

# **Wastewater Treatment Report**

**Waterside  
(to be Replatted as Waterside at Lake Woodmoor)**

**El Paso County, Colorado**

Prepared for:  
La Plata Communities, Inc.  
9540 Federal Drive, Suite 200  
Colorado Springs, Colorado 80921

Prepared by:  
**Kiowa**  
Engineering Corporation

1604 South 21st Street  
Colorado Springs, Colorado 80904  
(719) 630-7342

Kiowa Project No. 22027  
April 24, 2024

## **I. Introduction**

All utility design for the proposed development has been performed in accordance with the *Woodmoor Water and Sanitation District No. 1 Rules and Regulations*, *Woodmoor Water and Sanitation District No. 1 System Specifications*, and the *El Paso County Land Development Code*. Supporting design calculations are included in Appendix A of this report.

## **II. Project Description**

Waterside is a planned residential development located in northern El Paso County, Colorado. The project is planned as a townhome community. The site is located in a portion of the West Half of the Southeast Quarter of Section 11, Township 11 South, Range 67 West of the 6th Principal Meridian. The property is currently platted as the Waterside Condominiums in accordance with the declaration recorded on February 13, 1981, in Book 3403-722 and the condominium map recorded on February 13, 1981 in Plat Book 2-47. The property is currently undeveloped and covers a total of approximately 7.53 acres. The property will be platted/replatted as 'Waterside at Lake Woodmoor'. The streets will be private and 44 townhouse lots will be developed. 40 lots will contain multi-family (attached) units and 4 lots will contain single-family (detached) units. With the platting of Waterside at Lake Woodmoor, water and wastewater mains and services within the property will be constructed.

## **III. Sanitary Sewer Collection System**

The proposed sanitary sewer collection system for Waterside at Lake Woodmoor will be connected to the existing Woodmoor Water and Sanitation District sanitary sewer main located southeast of the intersection of Deer Creek Road and Woodmoor Drive with new mains with service connections generally following the private roads of the project. The proposed sanitary sewer collection system will be comprised of existing and new 8-inch PVC public gravity sewer constructed per WWSD Standards and Specifications.

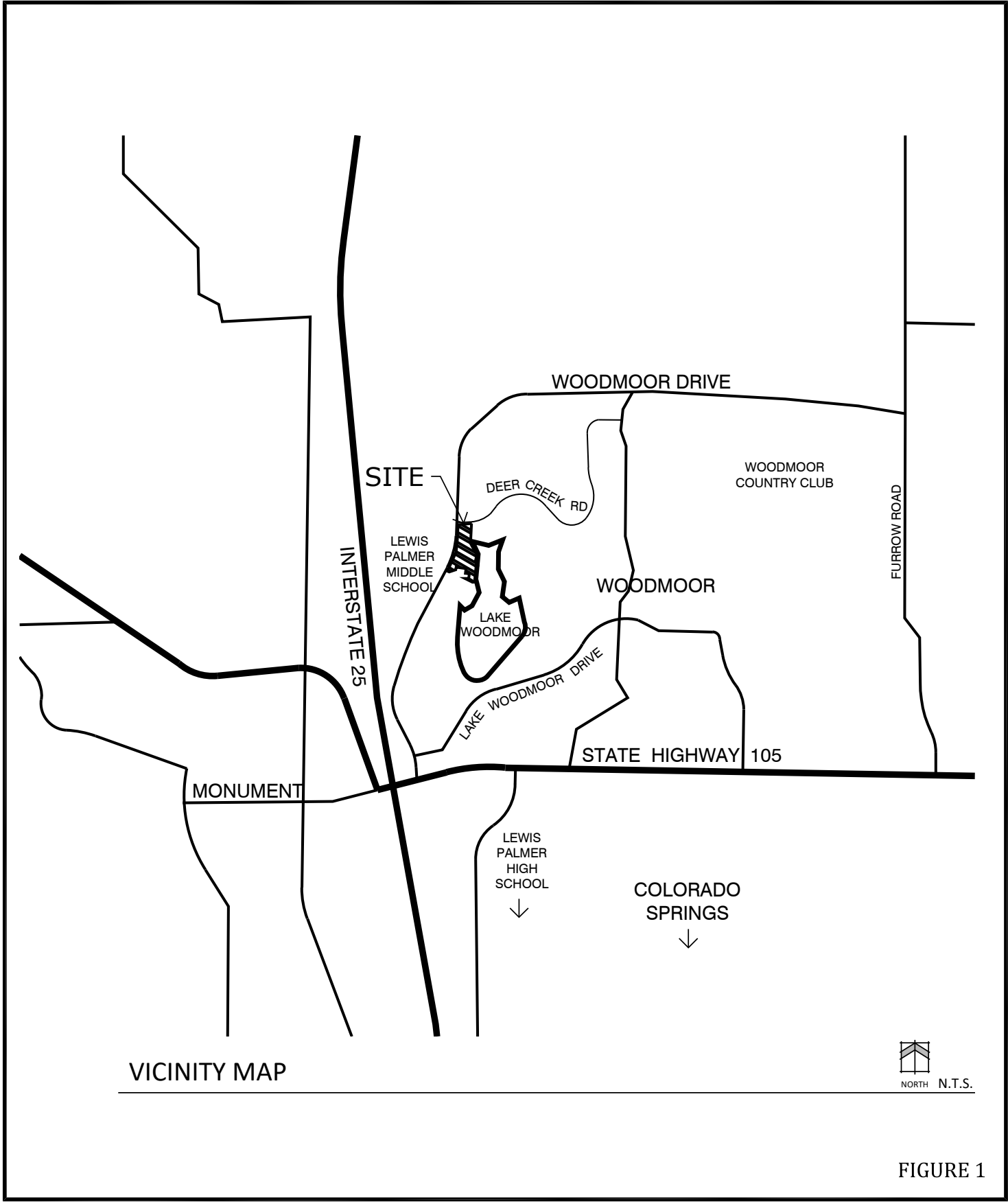
Wastewater flow calculations, which are contained in Appendix A of this report, indicate that the new 8-inch PVC sanitary sewer will be adequate for the Waterside at Lake Woodmoor gravity sewer system. The Utility Plan is included in Appendix D of this report and shows the locations of the existing and proposed sewer lines and associated appurtenances.

