

**WATER RESOURCES REPORT  
FOR  
WESTVIEW AT WOODMOOR FILING 1A  
1384 BUCKWOOD LANE  
MONUMENT, COLORADO**

**JANUARY 17, 2023**

Prepared For:  
**Murphy's Custom Homes**  
**13710 Struthers Road**  
Colorado Springs, Co 80921  
(719) 233-2883

Prepared By:  
**TERRA NOVA ENGINEERING, INC.**  
721 S. 23rd Street  
Colorado Springs, CO 80904  
L Ducett, P.E. (719) 635-6422

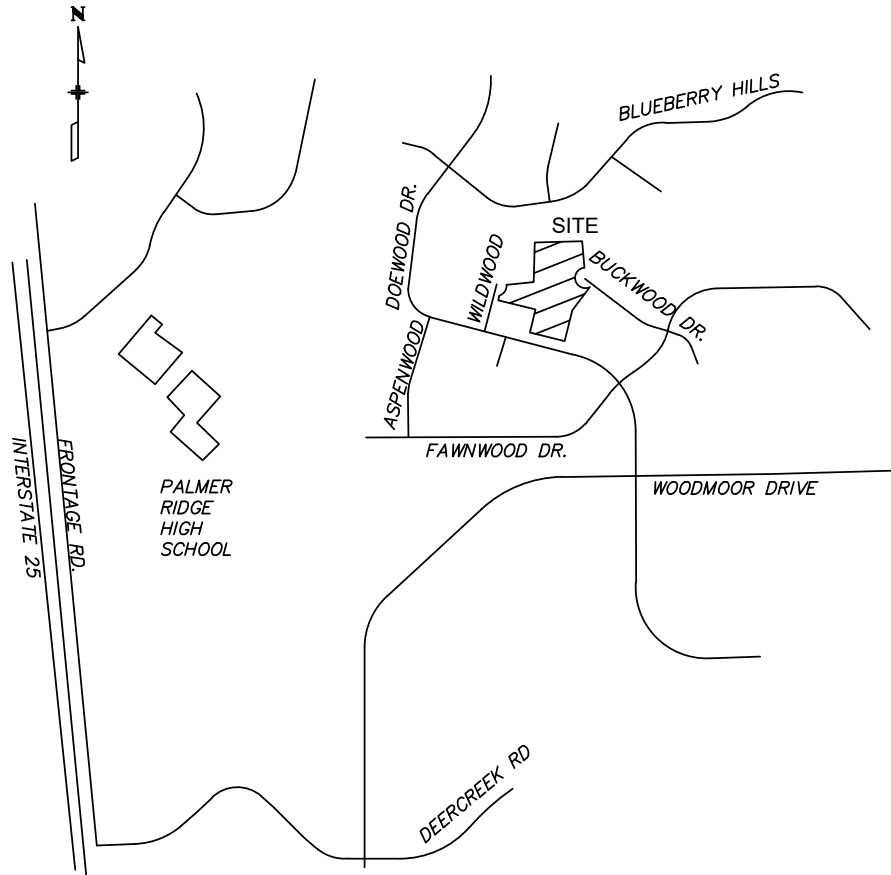
Job No. 2282.00

**SUMMARY OF THE PROPOSED SUBDIVISION:**

Westview at Woodmoor Filing 1A is a 3.809 acre proposed replat of Lot 1 Westview at Woodmoor located in the northeast corner of Section 11, Township 11 South, Range 67 West of the 6<sup>th</sup> Principal Meridian in El Paso County, Colorado. The site is located at the current address of 1384 Buckwood Lane.

There is an existing residence and associated drive on the east and central portion of the site which will remain. The site is intended to be subdivided into 4 rural residential lots. The minimum lot size will be 0.5 acres as required by the existing zoning.

The site is located within and will be provided with water services by the Woodmoor Water and Sanitation District No. 1 (see attached commitment letter and map of Woodmoor’s existing wet utilities in the appendix). A vicinity is provided below for reference:



VICINITY MAP  
NOT TO SCALE

## **DETERMINATION OF SUFFICIENT QUANTITY OF WATER:**

**Calculation of Water Demand:** The proposed development includes 4 single-family lots, one of which is already occupied by a residence. Anticipated water demand is approximately 293 gallons per day or about 0.33 acrefeet per year per household. No water for irrigation is proposed to be allocated for this development. This results in about 1.312 acrefeet per year for all four proposed lots. The projected water consumption is based upon The Woodmoor Water and Sanitation District's "Long Range Plan Update 2017" (attached in appendix) which evaluated the water demands for the District and found that the average annual water demand decreased from the 2012 LRP Update from 305 gpd/SFE to 293 gpd/SFE likely due to water conservation.

**Calculation of Quantity and Dependability of Water Available:** Westview at Woodmoor Filing 1A is to be served by the Woodmoor Water and Sanitation District. There are no groundwater sources on this site proposed to be utilized by this development. There are no wells proposed on this site. A general intent to serve letter from the Woodmoor District is attached. Summarized in the District's LRP is a description of the existing water supply and distribution system, as well as descriptions for possible future improvements and expansions to the system. The water requirements necessary for Westview at Woodmoor Filing 1A have been shown to be available in the LRP. Summarized in section 2.4.1.1 of the LRP are the current water rights owned by the District. Based upon the data contained in the LRP regarding the water resources that are available to the Woodmoor District, subdivisions served by the District will be supplied with water resources meeting the requirements of El Paso County's 300-year water supply regulations for future subdivisions relying on the Denver aquifer.

**Determination of Sufficient Quality and Potability of Water:** The quality of the water produced by the Woodmoor Water and Sanitation District is subject to regulations prescribed by the CDPHE that limit the amount of certain contaminants in treated or untreated water. It is our understanding that the quality and potability of the Woodmoor District's water supply is already approved and is in conformance with CDPHE regulations. The District publishes an annual Drinking Water Quality Report that demonstrates compliance with State and Federal water quality standards.

