WASTEWATER RESOURCES REPORT

VENTURE ON VENETUCCI

Venetucci Boulevard El Paso County, Colorado

Prepared for:

Thompson Thrift Development, Inc Donald Dungu 111 Monument Circle, Suite 1500 Indianapolis, IN 46204 Contact: (336) 609-2131

Prepared by:

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Project #: 096302017 Prepared: November 13, 2024

Kimley »Horn



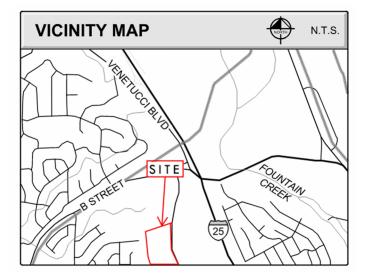
TABLE OF CONTENTS

GENERAL LOCATION AND PROJECT DESCRIPTION	2
Site Location	. 2
Description of Property	. 2
DESIGN CRITERIA	2
Opinion of Probable Population and Quantity of Effluent	. 3
Capacity of Existing Treatment Plant and Current Utilization	. 3
Anticipated Capacity of Proposed Treatment Plants	. 3
Letter of Commitment	. 4
Opinion of Probable Construction Costs	. 4
Creation or Annexation into Special Sewer District	. 4
Map of Existing and Proposed Facilities	. 4
REFERENCES	4

GENERAL LOCATION AND PROJECT DESCRIPTION

Site Location

The Site is located along the southbound lanes of Venetucci Boulevard and currently consists of ± 16.23 acres. The Site is bounded by B Street to the north, a residential development to the west, S Academy Boulevard to the south and Venetucci Boulevard to the east. A vicinity map is provided below for reference:



Description of Property

The overall site is approximately ± 16.23 acres of undeveloped land. The site development is anticipated to consist of ten three-story buildings with approximately 336 for rent residential units, eight detached garage buildings, a fitness center, a management garage, and a clubhouse/leasing amenity space with a pool deck.

The existing topography generally drains toward the center of the property to an existing sediment basin that outlets into Fisher's Canyon Creek. The overall site varies in elevation from a low of approximately 5835 feet to a high of approximately 5900.

There is one point of connection for proposed sanitary sewer service to the Site. The connection will be made off the existing 8-inch line within Venetucci Blvd from the northeastern corner of the Project. Refer to **Appendix A** for an overview of the sewer system and point of connection.

The sanitary sewer design presented herein will focus on the sanitary sewer demands anticipated with development of the Site.

DESIGN CRITERIA

The Project is within the Stratmoor Hills Water & Sanitation District (SHWSD), with Colorado Springs Utilities (CSU) providing the treatment for the sewage. Discharge from SHWSD is treated at the Colorado Springs Utilities Las Vegas Water Resource Recovery Facility located at 809 E. Las Vegas Street, Colorado Springs, CO 80903. Refer to **Appendix B** for overview and aerial location of the existing treatment facility with relation to the project site.

This Project will substantially comply with the current Colorado Springs Utilities Wastewater Line Extension & Service Standards 2023 (the Criteria) adopted by Stratmoor Hills Water & Sanitation District.

Opinion of Probable Population and Quantity of Effluent

The site development is anticipated to consist of 336 multi-family units. The opinion of probable population and effluent is as follows:

336 Multi-Family Units * 1.9 residents/Unit = 639 residents

639 resident* 100 GPD/ resident = 63,900 GPD, 0.0639 MGD or 44.38 GPM

These estimates are based off of Colorado Springs Utilities Wastewater Line Extension & Service Standards, Table 2-8 (Page 2-42), which states that per a land use of "Multi-Family", the average persons per unit is 1.9 with a corresponding average-daily design flow of 65 gallons per person per day (see below table). To obtain a more conservative flow design estimate, a design flow of 100 gallons per person per day was utilized rather than the average of 65.