## **IV. Wastewater Collection and Treatment**

The sanitary sewer collection system to be constructed as part of the Waterside at Lake Woodmoor development is comprised of 8-inch PVC public gravity sewer. The sanitary sewer within Waterside at Lake Woodmoor anticipated for the Woodmoor Water and Sanitation District (WWSD) is summarized in Section 4.0 of the District's Long Range Plan (LRP). The complete LRP has not been included in this report. Contained within Appendix B is a letter that addresses the commitment to serve the subdivision from the District.

Wastewater conveyed by the existing WWSD's collection system outfalls to the Tri-Lakes Wastewater Treatment Plant. A description of the Plant's current operation and future projects is contained within the LRP. The plant has adequate capacity to treat and discharge wastewater flows generated by Waterside at Lake Woodmoor in conformance with current Colorado Department of Public Health and Environment standards and regulations.

**APPENDIX A**  
**Vicinity Map**  
**Woodmoor District Overview Map**  
**Wastewater Calculations**



VICINITY MAP

FIGURE 1

15073 Drainage Plan.dwg/Nov. 03, 2016

Waterside  
Vicinity Map  
El Paso County, Colorado

PROJECT NO. 22027

**Kiowa**  
Engineering Corporation  
1604 South 21st Street  
Colorado Springs, Colorado 80904  
(719) 630-7342







**Waterside at Lake Woodmoor  
Wastewater Demand Calculations**

<b>Single-Family Detached/Attached</b>	44 units	
Persons per Dwelling Unit	<u>3.5 persons</u>	
	154 persons	
1 Person =	<u>100 gpd</u>	
Average Daily Flow (ADF) =	15,400 gpd	ADF = persons x gpd
Peak Flow Factor =	<u>4</u>	
Peak Hourly Flow (PHF) =	61,600 gpd	PHF = ADF x Peak Flow Factor
<b>Single-Family PHF =</b>	<b>43 gpm</b>	

<b>Total PHF =</b>	<b>43 gpm</b>	
<b>Total PHF =</b>	<b>0.10 cfs</b>	cfs = gpm / (7.48 gal/ft <sup>3</sup> ) / (60 sec/min)
<b>Pipe (8" SDR35) Capacity =</b>	<b>1.23 cfs</b>	Qcap = (1.486/0.009)*0.349*0.167 <sup>2/3</sup> *0.005 <sup>1/2</sup> Pipe Slope = 0.5%
<b>Pipe Capacity is Greater than Total PHF</b>		
<b>Pipe (12" SDR35) Capacity =</b>	<b>2.14 cfs</b>	Qcap = (1.486/0.009)*0.785*0.25 <sup>2/3</sup> *0.0017 <sup>1/2</sup> Pipe Slope = 0.17%
<b>Pipe Capacity is Greater than Total PHF</b>		