## **APPENDIX**

Proposed Plat

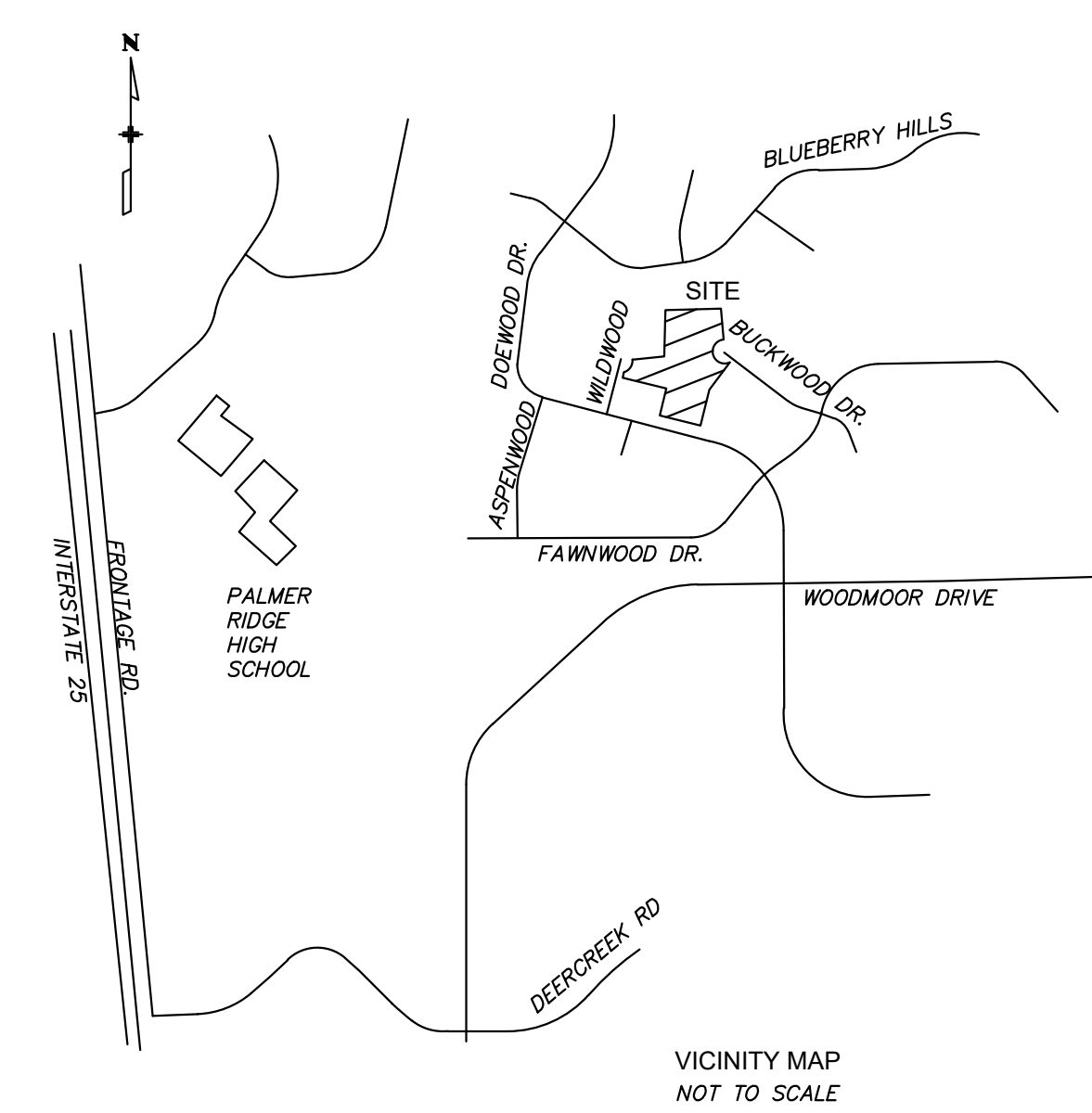
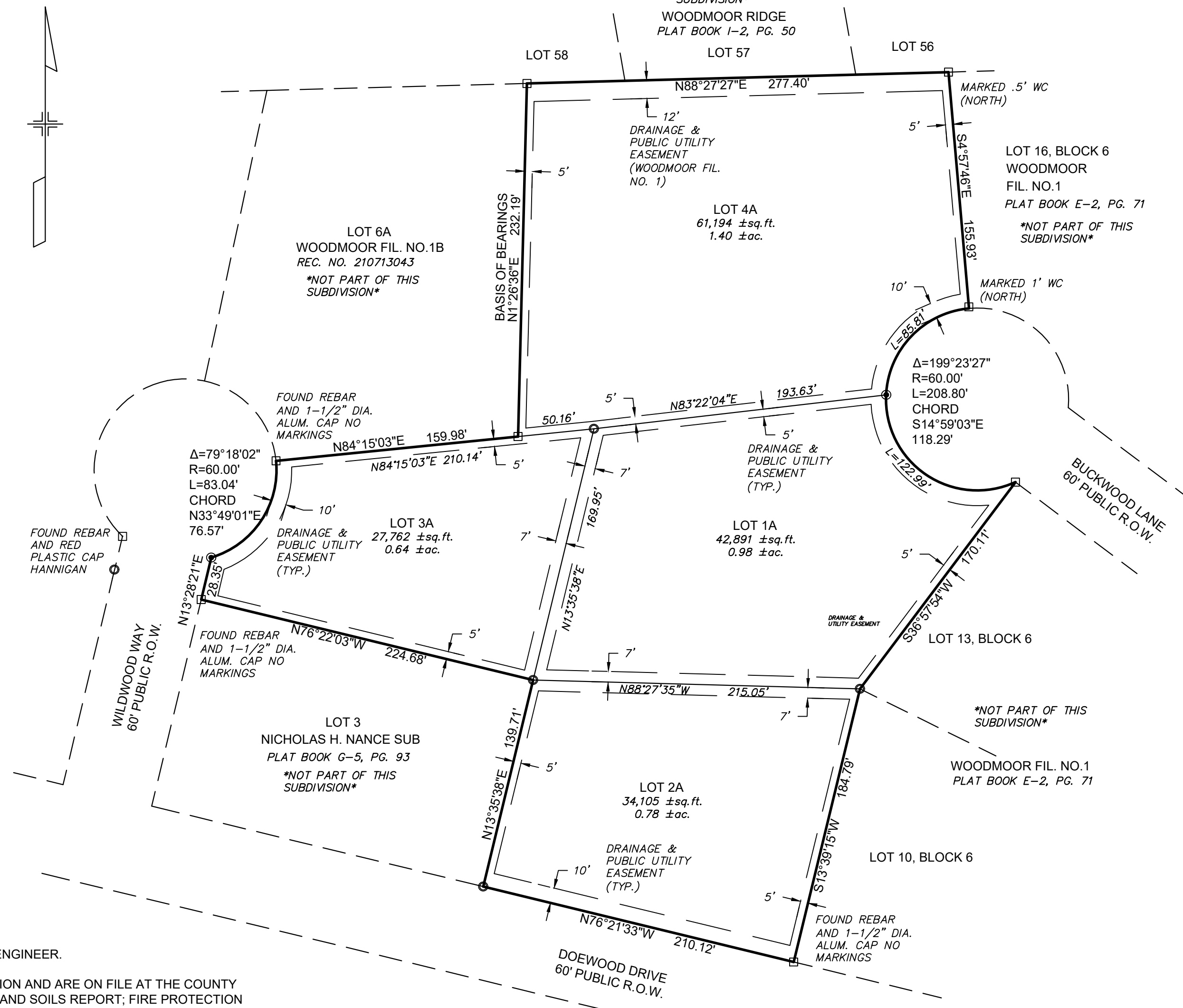
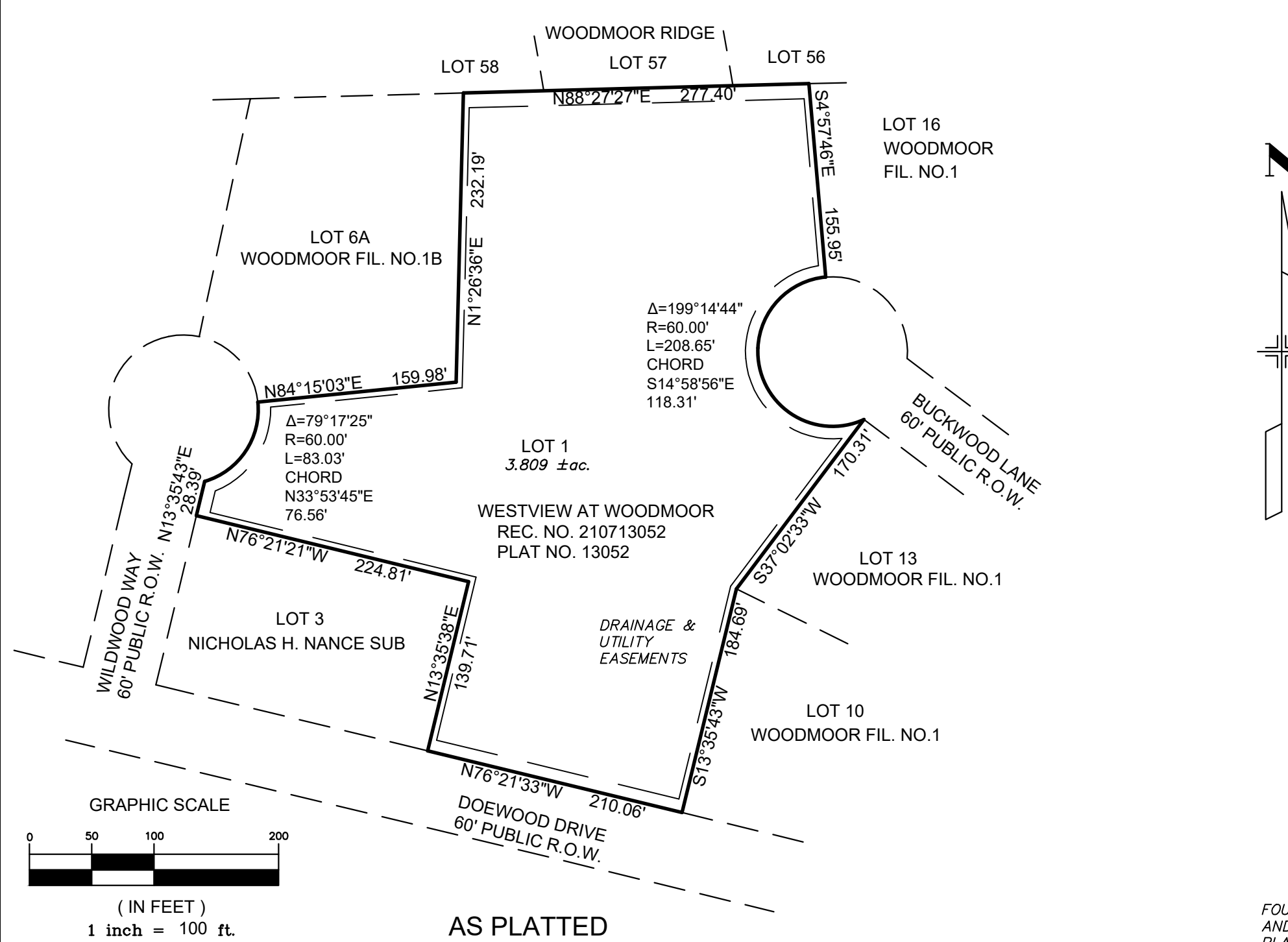
Woodmoor Water and Sanitation District No. 1 Utility Map

