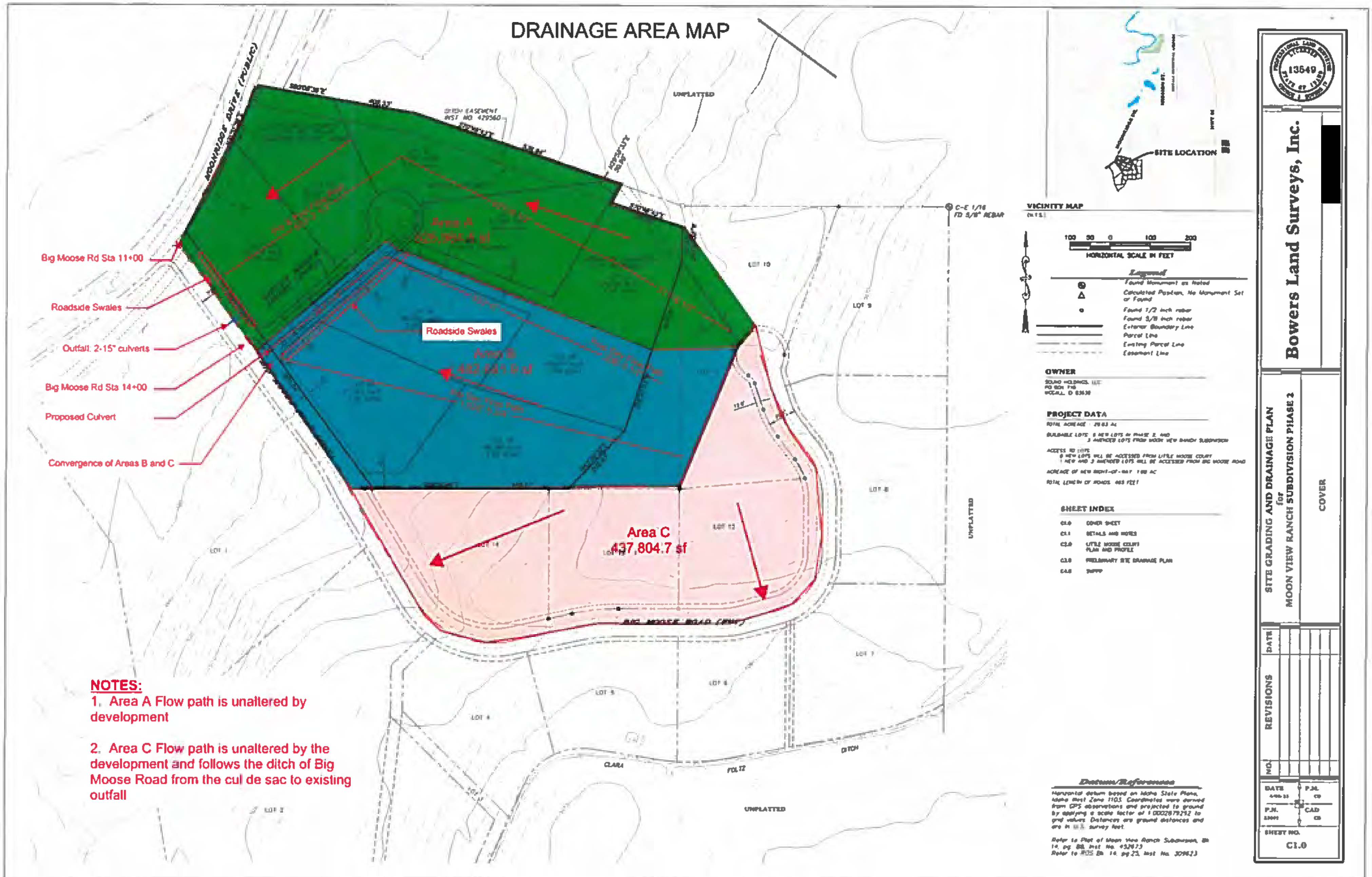
Composite CN	80
A	79
B	79
C	81

2. Runoff

Storm Frequency	2 Yr	10 Yr	25 Yr	100 Yr
Rainfall, P (24 hour) in inches	1.56 in	2.28 in	2.45 in	3.12 in
Runoff, Q in inches (use TR-55 Equation 2-3 and Equation 2-4)	0.32 in	0.74 in	0.85 in	1.34 in

Notes:

1. Hydrologic data fior the storm frequencies above based on the Intensity-Duration-Frequency curve for Zone C by the Idaho Transportation Department
2. Equation 2-3 $Q = (P-0.2S)^2/(P+0.8S)$
3. Equation 2-4 $S=1000/CN-10$
4. Use Type II Storm
5. Soil Type C was assumed to account for decreased infiltartion of frozend ground in winter, as required for the City of McCall
6. Although a CN of 77 would be appropriate for this area (Poor brush and grass), CN of 79 was used to account for decrease infiltration rate due to frozen conditions


DRAINAGE AREA MAP
Area A
Area B
Area C
437,804.7 sf
Roadside Swales
Big Moose Rd Sta 11+00
Roadside Swales
Outfall, 2-15" culverts
Big Moose Rd Sta 14+00
Proposed Culvert
Convergence of Areas B and C
NOTES:
1. Area A Flow path is unaltered by development
2. Area C Flow path is unaltered by the development and follows the ditch of Big Moose Road from the cul de sac to existing outfall
VICINITY MAP
SITE LOCATION
HORIZONTAL SCALE IN FEET
Legend
OWNER
PROJECT DATA
SHEET INDEX
Datum/References
Bowers Land Surveys, Inc.
[redacted]
SITE GRADING AND DRAINAGE PLAN
for
MOON VIEW RANCH SUBDIVISION PHASE 2
COVER
REVISIONS
SHEET NO.
C1.0

PROJECT SUMMARY

Project: Moon View Ranch Subdivision Phase 2
Location: Valley County

1. Project Site		
a. Total site Area (Contributing A	1,446,452 sf	33.21 ac
b. Development Area	861,617 sf	19.78 ac
c. Develoment Density	0.5 housing units per acre	
d. Area of Streets, sidewalks, and driveways	43,560 sf	1.00 ac
e. Estimated Roof Area	45,000 sf	1.03 ac
f. Total impervious area	88,560 sf	2.03 ac

2. Summary of Physical Conditions	Pre-Development	Post Development
a. Percent Impervious	0%	10%
b. Drainage Length	1,000 ft	1,100 ft
c. Average Slope of drainage	6.8%	5.5%
d. Wetland (on-site)	0 sf	0.0000 sf
	0.00%	0.00%

Worksheet 1 RUNOFF CURVE NUMBER AND RUNOFF

Project: Moon View Ranch Subdivision Phase 2
Location: Valley County

Post-Development

1. Runoff Curve Number

Area	Cover and Type of Hydraulic Condition	CN From Table II-4	Area (acres)	Product of CNxArea
A	Pasture, grassland, or Range- Fair	79	10.92	862.68
A	Streets and Roads: gravel	89	0.58	51.62
A	Paved Parking lots, roofs,driveways, etc	98	0.57	55.86
B	Pasture, grassland, or Range- Fair	79	9.92	783.68
B	Streets and Roads: gravel	89	0.7	62.3
B	Paved Parking lots, roofs,driveways, etc	98	0.46	45.08
C	Pasture, grassland, or Range- Fair	79	8.24	650.96
C	Streets and Roads: gravel	89	1.47	130.83
C	Paved Parking lots, roofs,driveways, etc	98	0.34	33.32
	Total		**33.2**	

CN (Weighted)= $\frac{\text{total Product=}}{\text{Total Area}}$

Composite CN	81
A	80
B	80
C	81

2. Runoff

Storm Frequency	2 Yr	10 Yr	25 Yr	100 Yr
Rainfall, P (24 hour) in in	1.56 in	2.28 in	2.45 in	3.12 in
Runoff, Q in inches (use P and CN with Figure II-3)	0.35 in	0.79 in	0.91 in	1.41 in

Notes:

1. Hydrologic data fior the storm frequencies above based on the Intensity-Duration-Frequency curve for
2. Equation 2-3 $Q = (P-0.2S)^2/(P+0.8S)$
3. Equation 2-4 S=1000/CN-10
4. Use Type II Storm
5. Soil Type C was assumed to account for decreased infiltartion of frozend ground in winter, as required
6. Although a CN of 77 would be appropriate for this area (Poor brush and grass), CN of 79 was used to

STORAGE VOLUME

Project: Moon View Ranch Subdivision Phase 2
Location: Valley County

		2 Yr	10 Yr	25 Yr	100 Yr
-Development Q		0.32 in	0.74 in	0.85 in	1.34 in
t Development Q		0.35 in	0.79 in	0.91 in	1.41 in
Storage Volume					
	Pre-Development	14,021 CF	32,422 CF	37,242 CF	58,711 CF
A (12.07 ac)	Post-Development	15,335 CF	34,613 CF	39,871 CF	61,778 CF
	Required	**1,314 CF**	2,191 CF	**2,629 CF**	3,067 CF
	Pre-Development	12,871 CF	29,763 CF	34,187 CF	53,895 CF
B (11.08 ac)	Post-Development	14,077 CF	31,774 CF	36,601 CF	56,711 CF
	Required	**1,207 CF**	2,011 CF	**2,413 CF**	2,815 CF

Available Storage Volume

	Volume	Length	Bottom Width	Upstream Depth (ft)	Downstream Depth (ft)
Drainage Area A					
Big Moose Sta 12+25	731.25	50	6	1.5	1.5
Big Moose Sta 12+75	578.13	50	6	1	1.5
Big Moose Sta 12+75 to 13+50	1096.88	75	6	1.5	1.5
Big Moose 13+50	365.63	50	6	0	1.5
Toal Available	**2,772 CF**				
Drainage Area B					
Little Moose 103+50 to 104+00	578.125	50	6	1	1.5
Little Moose 102+50 to 103+50	1156.25	100	6	1	1.5
100+50 to 101+00	456.25	50	6	0.5	1.5
101+00 to 101+50	578.125	50	6	1	1.5
Toal Available	**2,769 CF**				

CALCULATIONS
Peak Flow

Worksheet 2 - TIME OF CONCENTRATION
Project: Moon View Ranch Subdivision Phase 2
Location: Valley County

Pre-Development & Post Development Basin A

Sheet Flow

1. Surface description	Range (natural)		
2. Manning's Roughness Coefficient, n	0.13		
3. Flow Length, L (max 300 ft)	310 ft		
4. Two-year 24-hour rainfall, P2	1.56 in		
5. Land slope, s	0.070 ft/ft		
6. Tt	0.31 hr		0.31 hr

Shallow Concentrated Flow

7. Surface description (paved or unpaved)	Unpaved	Unpaved	
8. Flow Length, L	620 ft	500 ft	
9. Watercourse Slope, s	0.080 ft/ft	0.010 ft/ft	
10. Average velocity, V	4.6 ft/s	1.6 ft/s	
11. Tt	0.04 hr	0.09 hr	0.13 hr

Channel Flow

	Range (natural)		
12. Cross sectional area, a			
13. Wetted perimeter, Pw			
14. Hydraulic Radius, r			
15. Channel slope, s			
16. Manning's roughness coeeficient, n	0.13		
17. V			
18. Flow length, L	0 ft		
19. Tt	0.00 hr		0.00 hr

20. Watershed Tc or Tt 0.44 hr

Worksheet 2 - TIME OF CONCENTRATION
Project: Moon View Ranch Subdivision Phase 2
Location: Valley County

Pre-Development Basin B

Sheet Flow

1. Surface description		Range (natural)	
2. Manning's Roughness Coefficient, n		0.13	
3. Flow Length, L (max 300 ft)		300 ft	
4. Two-year 24-hour rainfall, P2		1.56 in	
5. Land slope, s		0.080 ft/ft	
6. Tt		0.29 hr	0.29 hr

Shallow Concentrated Flow

7. Surface description (paved or unpaved)	Unpaved		
8. Flow Length, L		700 ft	
9. Watercourse Slope, s		0.080 ft/ft	
10. Average velocity, V		4.6 ft/s	
11. Tt		0.04 hr	0.04 hr

Channel Flow

		Range (natural)	
12. Cross sectional area, a			
13. Wetted perimeter, Pw			
14. Hydraulic Radius, r			
15. Channel slope, s			
16. Manning's roughness coeefficient, n		0.13	
17. V			
18. Flow length, L		0 ft	
19. Tt		0.00 hr	0.00 hr

20. Watershed Tc or Tt	0.33 hr

Worksheet 2 - TIME OF CONCENTRATION
Project: Moon View Ranch Subdivision Phase 2
Location: Valley County

Pre-Development & Post Development Basin C

Sheet Flow

1. Surface description		Range (natural)	
2. Manning's Roughness Coefficient, n		0.13	
3. Flow Length, L (max 300 ft)			
4. Two-year 24-hour rainfall, P2		1.56 in	
5. Land slope, s		0.080 ft/ft	
6. Tt		0.00 hr	0.00 hr