Table 2-8: Average-Dany Design Flows				
Land Use	Average-Daily Design Flow	SWMM Input		
Single-Family (2.5 persons per unit)	65 gallons per person per day	Population/Persons		
Multi-Family (1.9 persons per unit)	65 gallons per person per day	Population/Persons		
Commercial (includes elementary and middle schools)	1,300 gallons per acre per day	Average Flow (gpm)		
Industrial (includes high schools)	2,000 gallons per acre per day	Average flow (gpm)		
Infiltration/Inflow (VCP pipe)	500 gallons per acre per day	Average Flow (gpm)		
Infiltration/Inflow (PVC pipe)	200 gallons per acre per day	Average Flow (gpm)		

Table 2-8:	Average-Dail	v Design	Flows
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Capacity of Existing Treatment Plant and Current Utilization

The sanitary sewer system capacity was based on correspondence sent by Stratmoor Hills Water and Sanitation District dated October 14th, 2024. See **Appendix C** for reference.

The maximum capacity of the treatment facility is 68 million gallons per day (MGD), with an average treatment of 37 MGD. At buildout of the Site, an estimated daily average of 0.0639 MGD will be introduced into the SHWSD system and treated at CSU's Las Vegas Water Resource Recovery Facility. This value represents an increase of 0.17% in the average daily treatment with a treatment facility average daily utilization increase from 54.41% in the existing condition to 54.58% after site buildout. Per correspondence with SHWSD, this additional capacity is within compliance and serviceable.

Anticipated Capacity of Proposed Treatment Plants

This site will be utilizing the existing wastewater treatment infrastructure located at Colorado Springs Utilities Las Vegas Water Resources Recovery Facility. Since site demands are serviceable in the current conditions, there will be no anticipated proposed treatment plans.

Letter of Commitment

Stratmoor Hills Water & Sanitation District provided a letter of commitment to provide both water and wastewater services. The letter is attached as part of **Appendix C.**

Opinion of Probable Construction Costs

Below is a probable opinion of construction costs:

Sanitary Sewer Improvements - Opinion of Construction Costs					
Item	Unit	Prie	ce per Unit	Unit Count	Cost
8" PVC Sewer Main	LF	\$	30.00	1584	\$ 47,520.00
Sanitary Manhole, Depth < 15 ft	EA	\$	4,400.00	6	\$ 26,400.00
Sanitary Manhole, Depth > 15 ft	EA	\$	6,000.00	1	\$ 6,000.00
Sanitary Service Line	EA	\$	1,500.00	12	\$ 18,000.00
6" PVC Extended Sanitary Service Line	LF	\$	25.00	200	\$ 5,000.00
				Total Cost	\$ 109,520.00

Creation or Annexation into Special Sewer District

The Site is already within the Stratmoor Hills Water & Sanitation District service area and does not require a special district.

Map of Existing and Proposed Facilities

An Overall Utility Plan of the Project with both proposed and existing utility facilities is shown as part of **Appendix D**. The plan is subject to review by Stratmoor Hills Water & Sanitation District.

REFERENCES

<u>Colorado Springs Utilities Wastewater Line Extension & Service Standards 2023</u>, City of Colorado Springs; January 1, 2023.

<u>"Wastewater Service."</u> CSU.org, 2024, www.csu.org/wastewater-service.

Stratmoor Hills Water and Sanitation District. "Venetucci Multi-Family Wastewater Report." Email to Kirk Medina and Nancy Lee Watkins. 14 October. 2024.