Commitment Letter

Woodmoor Water and Sanitation District Long Range Plan Update 2017

# WESTVIEW AT WOODMOOR FILING NO. 1A

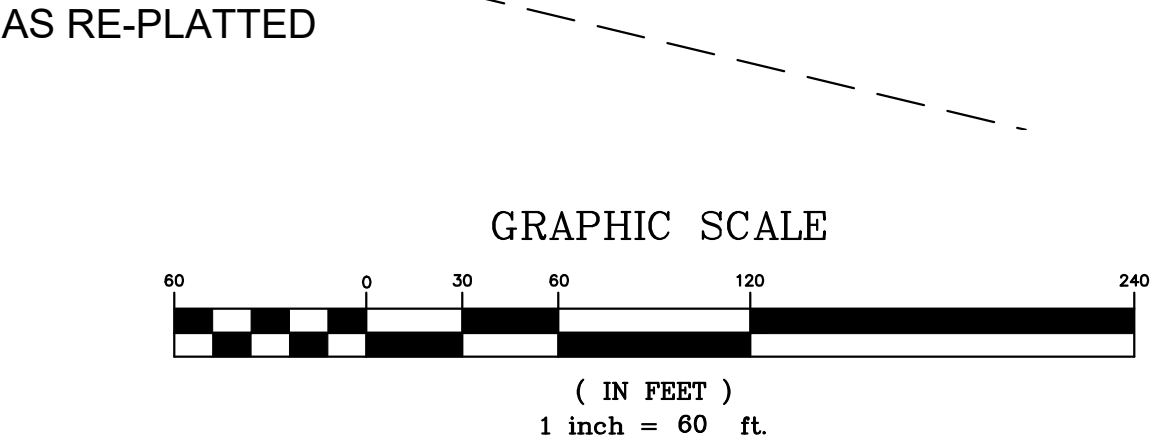
A REPLAT OF LOT 1, WESTVIEW AT WOODMOOR  
IN THE NORTHEAST QUARTER OF SECTION 11  
TOWNSHIP 11 SOUTH, RANGE 67 WEST OF THE 6TH P.M.  
EL PASO COUNTY, COLORADO



- NOTES:**
- MONUMENTS
    - FOUND A 1/2" DIAMETER REBAR
    - FOUND A REBAR AND ORANGE PLASTIC CAP PLS 37928 OR AS NOTED.
    - SET A 5/8" DIAMETER REBAR, 18" IN LENGTH WITH A 1-1/2" DIAMETER ALUMINUM CAP "LWA PLS 28658. MONUMENTS ARE FLUSH WITH THE GROUND UNLESS NOTED OTHERWISE
  - RESEARCH FOR RECORDED RIGHTS OF WAY AND EASEMENTS WAS DONE BY LAND TITLE GUARANTEE COMPANY, FILE NO. SR55103105 EFFECTIVE DATE JANUARY 27, 2022. THIS DRAWING DOES NOT CONSTITUTE A TITLE SEARCH BY KEVIN M. O'LEARY OR LWA LAND SURVEYING INC.
  - PROPERTY MAY BE SUBJECT TO ADDITIONAL EASEMENTS AND AGREEMENTS AS STATED IN THE TITLE COMMITMENT.
  - UNITS OF MEASURE ARE U.S. SURVEY FEET.
  - THE BASIS OF BEARINGS FOR THIS SURVEY IS THE WEST LINE OF LOT 4A, N1°26'36"E - 232.19'. THE DIRECTION IS BASED ON THE WESTVIEW AT WOODMOOR PLAT AND THE LINE IS MONUMENTED BY REBAR AND ORANGE PLASTIC CAPS PLS 37928.