Shallow Concentrated Flow

7. Surface description (paved or unpaved)	Unpaved		
8. Flow Length, L			
9. Watercourse Slope, s			
10. Average velocity, V		0.0 ft/s	
11. Tt		0.00 hr	0.00 hr

Channel Flow

		Dense Grass	
12. Cross sectional area, a		12 sf	
13. Wetted perimeter, Pw		13 ft	
14. Hydraulic Radius, r		0.952 ft	
15. Channel slope, s		0.030 ft/ft	
16. Manning's roughness coeeficient, n		0.24	
17. V		1.04 ft/s	
18. Flow length, L		2,530 ft	
19. Tt		0.68 hr	0.68 hr

20. Watershed Tc or Tt 0.68 hr

Worksheet 2 - TIME OF CONCENTRATION
Project: Moon View Ranch Subdivision Phase 2
Location: Valley County

Post-Development Basin B

Project: Moon View Ranch Subdivision Phase 2
Location: Valley County

Post-Development Basin B

Sheet Flow

1. Surface description	Range (natural)	Smooth surfaces (concrete, asphalt, gravel, or bare soil)	
2. Manning's Roughness Coefficient, n	0.13	0.011	
3. Flow Length, L (max 300 ft)	300 ft		
4. Two-year 24-hour rainfall, P2	1.56 in	1.56 in	
5. Land slope, s	0.08 ft/ft		
6. Tt	0.29 hr	0.00 hr	0.29 hr

Shallow Concentrated Flow

7. Surface description (paved or unpaved)	Unpaved	Unpaved	
8. Flow Length, L	500 ft		
9. Watercourse Slope, s	0.10 ft/ft		
10. Average velocity, V	5.1 ft/s	0.0 ft/s	
11. Tt	0.03 hr	0.00 hr	0.03 hr

Channel Flow

	Smooth surfaces (concrete, asphalt, gravel, or bare soil)	Smooth surfaces (concrete, asphalt, gravel, or bare soil)	
12. Cross sectional area, a	12 sf		
13. Wetted perimeter, Pw	13.00 ft		
14. Hydraulic Radius, r	0.923 ft		
15. Channel slope, s	0.010 ft/ft		
16. Manning's roughness coeeficient, n	0.011	0.011	
17. V	12.84 ft/s		
18. Flow length, L	460 ft	0 ft	
19. Tt	0.01 hr	0.00 hr	0.01 hr

20 Watershed Tc or Tt	0.33 hr

T Howard

Moon View Phase 2
Pre-Development
Valley County, Idaho

Storm Data

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
1.56	.0	2.28	2.45	.0	3.12	.0

Storm Data Source: User-provided custom storm data
Rainfall Distribution Type: Type II
Dimensionless Unit Hydrograph: <standard>

T Howard

Moon View Phase 2
Pre-Development
Valley County, Idaho

Watershed Peak Table

Sub-Area or Reach Identifier	Peak Flow by Rainfall Return Period 2-Yr (cfs)	10-Yr (cfs)	25-Yr (cfs)	100-Yr (cfs)
SUBAREAS				
C (Predev)	2.07	5.40	6.31	10.07
B (Predev)	2.30	6.70	7.90	13.02
A (Predev)	2.56	7.46	8.79	14.49
REACHES				
OUTLET	6.66	18.90	22.18	36.35

T Howard

Moon View Phase 2
Pre-Development
Valley County, Idaho

Hydrograph Peak/Peak Time Table

Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period 2-Yr (cfs) (hr)	10-Yr (cfs) (hr)	25-Yr (cfs) (hr)	100-Yr (cfs) (hr)
SUBAREAS				
C (Predev)	2.07	5.40	6.31	10.07
	12.35	12.29	12.31	12.28
B (Predev)	2.30	6.70	7.90	13.02
	12.21	12.17	12.18	12.16
A (Predev)	2.56	7.46	8.79	14.49
	12.21	12.17	12.18	12.16
REACHES				
OUTLET	6.66	18.90	22.18	36.35

T Howard

Moon View Phase 2
Pre-Development
Valley County, Idaho

Structure Output Table

Reach Identifier / Structure Identifier	Peak Flow (PF), Storage Volume (SV), Stage (STG) by Rainfall Return Period			
	2-Yr	10-Yr	25-Yr	100-Yr

T Howard

Moon View Phase 2
Pre-Development
Valley County, Idaho

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
C (Predev)	10.05	0.680	81	Outlet	
B (Predev)	11.08	0.450	79	Outlet	
A (Predev)	12.33	0.450	79	Outlet	

Total Area: 33.46 (ac)

Moon View Phase 2
Pre-Development
Valley County, Idaho

Reach Summary Table

Reach Identifier	Receiving Reach Identifier	Reach Length (ft)	Routing Method

T Howard

Moon View Phase 2
Pre-Development
Valley County, Idaho

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
C (Predev)							
User-provided							0.680
					Time of Concentration		0.680
B (Predev)							
User-provided							0.450
					Time of Concentration		0.450
A (Predev)							
User-provided							0.450
					Time of Concentration		0.450

T Howard

Moon View Phase 2
Post-Development
Valley County, Idaho

Storm Data

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
1.56	.0	2.28	2.45	.0	3.12	.0

Storm Data Source: User-provided custom storm data
Rainfall Distribution Type: Type II
Dimensionless Unit Hydrograph: <standard>

T Howard

Moon View Phase 2
Post-Development
Valley County, Idaho

Watershed Peak Table

Sub-Area or Reach Identifier	Peak Flow by Rainfall Return Period 2-Yr (cfs)	10-Yr (cfs)	25-Yr (cfs)	100-Yr (cfs)
SUBAREAS				
C (Predev)	2.07	5.40	6.31	10.07
B-Postdev	3.23	8.67	10.13	16.28
A-Postdev	3.00	8.17	9.60	15.50
REACHES				
Reach 1	3.23	8.67	10.13	16.28
Down	1.73	6.03	7.17	12.82
Reach 2	3.00	8.17	9.60	15.50
Down	1.81	6.11	7.25	12.93
OUTLET	5.54	17.30	20.41	35.01

Design Flow for Culvert crossing Little Moose = 7.17+7.25=14.43 cfs

T Howard

Moon View Phase 2
Post-Development
Valley County, Idaho

Hydrograph Peak/Peak Time Table

Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period 2-Yr (cfs) (hr)	10-Yr (cfs) (hr)	25-Yr (cfs) (hr)	100-Yr (cfs) (hr)
SUBAREAS				
C (Predev)	2.07	5.40	6.31	10.07
	12.35	12.29	12.31	12.28
B-Postdev	3.23	8.67	10.13	16.28
	12.13	12.10	12.11	12.10
A-Postdev	3.00	8.17	9.60	15.50
	12.18	12.16	12.17	12.17
REACHES				
Reach 1	3.23	8.67	10.13	16.28
	12.13	12.10	12.11	12.10
Down	1.73	6.03	7.17	12.82
	12.32	12.25	12.23	12.21
Reach 2	3.00	8.17	9.60	15.50
	12.18	12.16	12.17	12.17
Down	1.81	6.11	7.25	12.83
	12.43	12.32	12.31	12.28
OUTLET	5.54	17.30	20.41	35.01

T Howard

Moon View Phase 2
Post-Development
Valley County, Idaho

Structure Output Table

Reach Identifier / Structure Identifier	Peak Flow (PF), Storage Volume (SV), Stage (STG) by Rainfall Return Period 2-Yr	10-Yr	25-Yr	100-Yr
Reach: Reach 1				
Weir : Big M 1 0.3(ft)				
PF (cfs)	1.73	6.03	7.17	12.82
SV (ac ft)	.05	.12	.14	.20
STG (ft)	1.80	4.08	4.66	6.74
Reach: Reach 2				
Weir : Big M 1 0.3(ft)				
PF (cfs)	1.81	6.11	7.25	12.83
SV (ac ft)	.06	.12	.14	.20
STG (ft)	1.87	4.12	4.70	6.75

T Howard

Moon View Phase 2
Post-Development
Valley County, Idaho

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
C (Predev)	10.05	0.680	81	Outlet	
B-Postdev	11.08	0.330	80	Reach 1	
A-Postdev	12.33	0.440	80	Reach 2	

Total Area: 33.46 (ac)

T Howard

Moon View Phase 2
Post-Development
Valley County, Idaho

Reach Summary Table

Reach Identifier	Receiving Reach Identifier	Reach Length (ft)	Routing Method
Reach 1	Outlet		STRUCTURE(Big M 1)
Reach 2	Outlet		STRUCTURE(Big M 1)

T Howard

Moon View Phase 2
Post-Development
Valley County, Idaho

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
C (Predev)							
User-provided							0.680
					Time of Concentration		0.680
B-Postdev							
User-provided							0.330
					Time of Concentration		0.330
A-Postdev							
User-provided							0.440
					Time of Concentration		0.440

CALCULATIONS
Culvert Size

HY-8 Culvert Analysis Report

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0.00 cfs

Design Flow: 3.00 cfs

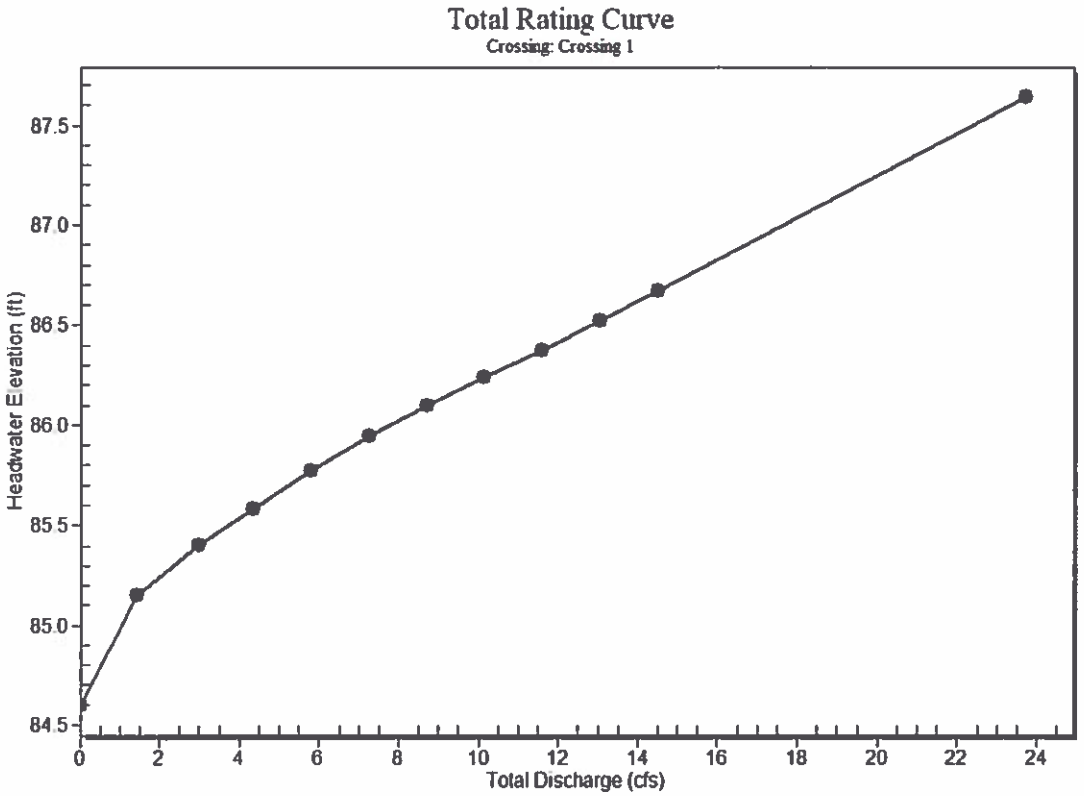
Maximum Flow: 14.50 cfs

Post Development flows of Area B + Area C

Table 1 - Summary of Culvert Flows at Crossing: Crossing 1

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
84.60	0.00	0.00	0.00	1
85.15	1.45	1.45	0.00	1
85.40	3.00	3.00	0.00	1
85.58	4.35	4.35	0.00	1
85.77	5.80	5.80	0.00	1
85.94	7.25	7.25	0.00	1
86.09	8.70	8.70	0.00	1
86.24	10.15	10.15	0.00	1
86.38	11.60	11.60	0.00	1
86.52	13.05	13.05	0.00	1
86.67	14.50	14.50	0.00	1
87.60	21.68	21.68	0.00	Overtopping