**APPENDIX B**  
**Woodmoor Water and Sanitation District**  
**Commitment Letter**





# WOODMOOR

Water & Sanitation District No. 1

P. O. Box 1407 • Monument, Colorado 80132  
Phone (719) 488-2525 • Fax (719) 488-2530

April 9, 2024

To: La Plata Communities, Inc  
Attn: Steve Rossell  
9540 Federal Drive, Suite 200  
Colorado Springs, CO 80921

RE: Water & Wastewater Service Commitment – Waterside Condominiums  
El Paso County Parcel Numbers: 7111404113 - 7111404194

Dear Mr. Rossell:

The above referenced development, as depicted in the attached sketch, is located within the service boundaries of Woodmoor Water and Sanitation District No. 1 (the District).

It is the District's understanding that La Plata Communities intends to construct 40 multi-family units and 4 single-family units on 7.53 acres of land within the Waterside Development with a projected total water demand of 12.236 Acre-Feet per year.

The District is committed to providing water and sewer services to the development once the following terms and conditions are met:

1. The Developer must apply for, be subsequently allocated, and enter into an agreement with the District for Supplemental Water Service. Supplemental Water Service is allocated by the District's Board (in its sole and absolute discretion) and therefore is not guaranteed. The District makes no representation herein (expressed or implied) as to whether Developer will or won't be successful in obtaining Supplemental Water Service for the Development.
2. The Development must comply with all District rules, regulations, specifications, and policies regarding water and wastewater service, including the District's System Specifications regarding installation of Water and Sewer utilities, granting of water and sewer utility easements, and construction of offsite improvements if required.

If you should have any questions or need further assistance, please contact me.

Sincerely,

Jessie J. Shaffer  
District Manager

Cc: Ariel Hacker – District Engineer, Dan LaFontaine – Operations Superintendent



# WATERSIDE AT LAKE WOODMOOR

SW 1/4 OF THE SE 1/4 OF SECTION 11 TOWNSHIP 11 SOUTH, RANGE 67 WEST, 6TH  
 PRINCIPAL MERIDIAN EL PASO COUNTY, COLORADO  
 PUD DEVELOPMENT PLAN/PRELIMINARY PLAN