- NOTES:**
- STRUCTURAL FOUNDATIONS ON THE LOTS IN THIS SUBDIVISION SHALL BE DESIGNED BY A COLORADO REGISTERED PROFESSIONAL ENGINEER.
  - THE FOLLOWING REPORTS HAVE BEEN SUBMITTED IN ASSOCIATION WITH THE PRELIMINARY PLAN OR FINAL PLAT FOR THIS SUBDIVISION AND ARE ON FILE AT THE COUNTY DEVELOPMENT SERVICES DEPARTMENT: DRAINAGE REPORT; WATER RESOURCES REPORT; WASTEWATER DISPOSAL REPORT; GEOLOGY AND SOILS REPORT; FIRE PROTECTION REPORT; WILDFIRE HAZARD REPORT; NATURAL FEATURES REPORT AND NOXIOUS WEED MANAGEMENT PLAN.
  - ALL PROPERTY OWNERS ARE RESPONSIBLE FOR MAINTAINING PROPER STORM WATER DRAINAGE IN AND THROUGH THEIR PROPERTY. PUBLIC DRAINAGE EASEMENTS AS SPECIFICALLY NOTED ON THE PLAT SHALL BE MAINTAINED BY THE INDIVIDUAL LOT OWNERS UNLESS OTHERWISE INDICATED. HOMEBUILDERS ARE RESPONSIBLE TO ENSURE PROPER DRAINAGE AROUND STRUCTURES, INCLUDING ELEVATIONS OF FOUNDATIONS AND WINDOW WELLS IN RELATION TO SIDE LOT DRAINAGE EASEMENTS AND SWALES. HOMEOWNERS SHALL NOT CHANGE THE GRADE OF THE LOT OR DRAINAGE SWALES WITHIN SAID EASEMENTS, AS CONSTRUCTED BY THE BUILDER, IN A MANNER THAT WOULD CAUSE ADVERSE DRAINAGE IMPACTS TO PROPERTIES. STRUCTURES, FENCES, MATERIALS OR LANDSCAPING THAT COULD IMPEDE THE FLOW OR RUNOFF SHALL NOT BE PLACED IN DRAINAGE EASEMENTS.
  - MAILBOXES SHALL BE INSTALLED IN ACCORDANCE WITH ALL EL PASO COUNTY AND UNITED STATES POSTAL SERVICE REGULATIONS.
  - THIS PROPERTY IS SUBJECT TO THE DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR WOODMOOR FILING NO. 1, BY BEING A REPLAT THEREOF AS RECORDED IN BOOK 2421 AT PAGE 215 OF THE EL PASO COUNTY RECORDS.
  - THE DEVELOPER SHALL COMPLY WITH FEDERAL AND STATE LAWS, REGULATIONS, ORDINANCES, REVIEW AND PERMIT REQUIREMENTS, AND OTHER AGENCY REQUIREMENTS, IF ANY, OF APPLICABLE AGENCIES INCLUDING, BUT NOT LIMITED TO, THE COLORADO DEPARTMENT OF WILDLIFE, COLORADO DEPARTMENT OF TRANSPORTATION, U.S. ARMY CORP. OF ENGINEERS, THE U.S. FISH AND WILDLIFE SERVICE REGARDING THE ENDANGERED SPECIES ACT.
  - THE ADDRESSES EXHIBITED ON THIS PLAT ARE FOR INFORMATIONAL PURPOSES ONLY. THEY ARE NOT THE LEGAL DESCRIPTION AND ARE SUBJECT TO CHANGE.
  - INDIVIDUAL LOT PURCHASERS ARE RESPONSIBLE FOR CONSTRUCTING DRIVEWAYS, INCLUDING NECESSARY DRAINAGE CULVERTS PER LAND DEVELOPMENT CODE SECTION 6.3.3.C.2 AND 6.3.3.C.3. DUE TO THEIR LENGTH OR GRADE, SOME OF THE DRIVEWAYS WILL NEED TO BE SPECIFICALLY APPROVED BY THE FIRE DISTRICT AND ECM ADMINISTRATOR. NO DRIVEWAY SHALL BE ESTABLISHED UNLESS AN ACCESS PERMIT HAS BEEN GRANTED BY EL PASO COUNTY.
  - THE SUBDIVIDER AGREES ON BEHALF OF HIMSELF AND ANY DEVELOPER OR BUILDER SUCCESSORS AND ASSIGNEES THAT THE SUBDIVIDER AND/OR SAID SUCCESSORS AND ASSIGNEES SHALL BE REQUIRED TO PAY TRAFFIC IMPACT FEES IN ACCORDANCE WITH THE EL PASO COUNTY ROAD IMPACT FEE PROGRAM RESOLUTION (RESOLUTION 19-471) OR ANY AMENDMENTS THERETO, AT OR PRIOR TO THE TIME OF BUILDING PERMIT SUBMITTALS. THE FEE OBLIGATION, IF NOT PAID AT FINAL PLAT RECORDING, SHALL BE DOCUMENTED ON ALL SALES DOCUMENTS AND ON PLAT NOTES TO ENSURE THAT A TITLE SEARCH WOULD FIND THE FEE OBLIGATION BEFORE THE SALE OF THE PROPERTY.
  - THIS PROPERTY IS LOCATED WITHIN AND SERVICED BY THE MOUNTAIN VIEW ELECTRIC ASSOCIATION SERVICE DISTRICT, THE TRI-LAKES MONUMENT FIRE PROTECTION DISTRICT, LEWIS PLAMER SCHOOL DISTRICT NO. 38, THE BLACK HILLS ENERGY CORPORATION SERVICE DISTRICT AND WOODMOOR WATER AND SANITATION.
  - DRAINAGE EASEMENTS: NO PERMANENT DWELLING UNIT, TEMPORARY OR PERMANENT STRUCTURES, INCLUDING SHEDS AND OUT BUILDING, WATER WELL OR WASTEWATER TREATMENT SYSTEM MAY BE CONSTRUCTED IN THE DRAINAGE EASEMENTS SHOWN ON THIS PLAT. DRAINAGE CULVERTS AND FENCES THAT DO NOT BLOCK OR IMPEDE STORM WATER RUNOFF ARE ALLOWED IN AND ACROSS DRAINAGE EASEMENTS.
  - A "GEOLOGIC HAZARD EVALUATION AND SOILS AND FOUNDATION INVESTIGATION PROPOSED WESTVIEW AT WOODMOOR FILING NO. 1A, EL PASO COUNTY, COLORADO", CTL THOMPSON INC., PROJECT NO. CS19579-120, DATED SEPTEMBER 20, 2022 IS HELD UNDER THE WESTVIEW AT WOODMOOR FILING NO. 1A AT THE EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT. GEOLOGIC HAZARDS THAT WOULD PRECLUDE THE PROPOSED DEVELOPMENT WERE NOT FOUND TO BE PRESENT AT THIS SITE. GEOLOGIC CONSTRAINTS ARE POTENTIALLY PRESENT, AND INCLUDE: SPORADIC LENSES OF EXPANSIVE CLAYSTONE BEDROCK AND POTENTIAL FOR EXPANSIVE/SETTLEMENT PRONE SOILS. THESE GEOLOGIC AND ENGINEERING CONDITIONS ARE RELATIVELY COMMON TO THE AREA AND CAN BE SATISFACTORILY MITIGATED THROUGH PROPER ENGINEERING, DESIGN, AND CONSTRUCTION PRACTICES.
  - THIS PROPERTY IS LOCATED WITHIN ZONE X "AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN" AS DETERMINED BY THE FLOOD INSURANCE RATE MAP NUMBER 08041C0276G, EFFECTIVE DATE DECEMBER 7, 2018.
  - FIRE PROTECTION REPORT RECOMMENDATIONS, AS A CONDITION OF APPROVAL OF THIS PLAT BY THE BOARD OF COUNTY COMMISSIONERS, NO CONVEYANCE, SALE OR TRANSFER OF TITLE OF LOTS 1-4 IDENTIFIED HEREON, SHALL BE MADE, NOR ANY BUILDING PERMIT OR CERTIFICATE OF OCCUPANCY BE ISSUED BY EL PASO COUNTY, UNTIL SUCH TIMES AS THE FOLLOWING HAS BEEN ACCOMPLISHED BY THE PROPERTY OWNER. A LETTER OF COMPLIANCE HAS BEEN RECEIVED FROM THE COLORADO STATE FOREST SERVICE, FIRE DEPARTMENT, FIRE MARSHALL, OR OTHER QUALIFIED PROFESSIONAL STATING PRACTICES DESIGNATED TO REDUCE WILDFIRE HAZARDS HAS BEEN COMPLETED IN ACCORDANCE WITH THE WILDLAND FIRE AND HAZARD MITIGATION PLAN. SUCH WORK MAY INCLUDE, BUT IS NOT NECESSARILY LIMITED TO THE FOLLOWING: \*FOREST WIDE THINNINGS, \*FUELBREAK THINNINGS, \*PRUNINGS, \*DEBRIS DISPOSAL.