Rating Curve Plot for Crossing: Crossing 1



Culvert Data: Culvert 1

Table 1 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00 cfs	0.00 cfs	84.60	0.00	0.000	0-NF	0.00	0.00	1.50	0.00	0.00	0.00
1.45 cfs	1.45 cfs	85.15	0.55	0.075	1-S2n	0.35	0.42	0.35	0.06	3.87	3.69
3.00 cfs	3.00 cfs	85.40	0.80	0.146	1-JS1t	0.51	0.60	1.60	0.10	1.11	4.88
4.35 cfs	4.35 cfs	85.58	0.98	0.222	1-S2n	0.61	0.73	0.61	0.12	5.32	5.62
5.80 cfs	5.80 cfs	85.77	1.17	0.322	1-JS1t	0.71	0.85	1.65	0.15	2.10	6.27
7.25 cfs	7.25 cfs	85.94	1.34	0.441	1-JS1t	0.80	0.96	1.67	0.17	2.59	6.82
8.70 cfs	8.70 cfs	86.09	1.49	0.581	1-JS1t	0.89	1.05	1.69	0.19	3.08	7.30
10.15 cfs	10.15 cfs	86.24	1.64	0.741	1-JS1t	0.97	1.14	1.70	0.20	3.56	7.73
11.60 cfs	11.60 cfs	86.38	1.78	0.921	1-JS1t	1.05	1.22	1.72	0.22	4.03	8.12
13.05 cfs	13.05 cfs	86.52	1.92	1.123	1-S2n	1.13	1.30	1.13	0.24	7.11	8.48
14.50 cfs	14.50 cfs	86.67	2.07	1.347	5-S2n	1.21	1.37	1.21	0.25	7.28	8.81

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

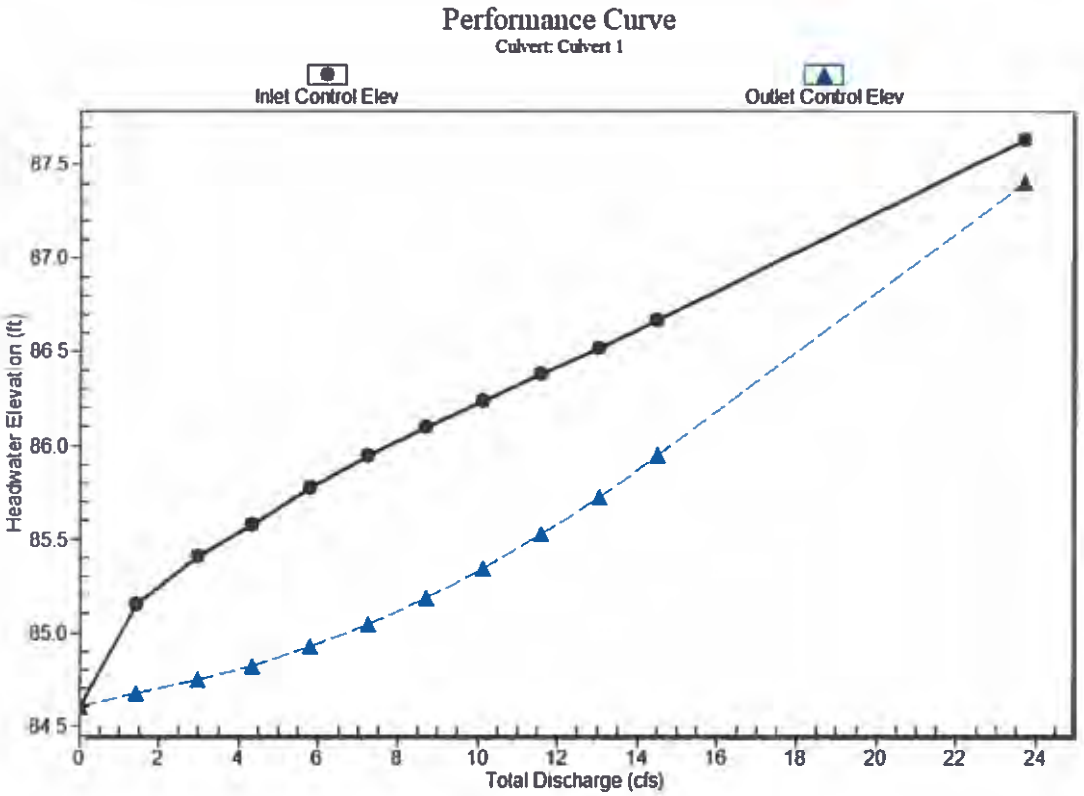
Inlet Elevation (invert): 84.60 ft,

Outlet Elevation (invert): 83.10 ft

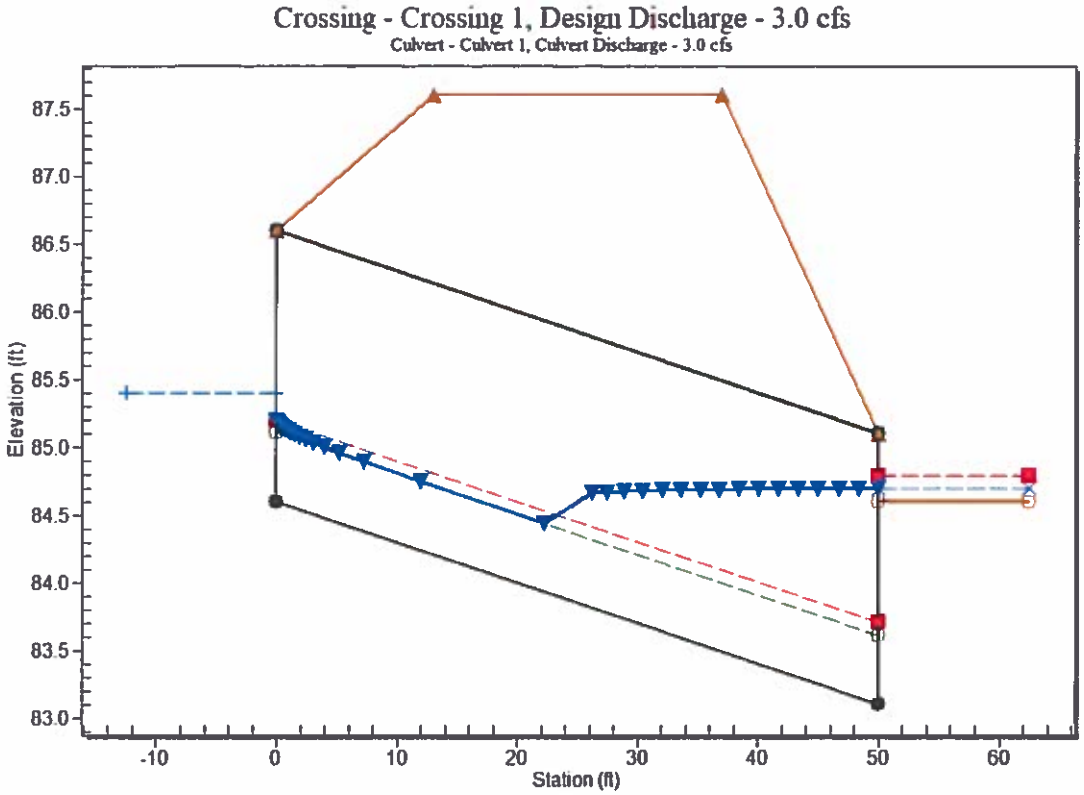
Culvert Length: 50.02 ft,

Culvert Slope: 0.0300

Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 84.60 ft

Outlet Station: 50.00 ft

Outlet Elevation: 83.10 ft

Number of Barrels: 1

Culvert Data Summary - Culvert 1

Barrel Shape: Circular

Barrel Diameter: 2.00 ft

Barrel Material: Corrugated Steel

Embedment: 0.00 in

Barrel Manning's n: 0.0240

Culvert Type: Straight

Inlet Configuration: Beveled Edge (1:1) (Ke=0.2)

Inlet Depression: None

Tailwater Data for Crossing: Crossing 1

Table 2 - Downstream Channel Rating Curve (Crossing: Crossing 1)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
0.00	84.60	0.00	0.00	0.00	0.00
1.45	84.66	0.06	3.69	0.12	2.60
3.00	84.70	0.10	4.88	0.19	2.77
4.35	84.72	0.12	5.62	0.23	2.87
5.80	84.75	0.15	6.27	0.28	2.95
7.25	84.77	0.17	6.82	0.31	3.01
8.70	84.79	0.19	7.30	0.35	3.06
10.15	84.80	0.20	7.73	0.38	3.11
11.60	84.82	0.22	8.12	0.42	3.14
13.05	84.84	0.24	8.48	0.45	3.17
14.50	84.85	0.25	8.81	0.47	3.20

Tailwater Channel Data - Crossing 1

Tailwater Channel Option: Trapezoidal Channel

Bottom Width: 6.00 ft

Side Slope (H:V): 2.00 (_:1)

Channel Slope: 0.0300

Channel Manning's n: 0.0110

Channel Invert Elevation: 84.60 ft

Roadway Data for Crossing: Crossing 1

Roadway Profile Shape: Constant Roadway Elevation

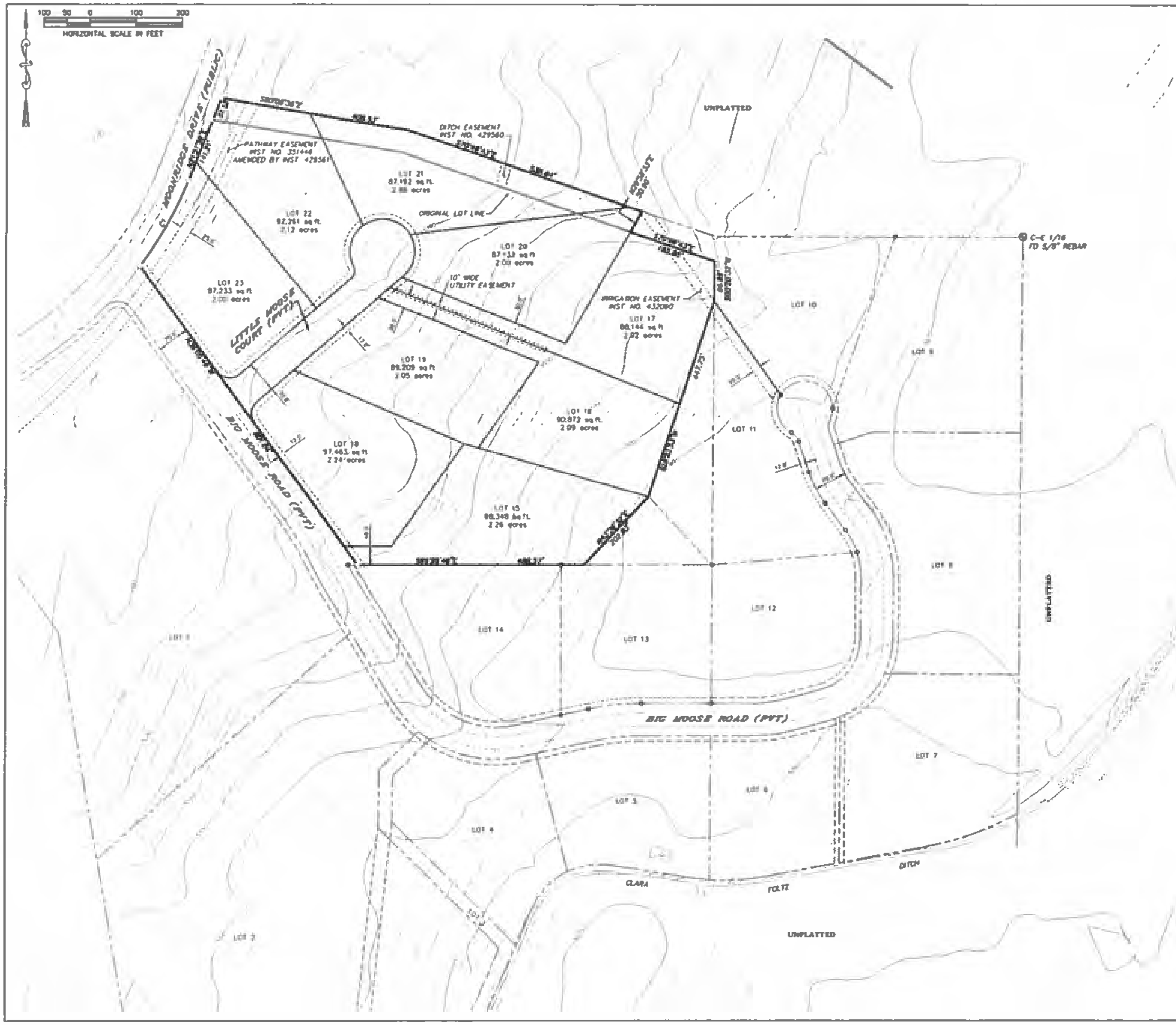
Crest Length: 100.00 ft

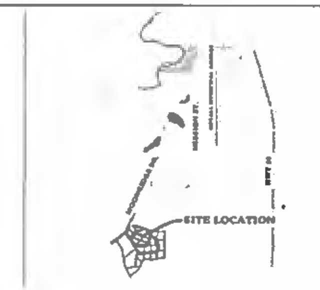
Crest Elevation: 87.60 ft

Roadway Surface: Gravel

Roadway Top Width: 24.00 ft

DRAWINGS
Preliminary Plat





VICINITY MAP

Legend

⊕	Found Monument as Noted
△	Calculated Position, No Monument Set or Found
○	Found 1/2 inch rebar
	Found 5/8 inch rebar
———	Exterior Boundary Line
———	Parcel Line
— - - —	Existing Parcel Line
- - - - -	Easement Line

OWNER

[illegible] HOLDINGS, LLC
PO BOX [illegible]
MCCALL, ID [illegible]

PROJECT DATA

TOTAL ACREAGE [illegible] Ac.