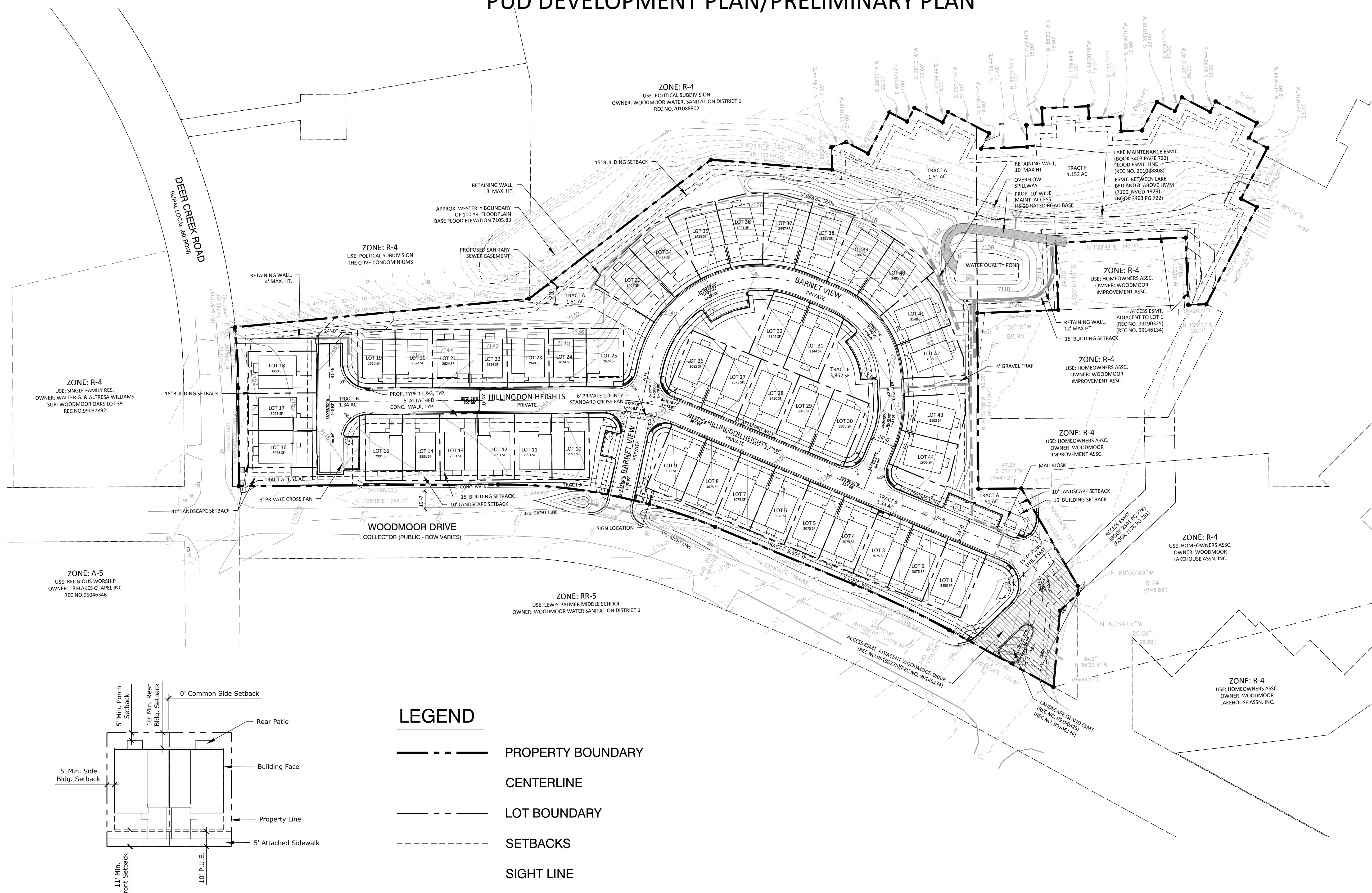


N.E.S. Inc.  
 619 N. Cascade Avenue, Suite 200  
 Colorado Springs, CO 80903

Tel. 719.471.0073  
 Fax 719.471.0267

www.nescolorado.com

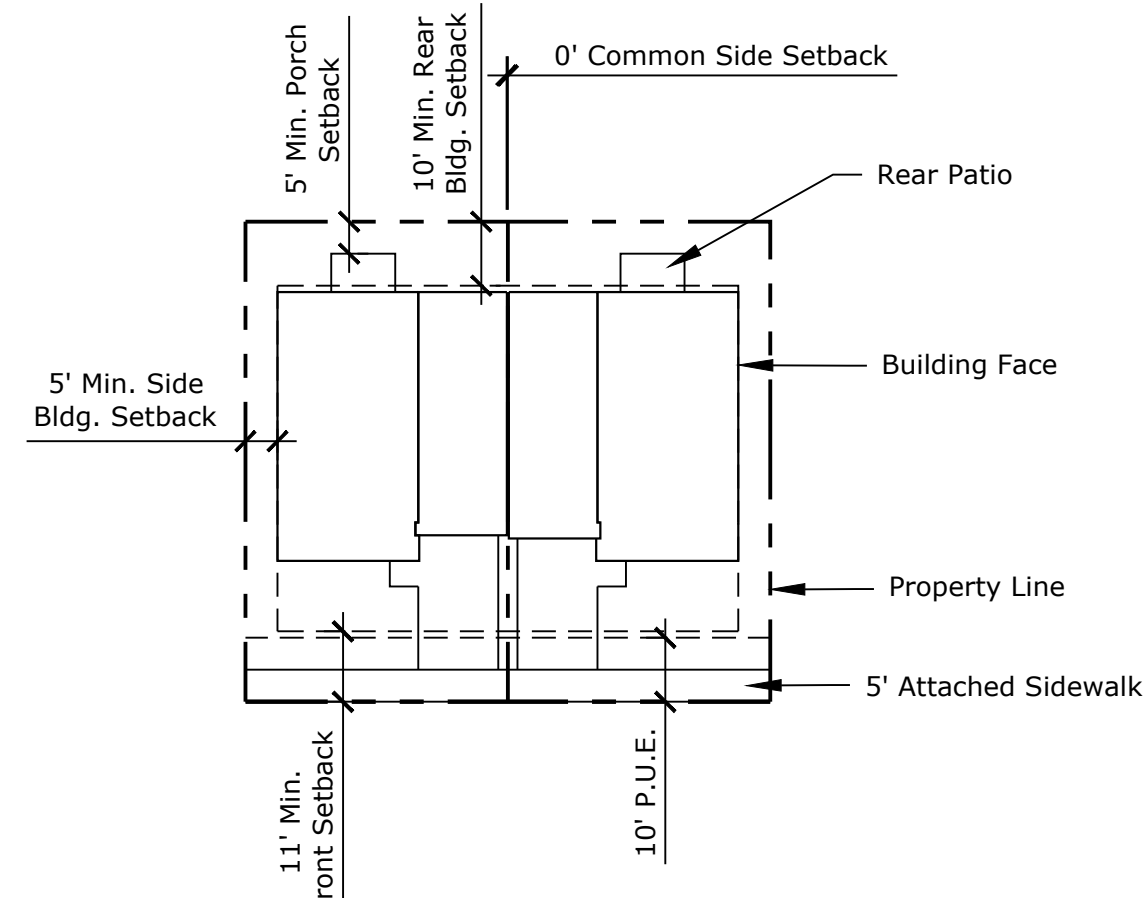
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## WATERSIDE AT LAKE WOODMOOR