**EASEMENTS:**  
UNLESS SHOWN GREATER IN WIDTH, SIDE AND REAR LOT LINES ARE HEREBY PLATTED WITH A FIVE (5) FOOT EASEMENT FOR DRAINAGE AND PUBLIC UTILITIES ONLY; FRONT LOT LINES ARE HEREBY PLATTED WITH A TEN (10) FEET EASEMENT FOR DRAINAGE AND PUBLIC UTILITIES ONLY; THE SOLE RESPONSIBILITY FOR MAINTENANCE OF THE EASEMENT AREAS IS VESTED WITH THE PROPERTY OWNERS.



**SURVEYOR'S CERTIFICATION:**  
I, KEVIN M. O'LEARY, A DULY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THIS PLAT TRULY AND CORRECTLY REPRESENTS THE RESULTS OF A SURVEY MADE ON THE DATE OF THE SURVEY, BY ME OR UNDER MY DIRECT SUPERVISION AND THAT ALL MONUMENTS EXIST AS SHOWN HEREON; THAT MATHEMATICAL CLOSURE ERRORS ARE LESS THAN 1:10,000; AND THAT SAID PLAT HAS BEEN PREPARED IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS OF THE STATE OF COLORADO DEALING WITH MONUMENTS, SUBDIVISION, OR SURVEYING OF LAND AND ALL APPLICABLE PROVISIONS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE.

I ATTEST THE ABOVE ON THIS \_\_\_ DAY OF \_\_\_\_\_, 2023.

KEVIN M. O'LEARY  
COLORADO REGISTERED PLS #28658  
FOR AND ON BEHALF OF  
LWA LAND SURVEYING, INC.

**LOT SUMMARY TABLE:**

TOTAL GROSS ACREAGE	3.81 ACRES	100%	
4 RESIDENTIAL LOTS	3.81 ACRES	100%	
GROSS DENSITY	1.05 DU/AC		
NET DENSITY	1.05 DU/AC		
TOTAL NET ACREAGE:	3.81 ACRES	100%	

**BE IT KNOWN BY THESE PRESENTS:**  
THAT MURPHY'S CUSTOM HOMES, INC., TIM MURPHY, PRESIDENT IS THE OWNER OF THE FOLLOWING DESCRIBED TRACT OF LAND, TO WIT:

LOT 1, WESTVIEW AT WOODMOOR, EL PASO COUNTY, COLORADO AS SHOWN ON THE SUBDIVISION PLAT THEREOF RECORDED UNDER RECEPTION NO. 210713052 OF THE EL PASO COUNTY RECORDS.

CONTAINING 3.81 ACRES, MORE OR LESS

**OWNERS CERTIFICATE**  
THE UNDERSIGNED, BEING ALL THE OWNERS, MORTGAGEES, BENEFICIARIES OF DEEDS OF TRUST AND HOLDERS OF OTHER INTERESTS IN THE LAND DESCRIBED HEREIN, HAVE LAID OUT, SUBDIVIDED AND PLATTED SAID LANDS INTO LOTS AND EASEMENTS AS SHOWN HEREON UNDER THE NAME AND SUBDIVISION OF WESTVIEW AT WOODMOOR FILING NO. 1A. ALL PUBLIC IMPROVEMENTS REQUIRED BY THIS LAND USE ACTION ARE HEREBY DEDICATED TO PUBLIC USE AND SAID OWNER DOES HEREBY COVENANT AND AGREE THAT THESE PUBLIC IMPROVEMENTS WILL BE CONSTRUCTED TO EL PASO COUNTY STANDARDS AND THAT PROPER DRAINAGE AND EROSION CONTROL FOR THE SAME WILL BE PROVIDED AT SAID OWNER'S EXPENSE, ALL TO THE SATISFACTION OF THE BOARD OF COUNTY COMMISSIONERS OF EL PASO COUNTY, COLORADO. UPON ACCEPTANCE BY RESOLUTION, ALL PUBLIC IMPROVEMENTS SO DEDICATED WILL BECOME MATTERS OF MAINTENANCE BY EL PASO COUNTY, COLORADO. THE UTILITY EASEMENTS SHOWN HEREON ARE HEREBY DEDICATED FOR PUBLIC UTILITIES, COMMUNICATION SYSTEMS AND OTHER PURPOSES AS SHOWN HEREON. THE ENTITIES RESPONSIBLE FOR PROVIDING THE SERVICES FOR WHICH THE EASEMENTS ARE ESTABLISHED ARE HEREBY GRANTED THE PERPETUAL RIGHT OF INGRESS AND EGRESS FROM AND TO ADJACENT PROPERTIES FOR INSTALLATION, MAINTENANCE AND REPLACEMENT OF UTILITY LINES AND RELATED FACILITIES.

**IN WITNESS WHEREOF:**  
THE AFOREMENTIONED MURPHY'S CUSTOM HOMES, INC HAS EXECUTED THIS INSTRUMENT THIS \_\_\_ DAY OF \_\_\_\_\_, 2023.

MURPHY'S CUSTOM HOMES, INC.  
TIM MURPHY, PRESIDENT

**NOTARIAL:**  
STATE OF COLORADO) SS  
COUNTY OF EL PASO)  
THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS \_\_\_ DAY OF \_\_\_\_\_, 2023 BY TIM MURPHY, PRESIDENT MURPHY'S CUSTOM HOMES, INC.

MY COMMISSION EXPIRES: \_\_\_\_\_ NOTARY PUBLIC

**BOARD OF COUNTY COMMISSIONERS APPROVAL:**  
THIS PLAT FOR WESTVIEW AT WOODMOOR FILING NO. 1A WAS APPROVED FOR FILING BY THE EL PASO COUNTY, COLORADO BOARD OF COUNTY COMMISSIONERS ON THIS \_\_\_ DAY OF \_\_\_\_\_, 2023, SUBJECT TO ANY NOTES SPECIFIED HEREON AND ANY CONDITIONS INCLUDED IN THE RESOLUTION OF APPROVAL. THE DEDICATIONS OF LAND TO THE PUBLIC AND EASEMENTS ARE ACCEPTED, BUT PUBLIC IMPROVEMENTS THEREON WILL NOT BECOME THE MAINTENANCE RESPONSIBILITY OF EL PASO COUNTY UNTIL PRELIMINARY ACCEPTANCE OF THE PUBLIC IMPROVEMENTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE AND ENGINEERING CRITERIA MANUAL.

CHAIR, BOARD OF COUNTY COMMISSIONERS DATE  
DIRECTOR PLANNING AND COMMUNITY DEVELOPMENT DATE

**RECORDING:**  
STATE OF COLORADO) SS  
COUNTY OF EL PASO)  
I HEREBY CERTIFY THAT THIS INSTRUMENT WAS FILED FOR RECORD AT MY OFFICE AT \_\_\_ O'CLOCK \_\_\_ M., THIS \_\_\_ DAY OF \_\_\_\_\_, 2023, AND IS DULY RECORDED AT RECEPTION NO. \_\_\_\_\_ OF THE RECORDS OF EL PASO COUNTY, COLORADO.

