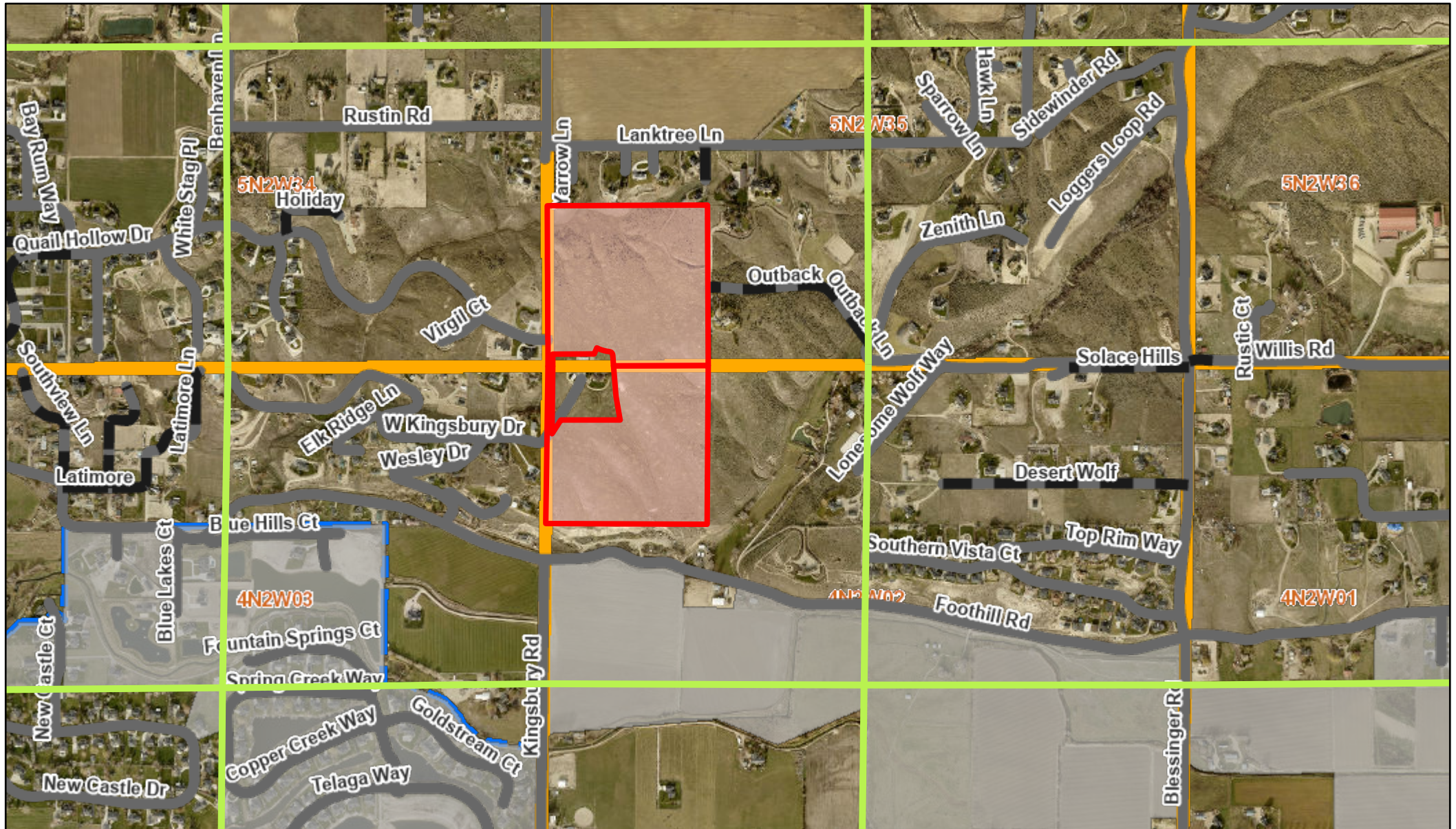
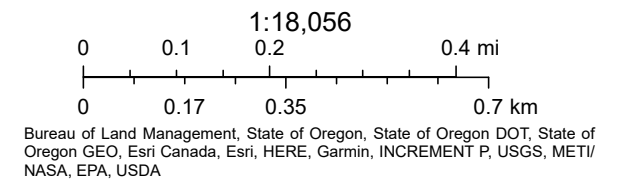


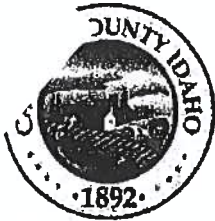
Canyon County, ID Web Map



6/17/2026, 11:34:37 AM

- | | | |
|--|---|---|
| Multiple Parcel Search_Query result | CC_PrivateRoads | Sections |
| Quarter Line | County Boundary | Imagery_2025_2026 |
| CanyonCountyRoads | Current Impact Area | Red: Band_1 |
| Roads | City Limits | Green: Band_2 |





FINAL PLAT
PUBLIC HEARING - MASTER APPLICATION

PROPERTY OWNER	OWNER NAME: Nate Mitchel	
	MAILING ADDRESS: 210 Murray St., Boise, ID 83714	
	PHONE: [REDACTED]	EMAIL: [REDACTED]
I consent to this application and allow DSD staff / Commissioners to enter the property for site inspections. If the owner(s) is a business entity, please include business documents, including those that indicate the person(s) who are eligible to sign.		
Signature: <u>[Signature]</u> Date: <u>5-12-2026</u>		

APPLICANT: IF DIFFERING FROM THE PROPERTY OWNER	APPLICANT NAME: Kindi Moosman	
	COMPANY NAME: CK Engineering	
	MAILING ADDRESS: 6700 W State St., Boise, ID 83714	
	PHONE: [REDACTED]	EMAIL: [REDACTED]

SITE INFO	STREET ADDRESS: 0 W Kingsbury Drive	
	PARCEL NUMBER: R33827, R37624	
	PARCEL SIZE: 34.05, 38.73	
	NUMBER OF LOTS: 47 total - 43 buildable	
	PROPOSED SUBDIVISION NAME: Cloud Nine Subdivision	
	FLOOD ZONE (YES/NO) No	ZONING DISTRICT: CR-R1

Cloud Nine Estates

FOR DSD STAFF COMPLETION ONLY:

CASE NUMBER	<u>SD2026-0014</u>	DATE RECEIVED:	<u>6/3/26</u>
RECEIVED BY:	<u>[Signature]</u>	APPLICATION FEE:	<u>\$2,865⁰⁰</u> CK MO CC CASH



FINAL PLAT

PUBLIC HEARING - CHECKLIST

FINAL PLAT - CCZO Section 07-02-03

THE FOLLOWING ITEMS MUST BE SUBMITTED WITH THIS APPLICATION TO BE DEEMED COMPLETE (PLEASE CHECK OFF THE ITEMS REQUIRED):

Description	Applicant	Staff
Master Application completed and signed		✓
Copy of Final Plat: 1 Hard Copy, 1 Digital		✓
Final Drainage Plan, if applicable		✓
Final Irrigation Plan, if applicable		NA
Final Grading Plan, if applicable		✓
Completed Final Plat Checklist		✓
As-Built or Record Drawings if applicable CCZO §07-17-29(3)		
Condition Compliance Proof (Conditional Rezone/D.A.)		
Proof of approval from:		
Southwest District Health		
Irrigation District		
Fire District		
Highway District/ Idaho Transportation Dept.		
City Impact Area		
Bonding Instructions		
Deed or evidence of property interest to the subject property		○
Fee: Per Adopted Fee Schedule + Per lot fee + for Area of City Impact Fee	See fee schedule	
Fees are non-refundable		

*DISCLAIMER: The subject property shall be in compliance with the public nuisance ordinance, the building code and the zoning code before the Director can accept the application.

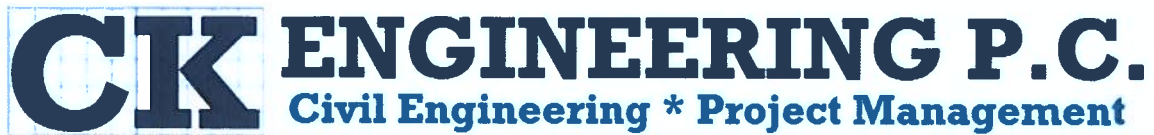
NOTES:

- Any conditions of approval given during the rezoning or preliminary plat process, if applicable, must be addressed as part of submittal materials to ensure condition compliance is met.
- Evidence that all improvements have been completed or bonded per CCZO §07-17-29(4) must be submitted after construction drawing approval and before the final plat signature by the Board of County Commissioners.

FINAL PLAT FEE SCHEDULE

		Applicable Fees
Planning: Final Plat	\$ 700.00	700
Per lot fee over 29 lots	20.00	x19 380
DA Review (CR Compliance)	125.00	125
Engineering:		
Final Plat	500.00	500
Per lot fee	20.00	x48 = 960
Area of Impact Review	200.00	200
Total	XXXXXXXXXXXX	\$2,865

Cloud 9



DATE: May 26, 2026

TO: Canyon County Development Services

111 N. 11th Ave
Caldwell, ID 83605
208-4547458



RE: Cloud Nine Estates

Dan, please see the attached:

1. 1- full sized copy of the construction drawings for Cloud Nine Estates.
2. 1- CD with the Auto Cadd file and a pdf copy of the construction drawings, drainage calcs, plat, and geotechnical report.
3. 1-Hard Copy of the Drainage Calculations.
4. 1-Hard copy of the Geotechnical Engineering Report.
5. Final Plat Checklist
6. Final Plat Master Application

If more is needed, please do not hesitate to call me or e-mail me.

Thanks and have a great day.

Jeremy Foster

RECEIVED BY: _____



AGENCY ACKNOWLEDGMENT

Date: May 12, 2026

Applicant: CK Engineering / Jeremy Foster

Parcel Number: R33827 & R37624

Site Address: 0 West Kingsbury Drive

SIGNATURES DO NOT INDICATE APPROVAL OR COMPLETION OF OFFICIAL REVIEW.

The purpose of this form is to facilitate communication between applicants and agencies so that relevant requirements, application processes, and other feedback can be provided to applicants early in the planning process. Record of communication with an agency regarding the project can be submitted instead of a signature. After the application is submitted, impacted agencies will be sent a hearing notification by DSD staff and will have the opportunity to submit comments.

Southwest District Health:

☐ Applicant submitted/met for informal review.

Date: _____ Signed: _____
Authorized Southwest District Health Representative
(This signature does not guarantee project or permit approval)

Fire District:

District: _____

☐ Applicant submitted/met for informal review.

Date: _____ Signed: _____
Authorized Fire District Representative
(This signature does not guarantee project or permit approval)

Highway District:

District: _____

☐ Applicant submitted/met for informal review.

Date: _____ Signed: _____
Authorized Highway District Representative
(This signature does not guarantee project or permit approval)

Email Correspondence Included

Irrigation District:

District: _____

☐ Applicant submitted/met for informal review.

Date: _____ Signed: _____
Authorized Irrigation Representative
(This signature does not guarantee project or permit approval)

Area of City Impact

City: _____

☐ Applicant submitted/met for informal review.

Date: _____ Signed: _____
Authorized AOCI Representative
(This signature does not guarantee project or permit approval)

DISCLAIMER: THIS ACKNOWLEDGMENT IS ONLY VALID SIX MONTHS FROM THE DATE ISSUED

Kindi Moosman

From: Jeremy Foster
Sent: Friday, May 8, 2026 9:52 AM
To: Kindi Moosman
Subject: FW: Cloud Nine Estates - HD4 Submittal Instructions

Jeremy Foster, P.E., ID
CK-Engineering



CK ENGINEERING

Our address has changed to: 6700 W. State St. Boise, ID 83714

From: Kraig Wartman <kwartman@hwydistrict4.org>
Sent: Thursday, May 7, 2026 8:39 AM
To: Jeremy Foster [REDACTED]
Cc: Lenny Riccio <lriccio@hwydistrict4.org>
Subject: RE: Cloud Nine Estates

Jeremy,

We require a full-size hard copy of plans and final plat for review, in addition to the electronic copies of the same and any other project submittals.

We count the submittal as received and eligible to be placed in the review queue when the hard copy submittal has been delivered to our offices.

Please see HSDP **2030.060-.061**. submittal requirements, for CHD4 to log this as an official submittal

2030.060. Submittal Requirements for Preliminary Plats, Final Plats and Improvement Plans are as follows (where items are applicable):

A. Hard copies of drawings:

1. One (1) complete set of 11" x 17" sheets.
2. One (1) complete set of 24" x 36" (or relevant full size) sheets.

B. Hard copy of technical report(s):

1. One (1) complete report(s); such as soils (per 3062), drainage (per 3070), traffic impact study (per 3110), etc.

C. Hard copy list of quantities:

1. One (1) complete list of quantities.

D. Hard copy of 8-1/2" x 11" vicinity map.

E. Once construction is complete and before final plat approval; record drawings shall be Submitted in ACAD (.dwg) file format with accompanying full-size pdfs.

F. Full size drawing pdf's, reports, quantities and/or maps of items as noted above on a USB Memory Stick / Flash drive or by e-mail (file size may limit ability to receive e-mails. Drop box or other time limiting data transfer service are NOT acceptable alternatives).

2030.061. Submittals are not considered complete until all submittal requirements as above plus associated fees are received by the District. Time of review will not start until submittals are complete.

Regards,

Kraig Wartman
Sr. Engineering Tech.
kwartman@hwydistrict4.org



Highway District No. 4
[Highway District No. 4 \(hwydistrict4.org\)](http://hwydistrict4.org)
15435 Hwy 44
Caldwell, ID 83607
Phone: (208) 454-8135
Fax: (208) 454-2008
HD4 Hours - Mon- Thurs 7 till 5:30

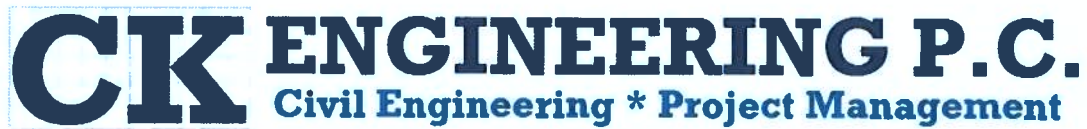
From: Jeremy Foster [REDACTED]
Sent: Thursday, May 7, 2026 8:18 AM
To: Kraig Wartman <kwartman@hwydistrict4.org>
Subject: Cloud Nine Estates

Kraig,
We are wanting to send in plans for review for Cloud Nine Estates. How is HD4 liking plans to be submitted now. Do you want hardcopies or would you like it electronic?
I'm wanting to double check so they come in way that works best for HD4's review process. Also, who would be the best person to direct the submittal to?
Thanks for your help,

Jeremy Foster, P.E., ID
CK-Engineering



CK-ENGINEERING
[Our address has changed to: 6700 W. State St. Boise, ID 83714](http://www.ck-engineering.com)



DATE: May 8, 2026

TO: Highway District 4
15435 Highway 44
Caldwell, ID 83607

RE: Cloud Nine Estates

Attached:

1. 1 – Master Development Application
2. 1 – Full-size Set of Plans
3. 1 – 11" x 17" Set of Plans
4. 1 – Geotechnical Report
5. 1 – Drainage Calculations
6. 1 – List of Quantities
7. 1 – 8-1/2" x 11" Vicinity Map
8. 1 – USB containing the following:
 - a) Set of Plans
 - b) Geotechnical Report
 - c) Drainage Calculations
 - d) List of Quantities
 - e) Vicinity Map

If you need anything else or have any questions, please contact us.

Thanks and have a great day.

Jeremy Foster

RECEIVED BY: _____

CK Engineering
6700 W State St
Boise, ID 83714



Canyon County, 111 North 11th Avenue, #310, Caldwell, ID 83605

▪ Engineering Division ▪

Final Plat Check-List

Applicant: Jeremy Foster	Case Number:
Subdivision Name: Cloud Nine Subdivision	Plat Date: 8/25/25

CANYON COUNTY CODE OF ORDINANCES 07-17-13 (1-6)

The information hereinafter required as part of the preliminary plat submitted shall be shown graphically or by note on plans, and may comprise several sheets showing various elements or required data.

1. METHOD & MEDIUM OF PRESENTATION	<u>Meets Code / Comments</u>
A. All plats to be recorded shall be prepared on a drafting medium in accordance with Requirements of Idaho Code Title 55, Chapter 19, paragraph (1) for Records of Survey Maps.	X
B. The plat shall be drawn to an accurate scale of not more than one hundred feet to an inch (1"=100') unless otherwise approved by DSD <i>prior to submission</i> .	X
C. The final plat drawing shall be additionally submitted in digital form approved by the Director.	X
2. IDENTIFICATION DATA REQUIRED	
A. A title which includes the name of the subdivision and its location by number of section, township, range and county shall be placed together at one location at the top of the sheet and generally centered.	X
B. Name, address and official seal of the surveyor preparing the plat.	X
C. North arrow.	X
D. Date of preparation.	X
E. Revision block showing dates of any revisions subsequent to the original preparation date. The revision block shall be part of the title block which shall be placed along the right edge of the drawing.	X

3. SURVEY DATA REQUIRED	<u>Meets Code / Comments</u>
A. Boundaries of the tract to be subdivided and the interior lots are to be fully balanced and closed, showing all bearings and distances determined by an accurate survey in the field. All dimensions shall be expressed in feet and decimals thereof. • <i>Check boundary measurements on plat with legal description measurements, verify they are the same</i> • <i>Request closure report be sent along with final plat when it gets routed to the County Surveyor. Closure report should include the metes and closure error ratio for each individual lot and the metes and closure error ratio for the exterior boundary of the subdivision.</i>	X
B. Any excepted lots within the plat boundaries shall show all bearings and distances determined by an accurate survey in the field. All dimensions shall be expressed in feet and decimals thereof.	X
C. Basis of bearing on the plat shall be referenced. • <i>Make sure it matches the legal description</i> • <i>Reference to point of beginning</i>	X

4. DESCRIPTIVE DATA REQUIRED	<u>Meets Code / Comments</u>
A. Name, right-of-way lines, courses, lengths, width of all private and public streets, alleys, pedestrian ways and utility easements.	X
B. All drainage ways.	X
C. All easements provided for public services or utilities and any limitations of the easements. • <i>Applicable description for easements</i>	X
D. All lots and blocks shall be numbered throughout the plat in accordance with Idaho Code. "Exceptions", "tracts", and "private parks" shall be so designated, lettered or named and clearly dimensioned.	X
E. All sites to be dedicated to the public will be indicated and the intended use specified.	X
F. All roads must be labeled as either "private" or "public" behind or beneath the road name.	X
G. The area of each lot shall be stated in acres and decimals thereof.	X
H. The statement from Idaho Code 22-4503 or any later amended statutory language shall appear on all final plats located in a zone where agricultural uses are allowed or permitted.	X
I. A note as to the type of sewage disposal facilities to be provided.	X

J. A note as to the type of water supply facilities to be provided.	X
K. Required section and quarter-section line setbacks.	X
5. DEDICATION AND ACKNOWLEDGMENT	<u>Meets Code / Comments</u>
A. A statement of dedication of all streets, alleys, pedestrian ways and other easements for public use by the person holding title of record and by person holding title as vendees under land contract.	X
B. Acknowledgement of dedication: The dedication referred to in Section 07-18-17 of this Chapter shall be in the form of a certificate acknowledged in accordance with Idaho Code 50-1309.	X
6. REQUIRED CERTIFICATIONS	<u>Meets Code / Comments</u>
A. Landowner's signature.	Will be added at mylar stage
B. Certification by a surveyor stating that the plat is correct and accurate and that the monuments described in it have been located as described. <i>Make sure stamp is signed and dated.</i>	Will be added at mylar stage
C. Certification of plat approval by the County Surveyor.	Will be added at mylar stage
D. Certification of plat approval by the Board.	Will be added at mylar stage
E. Approval or certification of comment by impacted agencies that may include: Highway Districts, Health Department, the City when the development is in an area of City Impact, Treasurer, Recorder, and State and Federal agencies having jurisdiction.	Will be added at mylar stage



CK ENGINEERING

DRAINAGE CALCULATIONS FOR:

Cloud Nine Estates

Canyon County Idaho

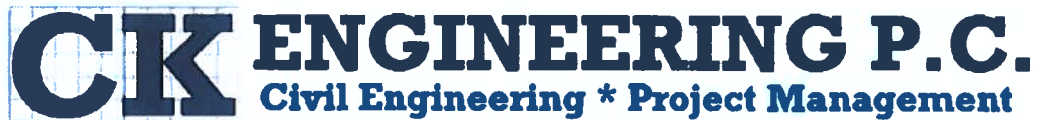
April 28, 2026



Prepared for:
Nate Mitchell
210 Murray Street
Boise, ID 83714
[REDACTED]

Prepared by:
CK Engineering, P.C.
Scott Wonders, PE, ID
6700 W. State St.
Boise, ID 83714
[REDACTED]

CK ENGINEERING
6700 W. State St Boise, ID 83714
[REDACTED]



CLOUD NINE ESTATES STORM DRAIN NARRATIVE

Cloud Nine Estates Subdivision located in Canyon County Idaho. This memo is intended to be a narrative for the preliminary design of the storm drain system for the installation of roads within the proposed preliminary plat.