PUD DEVELOPMENT PLAN/  
 PRELIMINARY PLAN  
 WOODMOOR DRIVE  
 MONUMENT, CO

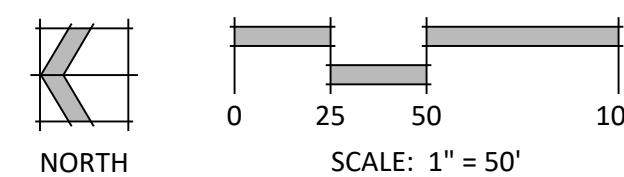
DATE: 07/15/2022  
 PROJECT MGR: A. BARLOW  
 PREPARED BY: B. SWENSON



1 TYPICAL LOT SETBACK DIAGRAM  
 SCALE: 1" = 30'

### LEGEND

- PROPERTY BOUNDARY
- CENTERLINE
- LOT BOUNDARY
- SETBACKS
- SIGHT LINE
- 100 YEAR FLOODPLAIN



### PUD SITE PLAN

2

2 OF 23

PUDSP-22-009



**Appendix C**  
**Water Supply Summary**

Kiowa Engineering Corporation



FORM NO.  
GWS-76  
05/2011

**WATER SUPPLY INFORMATION SUMMARY**  
STATE OF COLORADO, OFFICE OF THE STATE ENGINEER  
1313 Sherman St., Room 821, Denver, CO 80203  
Main (303) 866-3581 [dwr.colorado.gov](http://dwr.colorado.gov)

Section 30-28-133,(d), C.R.S. requires that the applicant submit to the County, "Adequate evidence that a water supply that is sufficient in terms of quantity, quality, and dependability will be available to ensure an adequate supply of water."

1. NAME OF DEVELOPMENT AS PROPOSED:

**Waterside at Lake Woodmoor**

2. LAND USE ACTION: **PUD Development Plan/Preliminary Plan**

3. NAME OF EXISTING PARCEL AS RECORDED:

SUBDIVISION: **Waterside Condominiums**, FILING (UNIT), BLOCK, LOT

4. TOTAL ACREAGE: **7.53**

5. NUMBER OF LOTS PROPOSED **44**

PLAT MAP ENCLOSED?  YES or  NO

6. PARCEL HISTORY – Please attach copies of deeds, plats, or other evidence or documentation.

A. Was parcel recorded with county prior to June 1, 1972?  YES or  NO

B. Has the parcel ever been part of a division of land action since June 1, 1972?  YES or  NO

If yes, describe the previous action:

7. LOCATION OF PARCEL – Include a map delineating the project area and tie to a section corner.

----- 1/4 of the SE 1/4, Section 11, Township 11  N or  S, Range 67  E or  W

Principal Meridian (choose only one):  Sixth  New Mexico  Ute  Costilla

**Optional GPS Location:** GPS Unit must use the following settings: Format must be **UTM**, Units must be **meters**, Datum must be **NAD83**, Unit must be set to **true N**,  Zone 12 or  Zone 13  
Easting: \_\_\_\_\_  
Northing: \_\_\_\_\_