BUILDABLE LOTS: [illegible] NEW LOTS IN PHASE 2, AND 3 AMENDED LOTS FROM MOON VIEW RANCH SUBDIVISION

ACCESS TO LOTS
[illegible] NEW LOTS WILL BE ACCESSED FROM LITTLE MOOSE COURT
1 NEW AND 3 AMENDED LOTS WILL BE ACCESSED FROM BIG MOOSE ROAD

ACREAGE OF NEW RIGHT-OF-WAY: [illegible] AC

TOTAL LENGTH OF ROADS: [illegible] FEET

GENERAL NOTES

1. Big Moose Road is an existing private right-of-way owned and maintained by the Moon View Ranch Property Owners Association, see Private Road Declaration Instrument Number [illegible]

2. Little Moose Court and its depicted right-of-way is private, and after completion, shall be owned and maintained by the Moon View Ranch Property Owners Association as provided in the Declaration of Private Roads recorded as Instrument No. ______

3. No Lots shall be accessed from Moonridge Drive.

4. Utilities will be completed as provided in the Declaration of Installation of Utilities, recorded as Instrument No. ______

5. All utilities on this Plat are dedicated to Public Utilities.

6. Flood Zones shown on this plat are per FEMA FIRM Panel [illegible]
Effective February [illegible], 2018
Flood Zone: Zone [illegible]
Base Flood Elevation: N/A
Flood Zones are subject to change by FEMA and all land within a floodway or floodplain is regulated by Title 9 and Title 11 of the Valley County Code.

7. The Valley County Board of Commissioners have the sole discretion to set the level of service for any public road; the level of service can be changed.

8. All Lots shall be subject to the Declaration of Protective Covenants, Conditions, Restrictions and Easements for Moon View Ranch Subdivision Phase 2, the Articles of Incorporation of the Moon View Ranch Phase 2 Property Owners Association, all as recorded with the Office of the Recorder of Valley County, Idaho as Instrument Nos. ______ and ______. By purchasing a Lot in the Subdivision, the purchaser acknowledges that he/she/it has reviewed these documents and understands that, as owners, they and their guests, invitees and assigns will be bound by them.

9. The Declaration of Protective Covenants, Conditions, Restrictions and Easements for Moon View Ranch Subdivision Phase 2 contains certain restrictions on a Lot owner's right to engage in the short term rental of their Lot. By purchasing a Lot in the Subdivision, the purchaser acknowledges that he/she/it has reviewed these restrictions and understands that, as owners, they and their guests, invitees and assigns will be bound by them.

10. No rights to irrigation water shall be conveyed with any of the Lots.

CURVE TABLE				
CURVE	LENGTH	RADIUS	BEARING	CHORD
C1	214.29	835.00	[illegible]	213.70

Datum/References

Horizontal datum based on Idaho State Plane, Idaho West Zone 1103. Coordinates were derived from GPS observations and projected to ground by applying a scale factor of [illegible] to grid values. Distances are ground distances and are in U.S. survey feet.

Refer to Plat of Moon View Ranch Subdivision, Bk. 14, pg. [illegible], Inst. No. 452673
Refer to ROS Bk. 14, pg. 25, Inst. No. 309823

PROFESSIONAL LAND SURVEYOR 13549 STATE OF IDAHO

Bowers Land Surveys, Inc.
[redacted]

PRELIMINARY PLAT
for
MOON VIEW RANCH SUBDIVISION PHASE 2

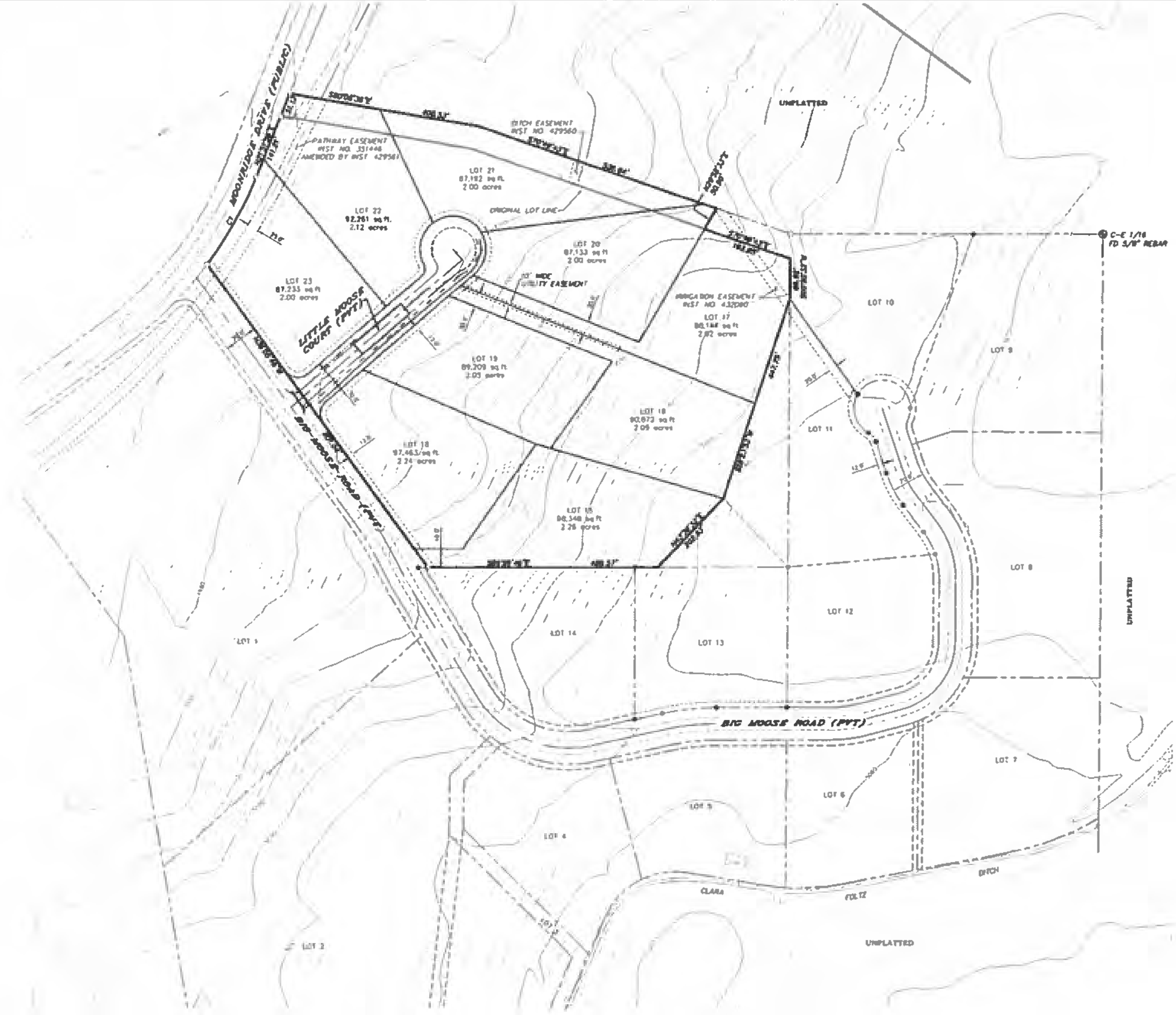
LOCATED IN SECTION 29 AND A PORTION OF MOON VIEW RANCH SUBDIVSION,
T. 18 N., R. 3 E., B.M.,
VALLEY COUNTY, IDAHO

NO.	REVISIONS	DATE

DATE [illegible] | F.B. CD
P.N. [illegible] | CAD CD

SHEET NO.
SHEET 1 OF 1

DRAWINGS
Preliminary Plans



VICINITY MAP
(N.T.S.)

100 50 0 100 200
HORIZONTAL SCALE IN FEET

Legend

⊕	Found Monument as Noted
△	Calculated Position, No Monument Set or Found
•	Found 1/2 inch rebar
	Found 5/8 inch rebar
———	Exterior Boundary Line
———	Parcel Line
———	Existing Parcel Line
- - - -	Easement Line

OWNER

SOUND HOLDINGS, LLC
PO BOX 110
MCCALL, ID 83638

PROJECT DATA

TOTAL ACREAGE 26.63 Ac

BUILDABLE LOTS: 8 NEW LOTS IN PHASE 2, AND
3 AMENDED LOTS FROM MOON VIEW RANCH SUBDIVISION

ACCESS TO LOTS
6 NEW LOTS WILL BE ACCESSED FROM LITTLE MOOSE COURT
1 NEW AND 3 AMENDED LOTS WILL BE ACCESSED FROM BIG MOOSE ROAD

ACREAGE OF NEW RIGHT-OF-WAY 1.00 AC

TOTAL LENGTH OF ROADS 465 FEET

SHEET INDEX

C1.0	COVER SHEET
C1.1	DETAILS AND NOTES
C2.0	LITTLE MOOSE COURT PLAN AND PROFILE
C3.0	PRELIMINARY SITE DRAINAGE PLAN
C4.0	SWPPP

Datum/References

Horizontal datum based on Idaho State Plane, Idaho West Zone 1103. Coordinates were derived from GPS observations and projected to ground by applying a scale factor of 1.00028793292 to grid values. Distances are ground distances and are in U.S. survey feet.

Refer to Plat of Moon View Ranch Subdivision, Bk 14, pg 88, Inst. No. 452873
Refer to ROS Bk. 14, pg 25, Inst. No. 309823

NO.	REVISIONS	DATE

SITE GRADING AND DRAINAGE PLAN
for
MOON VIEW RANCH SUBDIVISION PHASE 2

COVER

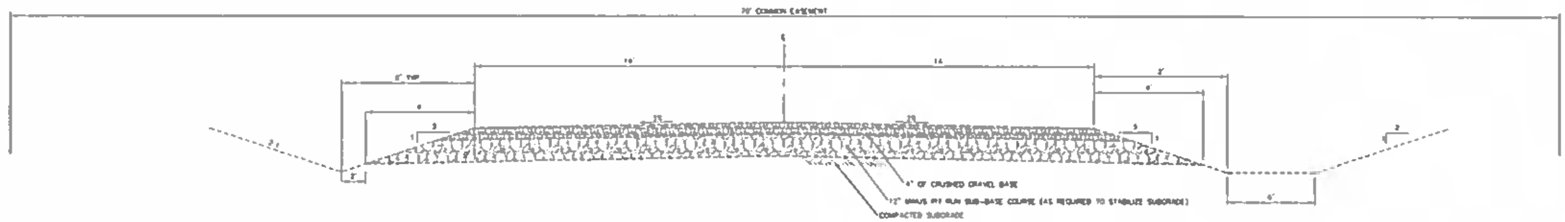
Bowers Land Surveys, Inc.

[redacted]

PROFESSIONAL LAND SURVEYOR 13549 STATE OF IDAHO

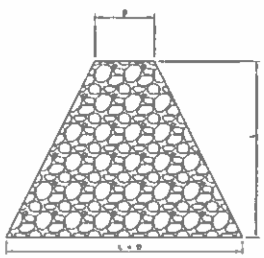
DATE | P.M. CD
P.M. | CAD CD

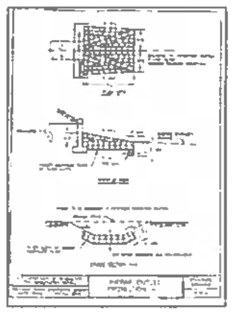
SHEET NO.
C1.0



TYPICAL PRIVATE ROAD SECTION

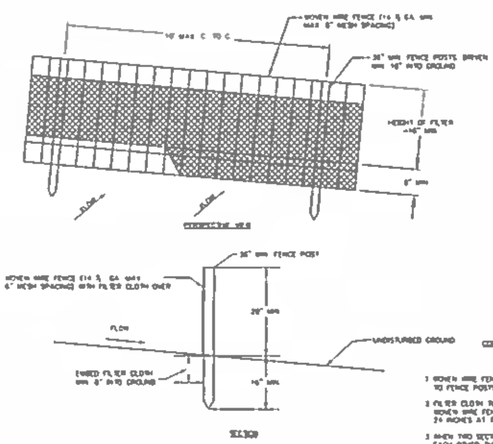
NTS





CULVERT OUTLET EROSION PROTECTION (PERMANENT)

NTS



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT TOP AND MID-SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6 INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
5. REFER TO IDEQ STORM WATER BMP CATALOG FOR ADDITIONAL DETAIL.