On the attached drainage area exhibit the site has been broken into 8 different drainage areas. Drainage areas 1-3 will drain to pond 1. A time of concentration was calculated using the distance from DA #2 to at lot 20 down to the pond 1. Drainage area 1 is the entire 100 foot right of way and a runoff coefficient of 0.95 was used over the entire area for the future ultimate build out of Kingbury Road.

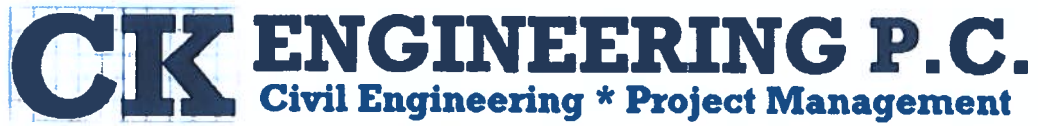
Pond 1 volume was calculated using ACHD's spread sheet and a calculated time of concentration. Pond 1 has a calculated storage volume of 22,742 cubic feet. Time to drain 95% of the 100 year storm volume was calculated as follows:
 $(22,742)(0.95) = 21,604.9$ cubic feet. Geotech report states 1 inch per hour percolation rate. Pond bottom needs to be 5,400 sq feet.
 $(21,604.9)/(5400)(1/12) = 48$ hours to drain.

Drainage areas 4, 5, 6 and 8 will drain to pond 2. A time of concentration was calculated using the distance from DA 6 in front of lot 3 down to pond 2. Drainage area 5 is the 100 foot right-of-way for Kingbury Road and a runoff coefficient of 0.95 was used over the entire area for the future ultimate build out of Kingbury Road.

Pond 2 volume was calculated using ACHD's spread sheet and a calculated time of concentration. Pond 2 has a calculated storage volume of 15,785 cubic feet. Time to drain 95% of the 100 year storm volume was calculated as follows:
 $(15,785)(.95) = 14,995.75$ cubic feet. Geotech report states 1 inch per hour percolation rate. Pond bottom needs to be 3,800 square feet.
 $(14,995.75)/(3,800)(1/12) = 47.35$ hours.

Drainage area 7 will drain to pond 3. A time of concentration was calculated using the distance from the northern most end of drainage area 7 in front of lot 23 down to pond 3. 50 feet of lot frontage plus 805 feet of borrow ditch.

Pond 3 volume was calculated using ACHD's spread sheet and a calculated time of concentration. Pond 3 has a calculated storage volume of 2,492 cubic feet. Time to drain 95% of the 100 year storm volume was calculated as follows:
 $(2,492)(0.95\%) = 2,367.40$ cubic feet. Geotech report states 1 inch per hour percolation rate. Pond bottom need to be 650 square feet.
 $(2,367.40)/(650)(1/12) = 43.70$ hours.



The proposed borrow ditch sections have been lined with 6 inches of 3 inch drain rock per Section 3070.040, Borrow Ditches. This is based on the highest velocity for the site of 3.1 fps. The highest depth is 0.48 ft. Each ditch is a minimum of 2 feet in depth which has a freeboard greater than the 0.5 feet required to the edge of the roadway shoulder.

Please see the attached drainage calculations and drainage area exhibit.

A handwritten signature in blue ink, appearing to read 'W. Scott Wonders', is written over a faint, light blue grid background.

W. Scott Wonders, P.E.
CK Engineering P.C.

ACHD Calculation Sheet for Finding Peak Discharge/Volume - Rational Method

NOTE: This worksheet is intended to be a guideline to standardize ACHD checking of drainage calculations and shall not replace the Engineer's calculation methodology. These calculations shall establish a minimum requirement. The Engineer's methodology must result in facilities that meet or exceed these calculations in order to be accepted.

Calculate Post-Development Flows (for pre-development flows, increase number of storage facilities to create new tab)
User input in yellow cells.

- 1 Project Name **Cloud Nine Pond 1**
- 2 Is area drainage basin map provided? **YES**
(map must be included with stormwater calculations)
- 3 Enter Design Storm (100-Year or 25-Year With 100-Year Flood Route) **100**
- 4 Enter number of storage facilities (25 max)

Click to Show More Subbasins ☐

Subbasin	Subbasin 1	Subbasin 2	Subbasin 3	Subbasin 4	Subbasin 5	Subbasin 6	Subbasin 7	Subbasin 8	Subbasin 9	Subbasin 10
5 Area of Drainage Subbasin (SF or Acres)	SF 183,155	281,928	168,659	0						
	Acres 14.55									
6 Determine the Weighted Runoff Coefficient (C)	0.95	0.25	0.25	0.00						
$C = [(C1 \times A1) + (C2 \times A2) + (Cn \times An)] / A$	Weighted Avg 0.45									

- 7 Calculate Overland Flow Time of Concentration in Minutes (Tc) or use default 10 min
- [User Calculate 10 Min]

ID	Pipe Size (in)	Slope (ft/ft)	Intercept Coeff.	Length	Manning n	Hydraulic Radius A/Wet Perm	Flow Velocity V (fps)	Flow Time (min)
Segment 1: Pipe Flow								
a	0	0		0	0.000	0.00		
Segment 2: Gutter Shallow Concentrated Flow								
b		0.026	0.691	1,143			3.7	6.1
Segment 3: Overland Sheet Flow By TR-55, < 300-ft								
c		0.010		50	0.250		2.7	18.2
Computed Tc =								24.4
User-Entered Tc =								26.7

Type of Surface	Runoff Coefficients "C"
Business	0.70-0.95
Downtown areas	0.50-0.70
Urban neighborhoods	
Residential	
Single Family	0.35-0.50
Multi-family	0.60-0.75
Residential (rural)	0.25-0.40
Apartment Dwelling Areas	0.70
Industrial and Commercial	
Light areas	0.80
Heavy areas	0.90
Parks, Cemeteries	0.10-0.25
Playgrounds	0.20-0.35
Railroad yard areas	0.20-0.40

8 Determine the average rainfall intensity (i) from IDF Curve based on Tc	i	1.58	in/hr
9 Calculate the Post-Development peak discharge (QPeak)	QPeak	10.40	cfs
10 Calculate total runoff vol (V) (for sizing primary storage)	V	22,742	ft ³
$V = C I (Tc-60) A \times 3600$			
11 Calculate Volume of Runoff Reduction Vrr			
Enter Percentile Storm I (95th percentile = 0.60 in)			
	95th	0.60	in
Enter Runoff Reduction Vol (95th Percentile=0.60-In x Area x C)			
	Vrr	14,214	ft ³
12 Detention: Approved Discharge Rate to Surface Waters (if applicable)			cfs
13 Volume Summary			
Surface Storage: Basin			
Basin Forebay	V	2,274	ft ³
Primary Treatment/Storage Basin	V	20,468	ft ³
Subsurface Storage			
Volume Without Sediment Factor (See BMP 20 Tab)	V	22,742	ft ³

Unimproved areas	0.10-0.30
Streets	
Asphalt	0.95
Concrete	0.95
Brick	0.95
Roofs	0.95
Gravel	0.75
Fields: Sandy soil	Soil Type
Slope	
Flat: 0-2%	A 0.04 B 0.07 C 0.11 D 0
Average: 2-6%	0.09 0.12 0.15 0
Steep: >6%	0.13 0.18 0.23 0
Adapted from ASCE	

ACHD Calculation Sheet for Finding Peak Discharge/Volume - Rational Method

NOTE: This worksheet is intended to be a guideline to standardize ACHD checking of drainage calculations and shall not replace the Engineer's calculation methodology. These calculations shall establish a minimum requirement. The Engineer's methodology must result in facilities that meet or exceed these calculations in order to be accepted.

Calculate Post-Development Flows (for pre-development flows, increase number of storage facilities to create new tab)
User input in yellow cells.

- 1 Project Name Cloud Nine Pond 2
- 2 Is area drainage basin map provided? YES
(map must be included with stormwater calculations)
- 3 Enter Design Storm (100-Year or 25-Year With 100-Year Flood Route) 100
- 4 Enter number of storage facilities (25 max)

Click to Show More Subbasins ☐

5 Area of Drainage Subbasin (SF or Acres)	Subbasin 1	Subbasin 2	Subbasin 3	Subbasin 4	Subbasin 5	Subbasin 6	Subbasin 7	Subbasin 8	Subbasin 9	Subbasin 10
SF	0	0	0	38,864	149,420	90,195	0	98,991		
Acres	8.67									
6 Determine the Weighted Runoff Coefficient (C) $C = [(C1 \times A1) + (C2 \times A2) + (Cn \times An)] / A$	0.00	0.00	0.30	0.25	0.95	0.25	0.25	0.25		
Weighted Avg	0.53									

- 7 Calculate Overland Flow Time of Concentration in Minutes (Tc) or use default 10 min (User Calculate 10 Min)

ID	Pipe Size (in)	Slope (ft/ft)	Intercept Coeff.	Length	Manning n	Hydraulic Radius A/Wet Perm	Flow Velocity V (fps)	Flow Time (min)
Segment 1: Pipe Flow								
a	0	0		0	0.000	0.00		
Segment 2: Gutter Shallow Concentrated Flow								
b		0.040	0.491	1,341			3.2	6.9
Segment 3: Overland Sheet Flow By TR-55, < 300-ft								
c		0.010		50	0.250		2.7	18.2
Computed Tc =								25.2
User Entered Tc =								20.6

Type of Surface	Runoff Coefficients "C"
Business	0.70-0.95
Downtown areas	0.50-0.70
Urban neighborhoods	0.35-0.50
Residential Single family	0.60-0.75
Multi-family	0.25-0.40
Residential (rural)	0.70
Apartment Dwelling Areas	0.80
Industrial and Commercial light areas	0.90
Heavy areas	0.10-0.25
Parks, Cemeteries	0.20-0.35
Playgrounds	0.20-0.40
Railroad yard areas	

8 Determine the average rainfall intensity (i) from IDF Curve based on Tc 9 Calculate the Post-Development peak discharge (Q_{Peak})	<i>i</i> <u>1.81</u> in/hr Q_{Peak} <u>8.27</u> cfs
10 Calculate total runoff vol (V) (for sizing primary storage) $V = Ci(Tc+60)A \times 3600$ 11 Calculate Volume of Runoff Reduction V_{rr} Enter Percentile Storm <i>i</i> (95th percentile = 0.60 in) Enter Runoff Reduction Vol (95th Percentile=0.60-In x Area x C) 12 Detention: Approved Discharge Rate to Surface Waters (if applicable)	V <u>15,785</u> ft ³ 95th <u>0.60</u> in V_{rr} <u>9,866</u> ft ³ cfs
13 Volume Summary Surface Storage: Basin Basin Forebay Primary Treatment/Storage Basin Subsurface Storage Volume Without Sediment Factor (See BMP 20 Tab)	V <u>1,579</u> ft ³ V <u>14,207</u> ft ³ V <u>15,785</u> ft ³

Unimproved areas	0.10-0.30
Streets	
Asphalt	0.95
Concrete	0.95
Brick	0.95
Roofs	0.95
Gravel	0.75
Fields: Sandy soil	Soil Type
Slope	A B C D
Flat: 0-2%	0.04 0.07 0.11 0
Average: 2-6%	0.09 0.12 0.15 0
Steep: >6%	0.13 0.18 0.23 0

Adapted from ASCE

ACHD Calculation Sheet for Finding Peak Discharge/Volume - Rational Method

NOTE: This worksheet is intended to be a guideline to standardize ACHD checking of drainage calculations and shall not replace the Engineer's calculation methodology. These calculations shall establish a minimum requirement. The Engineer's methodology must result in facilities that meet or exceed these calculations in order to be accepted.

Calculate Post-Development Flows (for pre-development flows, increase number of storage facilities to create new tab)

User Input in yellow cells.

1 Project Name **Cloud Nine Pond 3**

2 Is area drainage basin map provided? **YES**
(map must be included with stormwater calculations)

3 Enter Design Storm (100-Year or 25-Year With 100-Year Flood Route) **100**

4 Enter number of storage facilities (25 max)

Click to Show More Subbasins ☐

Subbasin	1	Subbasin 2	3	4	5	Subbasin 6	7	8	9	10
SF	0	0	0	0	0	0	125,618	0		
Acres	2.88									
6 Determine the Weighted Runoff Coefficient (C)	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00		
$C = [(C1 \times A1) + (C2 \times A2) + (Cn \times An)] / A$	0.25									
Weighted Avg										

7 Calculate Overland Flow Time of Concentration in Minutes (Tc) or use default 10 min
(User Calculate 10 Min)

ID	Pipe Size (in)	Slope (ft/ft)	Intercept Coeff.	Length	Manning n	Hydraulic Radius A/Wet Perm	Flow Velocity V (fps)	Flow Time (min)
Segment 1: Pipe Flow								
a	U	U		0	0.000	0.00		
Segment 2: Gutter Shallow Concentrated Flow								
b		0.080	0.491	805			4.6	2.9
Segment 3: Overland Sheet Flow By TR-55, < 300-ft								
c		0.010		50	0.250		2.7	18.2
Computed Tc =								21.2
User-Entered Tc =								20.6

Estimated Runoff Coefficients for Various Surfaces

Type of Surface	Runoff Coefficients "C"
Business	0.70-0.95
Downtown areas	0.50-0.70
Urban neighborhoods	
Residential	
Single family	0.35-0.50
Multi-family	0.60-0.75
Residential (rural)	0.25-0.40
Apartment Dwelling Areas	0.70
Industrial and Commercial	
Light areas	0.80
Heavy areas	0.90
Parks, Cemeteries	0.10-0.25
Playgrounds	0.20-0.35
Railroad yard areas	0.20-0.40

8 Determine the average rainfall intensity (I) from IDF Curve based on Tc		I	1.81	in/hr
9 Calculate the Post-Development peak discharge (Q _{Peak})		Q _{Peak}	1.80	cfs
10 Calculate total runoff vol (V) (for sizing primary storage)		V	2,492	ft ³
V = C I (Tc+60) A x 3600				
11 Calculate Volume of Runoff Reduction V _{rr}				
Enter Percentile Storm I (95th percentile = 0.60 in)		95th	0.60	in
Enter Runoff Reduction Vol (95th Percentile=0.60-in x Area x C)		V _{rr}	1,557	ft ³
12 Detention: Approved Discharge Rate to Surface Waters (if applicable)				cfs
13 Volume Summary				
Surface Storage: Basin				
Basin Forebay	V	249	ft ³	
Primary Treatment/Storage Basin	V	2,242	ft ³	
Subsurface Storage				
Volume Without Sediment Factor (See BMP 20 Tab)	V	2,492	ft ³	

Unimproved areas	0.10-0.30			
Streets				
Asphalt	0.95			
Concrete	0.95			
Brick	0.95			
Roofs	0.95			
Gravel	0.75			
Fields: Sandy soil	Soil Type			
Slope	A	B	C	D
Flat: 0-2%	0.04	0.07	0.11	0
Average: 2-6%	0.09	0.12	0.15	0
Steepest: >6%	0.13	0.18	0.23	0
Adapted from ASCE				

Adapted from ASCE

ACHD Quick Calcs for Pipe and Ditch Capacity

NOTE: This worksheet is intended to be a guideline to standardize ACHD checking of drainage calculations and shall not replace the Engineer's calculation methodology. These calculations shall establish a minimum requirement. The Engineer's methodology must result in facilities that meet or exceed these calculations in order to be accepted.

Table Calculations for Pipe & Ditch Capacity

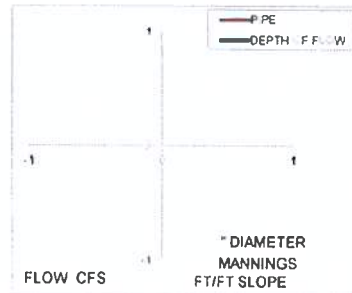
User input in yellow cells.