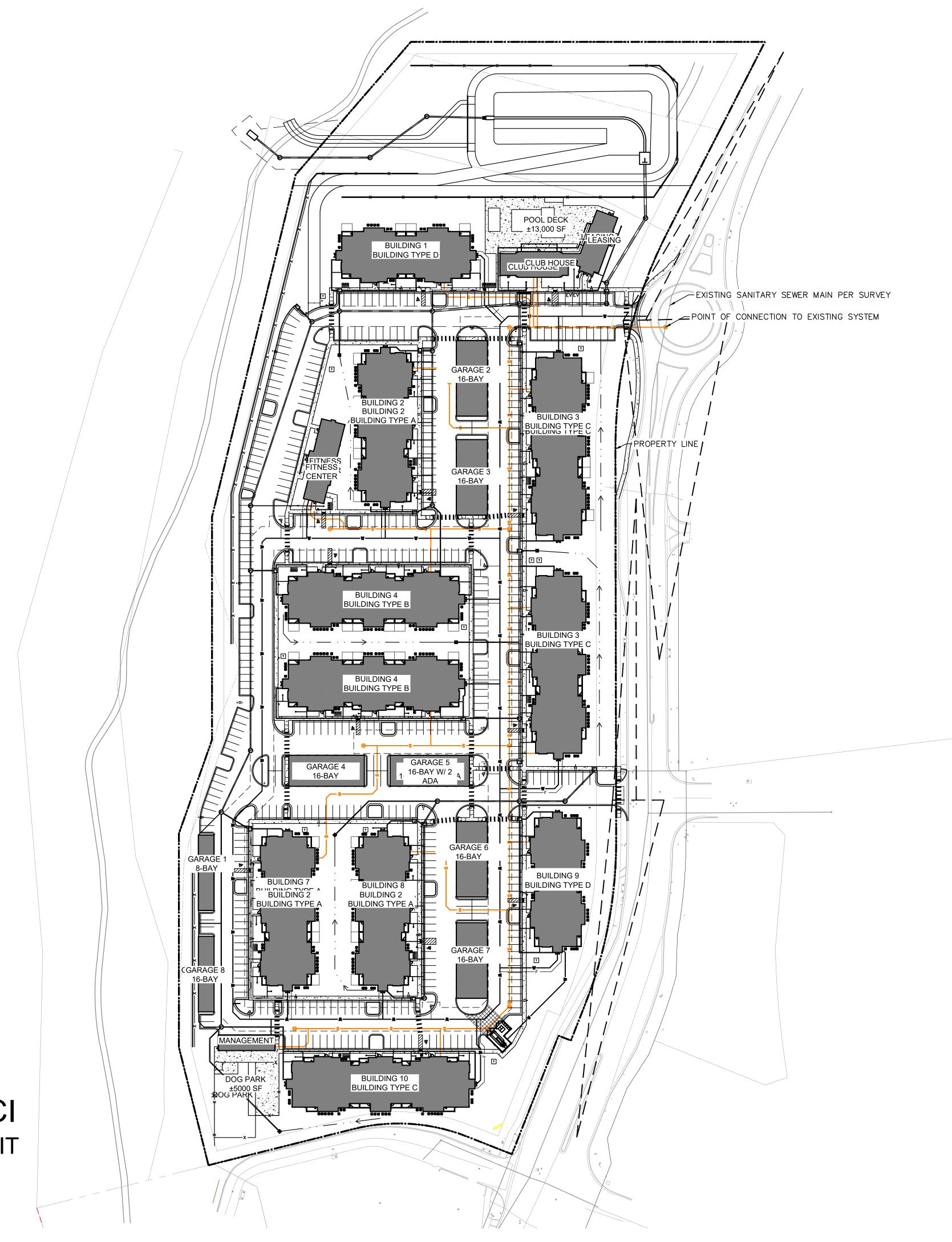
APPENDIX A – SITE WASTEWATER FACILITIES EXHIBIT

VENTURE ON VENETUCCI WASTEWATER FACILITIES EXHIBIT

K:\DEN_CIVIL\096302017_VENETUCCI MULTI-FAMILY\CADD\EXHIBITS\2024-1010 CONCEPT SITE PLAN\SANITARY SITE PLAN.DWG 11/13/2024 9:16 PM