CHUCK BROERMAN  
BY: \_\_\_\_\_  
COUNTY CLERK AND RECORDER  
FEE: \_\_\_\_\_  
SURCHARGE: \_\_\_\_\_  
FEES:  
DRAINAGE FEES: \_\_\_\_\_  
BRIDGE FEES: \_\_\_\_\_  
SCHOOL FEES: \_\_\_\_\_  
PARK FEES: \_\_\_\_\_

FILE NO. VR-22-13  
PREPARED BY  
**LWA LAND SURVEYING, INC.**  
953 E. FILLMORE STREET  
COLORADO SPRINGS, COLORADO 80907  
Phone (719) 636-5179  
REVISED 1/20/23  
JUNE 30, 2022  
PROJECT 2201B  
BUCKWOOD.DWG SHEET 1 OF 1

\*NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.\*

# WWSD MAP BOOK



THIS MAP IS ONLY A ROUGH DEPICTION OF THE ESTIMATED LOCATION OF WATER AND WASTEWATER INFRASTRUCTURE. ANYONE VIEWING THIS MAP IS HEREBY WARNED THAT THE DISTRICT DOES NOT WARRANT THE ACCURACY OF THIS MAP OR THE LOCATION OF WATER AND SEWER INFRASTRUCTURE.  
© WOODMOOR WATER & SANITATION DISTRICT

WWSD MAP BOOK  
LEGEND, CONTACTS, AND IMPORTANT INFORMATION



0 50 100  
SCALE: 1" = 200'

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43	44	45

PANEL NO.  
**i**

## MAP LEGEND

	SECTION NUMBER	1
	SEWER RENEWAL & REPLACEMENT ZONE NUMBER	2
	MAP PANEL NUMBER	3
	WATER PRESSURE ZONE NUMBER	4
	SEWER BASIN NUMBER	5

	WOODMOOR SUBDIVISION NAME
	WOODMOOR DRIVE STREET NAME
	321 TRACT "A" LOT INFORMATION
	DISTRICT BOUNDARY
	SECTION LINE
	SUBDIVISION BOUNDARY
	LOT LINE
	SURFACE WATER
	DETAIL BOUNDARY
	SEWER R&R BOUNDARY
	SEWER BASIN BOUNDARY
	SEWER LINE (PVC)
	SEWER LINE (STL)
	SEWER LINE (VCP)
	SEWER LINED W/ FOLD'N'FORM
	SEWER LINED W/ INSITUFORM
	SEWER LINED W/ HDPE
	SEWER FORCE MAIN (PVC)
	WATER PRESSURE ZONE BNDY.
	POTABLE WATER PIPE (PVC)
	POTABLE WATER PIPE (CIP)
	POTABLE WATER PIPE (HDPE)
	NON-POTABLE WATER PIPE (PVC)
	TRANSMISSION LINE (PVC)
	TRANSMISSION LINE (DIP)
	PRIVATE SYSTEM
	NOT FINAL ACCEPTED SYSTEM

	5592 SANITARY SEWER MANHOLE		3K000 FIRE HYDRANT
	SANITARY SEWER CLEAN-OUT		AIR/VAC RELEASE VAULT
	SANITARY SEWER LIFT STATION		GATE VALVE LEFT HAND
	WELL HEAD		GATE VALVE RIGHT HAND
	15 WELL TAG AND NUMBER		PSV PRESSURE SUSTAINING VALVE
	BOOSTER STATION		PRV PRESSURE RELIEF VALVE
	FACILITY / STRUCTURE		CV CHECK VALVE
	2 BLOCK NUMBER		BO BLOW OFF
			ACCOUNT TAP

NOTES:  
 -SOME OBJECTS IN THIS LEGEND MAY NOT BE USED ON THIS PLAN.  
 -ALL WATER MAINS ARE 6" Ø UNLESS NOTED OTHERWISE.  
 -ALL SEWER MAINS ARE 8" Ø UNLESS NOTED OTHERWISE.

## IMPORTANT INFORMATION

### Specific Operating Procedure for Sanitary Sewer Spill

Report all sewage release and incidents to the Denver On-Call Center within 24 hours of the incident.

1-877-518-5608

Leave a message to satisfy the reporting requirements unless an active release is entering a waterway and/or assistance is needed, then contact the

Off Duty Pager 1-866-536-4927

Within 5 days of reporting the incident, a written report must be sent to the Colorado Department of Public Health & Environment.

### Specific Operating Procedure for Gas Main Break

Turn off all equipment and eliminate any sources of an ignition spark. Evacuate the location of the rupture to a distance of at least 250 foot radius. Do not operate any gas valves or attempt to repair the rupture. Block or stop traffic, pedestrians, etc. from entering the area of the rupture.

### Dial 911 Immediately After Evacuating Area

The Emergency Dispatch will Contact the Woodmoor Fire Department.

Then Contact Black Hills Energy (Gas Emergency): 800-694-8989

### Specific Operating Procedure for Damaged Electric Line

Turn off all equipment and evacuate excavation work area. Do not attempt repairs or enter excavation area until electric company has deemed it safe for entry.

Call in Damage Report to UNCC: 811

Contact Mountain View Electric: 719-495-2283

## CONTACT INFORMATION

**WOODMOOR WATER & SANITATION**  
 1845 WOODMOOR DRIVE  
 P.O. BOX 1407  
 MONUMENT, CO 80132  
 OFFICE HOURS: M-TH, 7 AM-5:30 PM

AFTER HOURS EMERGENCY 719-488-2525 X3  
 ON CALL PHONE 719-331-1761  
 OFFICE MAIN 719-488-2525  
 OFFICE FAX 719-488-2530

**EMERGENCY**  
 EMERGENCY 911  
 EL PASO COUNTY SHERIFF 719-390-5555  
 EMERGENCY LOCATES (U.N.C.C.) 811  
 MONUMENT POLICE DEPARTMENT 719-481-3253  
 WOODMOOR FIRE DEPARTMENT 719-488-3303  
 WOODMOOR PUBLIC SAFETY 719-488-3600

**GOVERNMENT AGENCIES**  
 EL PASO COUNTY (ROAD CUT PERMIT) 719-520-6460  
 SCHOOL DISTRICT 38 MAINTENANCE 719-488-4710  
 TOWN OF MONUMENT 719-481-2954  
 WOODMOOR IMPROVEMENT ASSOCIATION 719-488-2693

**UTILITIES COMPANIES**  
 BLACK HILLS ENERGY (OFFICE) 888-890-5554  
 BLACK HILLS ENERGY (GAS EMERGENCY) 800-694-8989  
 XFINITY 800-934-6489  
 DONALA WATER & SANITATION DISTRICT 719-488-3603  
 MONUMENT WATER 719-487-9291  
 MONUMENT SANITATION DISTRICT 719-481-4886  
 MOUNTAIN VIEW ELECTRIC 719-495-2283  
 PALMER LAKE SANITATION DISTRICT (PAGER) 719-481-2732  
 TRI-LAKES WASTE TREATMENT PLANT 719-443-0500  
 TRIVIEW METROPOLITAN DISTRICT 719-481-4053  
 CENTURY LINK 719-488-6868  
 800-777-9594

**WASTE MANAGEMENT COMPANIES**  
 TRI-LAKES DISPOSAL 719-495-8652  
 WASTE MANAGEMENT 719-632-8877

**CONTRACTORS**  
 A&E CONSTRUCTION 719-210-8488  
 ANYTIME SEWER & DRAIN 719-491-3190  
 BROOKS PLUMBING & HEATING 719-488-3101  
 CLEAR WATER CLEANING 719-271-7638  
 J&K EXCAVATING 719-481-2417  
 JOHN WESTFALL 719-331-4321  
 NORDIC EXCAVATING 719-347-2701  
 BILL 719-243-0446  
 JUSTIN 719-491-0284  
 PATRIOT DRAINS 877-814-1297  
 I & C DESIGN JOE 303-999-7717

## DISCLAIMER

THIS MAP IS ONLY A ROUGH DEPICTION OF THE ESTIMATED LOCATION OF WATER AND WASTEWATER INFRASTRUCTURE. ANYONE VIEWING THIS MAP IS HEREBY WARNED THAT THE DISTRICT DOES NOT WARRANT THE ACCURACY OF THIS MAP OR THE LOCATION OF WATER AND SEWER INFRASTRUCTURE.