1 Project Name **Cloud Nine Pond 1**

2 Pipes

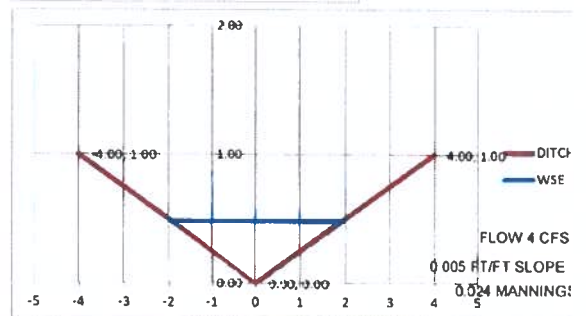
1 Enter Flow	Q =		cfs
2 Manning's n	n =		
3 Slope	S =		ft/ft
4 Pipe Diameter	D =		in
5 Uniform Flow Depth	Y _n =	0.0	in
6 Normal Velocity	V =	0.00	ft/s
7 Critical Flow Depth	Y _c =	0.00	in
8 Critical Velocity	V _c =	0.00	ft/s
9 Full Flow	Q _{full} =	0.00	cfs
9 Full Flow %		0%	

Table on Q, V Tab



3 Ditches

1 Flow Rate	Q =	2.40	cfs
2 Manning's n	n =	0.035	
3 Downstream Slope	S ₁ =	0.0260	ft/ft
4 Base Width	b =	0.00	ft
5 Side Slope (H:1)	S ₂ H:1 =	4.00	
6 Uniform Flow Depth	Y _n =	0.48	ft
7 Velocity	V =	2.59	ft/s



4 Orifice/Weirs

Slide On Orifice Cap, >= 3"	Hole	High Water Elev.	Elev. at Orifice Bottom	Q	Area A (ft²)	Round Dia. (in)	Set Width Rectangle (in)	Height Rectangle (in)
	25-year							
	50-year							
	100-year							

2-Sharp Crest Weir	Width b (ft)	High Water Elev. (ft)	Crotch Elev. (ft)	h	Q
				0.00	0.00

0.000 @ radians	
0.607 C _e	
0.014 k	

ACHD Quick Calcs for Pipe and Ditch Capacity

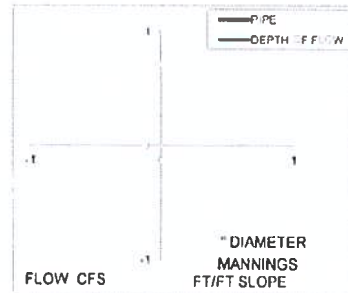
NOTE: This worksheet is intended to be a guideline to standardize ACHD checking of drainage calculations and shall not replace the Engineer's calculation methodology. These calculations shall establish a minimum requirement. The Engineer's methodology must result in facilities that meet or exceed these calculations in order to be accepted.

User input in yellow cells.

1 Project Name **Cloud Nine Pond 3**

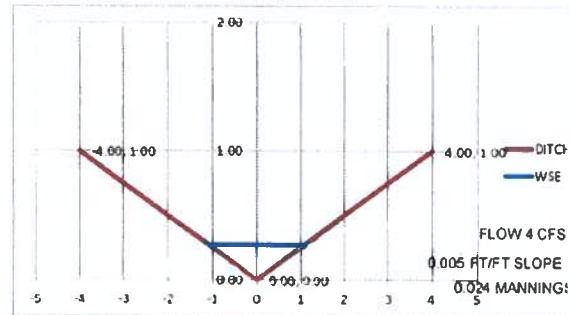
2 Pipes

1 Enter Flow	Q =		cfs	<i>Table on Q, V Tab</i>
2 Manning's n	n =			
3 Slope	S =		ft/ft	
4 Pipe Diameter	D =		in	
5 Uniform Flow Depth	$y_n =$	0.0	in	
6 Normal Velocity	V =	0.00	ft/s	
7 Critical Flow Depth	$y_c =$	0.00	in	
8 Critical Velocity	V =	0.00	ft/s	
9 Full Flow	$Q_{full} =$	0.00	cfs	
			0%	



3 Ditches

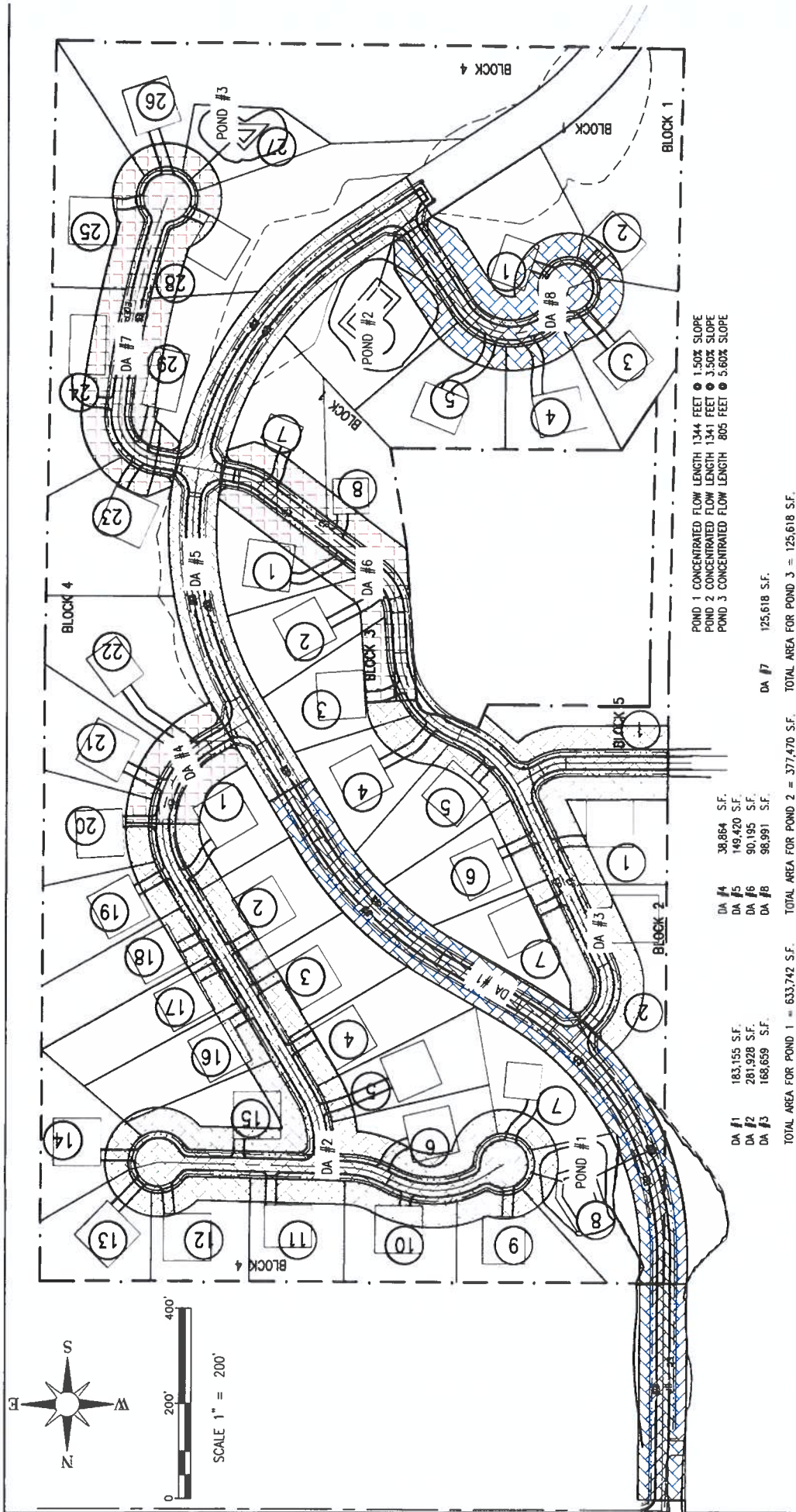
1 Flow Rate	Q =	0.90	cfs
2 Manning's n	n =	0.035	
3 Downstream Slope	$S_x =$	0.0800	ft/ft
4 Base Width	b =	0.00	ft
5 Side Slope (H:1)	$S_x H:1 =$	4.00	
6 Uniform Flow Depth	$y_n =$	0.27	ft
7 Velocity	V =	3.09	ft/s



4 Orifice/Weirs

Slide On Orifice Cap, >=3"	Hole	High Water Elev.	Elev. at Orifice Bottom	Q	Area A (ft ²)	Round Dia. (in)	Set Width Rectangle (in)	Height Rectangle (in)
	25-year							
	50-year							
	100-year							

2-Sharp Crest Weir	Width b (ft)	High Water Elev. (ft)	Crotch Elev. (ft)	h	Q
				0.00	0.00
	0.000	0 radians			
	0.607	Ce			
	0.014	k			



CK ENGINEERING
 1300 E. STATE ST., SUITE 102
 EAGLE, ID 83616
 PHONE 208-639-1992

DRAWN BY: AKB
 CHECKED BY: CSK
 DATE: 10/04/23
 FILE: DRAINAGE AREA/CK
 DIR: AKB

REVISIONS:

DRAINAGE EXHIBIT

CLOUD NINE ESTATES
 CANYON COUNTY, STAR, IDAHO



Nate Mitchell
LWD Development
210 East Murray Street
Boise, Idaho 83712

June 30, 2022
Page 1 of 37
File #22837-A

Re: **Geotechnical Recommendation Report**
Proposed Cloud Nine Subdivision
Kingsbury Road – Star, Idaho

Nate:

Based upon our observations and research documented herein, your proposed Cloud Nine Subdivision is geotechnically feasible. Recommendations for civil design of this project are included herein. We look forward to assisting with your soils related engineering and quality control needs as this project proceeds to design and construction. Should you have any questions please contact our office at your convenience.

Respectfully submitted.
SITE Consulting, LLC
Bob J. Arnold, PE





EXECUTIVE SUMMARY

CLEARING & GRUBBING - Grubbing depths can be expected to average 2 to 8 inches in order to remove organic materials. This is to be adjusted in the field at the time of construction. Deeper excavation can be anticipated along the fences, ditch, and where larger trees and bushes are present.

PAVEMENT DESIGN – An R-value sample of the sand / silt surface soils was gathered and submitted to a specialty material testing laboratory. Based upon a result of R=20, A traffic Index of TI=7, and CCHD's design method, a pavement section of 3.0" / 6.0" / 9.0" is recommended for residential streets within this development. This section is to increase to 12.0" of subbase for Kingsbury Road. The decision to reduce pavement section thickness from CCHD standard sections should be made at the time of construction based upon actual subgrade conditions and predicted weather impacts.

STORM WATER DISPOSAL – It is reported that accumulated storm water will be directed to either the onsite ponds, standard infiltration facilities or roadside swales. Such facilities are to be designed based upon a maximum allowed design percolation rate of P=1 inches/hour. Excavation at each location is to confirm no cemented materials are present in the three feet below injection depth.

GROUNDWATER – Research indicates that groundwater is greater than 100 feet deep and therefore will not impact or be impacted by the planned development.

STRUCTURAL FILL – Existing surface soils, free of organic materials, can be used as structural fill. It is noted that these soils may become too wet to effectively compact in wet weather. Compaction of any fill placed within building pads or right of ways must exceed 97 to 100% of the maximum dry density as determined by Standard Proctor (ASTM D-698). See Report for specific requirements. Structural fill must pass compaction testing and visual inspection for stability. Fill that passes compaction but is observed to rut or deflect under construction traffic is to be rejected.

LOT SPECIFIC GEOTECHNICAL REPORTS – are recommended for all lots where the building pad or driveway is atop land with an existing slope exceeding 10% and any lot where a basement is planned.

FOUNDATION DESIGN – Code allowed bearing pressures of up to 1500 psf are available on the native soils and tested and approved structural fills consisting of native soils or geotechnical engineer approved imported material. Foundations outside crawlspaces are to be sealed with mopped, sprayed, or rolled on sealer and embedded at least 24 inches below adjacent grade for frost protection. Basements are not allowed without lot specific geotechnical analysis and recommendations.



FOUNDATION BACKFILL - Building Code requires that soils used to back fill foundations meet the compaction requirements stated above. Low-density foundation backfill has been shown to be a major contributing factor to water accumulating in crawlspaces throughout the Treasure Valley. Homebuilders are required to properly backfill all foundations. This is especially critical where structural fill has been placed below the foundations, sidewalks, patios, driveways, and access steps or porches.

FOUNDATION ELEVATION - Foundation elevation and site grading must conform to the requirements of the Building Code. Elevation and grading must promote drainage away from the foundation. Landscaping should be designed to promote drainage away from foundations. Flowerbeds and landscaped areas must be designed such that irrigation water and roof runoff is not retained against foundations.

DRAINAGE - Foundation drains are not required in this development. Roof gutters are recommended with down spouts directed away from foundations and not onto foundation backfill soils. Proper design and maintenance of sprinkler systems is required. Excessive watering may lead to water entering the crawl spaces/basements. Drip type sprinkler heads should be used in flowerbeds near foundations. Lawn area sprinklers should not spray toward foundations or cause water to accumulate near foundations.



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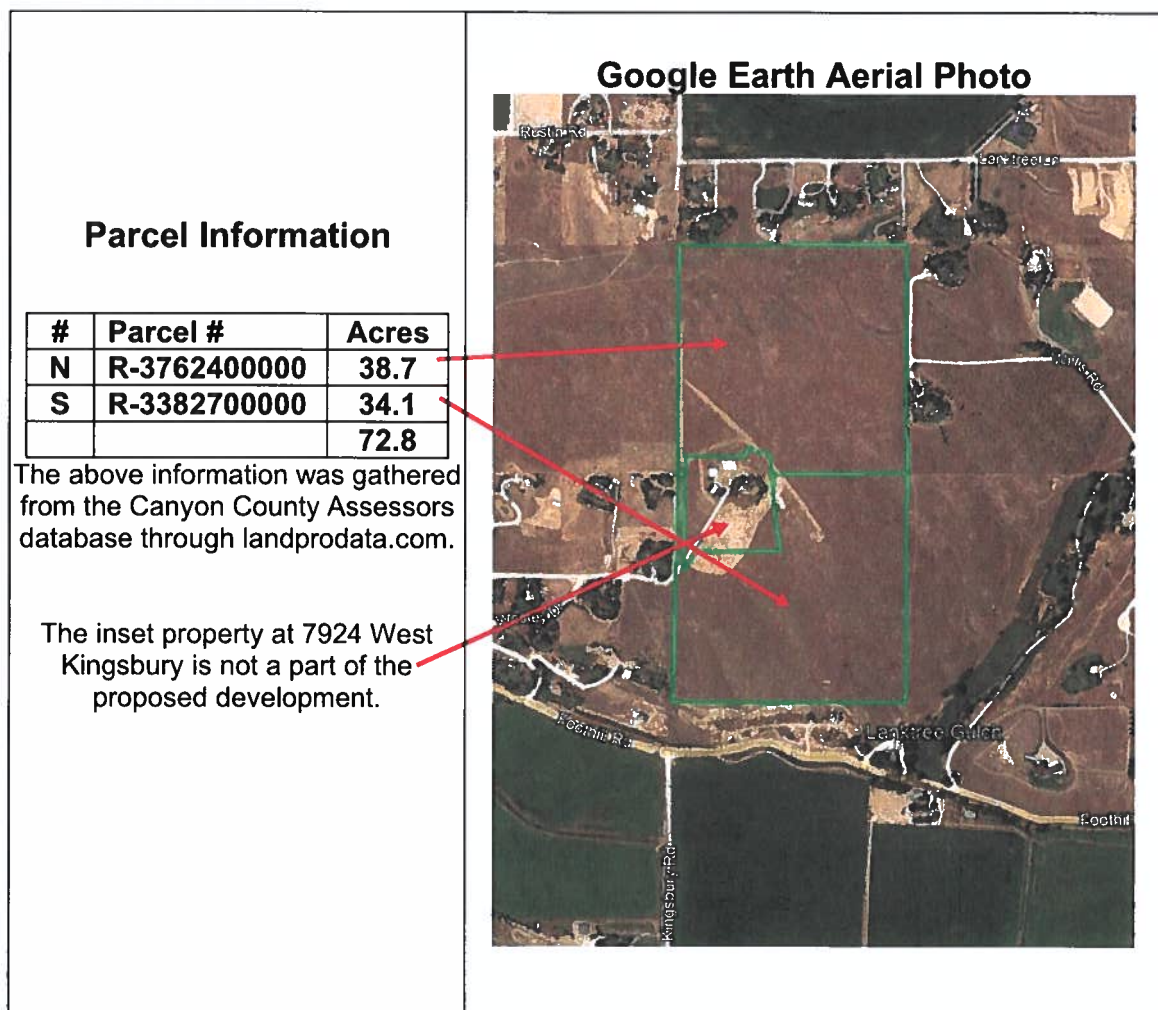
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INTRODUCTION

Purpose and Scope

This report presents our geotechnical investigation and resulting recommendations for the proposed Cloud Nine Subdivision. The subject property is located north of Foothill Road, south of Lanktree Lane, and east of Elkridge Road. There is a gap in Kingsbury Road between Lanktree and Foothill. This property includes 72 acres to the east of that gap. The proposed project includes construction of most of Kingsbury Road between Lanktree and Foothill. A total of 45 single-family residential lots are planned. The subject property includes the two parcels in the table below and shown in the following aerial photo:





The purpose of this investigation was to evaluate the subsurface soil conditions and provide recommendations for building the proposed subdivision and the single-family residential structures. This field investigation included subsurface exploration by means of a track-mounted excavator supplied by the client. Soil samples were gathered, and test pit logs were generated by SITE's field staff. Selected soil samples were submitted to our in-house soils' laboratory for testing. After the field investigation and laboratory testing was completed, all available field and laboratory test data was reviewed, the general data and assumed design information was evaluated, and this report was prepared. This report summarizes our research and recommendations regarding the geotechnical aspects of the project.

Authorization

Authorization to proceed with this geotechnical investigation was received from the client on or around May 1, 2022. Authorization to proceed and the use of the provided recommendations indicate the client's and the design team's acceptance of the scope of work, warranty, limitations & general conditions provided herein and within our standard geotechnical proposal.

Warranty and Limitations

The exploration and evaluation of subsurface conditions documented herein is considered sufficient to form a basis for the provided recommendations. The provided recommendations are based on the available soil information and preliminary design details either assumed or furnished by the client and his civil design team. It is warranted that these recommendations have been promulgated after being prepared in accordance with locally accepted professional engineering and geotechnical engineering practice. No other warranties are implied or expressed.



RESEARCH & BACKGROUND

Field Investigation

As per your authorization, on May 11, 2022, SITE staff supervised the excavation of thirteen test pits on the subject property. Test pits were specifically located atop ridges where material will be harvested to be used as structural fill and in the draws between the ridges where structural fill will be placed. Fills up to 30 feet deep are anticipated on this project. Our staff gathered representative samples from the spoil piles during excavation of each test pit. The samples were placed in plastic bags, labeled with test pit number and depth, and transported to the laboratory for additional testing. Sieve Analysis, Moisture Content, and Liquid Limit, Plastic Limit & Plasticity Index testing were performed on selected samples. All tests were performed in general accordance with the appropriate ASTM test methods.