POSTS: STEEL EITHER "T" OR "U" TYPE OR 2" HARDWOOD

FENCE: WOVEN WIRE, 14 GAGE, 6" MAX. MESH OPENING

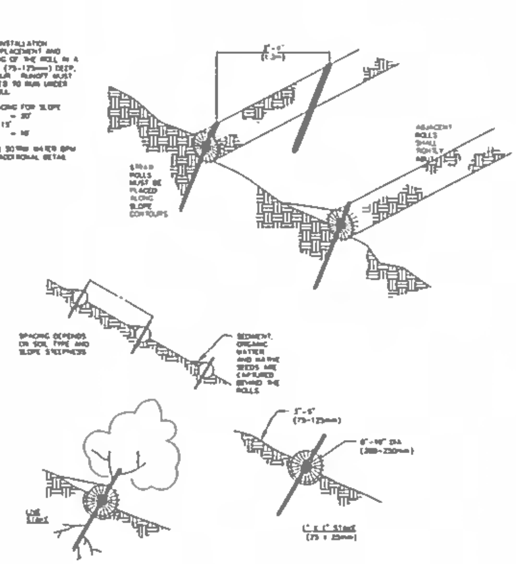
FILTER CLOTH: FILTER X, MIRAFI, 100X, STABILINKA T140N OR APPROVED EQUAL

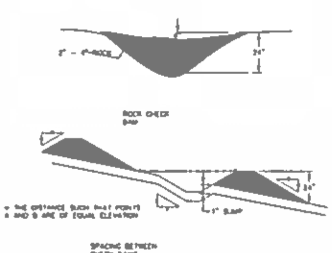
PREFABRICATED UNIT: GEOFAB, ENVIROFENCE OR APPROVED EQUAL

STRAW ROLL DETAIL

NOTE

1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3"-5" (75-125mm) DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.
2. MAXIMUM SPACING FOR SLOPE
   - < 4:1 = 20'
   - 4:1 – 2:1 = 15'
   - > 2:1 = 10'
3. REFER TO IDEQ STORM WATER BMP CATALOG FOR ADDITIONAL DETAIL.





ROADWAY NOTES

1. ALL ROAD CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT VALLEY COUNTY PRIVATE ROAD STANDARDS.
2. ALL PROPOSED ROADWAYS ARE PRIVATE ROADS.
3. CULVERTS SHOWN HEREON HAVE BEEN SIZED IN ACCORDANCE WITH VALLEY COUNTY STANDARDS.
4. FILL SLOPES SHALL BE NO STEEPER THAN 2:1, AND CONTAINED WITHIN THE RIGHT-OF-WAY.
5. CUT SLOPES SHALL BE NO STEEPER THAN 2:1, AND CONTAINED WITHIN THE RIGHT-OF-WAY.
6. ALL CUT AND FILL SLOPES WHEN FINISHED SHALL BE RE-SEEDED WITH AN APPROVED NATIVE GRASS SEED MIXTURE AT THE RECOMMENDED APPLICATION RATE.
7. ALL ROADWAY AREAS SHALL BE STRIPPED TO REMOVE THE ENTIRE ROOT ZONE. STRIPPING DEPTHS ARE ESTIMATED BETWEEN 6" AND 12", BUT SHOULD BE VERIFIED IN THE FIELD DURING CONSTRUCTION BY A QUALIFIED PERSON(S). STRIP DEPTHS MAY BE ADJUSTED AS APPROPRIATE. STOCK PILE SUITABLE TOPSOIL MATERIAL FOR LATER USE AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
8. ALL SUBGRADE SHALL BE PROOF ROLLED.
9. ALL FILL SHALL BE COMPACTED TO NOT LESS THAN NINETY-FIVE (95%) PER AASHTO T-99 PROCTOR DENSITY.

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC), AND VALLEY COUNTY STANDARDS, AND VALLEY COUNTY BEST MANAGEMENT PRACTICES MANUAL. VALLEY COUNTY STANDARDS WILL TAKE PRECEDENCE OVER ISPWC.
2. SEE THE PLAT FOR BOUNDARY AND LOT DIMENSIONS, EASEMENTS AND ADDITIONAL INFORMATION.
4. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE FACILITIES WITHIN THE CONSTRUCTION AREA UNTIL THE DRAINAGE IMPROVEMENTS ARE IN PLACE AND FUNCTIONING.
5. ALL CONTRACTORS WORKING WITHIN THE PROJECT BOUNDARIES ARE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE SAFETY LAWS OF ANY JURISDICTIONAL BODY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BARRICADES, SAFETY DEVICES AND CONTROL OF TRAFFIC WITHIN AND AROUND THE CONSTRUCTION AREA.
6. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR ANY AND ALL DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. CONTACT DIGLINE (208) 342-1585.
7. ALL CONTRACTORS WORKING WITHIN THE PUBLIC ROAD RIGHT-OF-WAY ARE REQUIRED TO SECURE A RIGHT-OF-WAY CONSTRUCTION PERMIT FROM THE VALLEY COUNTY ROAD DEPARTMENT AND/OR THE IDAHO TRANSPORTATION DEPARTMENT AS APPROPRIATE.

BEST MANAGEMENT PRACTICES

BMP #1 Construction shall be scheduled during times of low erosion potential and stabilization measures shall be implemented as construction progresses.

BMP #3 Preservation of existing vegetation – Clearing limits for roads, building sites, and driveways shall be limited to the extents of the cut and fill slopes. Building sites shall be located to minimize clearing of the forest.

BMP #6 Dust Control – Construction shall minimize the amount of exposed soils. [illegible] shall be phased as work progresses. Watering, surface roughening, and placement of gravel shall be conducted to minimize dust.

BMP #11 Mulching – Apply hay or chopped [illegible] for a mulch to aid seeding, control erosion on slopes steeper than 2:1, and reduce dust.

Slope Roughening – Slopes shall be roughened by driving a crawler tractor over the cut and fill slopes perpendicular to the slopes.

BMP #20 [illegible] Slope and Outlet Protection – The up gradient slopes of wetland crossings and culvert inlets and outlets shall be protected with a layer of graded rock.

BMP #35 Fiber Rolls – Fiber rolls will be placed at the toe and at the face of slopes to intercept runoff, reduce flow velocity, release the runoff as sheet flow, and remove sediment from the runoff.

BMP #36 Silt Fence will be placed at the perimeter of disturbed areas and/or along the toe of fill slopes to reduce the amount of sediment leaving the site.

ADDITIONAL ROAD WIDTH OF HORIZONTAL CURVES

RADIUS	1-LANE WIDENING	2-LANE WIDENING
40 FEET TO 79 FEET	5 FEET	5 FEET
80 FEET TO 99 FEET	3 FEET	3 FEET
100 FEET TO 149 FEET	2.5 FEET	2.5 FEET
150 FEET TO 249 FEET	1.5 FEET	1.5 FEET
250 FEET TO 400 FEET	1 FOOT	1 FOOT
MORE THAN 400 FEET	NOT REQUIRED	NOT REQUIRED

WIDENED TRAVELWAYS SHALL BE EASED BACK TO STANDARD WIDTHS BY TRANSITION FLARES WITH RATES OF CHANGE NOT GREATER THAN ONE FOOT OF WIDTH CHANGE PER TEN FEET OF LONGITUDINAL TRAVEL.

PROFESSIONAL LAND SURVEYOR 13549 STATE OF IDAHO

Bowers Land Surveys, Inc.

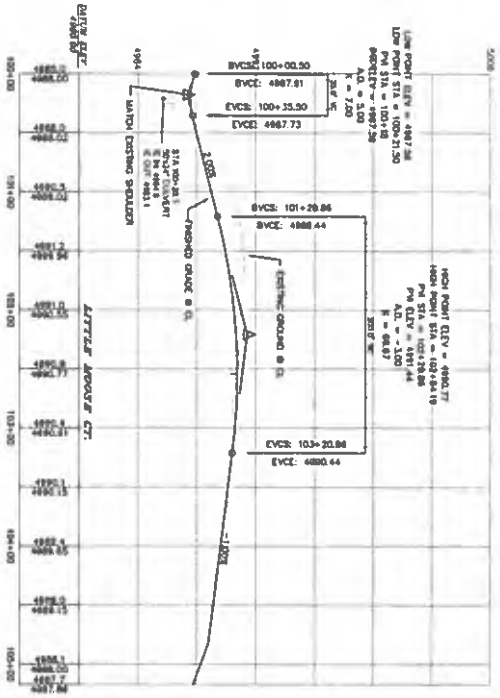
[redacted]