© WOODMOOR WATER & SANITATION DISTRICT

## SHEET INDEX

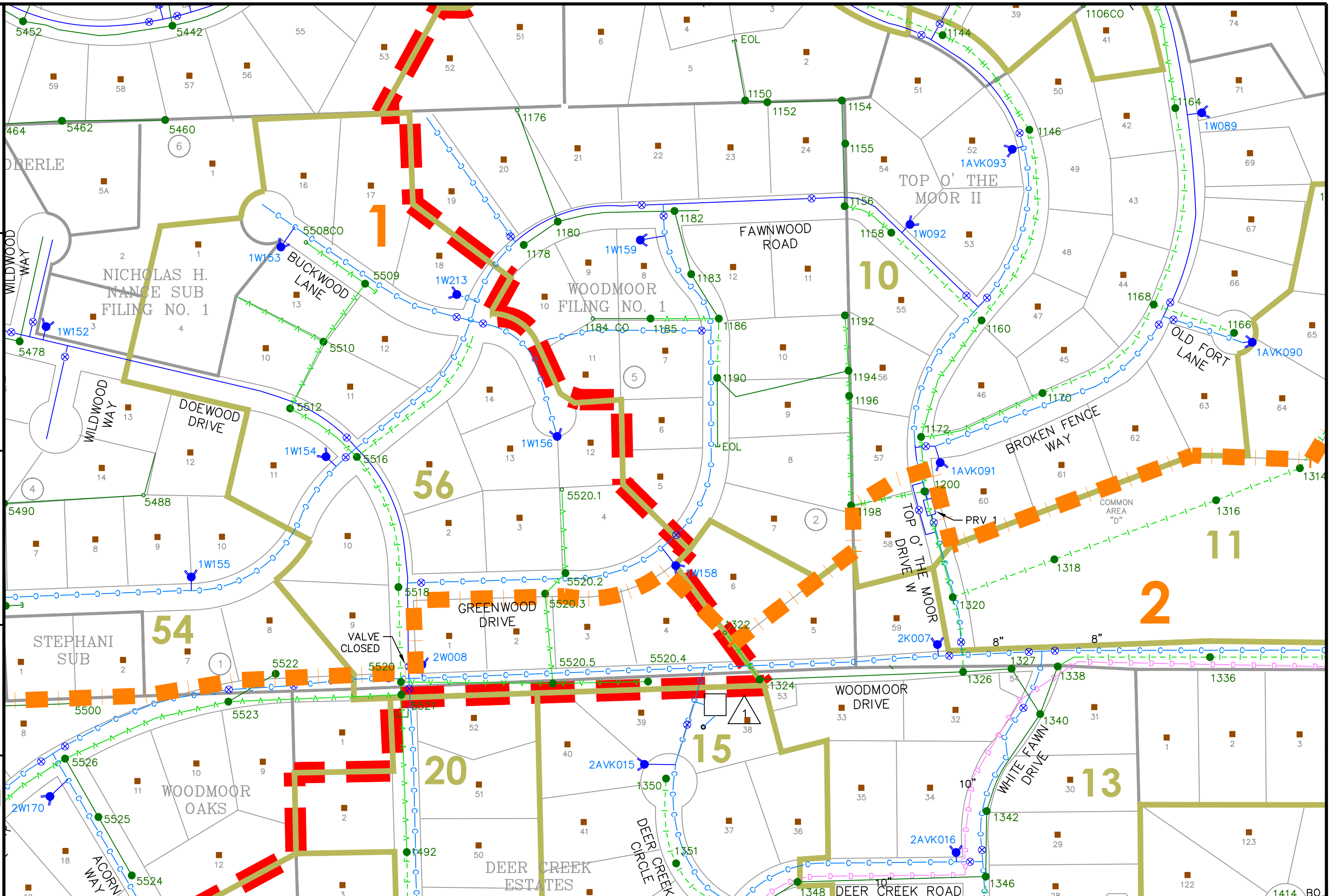
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ii	STREETS, SUBDIVISIONS, AND FACILITIES INDEX
iii	STREETS, SUBDIVISIONS, AND FACILITIES INDEX
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v	OVERVIEW MAP (SOUTH)
1-45	MAP PANELS

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September 26, 2022

P. O. Box 1407 • Monument, Colorado 80132  
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To: Murphy's Custom Homes  
Attn: Sarah Martin  
13710 Struthers Rd  
Ste 105B  
Colorado Springs CO 80921

RE: Water & Wastewater Service Commitment – 1384 Buckwood Lane Re-Plat  
El Paso County Parcel Number: 7111101042

Dear Ms. Martin:

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 Murphy's Custom Homes intends to construct four (4) additional single family homes on the 3.81 acres of land within what is currently Lot 1 of the Westview at Woodmoor subdivision, with a projected total water demand of approximately 1.434 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



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## EXECUTIVE SUMMARY

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A summary of the recommendations in the Long Range Plan (LRP) Update for 2017 are presented in this section. The LRP Update evaluates water supply, operations, treatment, water distribution, and wastewater collection. Growth projections used throughout the LRP Update were determined with input from District and Bishop Brogden and Associates (BBA) staff. The LRP update confirms and updates use-rate values for water demand and wastewater production throughout the District. Based on the growth projections and use-rate data, future water demands were determined and water supply alternatives were evaluated to determine what supplies will be used to meet future water demands. Based on the recommended water supply alternative, a Capital Improvements Plan (CIP) was developed that outlines the projects required to meet the District's future water demands. For the District to determine the costs associated with the CIP and continuing maintenance for the District, a cash flow model was developed for use in the District's rate model.

In the LRP Update, growth projections for the District were determined with input from the District staff to project future growth and to determine when the District will meet build-out of its existing boundary. The District currently has 4,192 SFEs and an average annual water demand of 1,376 af/yr. Between 2012 and 2017, the District has experienced an average growth rate of approximately 3.5 percent per year for the short term. Assuming the 3% long-term growth rate for the current and ultimate build-out scenario, the current buildout will occur in 2030 with 6337 SFEs and 2,080 af/yr, and the ultimate buildout will occur in 2038 with 7,801 SFEs and 2,560 af/yr. It is possible the District may expand its boundaries to serve surrounding developments that may petition for inclusion within the District and lead to an ultimate build out of the District. For planning purposes, the Wissler Trust and Home Place Ranch will be included into the District.