Observed Subsurface Conditions

At the time of our investigation, the site surface was firm and stable. Subsurface conditions in the test pits were generally similar in the areas explored. The organic layer varies from 2-8 inches thick, with some sage brush roots reaching depths of two feet. Typical soils encountered in the upper sixteen feet of the soil profile are silty sand or sandy silt. In a few test pits, a weakly cemented layer was encountered. In others, lean clays or fine gravel was present in the silt / sand matrix. Encountered layering is indicated on the log prepared for each test pit. The test pit logs, with all completed labwork, are in the Appendix. It is noted that groundwater was not encountered in any of our test pits. A well log for the inset property at 7924 Kingsbury was found on the IDWR website. This well log indicates the groundwater beneath the property is 200 feet deep.



While no fat clay soils were encountered in the test pits, lean clay soils were encountered in numerous test pits. This matches well with the Canyon County Soil Survey, (USDA-Natural Resource Conservation Service) mapping for the subject property. This source indicates the principle onsite soils to be Lankbush Sandy Loam (40%) and Elijah-Vickery Silt Loam (23%). Both of these soils have a silty clay loam or sandy clay loam below the shallow surface layer. Groundwater was not encountered in any test pit.

CANYON COUNTY SOILS SURVEY

Canyon Area, Idaho (ID665)			
Canyon Area, Idaho (ID665)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
EsB	Elijah-Chilcott silt loams, 1 to 3 percent slopes	17.1	13.1%
EvC	Elijah-Vickery silt loams, 3 to 7 percent slopes	30.4	23.4%
Gp	Gravel pit	8.2	6.3%
JeA	Jenness loam, 0 to 1 percent slopes	10.6	8.1%
LaE	Lankbush sandy loam, 12 to 30 percent slopes	27.4	21.0%
LhE	Lankbush-Power complex, 12 to 30 percent slopes	24.7	19.0%
MvA	Moulton loam, 0 to 1 percent slopes	2.5	1.9%
PhD	Power silt loam, 7 to 12 percent slopes	0.6	0.4%
PID	Power-Lankbush silt loams, 7 to 12 percent slopes	8.8	6.7%
Totals for Area of Interest		130.2	100.0%



Site Hydrology

Two IDWR well logs have been included in the Appendix. One is for the inset property and the second is for a property on Foothills Road. Well Logs indicate the groundwater on the property can be expected to be 200 feet deep near the center of the site and 100 feet deep at the south, lowest, end. No spring was observed or reported on the subject property. It is anticipated that accumulated storm run-off will be directed to roadside swales which are acceptable.

DESIGN & CONSTRUCTION RECOMMENDATIONS

General Earthwork

All native soils that are free of organic matter and expansive clays are acceptable for use as fill. Removal of the majority of the organic materials will require grubbing of 2-8 inches of surface soils. Deeper removal of tree and sage brush roots can be anticipated. Removal of all organic material is required in all areas to receive structural fill. The depth of grubbing is to be adjusted and inspected during construction to ensure that organic materials are properly removed from beneath future pavements, structural fills, and residential foundations. After proper grubbing, the surface is to be proof rolled and inspected by the project geotechnical consultant. Deflecting areas are to be over excavated as directed at the time of construction. Native silt / sand soils removed from cut areas and proposed right of ways can be utilized as structural fill. These materials can also be used in proposed roadways and future building pads.

If used for fill, the surface soil will require moisture contents within two percent of optimum for effective compaction. These soils will easily become too wet or too dry for effective compaction and can be expected to perform poorly if wet and subjected to rubber tired equipment. If construction is to occur during wet weather or wet surface soil conditions, low-pressure, (tracked), construction equipment is recommended. Rutting caused by the contactor using rubber-tired equipment on a wet subgrade can be



expected and should be repaired at contractor expense. This information is to be supplied to earthwork contractors prior to construction.

Structural fills are to be compacted to an average of 100% of the maximum dry density by ASTM D698, Standard Proctor, with no test below 97% compaction. If structural fill is to be placed on residential lots, the fill is to extend laterally outside foundations a distance equal to the depth of structural fill. Structural fill should be placed in uniform, thin horizontal lifts, moisture conditioned as necessary, and compacted to the above requirements. Compaction testing to confirm proper compaction is recommended. Inspection at the time of testing is to confirm stability. Rutting, deflecting, or excessively wet materials are to be rejected and repaired regardless of passing compaction tests. Any onsite wells or septic tanks are to be abandoned as per IDWR and IDEQ requirements.

Excavations

Shallow excavations and trenches that do not exceed four feet in depth may be constructed with side slopes approaching vertical. Below this depth it is recommended that slopes not exceed a vertical to horizontal ratio of one to one. The ability of soils on site to maintain a vertical or near vertical excavation over any extended period can be quite variable. This information is provided for planning purposes. It is our opinion that maintaining safe working conditions is the responsibility of the contractor. Jobsite conditions such as soil moisture content, weather condition, earth movements and equipment type and operation can all affect slope stability. All excavations should be sloped or braced as required by applicable local, state, and federal requirements.



Pavement Section

It is anticipated that an R-Value of $R > 20$ will be obtained on the native silt/sand soils that will be exposed as the subgrade or used to fill the roadways. Based upon this R-Value, a Traffic Index of $TI=7$, and the CCHD Design Method, the following pavement section is recommended for interior subdivision streets.

Material Layer	Internal Streets	Kingsbury Road
HMA Pavement	3.0"	3.0"
Base Coarse (¾" minus)	6.0"	6.0"
Subbase (Pitrun)	9.0"	12.0"

Materials meeting the requirements of ISPWC & / or CCHD are required for any work within this project.

Lot Specific Evaluation

After lot layout is completed, a lot specific geotechnical investigation and recommendation report is recommended for any building pad atop a ten percent or greater slope. Any lot contemplating a basement should also prepare a lot specific geotechnical report. The recommendations below apply to all other lots unless a lot specific report is prepared.

Foundation System

The proposed single-family residential structures may be supported on conventional, continuous, and isolated pad foundations founded upon the native soils or upon structural fill extending to these soils. Based upon proper placement and compaction of structural fill, bearing pressures of up to 1500 psf are allowed for foundations founded on the native soils or upon properly placed and compacted structural fill. Either crawlspaces or slab on grade floors are acceptable.



Retaining Wall Design

Any retaining walls used for landscaping or site grading are to be constructed of materials that allow water to flow through the wall or must include a draining system behind the wall that will prevent the accumulation of water. The ground surface above the walls is to be graded to promote drainage away from or around the wall. Based on using non-expansive, native sand / silt soils for backfilling, the recommended lateral earth pressures are $P_0 = 45 \text{ psf/f}$ and $P_a = 60 \text{ psf/f}$. Both values assume backfill is level for a distance equal to the height of the wall. Soil density of 120 pcf can be assumed for additional soil surcharge. A friction coefficient, $f = 0.30$ is recommended for construction atop native soils.

Setbacks & Slopes

Residential foundations are to be ten feet from the crown of slopes steeper than 2:1. Foundations and isolated pads, supporting upper floors or decks can be constructed in the face of the slope provided the above lateral cover is provided. Reducing this lateral cover will require lot/building specific investigation and recommendations by a geotechnical engineer. Constructed slopes below foundations or retaining walls are to be over built and then cut to not steeper than 2:1. Fill placed on slopes is to be placed on parallel terraces that slope ($>2\%$) back toward the hillside. The height of filled terraces is not to exceed $1/3$ the width of the terrace. Cut slopes can be constructed at 1.5:1 provided sloped surfaces are protected from erosion. Steeper slopes will require site specific investigation / recommendation or the use of retaining walls.



Slab on Grade Concrete

Care must be taken so that all excavations below both interior and exterior slab on grade concrete are properly backfilled in accordance with the structural fill recommendations. This is critical where a slab or foundation will extend over utility trenches or retaining wall backfill. Trenches and wall backfill areas are to be filled in lifts and benched each lift so that fill is not placed against a vertical soil face greater than three feet tall. Testing is to confirm that compaction has been achieved. Areas of excessive yielding should be excavated and backfilled with structural fill. Any fill used to increase the elevation of slab on grade concrete should meet the requirement for structural fill. Slab on grade floors, sidewalks and pavements should be placed atop a mat of at least four inches of granular structural fill materials. This depth is to increase to one foot when concrete is to be placed over fat clays soils. This is required to prevent seasonal heaving of sidewalks, patios, and driveways. ISPWC ¾" base is acceptable for this mat. The mat shall be compacted to the requirement for structural fill. All slabs should be suitably reinforced to make them as rigid as possible. Proper joints should be provided at the junctions of the slab and foundation system so that independent movement can occur without causing damage.



Storm Water

It is recommended that storm runoff be directed away from all open excavations and not be allowed to puddle on subgrade soils. It is understood that storm water will be directed to roadside swales. It is recommended that the facilities be designed based upon a percolation rate of $P = 1$ inch/hour. Confirmation of percolation rates is required at the time of construction. It may be possible to increase the design rate and thereby reduce the size of storm water facilities at that time.

Underground Utilities

It is not anticipated that excavators will experience any difficulties excavating the onsite materials. Research indicates groundwater is greater than 100 feet below the existing ground surface and therefore dewatering of utility trenches should be anticipated.

Inspection & Testing

Inspection should confirm removal of all foundation and slab concrete from demolition of any onsite structures. A qualified engineer or his representative should monitor fill placement to ensure the work is performed in accordance with these recommendations. Testing should be performed in accordance with ASTM Test Methods D3017-88 and D2922-91 (nuclear densometer) or approved alternate. For mass filling, moisture - density testing shall be performed on each lift of compacted fill for every 5000 square feet of surface area or one test per lot per lift, whichever is greater. Trench backfills and right of ways are to be tested to ISPWC requirements. It is noted that structural fill can pass compaction tests and still be unacceptable if pumping, rutting, or deflecting under vehicle or foot traffic. If foundations are to be constructed atop structural fill, compaction reports are to be provided to the City of Eagle Building Department and the assigned inspector.



Contractor Inspections

This report has been prepared with the intent to provide specific design information to the developer and the civil engineering consultant. It is not intended to act as any contractors "Due Diligence" or subsurface inspection prior to estimating construction costs or actual construction.

General Comments

After the plans and specifications for construction are completed, it is recommended that this consultant be provided the opportunity to review the final design and specifications. This review will confirm that the earthwork recommendations have been properly interpreted and implemented. At that time, it may be necessary to submit supplementary recommendations. This review is a part of this service and will not result in additional invoicing unless additional research and recommendations are needed.

Testing and inspection services are recommended herein. Proper quality control during construction is required to confirm materials and methods and thereby obtain a desirable finished product. Monitoring and testing should also be performed to verify suitability of materials used for structural fills and to confirm proper demolition, subgrade grubbing, subgrade stability, and proper placement and compaction of fills. Any deviations from the herein described subsurface conditions must be brought to the attention of this consultant.

This report has been prepared for the exclusive use of the client and their retained design consultants. Findings and recommendations within this report are for specific application to the proposed construction described herein and apply only to the property identified. Client may duplicate this report as needed or additional copies will be provided upon proper client authorization.

Appendix Follows



APPENDIX

Preliminary Plat

Aerial Photo with Test Pit Locations

Test Pit Logs (13)

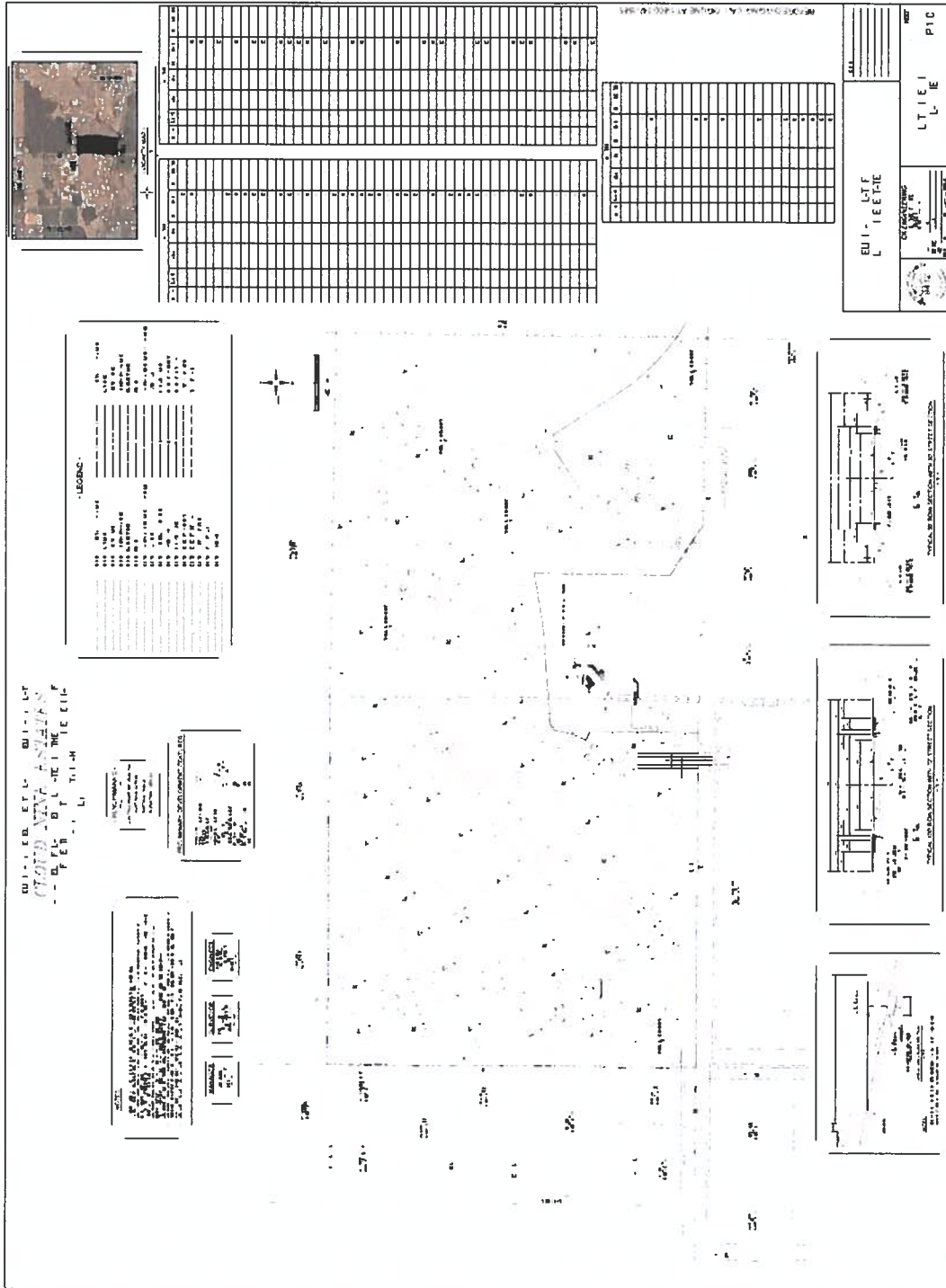
Soil Log Legend

IDWR Well Logs (2)

Abbreviations & Acronyms



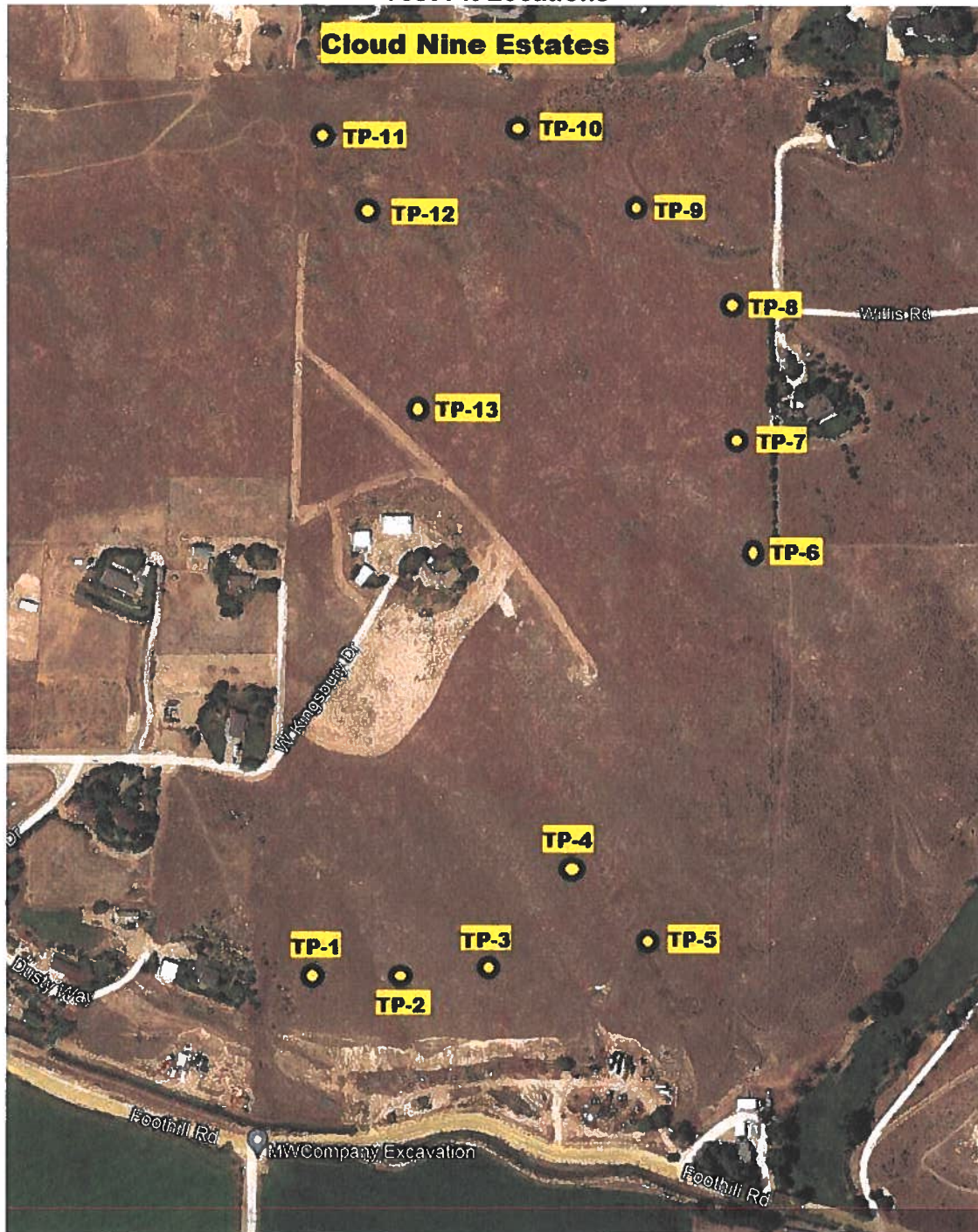
PRELIMINARY PLAT



Supplied by client



AERIAL PHOTO
Test Pit Locations



Google Earth



TEST PIT LOG

Test Pit:	TP-1	File #:	22837-A									
Client:	LWD Development, Inc.					Date Excavated:	05/11/22					
Project:	Cloud Nine Subdivision					Excavated By:	Wagner Excavation					
Location:	See Aerial Photo					Logged By:	J. Meusch-SITE					
DEPTH	SOILS DESCRIPTION											
(feet)	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI	
0.0-4.0	Brown/Tan, Moist, Firm, Silty, SAND (SM) with a 4-6" Rootzone / organic Layer											
2.0		100	99	95	85	55	36	26.8	9.7	NP	NP	
4.0-10.0	Red/Tan, Moist, Firm, Sandy, Silt											
10.0-14.0	Red/Tan, Moist, Firm, Silty, Sand											
14.0	Bottom of Excavation @ 14.0' No Ground Water Encountered No Monitoring Well in Place											