EL PASO COUNTY, COLORADO 11/13/24

DWG NAME LAST SAVED



LE	GEND	



SS SANITARY MANHOLE

— S — SANITARY LINE



SITE DATA PROPOSED SITE AREA **BUILDING COUNT BUILDING A**

±16.23 AC 3 **BUILDING B** 2 **BUILDING C** 3 **BUILDING D** 2

BUILDING UNITS

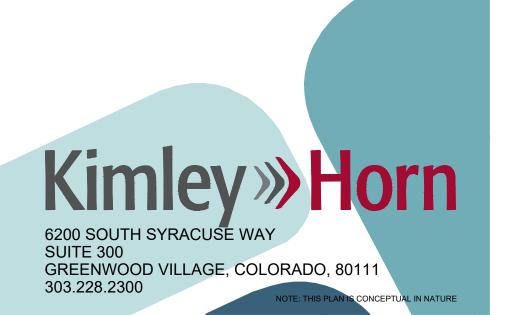
1-BEDROOM UNIT 2-BEDROOM UNIT **3-BEDROOM UNIT**

336 UNITS

132 UNITS 168 UNITS 36 UNITS

336 UNITS X 1.9 RESIDENTS PER UNIT = 639 RESIDENTS

100 GPD/RESIDENT - 63,900 GPD OR 44.38 GPM



APPENDIX B – EXISTING TREATMENT FACILITY

Service Provider: Las Vegas Wastewater Treatment Facility, 703 E Las Vegas St, Colorado Springs, CO 80903

S.C.P.SELLE

Approximate site location -Located off Venetucci Blvd, near Walmart (4425 Venetucci Blvd, Colorado Springs, CO 80906)



APPENDIX C – STRATMOOR HILLS WATER AND SANITATION DISTRICT CORRESPONDENCE

Xie, Austin

From:	Kirk Medina <kirk@stratmoorhillswater.org></kirk@stratmoorhillswater.org>
Sent:	Monday, October 14, 2024 3:33 PM
То:	Xie, Austin; Nancy Lee Watkins
Cc:	Ayers, Connor; Hart, Michael
Subject:	RE: Venetucci Multi-Family Wastewater Report
Follow Up Flag:	Follow up
Flag Status:	Flagged

Hi Austin,

Based on the maps you provided, this project would clearly be in our service area. Stratmoor Hills Water and Sanitation Districts would be the service providers, but we rely on Colorado Springs Utilities (CSU) to provide sewage treatment. Our discharge is treated at the Colorado Springs Utilities Las Vegas Water Resource Recovery Facility located at 809 E. Las Vegas Street, Colorado Springs, CO 80903.

Looking on-line, it looks like their maximum capacity is 68 mgd, and their average flows are 37 mgd. You may want to confirm with CSU staff.

I can provide water and sewer " will serve" letters for the project, and I am confident we have the capacity to serve it. I will need to know who to address the letters to, with mailing address, how many units, approximate water demands, etc. for the project. We would also be happy to comment on any preliminary utility plans you might have.

Please let me know if you have any questions.

Thanks!

Kirk Medina District Manager Stratmoor Hills Water and Sanitation Districts 719-210-5295

From: Xie, Austin <Austin.Xie@kimley-horn.com> Sent: Thursday, October 10, 2024 1:54 PM To: Nancy Lee Watkins <nancy@stratmoorhillswater.org>; Kirk Medina <kirk@stratmoorhillswater.org> Cc: Ayers, Connor <Connor.Ayers@kimley-horn.com>; Hart, Michael <Michael.Hart@kimley-horn.com> Subject: Venetucci Multi-Family Wastewater Report

Good afternoon Nancy and Kirk,

We are currently working on the Venetucci wastewater report for El Paso county and I wanted to reach out about a couple of questions I have.

For some background, I've included our civil sanitary layout, an aerial of the vicinity and the wastewater report checklist from El Paso county.

The wastewater checklist has a couple of bullet points boxed in orange – those are the items I would like to politely request yalls assistance with. Below is a summary of those bullets:

- Location of the treatment facility that will be serving our site
- Current capacity of the existing treatment facility and what % of that capacity is being utilized
- Letter of commitment from Stratmoor Hills Water/Wastewater stating that the above site map is:
 - o Within the service boundaries of Stratmoor Hills Water and Sanitation District