### Water Projects

Average annual water demand and maximum monthly water demands were evaluated for the District. The average annual water demand decreased from the 2012 LRP Update from 305 gpd/SFE to 293 gpd/SFE likely due to water conservation. Since the last LRP Update, all SCADA systems have been updated to enable the District to monitor water demand on a daily basis. Based on the daily demands, the peak day to average annual peaking factor was updated from 2.2 to 2.1.

This LRP has two areas of focus for the water system which are the short term and long term water supply plan. Since the last LRP Update, a decree was entered in Case No. 12CW01 (Division 2) that changed the use of the Ranch water rights from irrigation to municipal and other uses included in the decree. The change of use will allow the Ranch water rights to be diverted from Fountain Creek at their current point of diversion, stored in a reservoir and ultimately delivered to the District via pipeline to meet municipal demands. A series of infrastructure improvements are needed to treat and convey the water from the Ranch to the District. Before the Ranch water is available as a long-term water supply, the existing groundwater supply must be maintained. The main goal of the short-term water supply projects is to maintain construction of new groundwater wells while implementing IPR at the District to sustain water supply. In the future, other long-term water supply projects will need to be considered, as well as resumed drilling of wells to maintain supply through buildout as well yield decreases. In order to supplement demand, Tetra Tech recommends the district begin construction of Indirect Potable reuse in the District starting in 2019 with a pilot project.

The long-term water supply plan is to construct storage and treatment facilities at the Ranch. The existing Callahan Reservoir at the Ranch should be expanded to 2,200 acre-ft to have enough operational capacity to store and deliver water to the District from the Ranch. The water from the reservoir will be treated at the new Water Treatment Plant before being pumped approximately 44 miles to the District. It is estimated that the earliest that the Ranch water supply can be delivered to the District is 2033 due to obtaining financing and constructing facilities.

The water level in the Denver Basin aquifers is declining which results in decreased production rates. To make up for the declining water supply without drilling additional wells, the Tri-Lakes Water Reclamation Plant will be constructed to enhance the supply in Monument Creek. The supply will be enhanced by providing advanced treatment of the effluent from the Tri-Lake Wastewater Plant so that the treated water can be discharged above the Monument Creek Exchange Pump Station. The exchanged and reclaimed water will be pumped to Lake Woodmoor which will provide natural attenuation before the water will be treated at the South Water Treatment Plant before being sent to the distribution system.

The capital improvements for the TL-WWTF were arranged in phases based on the Nutrient Engineering Report provided by Tetra Tech. Phase 1 focused on constructing processes that met Regulation 85 limits and was completed in 2017. Phase 2 and 3 are future phases that will meet upcoming regulations. Phase 2 primarily targets towards improving solids handling at the TL-WWTF. Phase 3 will address capital improvements required for Regulation 31 compliance. Miscellaneous projects are included to upgrade existing equipment and provide emergency power. Below is a summary description of the work for each phase.

**TL-WWTF Phase 2 Improvements**

- Decommission of the existing headworks and solids lagoon
- Construction of a new solids handling system including: gravity thickener, aerobic digester, dewatering equipment, solids handling building, solids loading station, and other ancillary equipment
- Construction of a new odor control system
- Construction of a new headworks facility including: fine mechanical bar screen, screenings handle equipment, and a vortex grit removal system in a new building

**TL-WWTF Phase 3 Improvements**

- Construction of a mixed liquor pump station
- Construction of new post-anoxic denitrification and reaeration basins
- Construction of chemical storage and feed pumps
- Construction of a tertiary filters

**Miscellaneous Projects**

- Upgrade blower system from multi-stage blowers to more efficient high speed turbo blowers
- Install an emergency generator for the activated sludge system

Based on the future well production projections and the exchange system yield, capital improvement projects are recommended in order to continue to meet the diminishing capacity and growing water demand. A list of the projects is presented in the table below.

Classification		Project Description	Opinion of Probable Cost in 2017 Dollars	Year of Start	Year of Completion
Water CIP	Water Treatment	South Filter Plant	\$791,820	2018	2020
Water CIP	Groundwater Supply	Well AR-21	\$2,700,000	2018	2019
Water CIP	Water Treatment	Pilot WTP for TL WTP and JV WTP	\$191,232	2019	2020
Wastewater CIP	Wastewater Treatment	Tri-Lakes Wastewater Treatment Misc. Projects	\$538,796	2020	2021
Water CIP	Surface Water Supply	Lake Woodmoor Pump Station Improvements	\$532,000	2020	2021

Classification		Project Description	Opinion of Probable Cost in 2017 Dollars	Year of Start	Year of Completion
Water CIP	Groundwater Supply	Well AR-22	\$2,700,000	2020	2020
Water CIP	Water Treatment	IPR at Tri-Lakes	\$28,496,058	2020	2024
Water CIP	Water Treatment	CWTP Improvements and Surface Water Pipeline	\$862,300	2021	2023
Water CIP	Groundwater Supply	Well DA-21	\$450,000	2021	2021
Water CIP	Groundwater Supply	Well DE21	\$1,100,000	2021	2021
Water CIP	Groundwater Supply	Well DA-22	\$450,000	2021	2021
Water CIP	Groundwater Supply	Well DE-22	\$1,100,000	2021	2021
Wastewater CIP	Wastewater Treatment	Tri-Lakes Wastewater Treatment Plant Phase 2 Improvement	\$14,323,801	2022	2025
Water CIP	Groundwater Supply	Well AR-8R	\$1,260,000	2022	2022
Wastewater CIP	Wastewater Treatment	Tri-Lakes Wastewater Treatment Phase 3	\$7,503,637	2027	2032
Water CIP	Storage and Distribution	Ranch Transmission & Conveyance	\$65,827,804	2027	2033
Water CIP	Water Treatment	Ranch WTP Design and Construction FAT Option	\$45,000,000	2030	2033
Water CIP	Storage and Distribution	Calahan Reservoir Expansion	\$20,286,000	2032	2035
Water CIP	Water Treatment	One MG Finished Water Storage Tank	\$1,825,740	2033	2033
Water CIP	Groundwater Supply	Well DA-16	\$450,000	2035	2035
Water CIP	Groundwater Supply	Well DE-16	\$1,100,000	2035	2035
Water CIP	Groundwater Supply	Well DA-18	\$450,000	2035	2035
Water CIP	Groundwater Supply	Well DE-18	\$1,100,000	2035	2035
Water CIP	Groundwater Supply	Well DA-20	\$450,000	2035	2035
Water CIP	Groundwater Supply	Well DE-20	\$1,100,000	2035	2035
Water CIP	Groundwater Supply	Well DA-11	\$450,000	2036	2036
Water CIP	Groundwater Supply	Well DA-1R	\$450,000	2036	2036
Water CIP	Groundwater Supply	Well AR-23	\$2,700,000	2036	2036

### Wastewater Collection System

The WWSD sanitary sewer collection system was modeled under existing and future build out conditions to evaluate capacity of the gravity sewers, lift stations and force mains. The modeling was performed using a model maintained by the District with flows assumed to be applied in each scenario in a manner representative of existing and build-out planning. The modeling indicated that the system is able to accommodate the existing and planned taps at build out. Some gravity mains in the system approached design capacity at build out and bear further analysis as the system matures.

No capital improvements are recommended other than to continue the District's current annual manhole rehabilitation projects to further mitigate inflow and infiltration (I&I).

The following collection system studies are recommended as interim projects and/or as part of future LRP updates:

- Flow monitoring study targeting Inflow and Infiltration
- Sewer model calibration based upon periodic flow monitoring
- Lift station capacity analysis