TEST PIT LOG

Test Pit:	TP-2					File #:	22837-A				
Client:	LWD Development, Inc.					Date Excavated:	05/11/22				
Project:	Cloud Nine Subdivision					Excavated By:	Wagner Excavation				
Location:	See Aerial Photo					Logged By:	J. Meusch-SITE				
DEPTH	SOILS DESCRIPTION										
(feet)	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI
0.0-2.0	Brown/Tan, Dry, Firm, Sand & Silt with a 4-6" Rootzone / organic Layer										
2.0-5.0	Tan, Moist, Firm, Sandy, SAND (SM)										
4.0				100	99	76	38	21.2	5	NP	NP
5.0-9.0	Brown/Tan, Moist, Firm, Sandy SILT (ML)										
7.0				100	99	93	75	58.4	18.7	NP	NP
9.0-11.0	Brown/Red, Moist, Firm, Sandy, SILT (ML)										
10.0				100	99	96	85	74.2	25.5	29	5
11.0-13.0	Brown/Tan, Moist, Firm, Sandy, SILT (ML)										
12.0				100	99	98	91	83.3	29	32	7
13.0-17.0	Brown/Tan, Moist, Firm, Silty, SAND (SM)										
14.0			100	99	95	63	46	38.9	12.6	NP	NP
17.0	Bottom of Excavation @ 17.0' No Ground Water Encountered No Monitoring Well in Place										



TEST PIT LOG

Test Pit:	TP-3					File #:	22837-A				
Client:	LWD Development, Inc.					Date Excavated:	05/11/22				
Project:	Cloud Nine Subdivision					Excavated By:	Wagner Excavation				
Location:	See Aerial Photo					Logged By:	J. Meusch-SITE				
DEPTH SOILS DESCRIPTION											
(feet)	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI
0.0-5.0	Brown/Tan, Moist, Firm, Sand, Clay, Silt with a 4-6" Rootzone / organic Layer										
5.0-9.0	Brown/Tan, Moist, Very Firm, Cemented, Silty, SAND (SM)										
6.0			100	99	95	75	55	46.3	10.8	24	3
9.0-13.0	Brown/Tan, Moist, Firm, Sandy, Silt										
13.0-16.0	Brown/Tan, Moist, Firm, Silty, Sand										
16.0	Bottom of Excavation @ 16.0' No Ground Water Encountered No Monitoring Well in Place										



TEST PIT LOG

Test Pit:	TP-4					File #:	22837-A				
Client:	LWD Development, Inc.					Date Excavated:	05/11/22				
Project:	Cloud Nine Subdivision					Excavated By:	Wagner Excavation				
Location:	See Aerial Photo					Logged By:	J. Meusch-SITE				
DEPTH SOILS DESCRIPTION											
(feet)	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI
0.0-5.0	Brown, Moist, Firm, Blocky, Sand, Clay, Silt (ML-CL) with a 4-6" Rootzone / organic Layer										
4.0 & "R"			100	99	95	72	48	37.8	5.5	26	7
5.0-7.0	Brown, Moist, Firm, Blocky, Sand, Silt, Clay (CL)										
6.0	100	98	98	97	96	92	82	74.5	20	46	21
7.0-14.0	Tan, Moist, Firm, Sandy, Silt										
14.0-17.0	Brown/Tan, Moist, Firm, Silty, Sand										
17.0	Bottom of Excavation @ 17.0' No Ground Water Encountered No Monitoring Well in Place										



TEST PIT LOG

Test Pit:	TP-5	File #:	22837-A									
Client:	LWD Development, Inc.					Date Excavated:	05/11/22					
Project:	Cloud Nine Subdivision					Excavated By:	Wagner Excavation					
Location:	See Aerial Photo					Logged By:	J. Meusch-SITE					
DEPTH	SOILS DESCRIPTION											
(feet)	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI	
0.0-4.0	Tan, Dry, Firm, Blocky, Sandy, Silt with a 4-6" Rootzone / organic Layer											
4.0-9.0	Brown/Tan, Moist, Firm, Cemented, Sand & Silt											
9.0-13.0	Brown/Tan, Moist, Firm, Sandy, Silt											
13.0-16.0	Brown/Tan, Moist, Firm, Silty, Sand											
16.0	Bottom of Excavation @ 16.0' No Ground Water Encountered No Monitoring Well in Place											



TEST PIT LOG

Test Pit:	TP-6					File #:		22837-A			
Client:	LWD Development, Inc.					Date Excavated:		05/11/22			
Project:	Cloud Nine Subdivision					Excavated By:		Wagner Excavation			
Location:	See Aerial Photo					Logged By:		J. Meusch-SITE			
DEPTH	SOILS DESCRIPTION										
	(feet)	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL
0.0-5.0	Brown, Moist, Firm, Sandy, Silt with a 4-6" Rootzone / organic Layer										
5.0-7.0	Brown/Red, Moist, Firm, Sticky, Sand & Clay										
7.0-11.0	Brown/Tan, Moist, Firm, Blocky, Sand & Clay										
11.0-16.0	Brown/Red, Moist, Firm, Silty, Sand (SM)										
14.0	100	99	98	96	76	31	19	15.8	5.7	NP	NP
16.0	Bottom of Excavation @ 16.0' No Ground Water Encountered No Monitoring Well in Place										



TEST PIT LOG

Test Pit:	TP-7					File #:	22837-A				
Client:	LWD Development, Inc.					Date Excavated:	05/11/22				
Project:	Cloud Nine Subdivision					Excavated By:	Wagner Excavation				
Location:	See Aerial Photo					Logged By:	J. Meusch-SITE				
DEPTH	SOILS DESCRIPTION										
(feet)	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI
0.0-5.0 (Proctor)	Brown, Moist, Firm, Blocky, Sandy, SILT (ML) with a 4-6" Rootzone / organic Layer Standard Proctor – 94.5pcf @ 23.4 % moisture										
3.0			100	99	92	75	64	55.7	16.2	NP	NP
5.0-8.0	Brown/Tan, Moist, Very Firm, Cemented, Sand & Silt										
8.0-13.0	Brown/Red, Moist, Firm, Sandy, Silt										
13.0-16.0	Brown/Tan, Moist, Firm, Silty, Sand										
16.0	Bottom of Excavation @ 16.0' No Ground Water Encountered No Monitoring Well in Place										



TEST PIT LOG

Test Pit:	TP-8					File #:	22837-A				
Client:	LWD Development, Inc.					Date Excavated:	05/11/22				
Project:	Cloud Nine Subdivision					Excavated By:	Wagner Excavation				
Location:	See Aerial Photo					Logged By:	J. Meusch-SITE				
DEPTH	SOILS DESCRIPTION										
(feet)	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI
0.0-6.0	Brown, Moist, Firm, Silty, SAND (SM) with a 4-6" Rootzone / organic Layer										
5.0		100	96	84	71	51	39	31.8	20	NP	NP
6.0-11.0	Brown/Tan, Moist, Firm, Sand & Silt with gravel										
11.0-14.0	Brown/Tan, Moist, Firm, Blocky, Sand & Clay										
14.0	Bottom of Excavation @ 14.0' No Ground Water Encountered No Monitoring Well in Place										



TEST PIT LOG

Test Pit:	TP-9					File #:		22837-A			
Client:	LWD Development, Inc.					Date Excavated:		05/11/22			
Project:	Cloud Nine Subdivision					Excavated By:		Wagner Excavation			
Location:	See Aerial Photo					Logged By:		J. Meusch-SITE			
DEPTH SOILS DESCRIPTION											
(feet)	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI
0.0-1.0	Brown, Moist, Firm, Sand, Clay, Silt with a 4-6" Rootzone / organic Layer										
1.0-4.0	Brown/Red, Moist, Very Firm, Cemented, Silty, SAND (SM)										
3.0		100	99	92	71	28	14	11.4	8.1	NP	NP
4.0-10.0	Red/Tan, Moist, Firm, Cemented, SAND (SM)										
9.0			100	95	71	26	12	9.5	6.2	NP	NP
10.0-13.0	Red/Tan, Moist, Firm, SAND (SP)										
12.0			100	94	71	19	9	8.7	5.5	NP	NP
13.0-16.0	Tan, Moist, Firm, SAND with gravel (SP)										
14.0	100	98	97	93	74	41	19	8.4	5.2	NP	NP
16.0	Bottom of Excavation @ 16.0' No Ground Water Encountered No Monitoring Well in Place										



TEST PIT LOG

Test Pit:	TP-10					File #:	22837-A				
Client:	LWD Development, Inc.					Date Excavated:	05/11/22				
Project:	Cloud Nine Subdivision					Excavated By:	Wagner Excavation				
Location:	See Aerial Photo					Logged By:	J. Meusch-SITE				
DEPTH	SOILS DESCRIPTION										
(feet)	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI
1.0-5.0	Brown, Moist, Firm, Sand & Silt with a 4-6" Rootzone / organic Layer										
5.0-9.0	Brown, Moist, Firm, Sandy, SILT (ML)										
6.0			100	99	96	70	56	50.3	15.1	31	7
9.0-12.0	Brown/Red, Moist, Firm, Blocky, Sandy, Clay/Silt										
12.0-16.0	Brown/Red, Moist, Firm, Silty Sand										
16.0	Bottom of Excavation @ 16.0' No Ground Water Encountered No Monitoring Well in Place										



TEST PIT LOG

Test Pit:	TP-11					File #:	22837-A				
Client:	LWD Development, Inc.					Date Excavated:	05/11/22				
Project:	Cloud Nine Subdivision					Excavated By:	Wagner Excavation				
Location:	See Aerial Photo					Logged By:	J. Meusch-SITE				
DEPTH SOILS DESCRIPTION											
(feet)	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI
0.0-3.0	Brown, Moist, Firm, Clayey, Gravelly, SAND (SC) with a 4-6" Rootzone / organic Layer										
2.0	92	84	78	70	59	44	34	29.0	6.5	31	11
3.0-5.0	Brown/Tan, Moist, Firm, Blocky, Sand & Clay										
5.0-9.0	Brown/Tan, Moist, Firm, Sandy, Silt										
9.0-12.0	Red/Tan, Moist, Firm, Sticky, Sand, Silt & Clay										
12.0-16.0	Brown/Tan, Moist, Firm, Blocky, Silty, Sand										
16.0	Bottom of Excavation @ 16.0' No Ground Water Encountered No Monitoring Well in Place										



TEST PIT LOG

Test Pit:	TP-12					File #:	22837-A				
Client:	LWD Development, Inc.					Date Excavated:	05/11/22				
Project:	Cloud Nine Subdivision					Excavated By:	Wagner Excavation				
Location:	See Aerial Photo					Logged By:	J. Meusch-SITE				
DEPTH SOILS DESCRIPTION											
(feet)	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI
0.0-5.0	Brown/Tan, Moist, Firm, Sand & Silt with gravel with a 4-6" Rootzone / organic Layer										
5.0-7.0	Brown, Moist, Firm, Blocky, Clayey, SAND (SC)										
6.0	100	96	83	90	79	57	49	44.7	8.9	36	13
7.0-10.0	Brown/Red, Moist, Firm, Sand, Silt										
10.0-16.0	Brown/Red, Moist, Firm, Cemented, Sand & Silt										
16.0	Bottom of Excavation @ 16.0' No Ground Water Encountered No Monitoring Well in Place										



TEST PIT LOG

Test Pit:	TP-13					File #:	22837-A				
Client:	LWD Development, Inc.					Date Excavated:	05/11/22				
Project:	Cloud Nine Subdivision					Excavated By:	Wagner Excavation				
Location:	See Aerial Photo					Logged By:	J. Meusch-SITE				
DEPTH SOILS DESCRIPTION											
(feet)	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI
0.0-5.0	Brown/Tan, Moist, Firm, Sand & Silt with gravel with a 4-6" Rootzone / organic Layer										
5.0-10.0	Red/Tan, Moist, Firm, Sand & Silt										
10.0-13.0	Brown/Red, Moist, Firm, Cemented, Silty, SAND (SM)										
12.0		100	99	94	81	60	43	31.0	16.5	NP	NP
13.0-16.0	Brown/Red, Moist, Firm, Silty, Sand										
16.0	Bottom of Excavation @ 16.0' No Ground Water Encountered No Monitoring Well in Place										



SOIL LOG LEGEND

UNIFIED SOIL CLASSIFICATION SYSTEM

(ASTM STANDARD TEST METHOD D 2487 FOR CLASSIFICATION OF SOIL FOR ENGINEERING PURPOSES)

MAJOR DIVISIONS				TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS < 50% - #500	GRAVEL & GRAVELLY SOILS <50% - #4	< 5% - #500	GW	Well-graded gravel, gravel-sand mixture, little or no fines.
			GP	Poorly graded gravel, gravel sand mixture, little or no fines
		5-12% - #500	GM	Silty gravel, gravel-sand-silt mixtures
		> 12% - #500	GC	Clayey gravel, gravel-sand-clay mixtures
	SAND & SANDY SOILS ≥ 50% - # 4	< 5% - #500	SW	Well-graded sand, gravelly sand, little or no fines.
			SP	Poorly graded sand, gravelly sand, little or no fines
		>12% - #500	SM	Silty sand, sand-silt mixtures
			SC	Clayey sand, sand-clay mixtures
FINE GRAINED SOILS ≥ 50% - #500	SILTS AND CLAYS LL < 50%	INORGANIC	ML	Inorganic silt and very fine sand, rock flour, silty or clayey fine sand or clayey silt with slight plasticity
			CL	Lean clay-low to medium plasticity, gravelly clay, sandy clay, silty clay
		ORGANIC	OL	Organic silt and organic silty clay of low plasticity
	SILTS AND CLAYS LL ≥ 50%	INORGANIC	MH	Elastic silt, micaceous or diatomaceous fine sand or silty soil.
			CH	Fat clay - high plasticity
		ORGANIC	OH	Organic clay-med. or high plasticity: organic silt
		HIGHLY ORGANIC SOILS		PT



DESIGN SECTION CALCULATIONS

(ITD-Value Method)

Project: **Cloud Nine Subdivision**
Kingsbusy Road - Star, Idaho
Client: **LWD Development**

File No.: **22837-A**
Calc By: **B. Arnold**
Date: **06/24/22**

Design Thickness Equation:

$$T = 0.0032 (TI) (100-R)(12) = GE \text{ (inches)}$$

T = Design Thickness	TI = Traffic Index =	7	By Design Manual
GE = Gravel Equivalent	R = R-Value =	20	Assumed

GE= 22 Inches

ACHD HMA, 3/4" Base and Aggregate Subbase

	Actual Thickness		Equivalent Thickness
HMA Thickness =	3.0 Inches	HMA=	7.5 Inches
3/4" Base Thickness =	6.0 Inches	RBE=	6.6 Inches

Calculated Aggregate Subbase Thickness Equation:

$$\text{Subbase Thickness} = SB = GE - HMA - RBE$$

SB= 7.9 Inches

RECOMMENDED DESIGN SECTION

HMA = 3.0 inches
3/4" BASE = 6.0 inches
SUBBASE = 9.0 inches

**R=20 assumes topsoil is removed and pavements
are constructed atop the cemented silt soils**



DESIGN SECTION CALCULATIONS
(ITD-Value Method)

Project: **Cloud Nine Subdivision**
Kingsbusy Road - Star, Idaho
Client: **LWD Development**

File No.: **22837-A**
Calc By: **B. Arnold**
Date: **06/24/22**

Design Thickness Equation:

$$T = 0.0032 (TI) (100-R)(12) = GE \text{ (inches)}$$

T= Design Thickness	TI = Traffic Index =	8	By Design Manual
GE = Gravel Equivalent	R = R-Value =	20	Assumed

GE= 25 Inches

ACHD HMA, 3/4" Base and Aggregate Subbase

	Actual Thickness		Equivalent Thickness
HMA Thickness =	3.0 Inches	HMA=	7.5 Inches
3/4" Base Thickness =	6.0 Inches	RBE=	6.6 Inches

Calculated Aggregate Subbase Thickness Equation:

$$\text{Subbase Thickness} = SB = GE - HMA - RBE$$

SB= 10.9 Inches

RECOMMENDED DESIGN SECTION

HMA = 3.0 inches
3/4" BASE = 6.0 inches
SUBBASE = 12.0 inches

**R=20 assumes topsoil is removed and pavements
are constructed atop the cemented silt soils**



IDWR WELL LOG

7924 Kingsbury Drive

(Address on log is Wrong)

Form 238 7
6/07

63

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL TAG NO. 0083581

Drilling Permit No. 893024

Water right or injection well #

2. OWNER: Richard Phillips

Name

Address 210 E Murry St

City Boise State ID 83714

3. WELL LOCATION:

Twp 04 North ☐ or South ☐ Rge 02 East ☐ or West ☒

Sec 2 NW 14 NE 14 SW 14 SE 14

Govt Lot County Canyon

Lat 43 '43.256

Long 116 '33.080

Address of Well Site 7942 Kingsbury Dr

City Middleton

Lot: BL Sub Name

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

7. SEALING PROCEDURES:

Seal material Bent. 3/4 Chip From 0 To 40 Depth (feet) 1750 Placement method Pour

Seal material Bent. 3/4 Chip From 0 To 40 Depth (feet) 1750 Placement method Pour

8. CASING/LINER:

Outer diameter (inches) 6" From +2 To 336 Depth (feet) 250 Material Steel

Casing or liner installed ☒ Yes ☐ No

Was drive shoe used? ☒ Yes ☐ No Shoe Depth: 336

9. PERFORATIONS/SCREENS:

Perforations ☐ Yes ☐ No Method

Manufactured screen ☒ Yes ☐ No Type Johnson Stainless

Method of installation Wash Down

From 243 To 253 Size 020 Material Stainless

Length of Headpipe 14.8" Length of 1" pipe 8"

Packer ☒ Yes ☐ No Type K-Packer

10. FILTER PACK:

Filter material 1/4" Munsie From 0 To 14.8" Quantity (lb) 100 ☒ Bentonite

Filter material 1/4" Munsie From 0 To 14.8" Quantity (lb) 100 ☒ Bentonite

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Yes ☒ No Artesian Pressure (PSI) 0

Describe control device

12. STATIC WATER LEVEL AND WELL TESTS:

Depth first water encountered (ft) 200 Static water level (ft) 150'

Water temp. (°F) Cold Bottom hole temp. (°F)

Describe access point

Well test

Drill down (ft) 350 Discharge (gpm) 70 or curtail (min) 120

Test method

Flow ☐ Shut ☐ A ☒ (Flow pressure) ☐

Water quality test or comments

13. LITHOLOGIC LOG and/or repairs or abandonment:

From 0 To 2 Remarks, lithology or description of repairs or abandonment, water temp.