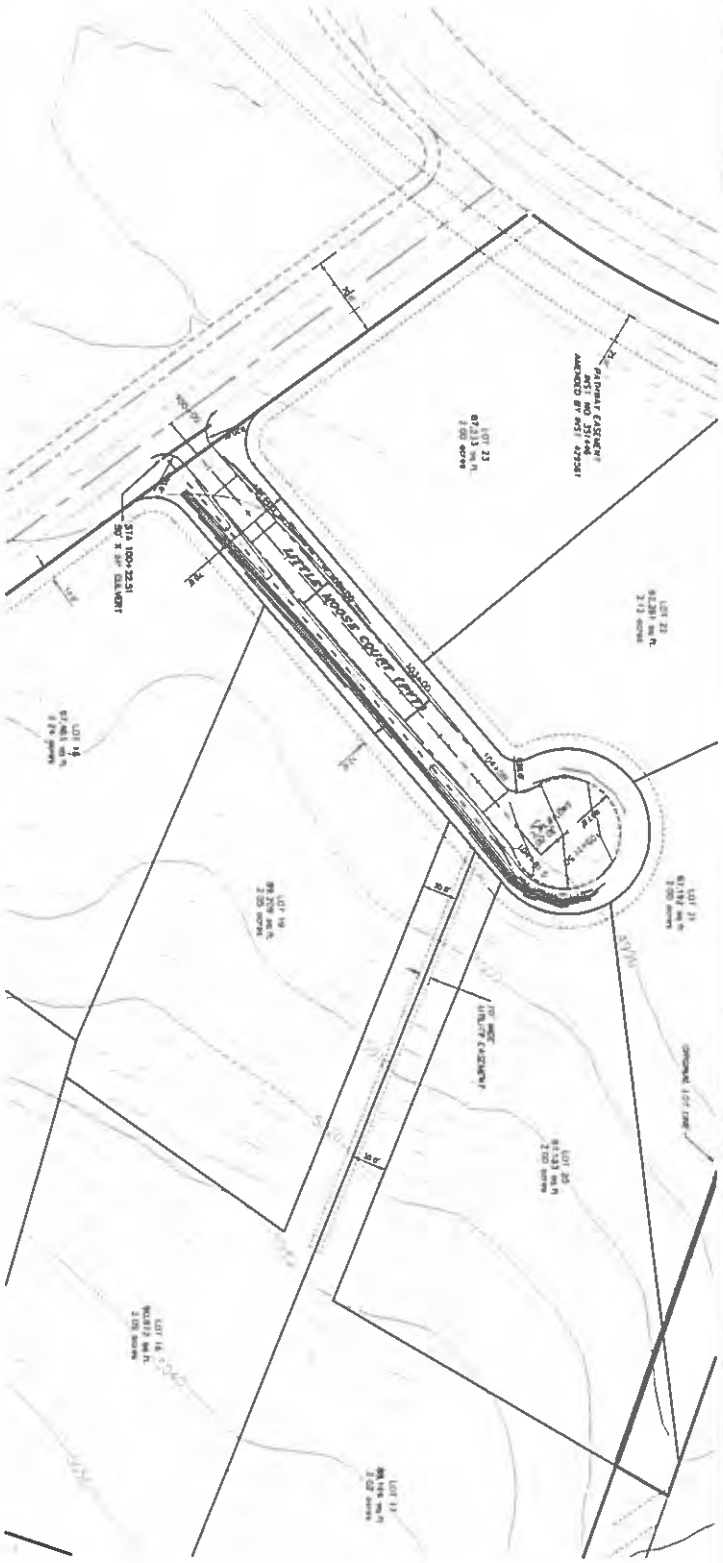
SITE GRADING AND DRAINAGE PLAN
for
MOON VIEW RANCH SUBDIVISION PHASE 2

DETAILS AND NOTES

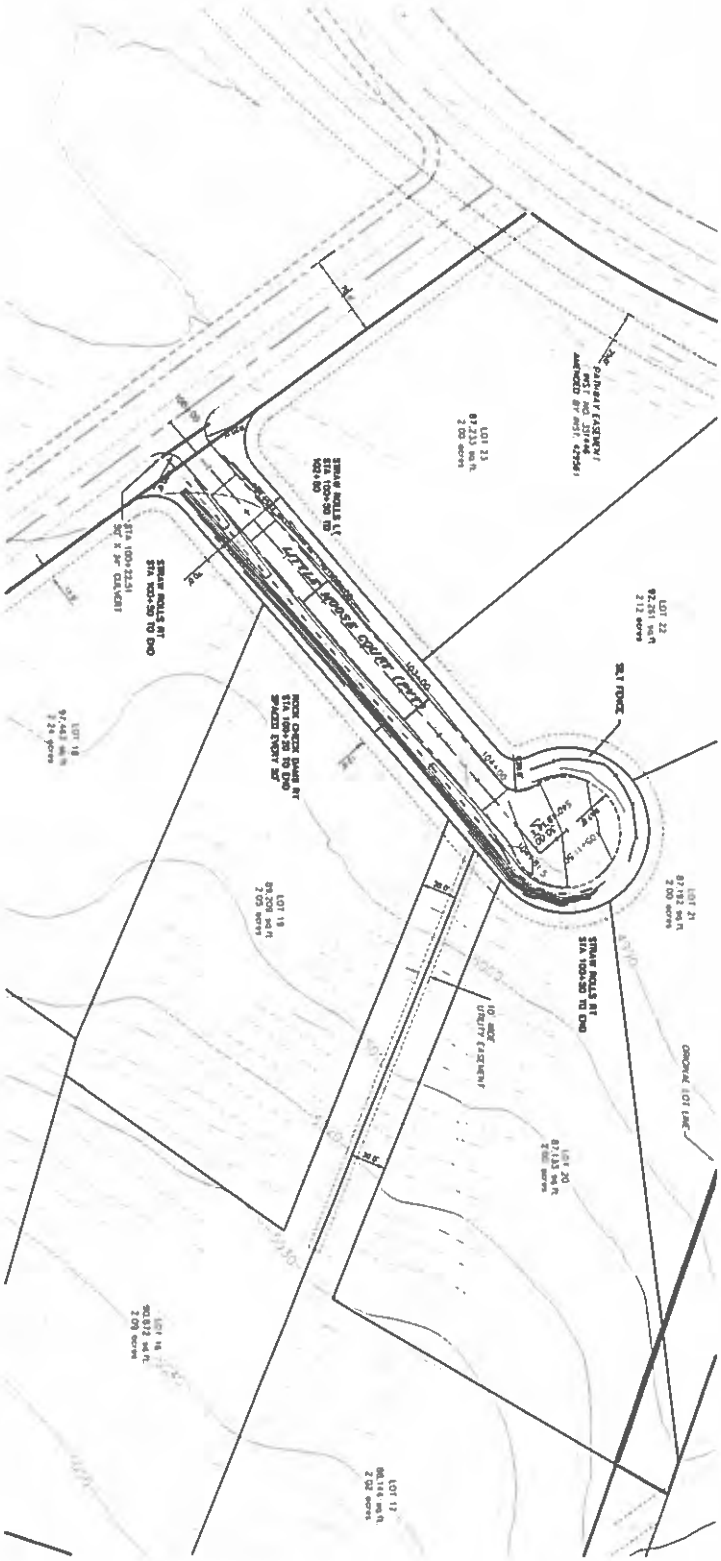
NO.	REVISIONS	DATE

DATE: 4-06-21 | P.M.: CB
P.N.: 23001 | CAD: CB
SHEET NO. C1.1

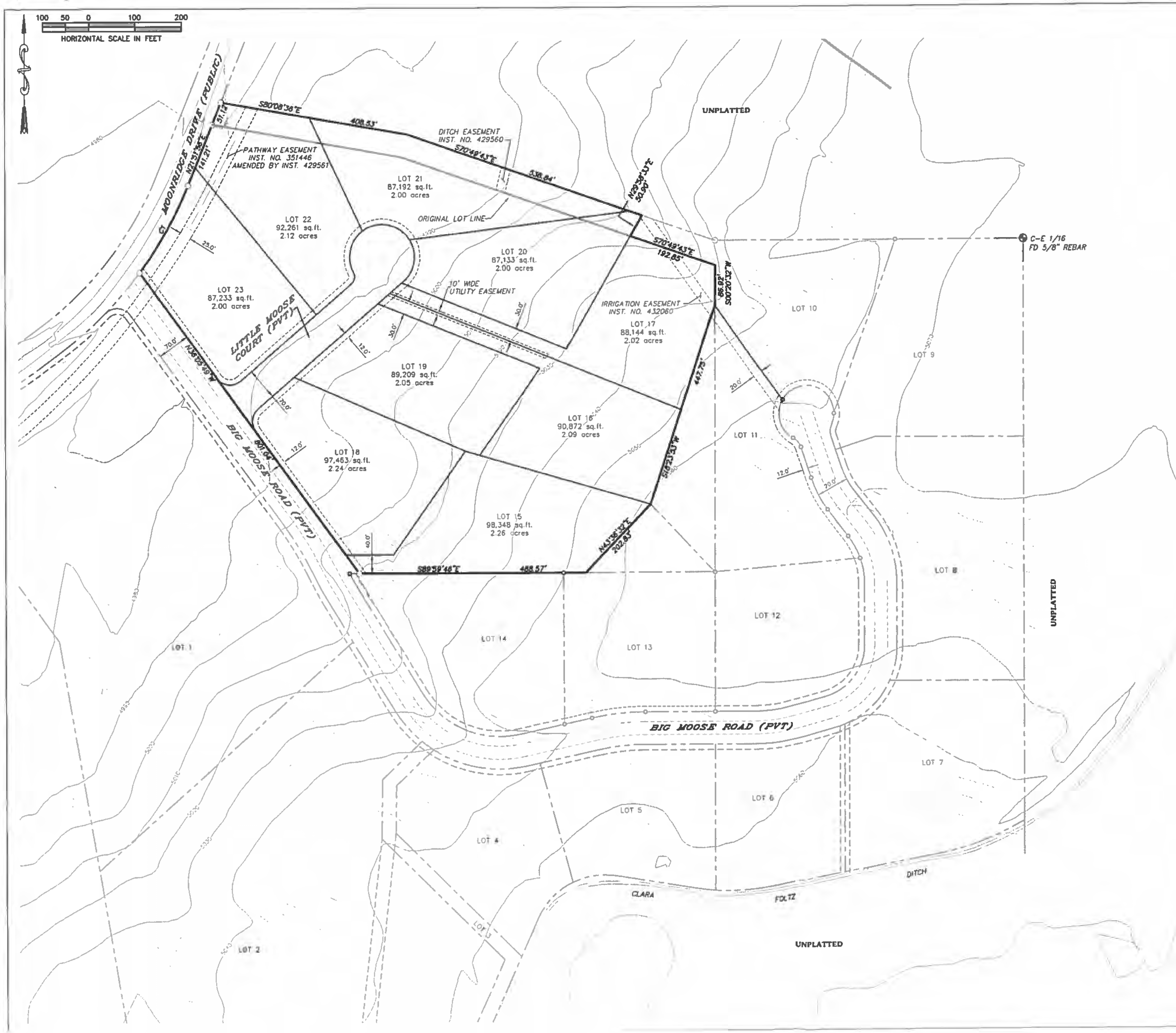


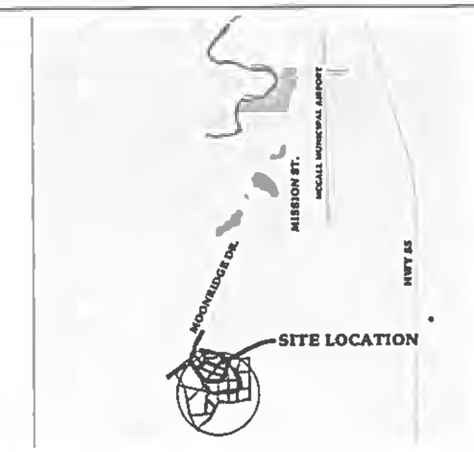


SHEET NO.	DATE	NO.	REVISIONS	DATE	SITE GRADING AND DRAINAGE PLAN for MOON VIEW RANCH SUBDIVISION PHASE 2	Bowers Land Surveys, Inc.	PROFESSIONAL ENGINEER 13549 STATE OF IDAHO
C2.0	P.M. [redacted] CAD D				LITTLE MOOSE COURT	[redacted]	



SHEET NO. C3.0 SWPPP	DATE / P.M. / CAD	NO.	REVISIONS	DATE	SITE GRADING AND DRAINAGE PLAN for MOON VIEW RANCH SUBDIVISION PHASE 2 SWPPP	Bowers Land Surveys, Inc. [redacted]





VICINITY MAP
(N.T.S.)

Legend

- Found Monument as Noted
- Calculated Position, No Monument Set or Found
- Found 1/2 inch rebar
- Found 5/8 inch rebar
- Exterior Boundary Line
- Parcel Line
- Existing Parcel Line
- Easement Line

OWNER

EMMERS, LLC
PO BOX 710
MCCALL, ID 83638

PROJECT DATA

TOTAL ACREAGE : 19.78 Ac.

BUILDABLE LOTS: 9 NEW LOTS IN PHASE 2, AND

ACCESS TO LOTS
8 NEW LOTS WILL BE ACCESSED FROM LITTLE MOOSE COURT
1 LOT WILL BE ACCESSED FROM BIG MOOSE ROAD

ACREAGE OF NEW RIGHT-OF-WAY: 1.00 AC

TOTAL LENGTH OF ROADS: 485 FEET

GENERAL NOTES

1. Big Moose Road is an existing private right-of-way, owned and maintained by the Moon View Ranch Property Owners Association, see Private Road Declaration Instrument Number 452574

2. Little Moose Court and its depicted right-of-way is private, and after completion, shall be owned and maintained by the Moon View Ranch Property Owners Association as provided in the Declaration of Private Roads recorded as Instrument No.________

3. No Lots shall be accessed from Moonridge Drive.

4. Utilities will be completed as provided in the Declaration of Installation of Utilities, recorded as Instrument No. ________

5. All utilities on this Plat are dedicated to Public Utilities.

6. Flood Zones shown on this plat are per FEMA FIRM Panel 16085C 1001
Effective February 1, 2019
Flood Zone: Zone X
Base Flood ElevationA: N/A
Flood Zones are subject to change by FEMA and all land within a floodway or floodplain is regulated by Title 9 and Title 11 of the Valley County Code.

7. The Valley County Board of Commissioners have the sole decretion to set the level of service for any public road, the level of service can be changed.

8. All Lots shall be subject to the Declaration of Protective Covenants, Conditions, Restrictions and Easements for Moon View Ranch Subdivision Phase 2, the Articles of Incorporation of the Moon View Ranch Phase 2 Property Owners Association, all as recorded with the Office of the Recorder of Valley County, Idaho as Instrument Nos. ________ and ________. By purchasing a Lot in the Subdivision, the purchaser acknowledges that he/she/it has reviewed these documents and understands that, as owners, they and thier guests, invitees and assigns will be bound by them.

9. The Declaration of Protective Covenants, Conditions, Restrictions and Easements for Moon View Ranch Subdivision Phase 2 contains certain restrictions on a Lot owner's right to engage in the short term rental of their Lot. By purhasing a Lot in the Subdivision, the purchaser acknowledges that he/she/it has reviewed these restrictions and understands that, as owners, they and their guests, invitees and assigns will bound by them.

10. No rights to irrigation water shall be conveyed with any of the Lots.

CURVE TABLE				
CURVE	LENGTH	RADIUS	BEARING	CHORD
C1	214.29	835.00	N29°13'03"E	213.70

Datum/References

Horizontal datum based on Idaho State Plane, Idaho West Zone 1103. Coordinates were derived from GPS observations and projected to ground by applying a scale factor of 1.0002879292 to grid values. Distances are ground distances and are in U.S. survey feet.