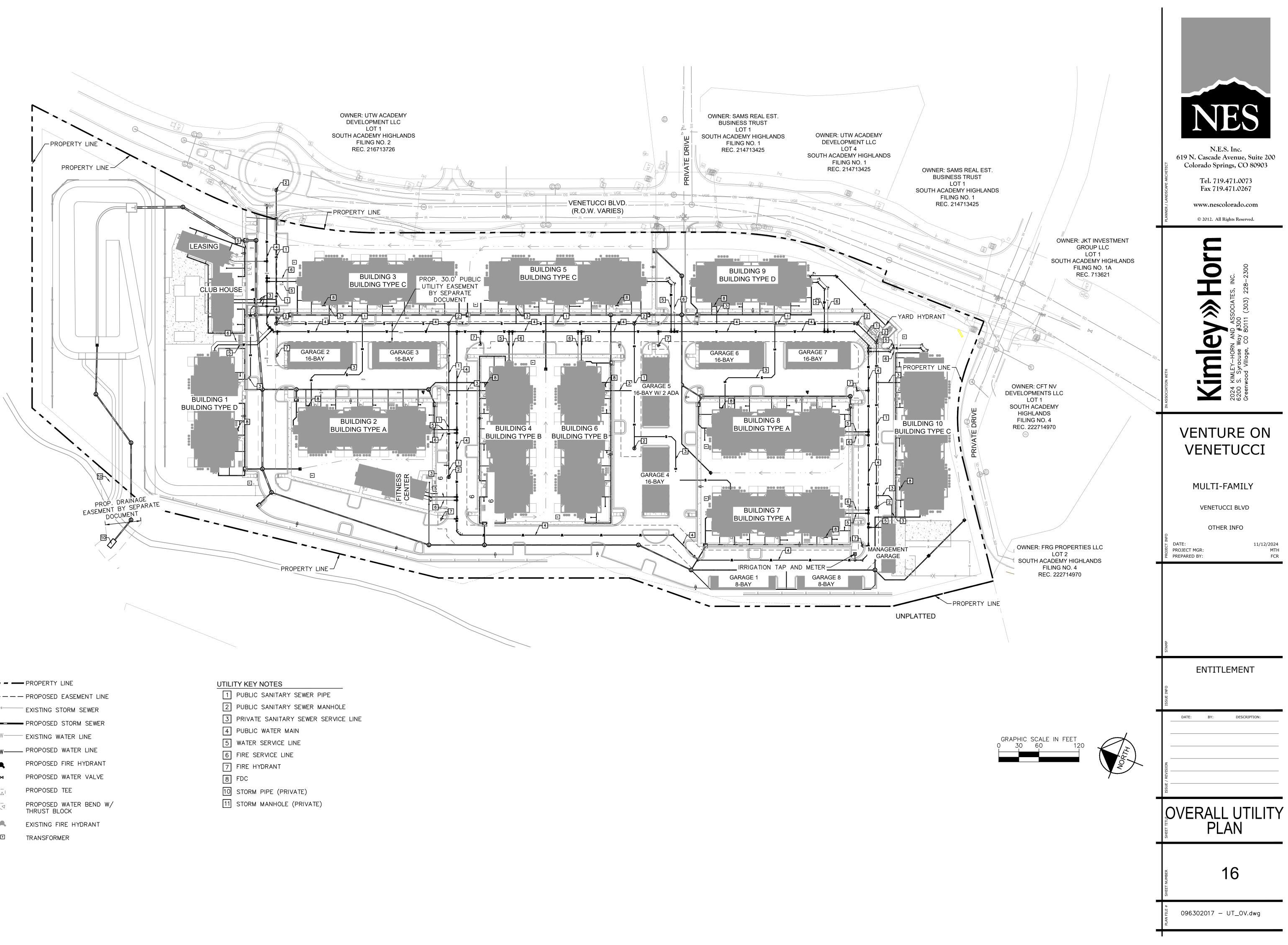
Please let me know if there is any additional background I can provide to assist with my request. If you have any questions or comments, I would be more than happy to connect with you on them.

Thanks!

Austin Xie | E.I. Kimley-Horn | 6200 South Syracuse Way, Suite 300, Greenwood Village, CO 80111 Direct: 720-464-4421 *Connect with us*: <u>Twitter | LinkedIn | Facebook | Instagram | Kimley-Horn.com</u>

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APPENDIX D – OVERALL UTILITY SHEET



	PROPERTY LINE
	- PROPOSED EASEMENT LINE
S	EXISTING STORM SEWER
	PROPOSED STORM SEWER
W	EXISTING WATER LINE
w	PROPOSED WATER LINE
*	PROPOSED FIRE HYDRANT
M	PROPOSED WATER VALVE
	PROPOSED TEE
4	PROPOSED WATER BEND W/ THRUST BLOCK
*	EXISTING FIRE HYDRANT
Ţ	TRANSFORMER