From 2 To 40 Remarks, lithology or description of repairs or abandonment, water temp.

From 40 To 97 Remarks, lithology or description of repairs or abandonment, water temp.

From 97 To 133 Remarks, lithology or description of repairs or abandonment, water temp.

From 133 To 167 Remarks, lithology or description of repairs or abandonment, water temp.

From 167 To 195 Remarks, lithology or description of repairs or abandonment, water temp.

From 195 To 200 Remarks, lithology or description of repairs or abandonment, water temp.

From 200 To 237 Remarks, lithology or description of repairs or abandonment, water temp.

From 237 To 245 Remarks, lithology or description of repairs or abandonment, water temp.

From 245 To 260 Remarks, lithology or description of repairs or abandonment, water temp.

From 260 To 353 Remarks, lithology or description of repairs or abandonment, water temp.

From 353 To 355 Remarks, lithology or description of repairs or abandonment, water temp.

RECEIVED

MAR 10 2020

WATER RESOURCES
WESTERN REGION

Completed Depth (Measurable) 353'

Date Started 2/20/2020 Date Completed 2/26/2020

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 McLeran Well Drilling, LLC Co No 641

Principal Driller Ed McLeran Date

Driller Ed McLeran Date

Operator Ed McLeran Date

Operator Ed McLeran Date

Operator Ed McLeran Date

Operator Ed McLeran Date

Operator Ed McLeran Date

Operator Ed McLeran Date

Operator Ed McLeran Date

Operator Ed McLeran Date

Operator Ed McLeran Date

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Operator Ed McLeran Date

Operator Ed McLeran Date

Operator Ed McLeran Date

Operator Ed McLeran Date

Operator Ed McLeran Date

Operator Ed McLeran Date

Operator Ed McLeran Date



IDWR WELL LOG

8116 Foothill Drive
Below Property to south

Form 236-1
9/07

63 IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

RECEIVED
SEP 05 2019
WATER RESOURCES
WESTERN REGION

1. WELL TAG NO. D CC83068
Drilling Permit No. 890931
Water right or irrigation and # _____
2. OWNER: Sharon & Matt Struss
Name _____
Address 318 Old Edwards Rd.
City Emmett State ID Zip 83629
3. WELL LOCATION:
Twp. 4 North ☐ or South ☐ Rge. 2 East ☐ or West ☒
Sec. 3 T. 1/4 S.E. 1/4 NE 1/4
Grav. Lot _____ County Canyon
Lat. 43° 04' Long. 116° 33' 21"
Address of Well Site 8116 Foothill Rd.
File # (if known) _____
4. USE:
☒ Domestic ☐ Municipal ☐ Mower ☐ Irrigation ☐ Other _____
5. TYPE OF WORK:
☒ New well ☐ Replacement well ☐ Utility water well
☐ Accessory well ☐ Other _____
6. DRILL METHOD:
☒ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other _____
7. SEALING PROCEDURES:
Seal material _____ From (ft) _____ To (ft) _____
Sealing material description _____
8. CASING/LINER:
Casing/Liner (ft) _____ From (ft) _____ To (ft) _____
Casing/Liner material _____
9. PERFORATIONS/SCREENS:
Perforations ☐ Y ☐ N Method _____
Manufactured screen ☒ Y ☐ N Type Solomon
Method of installation Wash Drill Valve
10. FILTER PACK:
Filter Material _____ From (ft) _____ To (ft) _____
Quantity (lb or ft³) _____
11. FLOWING ARTESIAN:
Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSI) _____
12. STATIC WATER LEVEL and WELL TESTS:
Depth test water encountered (ft) 10.2 Static water level (ft) 20
Water temp (°F) 65 Bottom hole temp (°F) _____
Concrete access cap Good Seal with Cap
Well test:
Circulation (hr) _____ Discharge (gpm) _____ Test method _____
13. LITHOLOGIC LOG and/or repairs or abandonment:
Bore Hole (ft) From (ft) To (ft) Remarks, lithology or description of repairs or abandonment, water being _____
14. DRILLER'S CERTIFICATION:
We certify that all minimum well construction standards were complied with at the time the rig was removed.
Company Name Dr. J. L. Struss & Sons, Inc. No. 572
Principal Driller J. L. Struss Date 8/31/19
Operator J. L. Struss Date 8-31-19
Operator _____ Date _____
* Signature of Principal Driller and rig operator are required.



ABBREVIATIONS AND ACRONYMS

AASHTO	American Association of State Highway & Transportation Officials
ACHD	Ada County Highway District
ASTM	American Society for Testing and Materials
BH	Bore Hole
HMA	Hot Mix Asphaltic Concrete
IBC	International Building Code
IDWR	Idaho Department of Water Resources
IDEQ	Idaho Department of Environmental Quality
ISPWC	Idaho Standard for Public Works Construction
ITD	Idaho Transportation Department
NP	Non-Plastic
PCC	Portland Cement Concrete
PCF	Pounds per Cubic Foot
PSF	Pounds per Square Foot
TP	Test Pit
USCS	Unified Soil Classification System

Nothing Follows

RECORDING REQUESTED BY AND
WHEN RECORDED MAIL TO:

THORNTON BYRON LLP
P.O. BOX 7156
BOISE, IDAHO 83707-1156

2021-085657

RECORDED

12/17/2021 08:53 AM

CHRIS YAMAMOTO
CANYON COUNTY RECORDER

Pgs=4 SCARDENAS

\$15.00

TYPE: DEED

THORNTON BYRON LLP

ELECTRONICALLY RECORDED

SPACE ABOVE THIS LINE FOR RECORDER'S USE ONLY

WARRANTY DEED
(Kingsbury Parcel A)

For Value Received, Richard M. Phillips, an unmarried man ("Grantor"), does hereby grant, bargain, sell and convey unto LWD Development, Inc., an Idaho corporation ("Grantee"), whose current address is 210 Murray Street, Boise, Idaho 83714, all of his right, title and interest in and to that certain real property located in Canyon County, Idaho, more particularly described on Exhibit A attached hereto and made a part hereof.

TO HAVE AND TO HOLD the said premises with its appurtenances unto Grantee and its heirs and assigns forever. And Grantor does hereby covenant to and with Grantee that Grantor is the owner in fee simple of the said premises; that the said premises is free from all encumbrances except the current year's taxes, levies and assessments, and except U.S. Patent reservations, restrictions, easements of record and easements visible upon the premises, and that Grantor will warrant and defend the same from all claims whatsoever.

IN WITNESS WHEREOF, Grantor has hereunto subscribed his name to this instrument effective the 16th day of December, 2021.

Grantor:

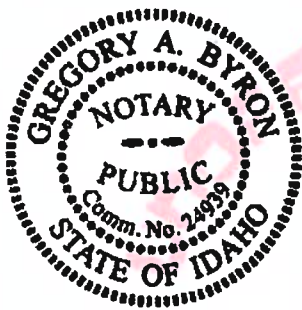

Richard M. Phillips

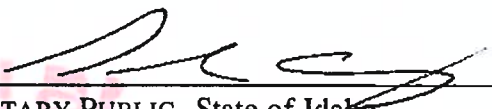
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STATE OF IDAHO)
 SS.
COUNTY OF ADA)

On this 16th day of December, 2021, before me, the undersigned Notary Public in and for the State of Idaho, personally appeared Richard M. Phillips, known or identified to me to be the person who executed the within and foregoing instrument, and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.





NOTARY PUBLIC, State of Idaho
Residing at: Nampa, Idaho
Commission expires: November 13, 2025

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**EXHIBIT A
LEGAL DESCRIPTION**

A portion of the SW 1/4 of the SW 1/4 of Section 35, T.5N., R.2W. of Boise Meridian, Canyon County, Idaho and a portion of Government Lot 4 of Section 2, T.4N., R.2W. of the Boise Meridian, Canyon County, Idaho more particularly described as follows:

BEGINNING at a common corner of said Section 2 and said Section 35;

thence along the West boundary line of said Section 35 North 00°20'12" East, 1,317.87 feet to the S 1/16 corner of said Section 35;

thence along the North boundary line of said SW 1/4 of the SW 1/4 of Section 35 South 89°43'05" East, 1,320.81 feet to the SW 1/16 corner of said Section 35;

thence along the East boundary line of said SW 1/4 of the SW 1/4 of Section 35 South 00°18'55" West, 1,317.61 feet to the NE corner of said Government Lot 4 of Section 2;

thence along the East boundary line of said Government Lot 4 South 00°55'56" West, 1,303.61 feet to the SE corner of said Government Lot 4;

thence South boundary line of said Government Lot 4 North 89°15'01" West, 1,329.90 feet to the SW corner of said Government Lot 4;

thence along the West boundary line of said Government Lot 4 North 01°19'00" East, 1,292.62 feet to the **POINT OF BEGINNING**. Containing 79.47 acres, more or less.

EXCEPTING THEREFROM:

A portion of the SW 1/4 of the SW 1/4 of Section 35, T.5N., R.2W. of Boise Meridian, Canyon County, Idaho and a portion of Government Lot 4 of Section 2, T.4N., R.2W. of the Boise Meridian, Canyon County, Idaho more particularly described as follows:

Commencing at a common corner of said Section 2 and said Section 35;

thence along the West boundary line of said Section 35 North 00°20'12" East, 99.07 feet;

thence leaving said West boundary line South 89°37'39" East, 40.00 feet to the **REAL POINT OF BEGINNING**;

thence continuing South 89°37'39" East, 342.46 feet; thence

North 22°51'51" East, 54.33 feet;

thence 106.89 feet along the arc of a non-tangent curve to the left, said curve having a radius of 278.12 feet, a central angle of 22°01'17" and a long chord which bears South 72°59'21" East, 106.24 feet;

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thence 45.48 feet along the arc of said reverse curve to the right, said curve having a radius of 32.50 feet, a central angle of 80°10'20" and a long chord which bears South 43°54'50" East, 41.86 feet;

thence South 03°49'39" East, 311.37 feet;

thence 32.02 feet along the arc of curve to the left, said curve having a radius of 330.00 feet, a central angle of 05°33'32" and a long chord which bears South 06°36'26" East, 32.00 feet;

thence South 09°23'12" East, 185.38 feet;

thence South 10°03'06" East, 7.66 feet;

thence North 89°25'51" West, 488.90 feet;

thence South 33°28'05" West, 135.44 feet;

thence North 01°19'00" East, 555.19 feet to a point on the North boundary line of said Section 2;

thence North 00°20'12" East, 99.38 feet to the **REAL POINT OF BEGINNING**.
Containing 6.66 acres, more or less.

CONTAINING A NET OF 72.81 ACRES, MORE OR LESS.

Canyon County Development Services
111 N. 11th Ave. Room 310, Caldwell, ID 83605
(208) 454-7458

Building Divsn Email: buildinginfo@canyoncounty.id.gov **Planning Divsn Email:** zoninginfo@canyoncounty.id.gov

Receipt Number: 88662

Date: 6/16/2026

Date Created: 6/16/2026

Receipt Type: Normal Receipt

Status: Active

Customer's Name: LWD Development for Cloud Nine Estates

Comments: Final Plat - Cloud Nine Estates -SD2026-0014

Site Address: 0 KINGSBURY RD, Middleton ID 83644 / Parcel Number: 37624000 0

CHARGES

<u>Item Being Paid For:</u>	<u>Application Number:</u>	<u>Amount Paid:</u>	<u>Prevs Pymnts:</u>	<u>Unpaid Amnt:</u>
Planning - Final Plat	SD2026-0014	\$700.00	\$0.00	\$0.00
Planning - Final Plat Per Lot Fee if Greater Than 29 Lots	SD2026-0014	\$380.00	\$0.00	\$0.00
Planning - Final Plat - Conformity Review with Development Agreement (If Applicable)	SD2026-0014	\$125.00	\$0.00	\$0.00
Planning - Final Plat Engineering Fee	SD2026-0014	\$500.00	\$0.00	\$0.00
Planning - Final Plat Engineering Fee - Per Lot Fee	SD2026-0014	\$960.00	\$0.00	\$0.00
Planning - Final Plat Engineering Fee - Area of City Impact Review (If Applicable)	SD2026-0014	\$200.00	\$0.00	\$0.00

Sub Total: \$2,865.00

Sales Tax: \$0.00

Total Charges: \$2,865.00

PAYMENTS

<u>Type of Payment:</u>	<u>Check/Ref Number:</u>	<u>Amount:</u>
Check	1010	\$2,865.00

Total Payments: \$2,865.00

ADJUSTMENTS

Receipt Balance: \$0.00

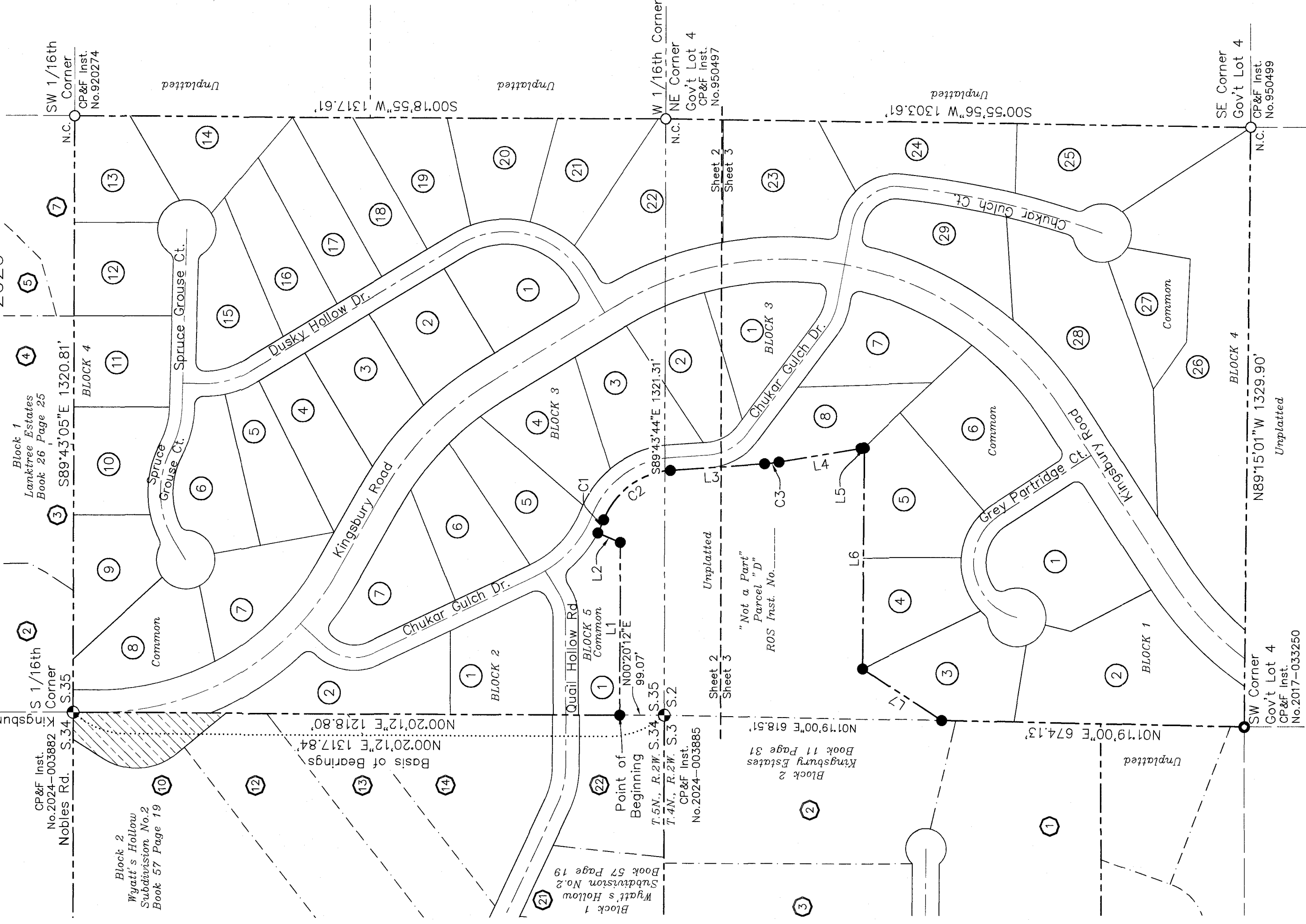
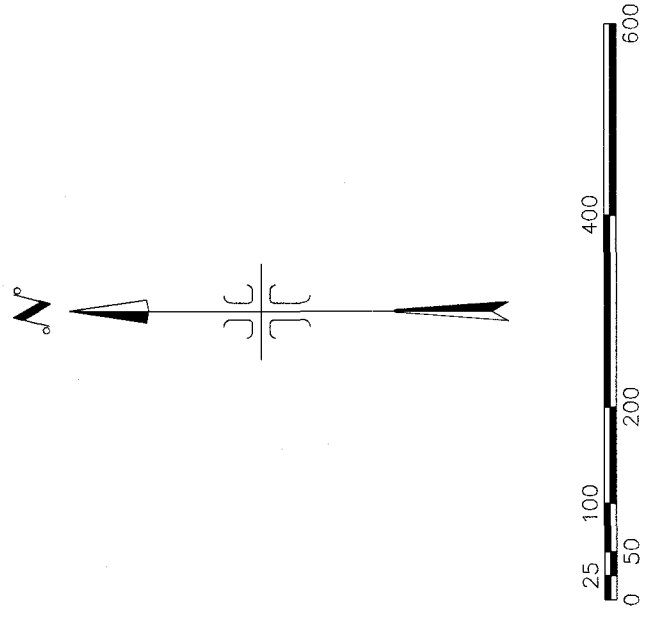
Issued By: pdilbeck

Plat Showing

Cloud Nine Subdivision

Parcel "C" of Record of Survey Instrument No. _____, Situated in a Portion of the Southwest 1/4 of Section 35, Township 5 North, Range 2 West, and a Portion of Government Lot 4 of Section 2 Township 4 North, Range 2 West, Boise Meridian, Canyon County, Idaho.