Refer to Plat of Moon View Ranch Subdivision, Bk. 14, pg. 88, Inst. No. 452673
Refer to ROS Bk. 14, pg.25, Inst. No. 309623

NO.	REVISIONS	DATE

PRELIMINARY PLAT
for
MOON VIEW RANCH SUBDIVISION PHASE 2

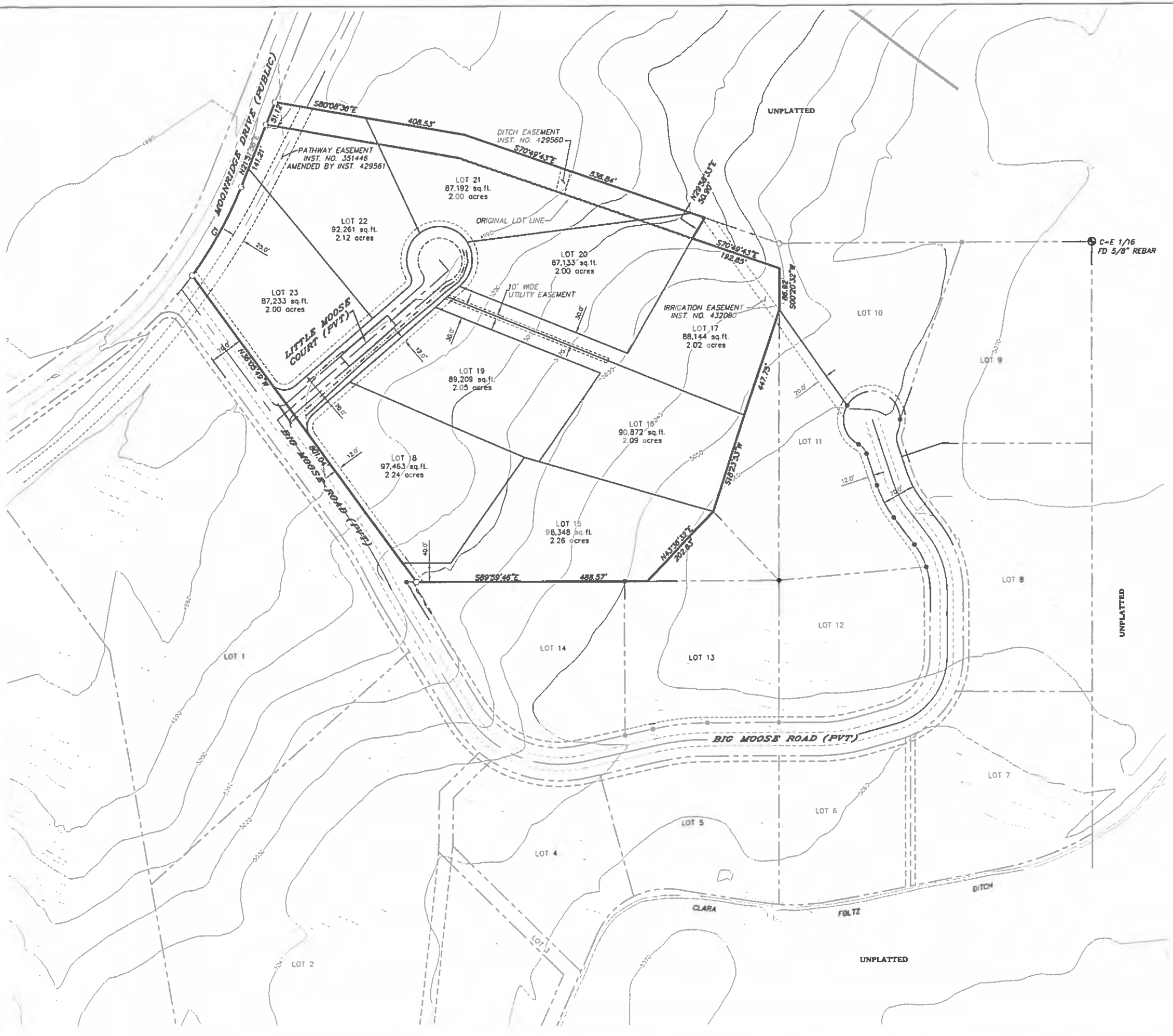
LOCATED IN SECTION 29 AND A PORTION OF MOON VIEW RANCH SUBDIVSION ,
T. 18 N., R. 3 E., B.M.,
VALLEY COUNTY, IDAHO

Bowers Land Surveys, Inc.

[redacted]

PROFESSIONAL LAND SURVEYOR
LICENSED
13549
STATE OF IDAHO
GEORGE J. BOWERS IV

DATE 4/16/23 P.M. CB
P.N. 23001 CAD CB
SHEET NO.
SHEET 1 OF 1



VICINITY MAP
(N.T.S.)

100 50 0 100 200
HORIZONTAL SCALE IN FEET

Legend

- Found Monument as Noted
- Calculated Position, No Monument Set or Found
- o Found 1/2 inch rebar
- Found 5/8 inch rebar
- Exterior Boundary Line
- Parcel Line
- Existing Parcel Line
- Easement Line

OWNER

EMMERS, LLC
PO BOX 710
McCALL, ID 83638

PROJECT DATA

TOTAL ACREAGE : 19.78 Ac.

BUILDABLE LOTS: 9 NEW LOTS IN PHASE 2

ACCESS TO LOTS
8 LOTS WILL BE ACCESSED FROM LITTLE MOOSE COURT
1 LOT WILL BE ACCESSED FROM BIG MOOSE ROAD

ACREAGE OF NEW RIGHT-OF-WAY: 1.00 AC

TOTAL LENGTH OF ROADS: 465 FEET

SHEET INDEX

Datum/References

Horizontal datum based on Idaho State Plane, Idaho West Zone 1103. Coordinates were derived from GPS observations and projected to ground by applying a scale factor of 1.0002879292 to grid values. Distances are ground distances and are in U.S. survey feet.

Refer to Plat of Moon View Ranch Subdivision, Bk. 14, pg. 88, Inst. No. 452673
Refer to ROS Bk. 14, pg.25, Inst. No. 309623

PROFESSIONAL LAND SURVEYOR
CHRISTOPHER J. BOWERS II
13549
STATE OF IDAHO

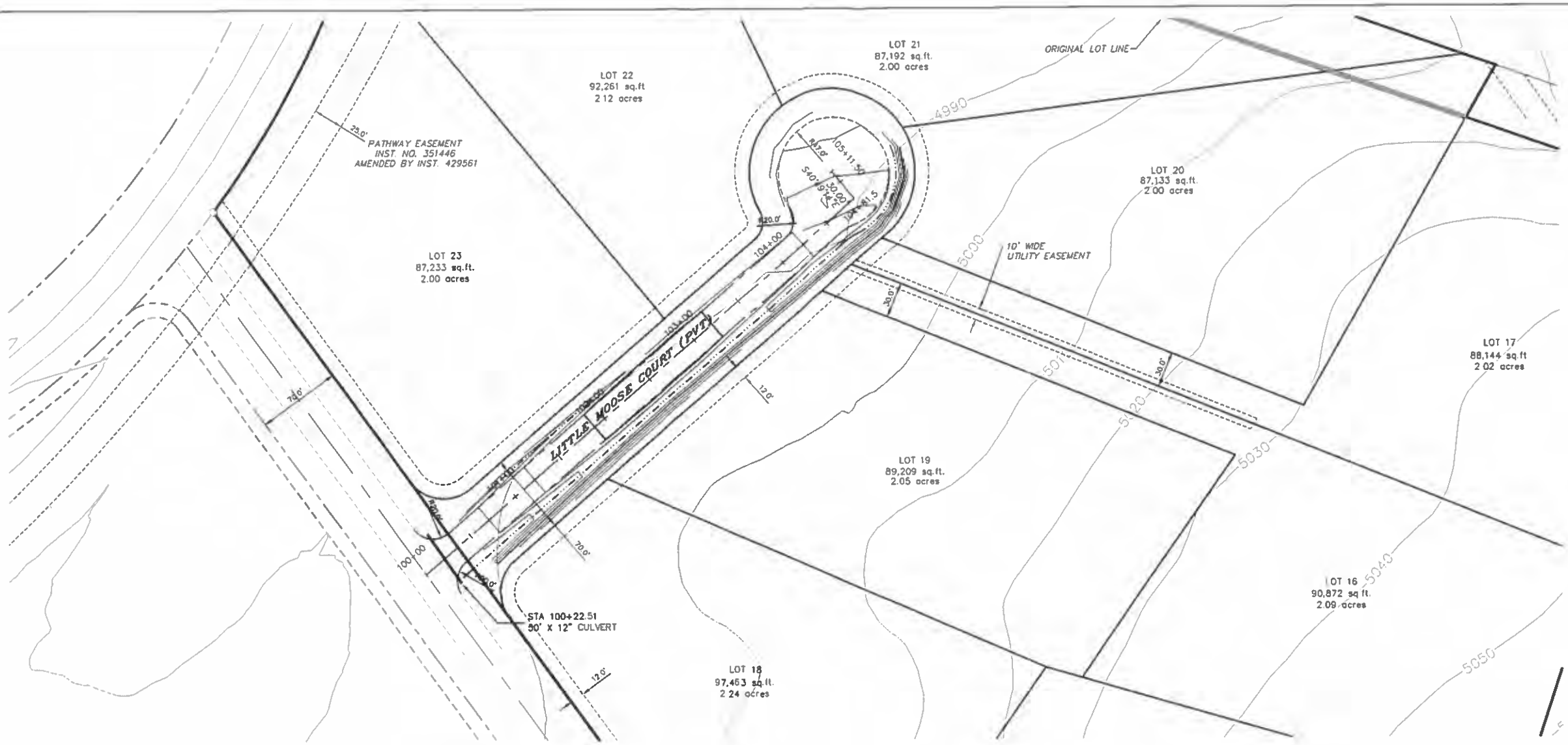
Bowers Land Surveys, Inc.

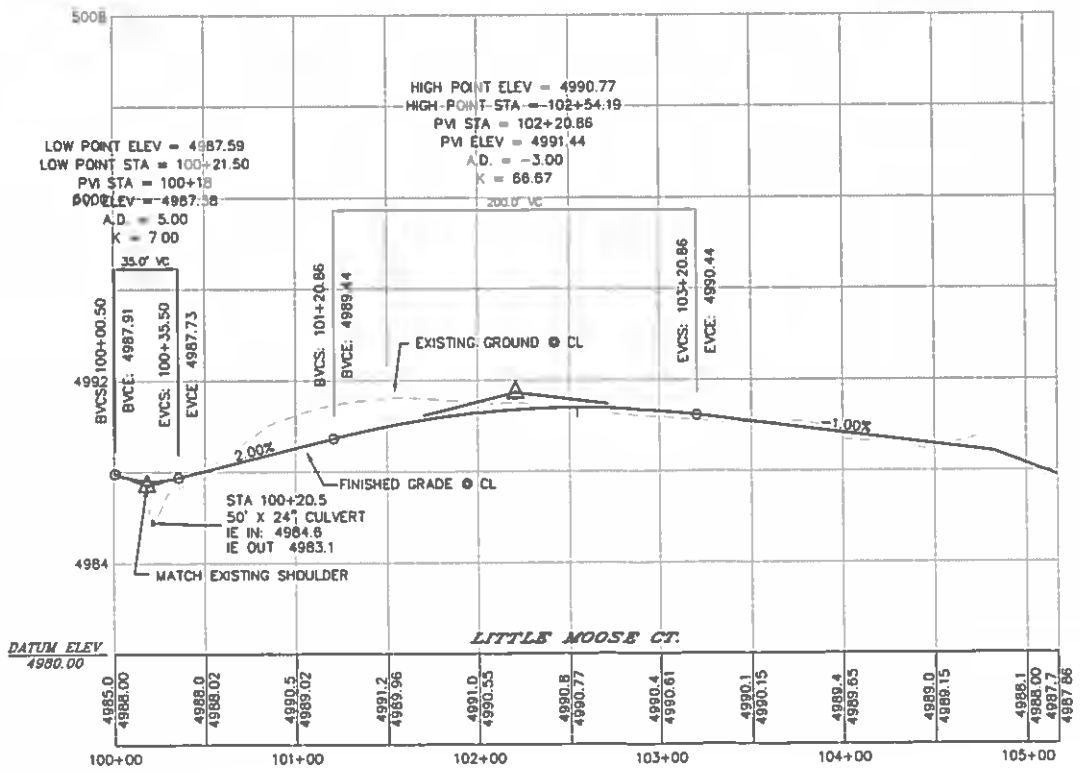
SITE GRADING AND DRAINAGE PLAN for MOON VIEW RANCH SUBDIVISION PHASE 2

COVER

NO.	REVISIONS	DATE

DATE 4/16/23 P.M. CB
P.N. 23001 CAD CB
SHEET NO. C1.0





PROFESSIONAL LAND SURVEYOR
LICENSED
13549
STATE OF IDAHO
GEORGE J. BOWERS II

Bowers Land Surveys, Inc.