8. PLAT – Location of all wells on property must be plotted and permit numbers provided.

Surveyor's Plat:  YES or  NO If not, scaled hand drawn sketch:  YES or  NO

9. ESTIMATED WATER REQUIREMENTS

USE	WATER REQUIREMENTS	
	Gallons per Day	Acre-Feet per Year
<b>Multi-family</b>		
HOUSEHOLD USE # <u>40</u> of units		<u>7.32</u>
COMMERCIAL USE # _____ of S. F		
IRRIGATION # <u>1.72</u> of acres		<u>3.916</u>
STOCK WATERING # _____ of head		
OTHER: <u>SF* Household Use: 4 units</u>		<u>1.00</u>
<b>TOTAL 44 units + Irrigation</b>		<u>12.236</u>
<b>*Single Family</b>		

10. WATER SUPPLY SOURCE

EXISTING WELL  DEVELOPED SPRING

WELL PERMIT NUMBERS \_\_\_\_\_

MUNICIPAL  ASSOCIATION  COMPANY  DISTRICT

NAME Woodmoor W&S

LETTER OF COMMITMENT FOR SERVICE  YES or  NO

NEW WELLS -

PROPOSED AQUIFERS – (CHECK ONE)

ALLUVIAL  UPPER ARAPAHOE

UPPER DAWSON  LOWER ARAPAHOE

LOWER DAWSON  LARAMIE FOX HILLS

DENVER  DAKOTA

OTHER: \_\_\_\_\_

WATER COURT DECREE CASE NUMBERS: \_\_\_\_\_

11. WAS AN ENGINEER'S WATER SUPPLY REPORT DEVELOPED?  YES or  NO IF YES, PLEASE FORWARD WITH THIS FORM.  
(This may be required before our review is completed.)

12. TYPE OF SEWAGE DISPOSAL SYSTEM

- SEPTIC TANK/LEACH FIELD  CENTRAL SYSTEM
- LAGOON  VAULT
- ENGINEERED SYSTEM (Attach a copy of engineering design.)  OTHER:
- DISTRICT NAME: Woodmoor W&S
- LOCATION SEWAGE HAULED TO: \_\_\_\_\_



**Appendix D**  
**Preliminary Utility Plan**

Kiowa Engineering Corporation

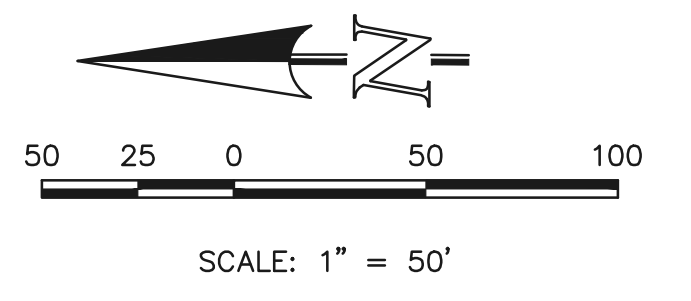
**WATERSIDE TOWNHOMES**  
Preliminary/Final  
PUD Site Plan