2026



Legend

- Found 5/8" Iron Pin, as Noted
- Found Brass Cap Monument, as Noted
- Found 3/4" Iron Pipe Monument
- Set 5/8" x 24" Iron Pin with Plastic Cap, "ISG PLS 8251"
- No Cap
- Calculated Point, Nothing Found or Set
- Lot Number
- Adjacent Lot Number
- Subdivision Boundary Line
- Section Line
- Centerline
- Tie Line
- Lot Line
- Right-of-Way Dedicated per Plat of Wyatts' Hollow Subdivision No.2
- Right-of-Way Line
- Parcel/Lot Line of Record
- Match Line

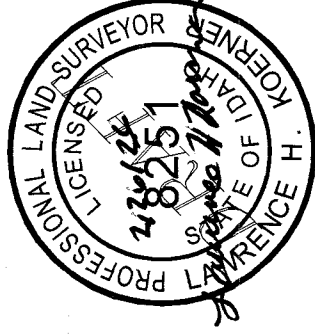
Surveyor's Narrative:

The Purpose of this Survey is to Subdivide the Property as Shown hereon. The Subject Property is Located in a Portion of Unplatted Lands. The Existing Sectional Corner Monumentation was found and are Shown on this Plat are in Substantial Agreement with Existing Corner Records and were used to Establish the Boundaries of this Subdivision.

Reference Documents:

ROS Instrument No's: 2020-027671,
Deed Instrument No's: 2021-085657, 2022-025948
& 2020-031889,
Subdivisions:
Kingsbury Estates, Book 11 Page 31,
Wyatt's Hollow Subdivision No.2, Book 57 Page 19,
Lanktree Estates, Book 26 Page 25.

Line Table	
Line	Bearing Length
L1	N89°37'39"W 382.46'
L2	S22°51'51"W 54.33'
L3	N03°49'39"W 210.56'
L4	N09°23'12"W 185.38'
L5	N10°03'06"W 7.66'
L6	S89°25'51"E 488.90'
L7	N33°28'05"E 210.60'



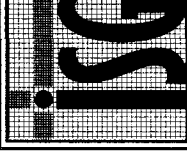
Curve Table			
Curve	Length	Radius	Delta
C1	31.88'	278.12'	6°31'38"
C2	194.16'	172.00'	64°40'41"
C3	32.02'	330.00'	5°33'32"

Notes

- A Ten (10) foot wide Permanent Public Utilities, Lot Drainage and Pressure Irrigation Easement is hereby Designated along all Lot Lines Common to a Public Right-of-Way. A Ten (10) foot wide Permanent Public Utilities, Lot Drainage and Pressure Irrigation Easement is hereby Designated along all Rear Lot Lines, and A five (5) foot wide Permanent Public Utilities, Lot Drainage and Pressure Irrigation Easement is hereby Designated along the Sides of Interior Lot Lines as Shown hereon. This Easement shall not Preclude the Construction of Hard-Surfaced Driveways and Walkways to each Lot.
- This development recognizes Section 22-4503 of Idaho Code, Right to Farm Act, which states, "No agricultural operation, agricultural facility or expansion thereof shall be or become a nuisance, private or public, by any changed conditions in or about the surrounding nonagricultural activities after it has been in operation for more than one (1) year, when the operation, facility or expansion is not a nuisance at the time it began or was constructed. The provisions of this section shall not apply when a nuisance results from the improper or negligent operation of an agricultural operation, agricultural facility or expansion thereof."
- The Lands Included in this Plat are not Located in an Irrigation District Service area and do not have an Appurtenant Surface Water right. Water for Irrigation Purposes will be Provided by Individual Wells.
- Any Re-Subdivision of this Plat shall Comply with the Applicable Regulations in Effect at the Time of the Re-Subdivision.
- Minimum Building Setbacks Shall be in Accordance with the Applicable Zoning and Subdivision Regulations at the Time of Issuance of Individual Building Permits, or as Specifically Approved and/or Required, or as Shown on this Plat.
- Lot 6, Block 1, Lots 8 and 27, Block 4, and Lot 1, Block 5, are Common Lots which Shall be Owned and Maintained by the Cloud Nine Subdivision Homeowner's Association, and are Subject to a Blanket Public Utilities, Lot Drainage and Pressure Irrigation Easement.
- All Lots Shall have Domestic Water by Private Individual Wells, and all Lots Shall have Sewer, VIA Private Individual Septic Systems, in Accordance with the Southwest District Health Department.
- The Homeowner's Association Underlying Property Owners, or Adjacent Property Owners are Responsible for all Storm Drainage Facilities Outside of Public Right of Ways including all Routine and Heavy Maintenance.

Book

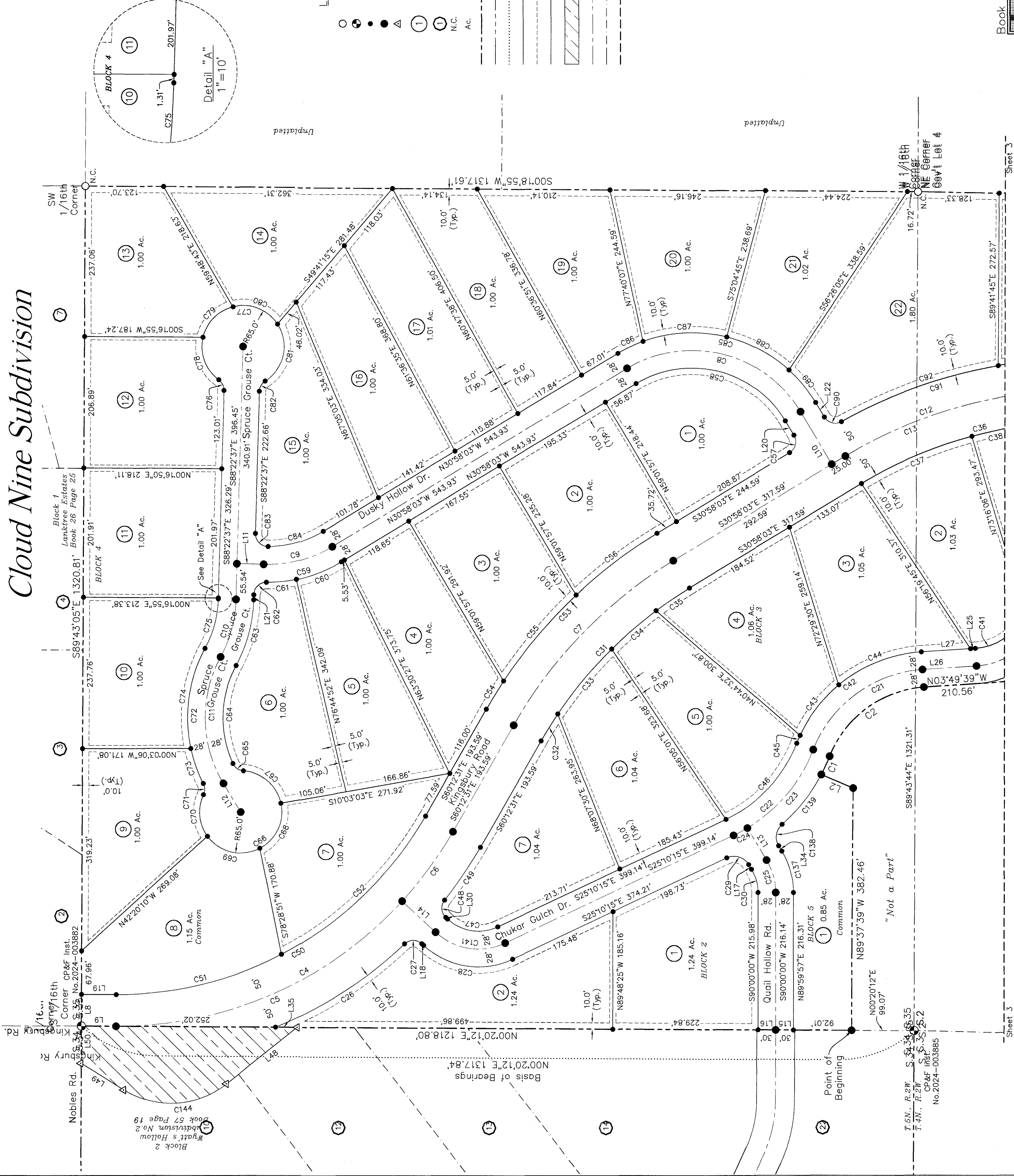
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9939 W. EMERALD ST.
BOISE, IDAHO 83704
(208) 846-8870
WWW.IDAHOSURVEY.COM

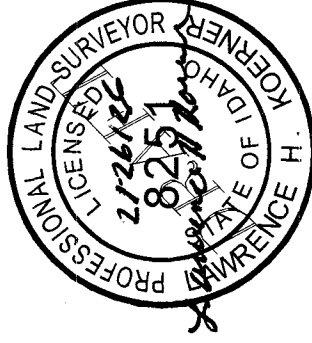
Job No. 25-269
Sheet 1 of 6

Cloud Nine Subdivision



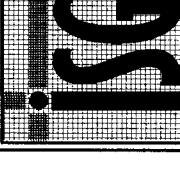
Legend

- Found 5/8" Iron Pin, as Noted
- Found Brass Cap Monument, as Noted
- Set 1/2" x 24" Iron Pin with Plastic Cap, "ISG PLS 8251"
- Set 5/8" x 24" Iron Pin with Plastic Cap, "ISG PLS 8251"
- Calculated Point, Nothing Found or Set
- Lot Number
- Adjacent Lot Number
- No Cap
- Acres
- Subdivision Boundary Line
- Section Line
- Tie Line
- Lot Line
- Public Utilities, Lot Drainage & Irrigation Easement Line
- Right-of-Way Line
- Right-of-Way Dedicated per Plat of Wyatt's Hollow Subdivision No.2
- Centerline
- Parcel/Lot Line of Record
- Match Line



Book

Page



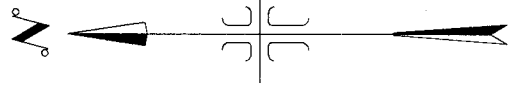
IDAHO
SURVEY
GROUP, LLC

9939 W. EMERALD ST.
BOISE, IDAHO 83704
(208) 846-8570
WWW.IDAHOSURVEY.COM

Job No. 25-269
Sheet 2 of 6

See Sheet 4 for Line & Curve Tables.

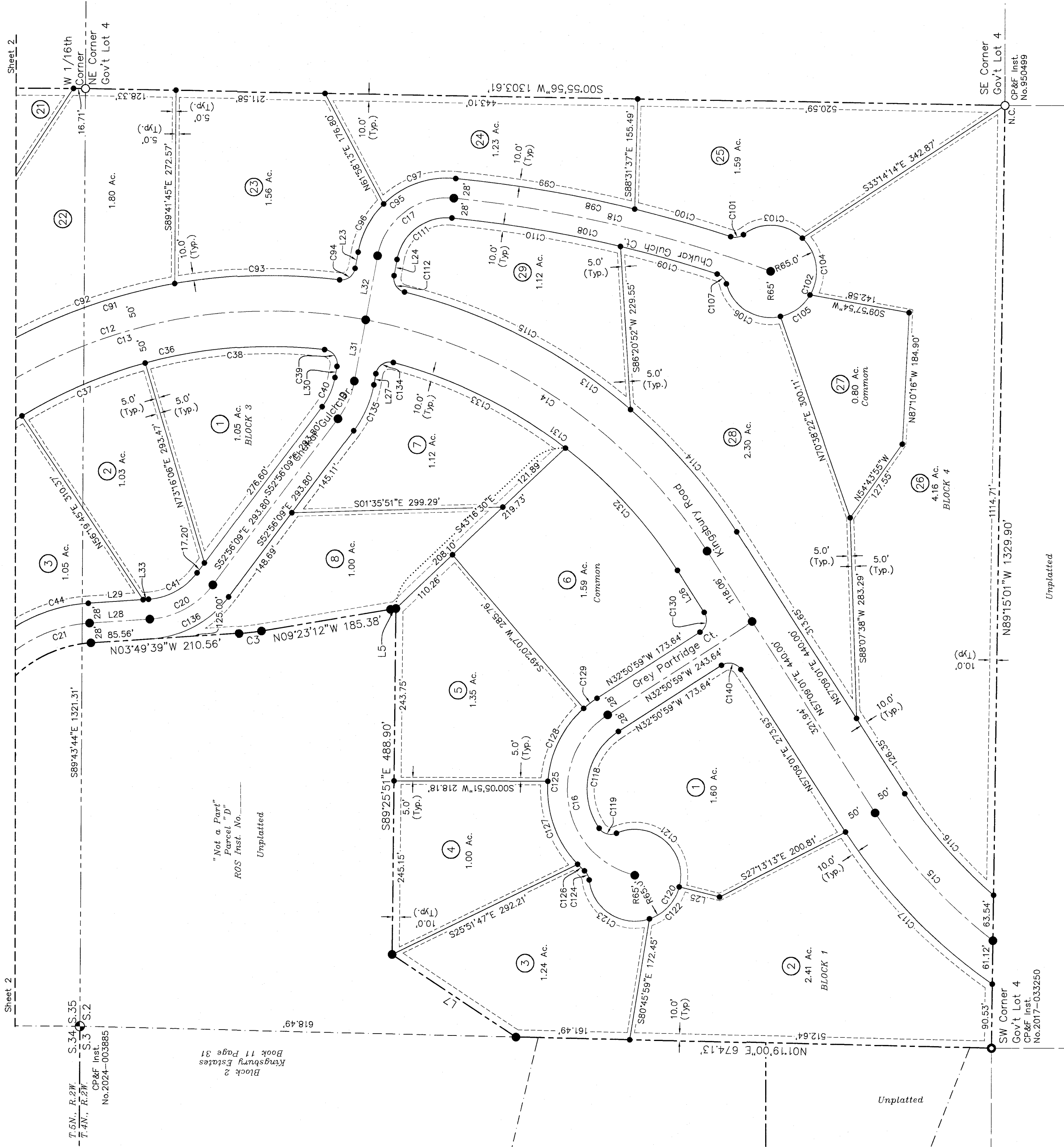
Cloud Nine Subdivision



Scale: 1" = 100'

Legend

- Found 5/8" Iron Pin, as Noted
- Found Brass Cap Monument, as Noted
- Found 3/4" Iron Pipe Monument
- Set 1/2" x 24" Iron Pin with Plastic Cap, "ISG PLS 8251"
- Set 5/8" x 24" Iron Pin with Plastic Cap, "ISG PLS 8251"
- Lot Number
- Adjacent Lot Number
- No Cap
- Acres
- Subdivision Boundary Line
- Section Line
- Tie Line
- Lot Line
- Public Utilities, Lot Drainage & Irrigation Easement Line
- Right-of-Way Line
- Centerline
- Parcel/Lot Line of Record
- Match Line



Cloud Nine Subdivision

Sheet 2

Line Table		
Line	Bearing	Length
L2	N22°51'51"E	54.33'
L8	S89°43'05"E	50.00'
L9	S00°20'12"W	54.94'
L10	N59°01'57"E	73.56'
L11	N01°37'23"E	33.00'
L12	N58°54'40"E	52.87'
L13	S59°09'05"W	59.83'
L14	S42°37'18"W	72.09'
L15	N00°20'12"E	28.00'
L16	N00°20'12"E	28.00'
L17	N59°09'05"E	8.79'
L18	N42°37'18"E	3.79'
L19	N00°20'00"E	55.28'
L20	S59°01'57"W	26.44'
L21	N88°22'37"W	7.60'
L22	S59°01'57"W	26.77'
L25	N03°49'39"W	7.64'
L26	S03°49'39"E	85.56'
L27	N03°49'39"W	85.56'
L30	N42°37'18"E	3.79'
L34	N59°09'05"E	9.83'
L35	N00°20'12"E	34.13'
L48	N38°52'42"W	143.17'
L49	N32°04'38"E	79.75'
L50	S89°50'08"E	59.16'

Curve Table					
Curve	Length	Radius	Delta	Chord Bearing	Chord Length
C2	194.16'	172.00'	64°40'41"	N36°10'00"W	184.02'
C4	644.80'	610.19'	60°32'43"	S29°56'09"E	615.21'
C5	508.16'	610.19'	47°42'55"	S23°31'15"E	493.60'
C6	136.64'	610.19'	12°49'48"	S53°47'37"E	136.35'
C7	364.96'	715.11'	29°14'28"	N45°35'17"W	361.01'
C8	314.16'	200.00'	90°00'00"	N14°01'57"E	282.84'
C9	113.76'	200.00'	32°35'27"	S14°40'20"E	112.24'
C10	94.13'	200.00'	26°57'54"	S74°53'39"E	93.26'
C11	208.31'	200.00'	59°40'38"	S88°44'59"W	199.02'
C12	1132.25'	736.21'	88°07'04"	N13°05'29"E	1023.92'
C13	532.49'	736.21'	41°26'30"	N10°14'48"W	520.96'
C21	225.77'	200.00'	64°40'41"	N36°10'00"W	213.97'
C22	189.18'	250.12'	43°20'05"	S46°50'18"E	184.70'
C23	164.39'	250.12'	37°39'25"	S49°40'38"E	161.45'
C24	24.79'	250.12'	5°40'40"	S28°00'35"E	24.78'
C25	53.84'	100.00'	30°50'55"	N74°34'32"E	53.19'
C26	244.58'	660.19'	21°13'36"	S32°43'06"E	243.19'
C27	30.00'	20.00'	85°57'12"	N00°21'18"W	27.27'
C28	151.45'	128.00'	67°47'34"	S08°43'31"W	142.77'
C29	39.74'	27.00'	84°19'20"	N16°59'25"E	36.25'
C30	38.77'	72.00'	30°50'55"	N74°34'32"E	38.30'
C31	339.44'	665.11'	29°14'28"	N45°35'17"W	335.77'
C32	49.80'	665.11'	4°17'24"	N58°03'49"W	49.79'
C33	133.77'	665.11'	11°31'24"	N50°09'25"W	133.54'
C34	92.22'	665.11'	7°56'39"	N40°25'24"W	92.15'
C35	63.66'	665.11'	5°29'01"	N33°42'34"W	63.63'
C36	446.85'	686.21'	37°18'36"	N12°18'45"W	438.99'
C37	190.02'	686.21'	15°51'57"	N23°02'05"W	189.41'
C38	256.83'	686.21'	21°26'38"	N04°22'47"W	255.33'