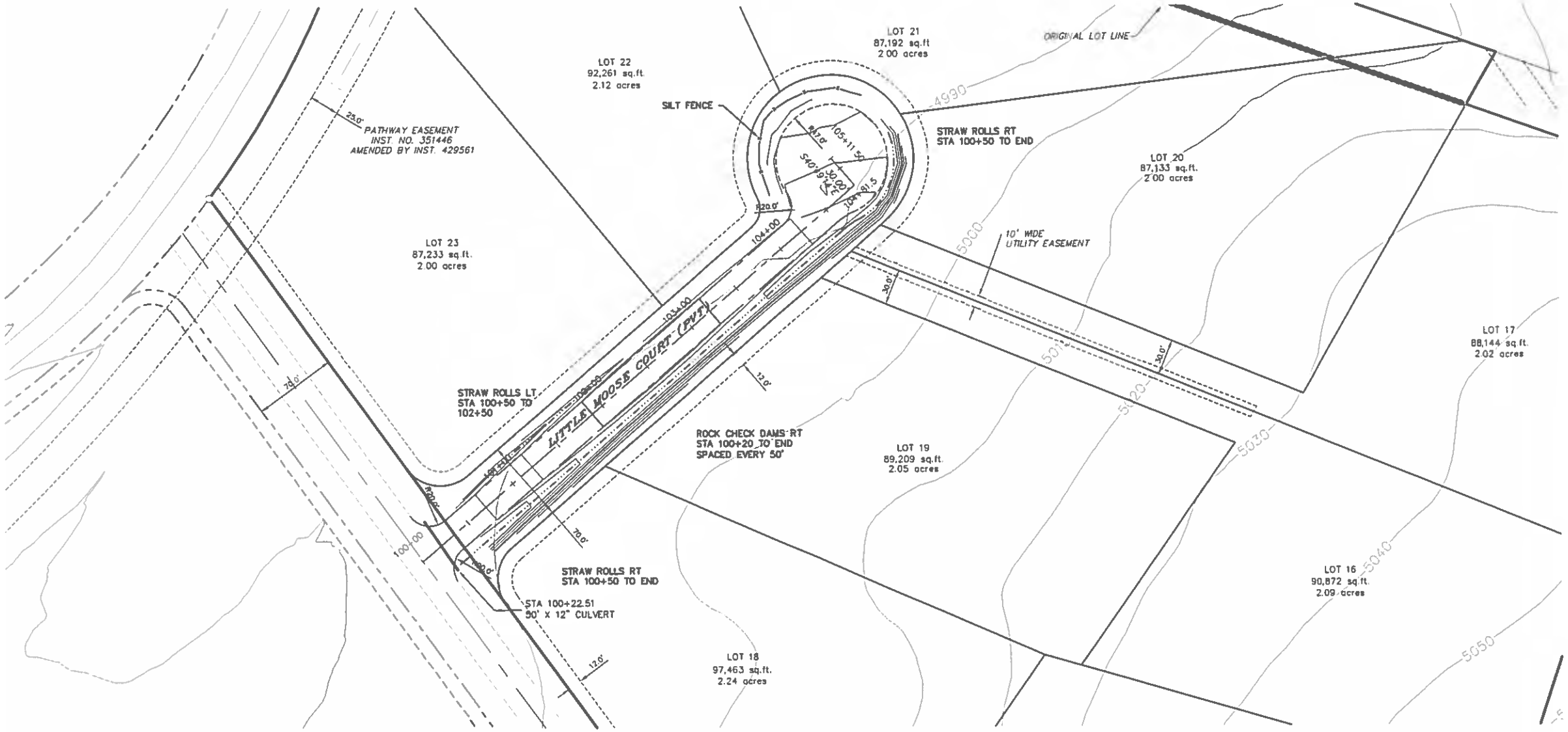
[redacted]

SITE GRADING AND DRAINAGE PLAN
for
MOON VIEW RANCH SUBDIVISION PHASE 2

LITTLE MOOSE COURT

NO.	REVISIONS	DATE

DATE 4/16/23 P.M. CB
P.N. 23001 CAD CB
SHEET NO. C2.0



PROFESSIONAL LAND SURVEYOR
13549
STATE OF IDAHO
GEORGE J. BOWERS II

Bowers Land Surveys, Inc.

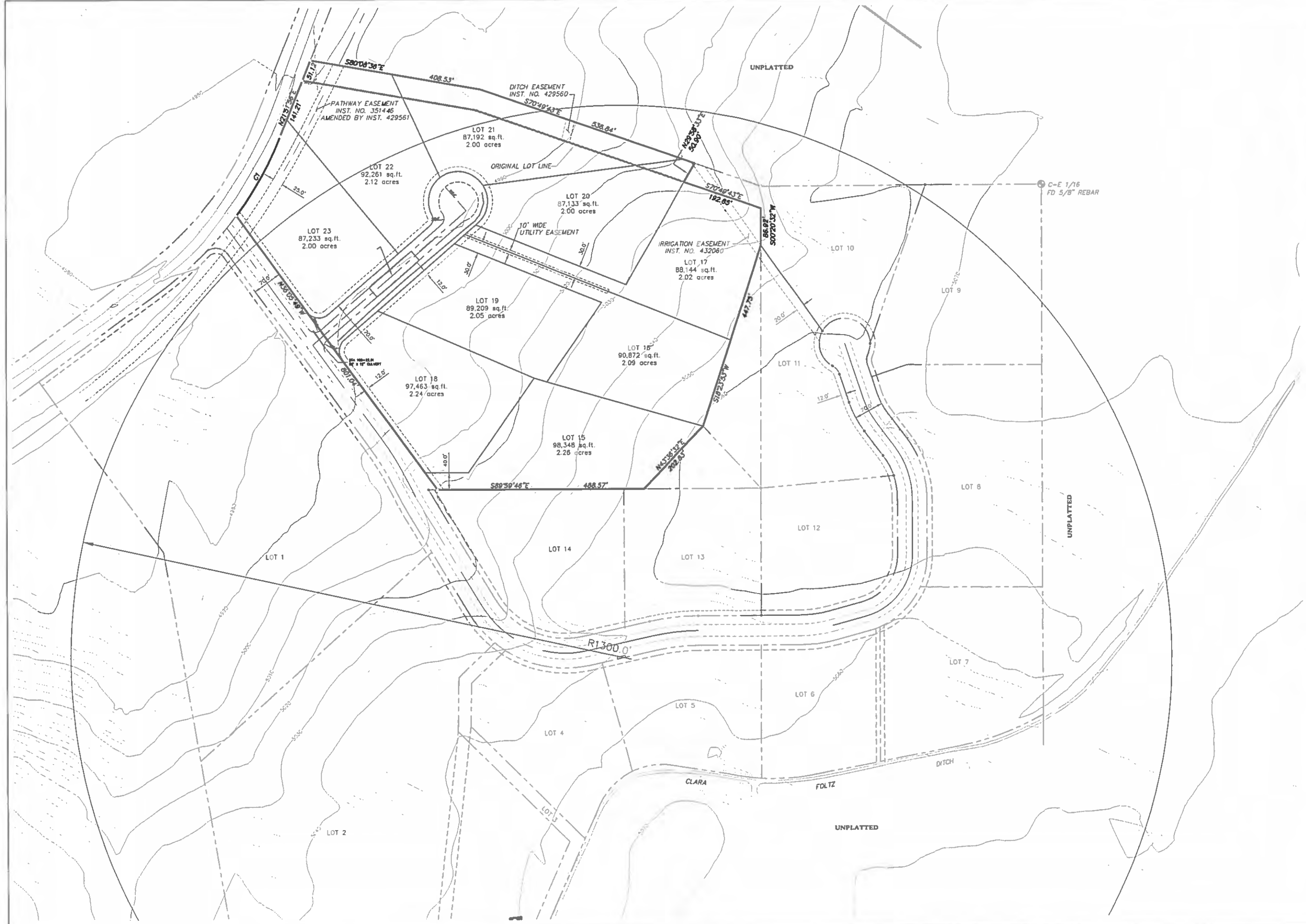
SITE GRADING AND DRAINAGE PLAN
for
MOON VIEW RANCH SUBDIVISION PHASE 2

SWPPP

NO.	REVISIONS	DATE

DATE 4/16/23 P.M. CB
P.N. 23001 CAD CB

SHEET NO.
C3.0 SWPPP



PROFESSIONAL LAND SURVEYOR
LICENSED
13549
STATE OF IDAHO
GEORGE I. BOWERS IV

Bowers Land Surveys, Inc.

[redacted]

MOON VIEW RANCH SUBDIVISION PHASE 2

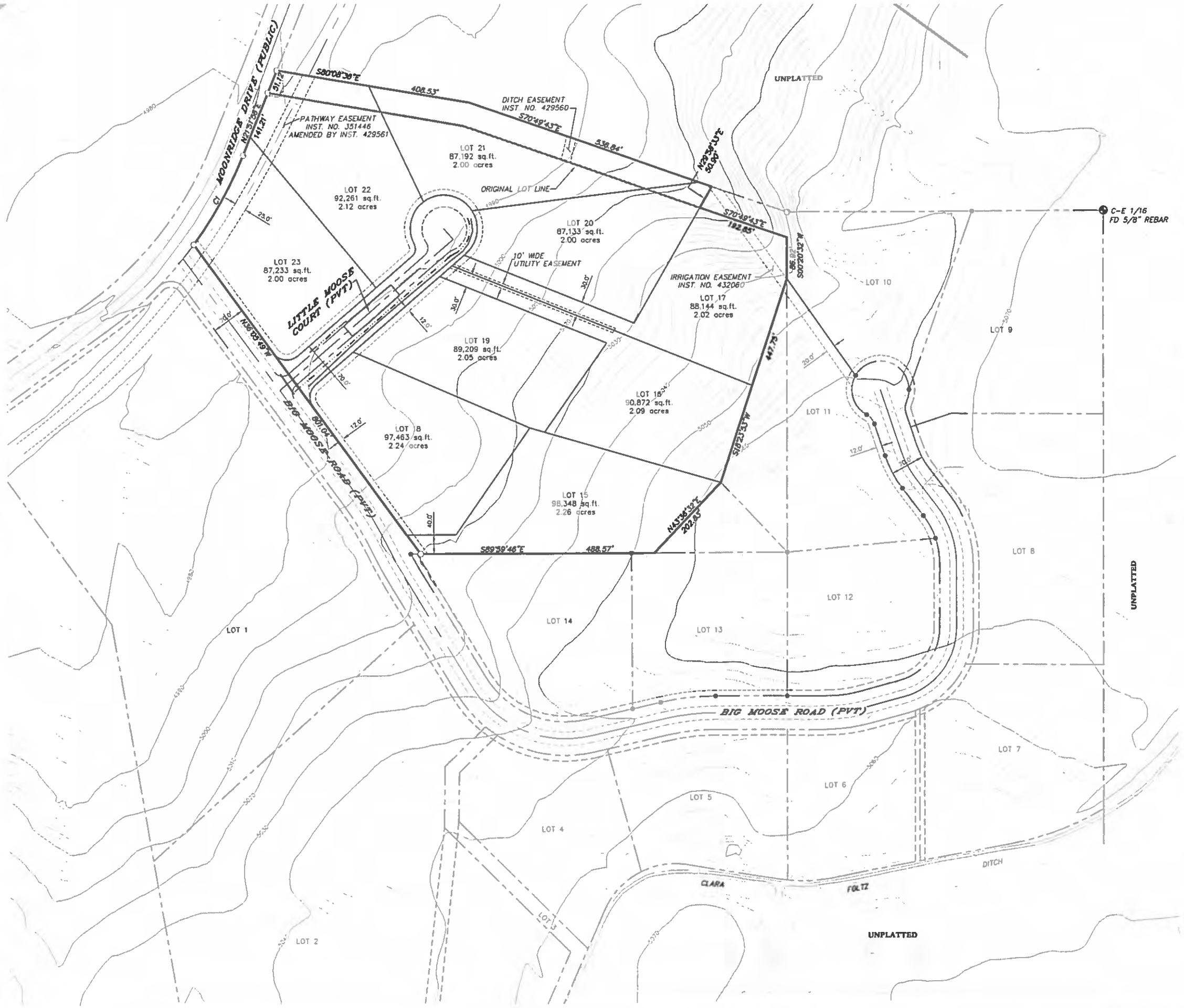
FIRE TANK

NO.	REVISIONS	DATE

DATE	P.M.
4/14/23	CB
P.N.	CAD
23001	CB

SHEET NO.

FIRE TANK



VICINITY MAP
(N.T.S.)

100 50 0 100 200
HORIZONTAL SCALE IN FEET

Legend

- Found Monument as Noted
- Calculated Position, No Monument Set or Found
- Found 1/2 inch rebar
- Found 5/8 inch rebar
- Exterior Boundary Line
- Parcel Line
- Existing Parcel Line
- Easement Line

OWNER

EMMERS, LLC
PO BOX 710
MCCALL, ID 83638

PROJECT DATA

TOTAL ACREAGE : 19.78 Ac.

BUILDABLE LOTS: 9 NEW LOTS IN PHASE 2

ACCESS TO LOTS
8 LOTS WILL BE ACCESSED FROM LITTLE MOOSE COURT
1 LOT WILL BE ACCESSED FROM BIG MOOSE ROAD

ACREAGE OF NEW RIGHT-OF-WAY: 1.00 AC

TOTAL LENGTH OF ROADS: 465 FEET

SHEET INDEX

Datum/References

Horizontal datum based on Idaho State Plane, Idaho West Zone 1103. Coordinates were derived from GPS observations and projected to ground by applying a scale factor of 1.0002879292 to grid values. Distances are ground distances and are in U.S. survey feet.

Refer to Plat of Moon View Ranch Subdivision, Bk. 14, pg. 88, Inst. No. 452673
Refer to ROS Bk. 14, pg.25, Inst. No. 309623

PROFESSIONAL LAND SURVEYOR
CHRISTOPHER J. BOWERS
13549
STATE OF IDAHO

Bowers Land Surveys, Inc.

SITE GRADING AND DRAINAGE PLAN for MOON VIEW RANCH SUBDIVISION PHASE 2

COVER

NO	REVISIONS	DATE

DATE	P.M.
4/16/23	CB
P.N.	CAD
23001	CB

SHEET NO.
C1.0