Monument, Colorado

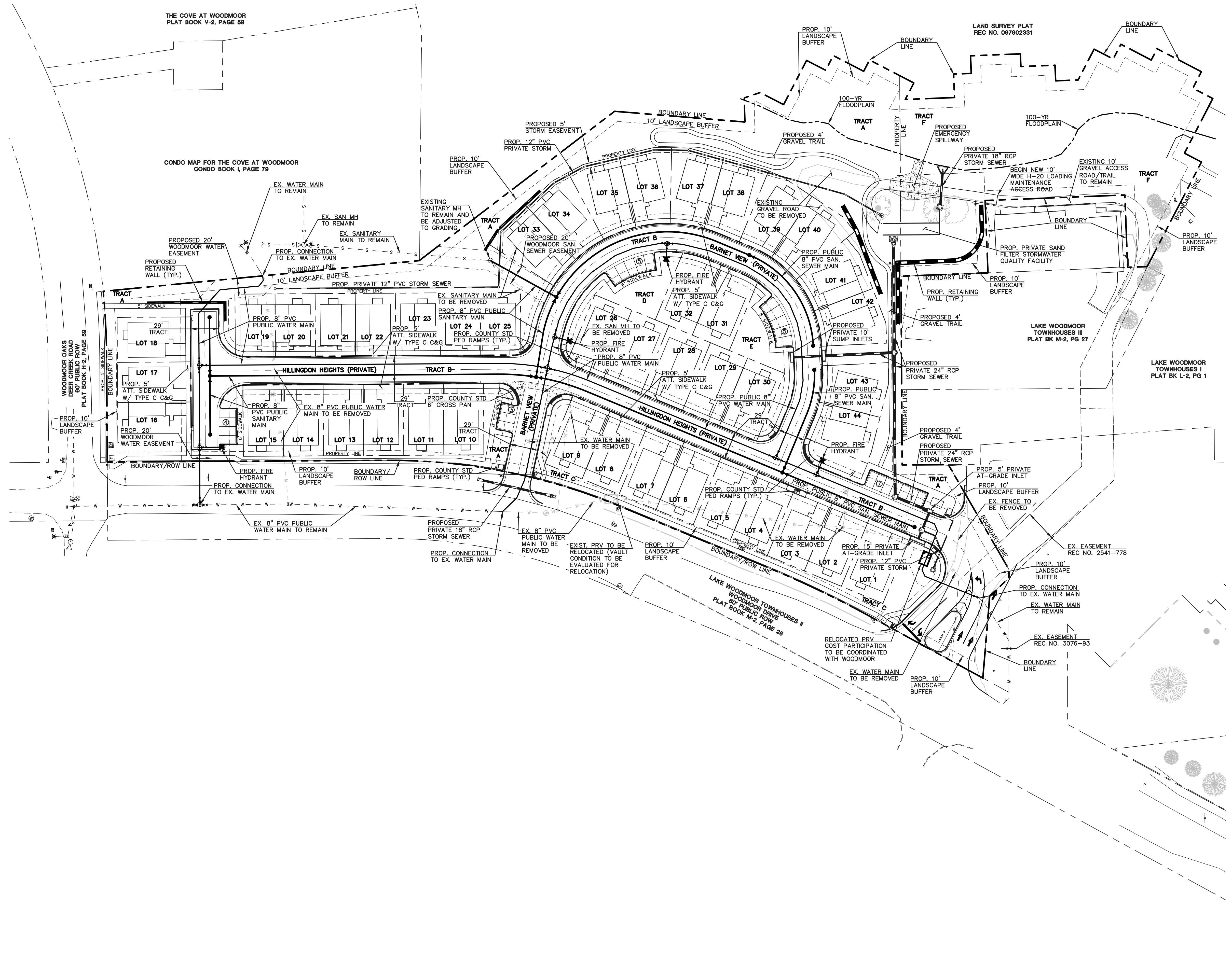
DATE: 1/18/24  
PROJECT MGR: M. Larson  
PREPARED BY: M. Sinneros

**NOTES:**

1. THE UTILITY SIZES SHOWN HEREON ARE PRELIMINARY AND SUBJECT TO CHANGE DURING THE FINAL DESIGN PROCESS.
2. ALL PROPOSED ROADWAYS SHOWN HEREON ARE PRIVATE.
3. ALL WATER AND SEWER LINES SHOWN HEREON ARE 8" DIAMETER UNLESS LABELED OTHERWISE.
4. FIRE HYDRANT LATERALS ARE 6" DIA.
5. ALL LOTS PLATTED WITH 5' SIDE YARD UTILITY EASEMENTS AND 5' FRONT AND 7' REAR YARD UTILITY EASEMENT, UNLESS OTHERWISE NOTED.
6. ALL CORNER LOTS PLATTED WITH 25' SIGHT TRIANGLE TO MEET TOWN STANDARDS UNLESS OTHERWISE SHOWN.
7. NO SEPARATE IRRIGATION TAPS FOR INDIVIDUAL LOTS
8. CURB AND GUTTER TRANSITIONS ARE TYPICAL AT 4-WAY AND TEE INTERSECTIONS OF RESIDENTIAL STREETS AND DOWN DRAINING CUL-DE-SACS.



DESCRIPTION	SYMBOL
EXISTING FIRE HYDRANT	⊙
PROPOSED FIRE HYDRANT	⊛
PROPOSED WATER MAIN	—●—
PROPOSED SANITARY SEWER	—○—
BOUNDARY	—●—
PROPOSED STORM PIPE	—○—
EXISTING SANITARY	—○—
EXISTING WATER W/EX. VALVE	—○—



SEAL  
ISSUE INFO  
SHEET NUMBER

DATE	BY	DESCRIPTION

**PRELIMINARY UTILITY PLAN**

**5**  
OF 16