Line Table		
Line	Bearing	Length
L5	S10°03'06"E	7.66'
L7	N33°28'05"E	210.60'
L23	S79°31'34"E	23.27'
L24	S79°31'34"E	23.27'
L25	N13°55'01"E	58.90'
L26	N57°09'01"E	70.06'
L27	N79°31'34"W	15.74'
L28	S03°49'39"E	85.56'
L29	N03°49'39"W	77.91'
L30	S79°31'34"E	15.74'
L31	S79°31'34"E	87.48'
L32	S79°31'34"E	91.84'
L33	N03°49'39"W	7.64'

Curve Table					
Curve	Length	Radius	Delta	Chord Bearing	Chord Length
C3	32.02'	330.00'	5°33'32"	S06°36'26"E	32.00'
C12	1132.25'	736.21'	88°07'04"	N13°05'29"E	1023.92'
C13	532.49'	736.21'	41°26'30"	N10°14'48"W	520.96'
C14	599.76'	736.21'	46°40'35"	N33°48'44"E	563.31'
C15	246.91'	710.68'	19°54'21"	S47°12'03"W	245.67'
C16	291.66'	125.00'	133°41'13"	S80°18'25"W	229.86'
C17	148.48'	100.00'	85°04'14"	N36°59'27"W	135.21'
C18	462.15'	1800.00'	1°42'39"	N12°54'00"E	460.88'
C19	58.01'	125.00'	26°35'25"	S66°13'51"E	57.49'
C20	104.57'	122.00'	49°06'29"	S28°22'54"E	101.39'
C21	225.77'	200.00'	64°40'41"	N36°10'00"W	213.97'
C36	446.85'	686.21'	37°18'36"	N12°18'45"W	438.99'
C37	190.02'	686.21'	15°51'57"	N23°02'05"W	189.41'
C38	256.83'	686.21'	21°26'38"	N04°22'47"W	255.33'
C39	32.86'	20.00'	94°07'54"	N53°24'29"E	29.29'
C40	45.02'	97.00'	26°35'25"	S66°13'51"E	44.61'
C41	80.57'	94.00'	49°06'29"	S28°22'54"E	78.12'
C44	142.81'	228.00'	35°53'19"	N21°46'19"W	140.49'
C90	30.85'	20.00'	88°21'55"	S14°50'59"W	27.88'
C91	499.39'	786.21'	36°23'37"	N11°08'10"W	491.04'
C92	264.72'	786.21'	19°17'31"	N19°41'13"W	263.47'
C93	234.67'	786.21'	17°06'06"	N01°29'24"W	233.80'

Curve Table					
Curve	Length	Radius	Delta	Chord Bearing	Chord Length
C41	80.57'	94.00'	49°06'29"	S28°22'54"E	78.12'
C42	257.38'	228.00'	64°40'41"	N36°10'00"W	243.93'
C43	101.12'	228.00'	25°24'42"	N52°25'20"W	100.30'
C44	142.81'	228.00'	35°53'19"	N21°46'19"W	140.49'
C45	13.44'	228.00'	3°22'40"	N66°49'01"W	13.44'
C46	168.00'	222.12'	43°20'05"	S46°50'18"E	164.02'
C47	85.19'	72.00'	67°47'34"	S08°43'31"W	80.31'
C48	30.00'	20.00'	85°57'12"	S85°35'54"W	27.27'
C49	101.21'	660.19'	8°47'01"	S55°49'00"E	101.11'
C50	591.93'	560.19'	60°32'31"	S29°56'15"E	564.77'
C51	271.33'	560.19'	27°45'04"	S13°32'32"E	268.68'
C52	320.60'	560.19'	32°47'28"	S43°48'47"E	316.25'
C53	390.48'	765.11'	29°14'28"	N45°35'17"W	386.25'
C54	52.43'	765.11'	3°55'34"	N58°14'44"W	52.42'
C55	177.26'	765.11'	13°16'27"	N49°38'44"W	176.86'
C56	160.79'	765.11'	12°02'27"	N36°59'17"W	160.49'
C57	31.42'	20.00'	90°00'00"	S75°58'03"E	28.28'
C58	270.18'	172.00'	90°00'00"	N14°01'57"E	243.24'
C59	124.70'	228.00'	31°20'15"	S15°17'56"E	123.15'
C60	76.85'	228.00'	19°18'43"	S21°18'42"E	76.49'
C61	47.85'	228.00'	12°01'32"	S05°38'35"E	47.77'
C62	30.98'	20.00'	88°44'48"	N44°00'13"W	27.97'
C63	107.30'	228.00'	26°57'54"	S74°53'39"E	106.32'
C64	160.27'	172.00'	53°23'23"	N88°06'24"W	154.54'
C65	21.35'	20.00'	61°09'20"	S34°37'15"W	20.35'
C66	330.13'	65.00'	291°00'06"	S30°27'22"E	73.63'
C67	83.50'	65.00'	7°33'05"	N40°50'38"E	77.87'
C68	84.52'	65.00'	74°30'16"	S65°06'12"E	78.69'
C69	92.71'	65.00'	81°43'24"	S13°00'38"W	85.05'

Sheet 3

Curve Table					
Curve	Length	Radius	Delta	Chord Bearing	Chord Length
C94	30.22'	20.00'	86°35'12"	S36°13'57"E	27.43'
C95	190.05'	128.00'	85°04'14"	N36°59'27"W	173.07'
C96	78.05'	128.00'	34°56'17"	N62°03'25"W	76.85'
C97	112.00'	128.00'	50°07'57"	N19°31'18"W	108.46'
C98	399.03'	1828.00'	12°30'25"	N11°47'53"E	398.24'
C99	257.54'	1828.00'	8°04'20"	N09°34'50"E	257.33'
C100	141.49'	1828.00'	4°26'05"	N15°50'03"E	141.45'
C101	19.03'	20.00'	54°31'24"	S09°12'37"E	18.32'
C102	330.38'	65.00'	29°13'17"	S70°51'41"E	73.43'
C103	90.98'	65.00'	80°11'57"	N03°37'39"E	83.74'
C104	87.24'	65.00'	76°53'51"	N82°10'33"E	80.84'
C105	53.15'	65.00'	46°50'56"	S35°57'03"E	51.68'
C106	99.01'	65.00'	87°16'33"	S31°06'41"W	89.71'
C107	19.81'	20.00'	56°45'27"	N46°22'14"E	19.01'
C108	384.96'	1772.00'	12°26'50"	N11°46'05"E	384.20'
C109	142.44'	1772.00'	4°36'21"	N15°41'20"E	142.41'
C110	242.52'	1772.00'	7°50'30"	N09°27'55"E	242.33'
C111	106.90'	72.00'	85°04'14"	N36°59'27"W	97.35'
C112	30.22'	20.00'	86°35'12"	S57°10'50"W	27.43'
C113	593.65'	786.21'	43°15'47"	N35°31'08"E	579.65'
C114	229.96'	786.21'	16°45'31"	N48°46'16"E	229.14'
C115	363.69'	786.21'	26°30'16"	N27°08'22"E	360.46'

Curve Table					
Curve	Length	Radius	Delta	Chord Bearing	Chord Length
C70	69.40'	65.00'	61°10'20"	S84°27'31"W	66.15'
C71	18.16'	20.00'	52°02'19"	N89°01'32"E	17.55'
C72	221.18'	228.00'	55°34'55"	N89°12'10"W	212.61'
C73	58.33'	228.00'	14°39'28"	S70°20'06"W	58.17'
C74	162.85'	228.00'	40°55'27"	N81°52'26"W	159.41'
C75	80.95'	172.00'	26°57'54"	S74°53'39"E	80.20'
C76	19.41'	20.00'	55°37'05"	N63°48'51"E	18.66'
C77	330.40'	65.00'	29°14'11"	N01°37'23"E	73.41'
C78	76.12'	65.00'	67°06'01"	S69°33'18"W	71.85'
C79	71.32'	65.00'	62°52'14"	N45°27'34"W	67.80'
C80	80.56'	65.00'	71°00'55"	N21°29'00"E	75.51'
C81	102.39'	65.00'	90°15'01"	S77°53'02"E	92.12'
C82	19.41'	20.00'	55°37'05"	N60°34'04"W	18.66'
C83	32.13'	20.00'	92°02'42"	S45°36'02"W	28.78'
C84	91.70'	172.00'	30°32'44"	S15°41'41"E	90.61'
C85	358.14'	228.00'	90°00'00"	N14°01'57"E	322.44'
C86	43.99'	228.00'	11°03'14"	N25°26'26"W	43.92'
C87	134.59'	228.00'	33°49'21"	N03°00'08"W	132.65'
C88	113.05'	228.00'	28°24'33"	N28°06'49"E	111.90'
C89	66.51'	228.00'	16°42'52"	N50°40'31"E	66.28'
C90	30.85'	20.00'	88°21'55"	S14°50'59"W	27.88'
C91	499.39'	786.21'	36°23'37"	N11°08'10"W	491.04'
C92	264.72'	786.21'	19°17'31"	N19°41'13"W	263.47'
C137	68.92'	128.00'	30°50'55"	N74°34'32"E	68.09'
C138	37.52'	27.00'	79°36'55"	N81°02'28"W	34.57'
C139	100.70'	278.12'	20°44'43"	S51°36'22"E	100.15'
C141	118.32'	100.00'	67°47'34"	S08°43'31"W	111.54'
C144	173.38'	140.00'	70°57'23"	N03°24'02"W	162.51'

Curve Table					
Curve	Length	Radius	Delta	Chord Bearing	Chord Length
C116	191.72'	660.68'	16°37'35"	S48°50'26"W	191.05'
C117	300.64'	760.68'	22°38'42"	S45°49'52"W	298.69'
C118	155.40'	97.00'	91°47'29"	N78°44'44"W	139.31'
C119	27.62'	20.00'	79°07'08"	S15°47'58"W	25.48'
C120	326.46'	65.00'	287°45'53"	S59°52'40"E	76.63'
C121	145.77'	65.00'	128°29'33"	N40°29'10"E	117.09'
C122	64.31'	65.00'	56°41'31"	S46°55'18"E	61.72'
C123	116.37'	65.00'	102°34'48"	S32°42'52"W	101.44'
C124	14.99'	20.00'	42°56'35"	N62°31'59"E	14.64'
C125	283.29'	153.00'	106°05'20"	N85°53'39"W	244.53'
C126	13.48'	153.00'	5°02'54"	S43°35'08"W	13.48'
C127	128.44'	153.00'	48°05'58"	S70°09'34"W	124.70'
C128	117.62'	153.00'	44°02'53"	N63°46'00"W	114.75'
C129	23.75'	153.00'	8°53'35"	N37°17'46"W	23.72'
C130	31.42'	20.00'	90°00'00"	S77°50'59"E	28.28'
C131	509.54'	686.21'	42°32'40"	N35°52'41"E	497.91'
C132	235.57'	686.21'	19°40'08"	N47°18'57"E	234.41'
C133	273.97'	686.21'	22°52'32"	N26°02'37"E	272.16'
C134	32.86'	20.00'	94°07'54"	N32°27'36"W	29.29'
C135	71.01'	153.00'	26°35'25"	S66°13'51"E	70.37'
C136	128.56'	150.00'	49°05'29"	S28°22'54"E	124.67'
C140	31.42'	20.00'	90°00'00"	N12°09'01"E	28.28'

Cloud Nine Subdivision

Certificate Of Owners

Know all Men by these Presents: that LWD Development, Inc., an Idaho Corporation is the Owner of the Property Described as follows:

Legal Description

The following Describes a Parcel of Land Located in the Southwest 1/4 of the Southwest 1/4 of Section 35, Township 5 North, Range 2 West, and also a Portion of Government Lot 4 of Section 2, Township 4 North, Range 2 West, Boise Meridian, Canyon County, Idaho and more Particularly Described as follows:

COMMENCING at the Corner Common with the Southwest Section Corner of Section 35, Township 5 North, Range 2 West, Boise Meridian, and the Northwest Corner of Government Lot 4 of Section 2, Township 4 North, Range 2 West, Boise Meridian; From which, the Northwest Corner of the Southwest Quarter of the Southwest Quarter (South 1/16 Corner) of said Section 35 bears, North 00°20'12" East, 1317.84 feet;

Thence along the Westerly Boundary Line of the Southwest 1/4 of the Southwest 1/4 of said Section 35, North 00°20'12" East, 99.07 feet to the POINT OF BEGINNING;

Thence, Continuing along said Westerly Boundary Line, North 00°20'12" East, 1218.80 feet to the Northwest Corner of the Southwest 1/4 of the Southwest 1/4 (South 1/16 Corner) of said Section 35;

Thence leaving said Westerly Boundary Line, and along the Northerly Boundary Line of the Southwest 1/4 of the Southwest 1/4 (Southwest 1/16 Corner) of said Section 35;

Thence leaving said Northerly Boundary Line, and along the Easterly Boundary Line of the Southwest 1/4 of the Southwest 1/4 of said Section 35, South 00°18'55" West, 1317.61 feet to the Southeast Corner of the Southwest 1/4 of the Southwest 1/4 (West 1/16 Corner of said Section 35, and also being the Northeast Corner of Government Lot 4 of Section 2, Township 4 North, Range 2 West, Boise Meridian;

Thence along the Easterly Boundary Line of said Government Lot 4, South 00°55'56" West, 1303.61 feet to the Southeast Corner of said Government Lot 4;

Thence leaving said Easterly Boundary Line, and along the Southerly Boundary Line of said Government Lot 4, North 89°15'01" West, 1329.90 feet to the Southwest Corner of said Government Lot 4;

Thence leaving said Southerly Boundary Line, and along the Westerly Boundary Line of said Government Lot 4, North 01°19'00" East, 674.13 feet;

Thence leaving said Westerly Boundary Line, North 33°28'05" East, 210.60 feet;

Thence, South 89°25'51" East, 488.90 feet;

Thence, North 10°03'06" West, 7.66 feet;

Thence, North 09°23'12" West, 185.38 feet;

Thence Northwesterly 32.02 feet along the arc of a Curve to the right having a radius of 330.00 feet, a Central angle of 05°33'32" and a Long Chord which bears, North 06°36'26" West, 32.00 feet;

Thence, North 03°49'39" West, 210.56 feet;

Thence Northwesterly 194.16 feet along the arc of a Curve to the left having a radius of 172.00 feet, a Central angle of 64°40'41" and a Long Chord which bears, North 36°10'00" West, 184.02 feet to a point of Reverse Curvature;

Thence Northwesterly 31.68 feet along the arc of a Curve to the right having a radius of 278.12 feet, a Central angle of 06°31'38" and a Long Chord which bears, North 65°14'32" West, 31.67 feet;

Thence, South 22°51'51" West, 54.33 feet;

Thence, North 89°37'39" West, 382.46 feet to the POINT OF BEGINNING;

The above Described Parcel of Land Contains 72.24 acres, more or less.

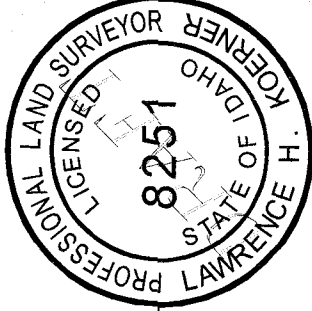
It is the Intention of the Undersigned to hereby Include the above Described Property in this Plat and to Dedicate to the Public, the Public Streets as Shown on this Plat. The Easements Indicated on said Plat are not Dedicated to the Public, however, the Right to use said Easements is Perpetually Reserved for Public Utilities and for such other uses as Designated hereon. No Permanent Structure other than for such Utility Purposes or such other uses are to be Erected within the Limits of said Easements. The Owner(s) hereby Certify that Surface Water for Irrigation is not Reasonably Available, per Idaho Code 67-6537, and the Requirements of Section 31-3805, Idaho Code, are not Applicable.

LWD Development, Inc., an Idaho Corporation

Nathan R. Mitchell
President

Certificate of Surveyor

I, Lawrence H. Koerner, do hereby certify that I am a Professional Land Surveyor licensed by the State of Idaho, and that this plat as described in the "Certificate of Owners" is drawn from an actual survey made on the ground under my direct supervision and accurately represents the points platted thereon, and is in conformity with the State of Idaho Code relating to plats and surveys.



Lawrence H. Koerner

2/26/26

P.L.S. No. 8251

Acknowledgment

State of Idaho }
County of Ada } s.s.

On this _____ day of _____, 20____, before me, the undersigned, a notary public in and for said state, personally appeared Nathan R. Mitchell, known or identified to me to be the President of LWD Development, Inc., the person who executed the foregoing instrument, and acknowledged to me that he executed such instrument for and on behalf of said limited partnership, and that said limited partnership executed the same.

In witness whereof, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

My Commission Expires _____

Notary Public, State of Idaho
Residing In Boise, Idaho

Cloud Nine Subdivision

HEALTH CERTIFICATE

Sanitary restrictions as required by Idaho Code, Title 50, Chapter 13 have been satisfied. Sanitary restrictions may be reimposed, in accordance with Section 50-1326, Idaho Code, by the issuance of a certificate of disapproval.

Southwest District Health Department, REHS

Date

CERTIFICATE OF COUNTY SURVEYOR

I, the undersigned, Professional Land Surveyor, in and for Canyon County, Idaho, do hereby certify that I have examined this plat and that it complies with the requirements of Idaho State Code, relating to plats and surveys.

Canyon County Surveyor

APPROVAL OF COUNTY COMMISSIONERS

Accepted and approved this _____ day of _____, 20____, this plat was duly accepted and approved by the Canyon County Commissioners, Canyon County, Idaho.

Chairman

Clerk

County Treasurer

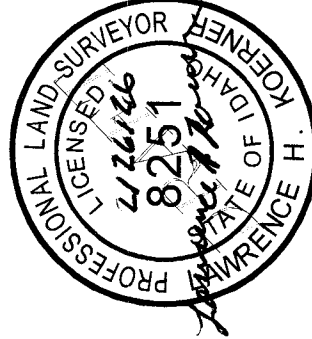
Date

CERTIFICATE AND APPROVAL HIGHWAY DISTRICT NO. 4

Highway District No.4 does hereby accept the plat, and the dedicated public street, highways and rights-of-way as are depicted on this plat, in accordance with the provisions of I.C. 50-1312.

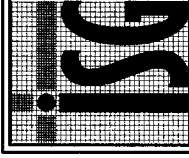
Chairman

Date



Book

Page



IDAHO
SURVEY
GROUP, LLC

Job No. 25-269
Sheet 6 of 6

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