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August 5, 2024

City of Aurora
15151 East Alameda Parkway
Aurora, CO 80012

**RE: Utility Conformance Letter
Springhill Suites**

To Whom It May Concern,

This Utility Conformance Letter is being submitted to the City of Aurora in accordance with the *Aurora Water, Sanitary Sewer & Storm Drainage Infrastructure Standards & Specifications* dated January 2023.

The intent of this Conformance Letter is to:

- i. Confirm that the Project is in conformance with the *Painted Prairie Master Utility Report* prepared by Stantec Consulting in January of 2007.
- ii. Confirm that the Project is in conformance with the *Aurora Water, Sanitary Sewer & Storm Drainage Infrastructure Standards & Specifications* dated January 2024.

A description of proposed development and explanation of design rationale used, demonstrating conformance with the *Painted Prairie Master Utility Report* is provided below.

Please contact Tiffany Watson (twatson@pnt-llc.com) should you have any questions regarding this submittal.

Sincerely,

Tiffany D. Watson, P.E.
Partner – Point Consulting, LLC

I. PROJECT LOCATION AND DESCRIPTION

Location

Lot 1, Block 2 of the Painted Prairie Town Center Subdivision Filing No. 3 is a 2.07-acre site. The existing site is undeveloped land consisting of soil and grass. The site slopes from the southeast corner of the lot to the northwest at a range from 0.5% to 3.0%. The overall site varies in elevation from a low elevation of 5403 to a high elevation of 5412. The site is a portion of the NW ¼ Section 11, T3S, R66W of the 6th PM, City of Aurora, County of Adams, State of Colorado.

The site was studied with the *Painted Prairie Master Utility Report*, prepared by Stantec Consulting in January of 2007. The aforementioned study serves as the master utility plan for the Springhill Suite development and will be referred to from here on out as the “MUP”.

Description

The project site is approximately 2.07-acres. The proposed development consists of a 79,991 gross square foot commercial hotel building with associated parking facilities, utilities and landscape areas.

The existing site was overlotted graded as part of the Painted Prairie Town Park Center Subdivision Filing 3. The MUP utility demand requirements will be met with this development.

Zoning & Density

The project site is south of East 64th Avenue which is currently zoned MU-R. For the purposes of this report, overall density for this site was estimated based on City of Aurora requirements and building footprint area.

II. UTILITY SYSTEM

Existing System

See the MUP and Painted Prairie Infrastructure Plan approved 5/12/21 under MUP Number 207016 which provides the infrastructure the proposed development will connect to. A 12” water main within East 63rd Drive and south of the proposed development. East 63rd Drive will provide access to the proposed development. North Kirk Street, running along the eastern border of the site, will also provide access to the site. Sanitary sewer is also provided within East 63rd Drive with an 8” sanitary sewer main to provide sewage service for this site. Per the MUP, this site is serviced by the existing 8” Sanitary Sewer Stub-out and 8” water service stub-out. These stub-outs are at the south of the site and connect with the sanitary and water mains within East 63rd Drive.

Proposed System

The Springhill Suites development will be supplied domestic water from the 12" water main within East 63rd Drive. The proposed building will require the installation of a 2" private water service as well as a 6" fire line. The existing 8" water service stub-out will not be utilized due to the location of the fire service in the proposed building. Since the building requires a 6" fire line to be tapped from the 12" main line within East 63rd Avenue, the proposed 2" domestic service line will be located 7' east of this. The proposed 2" domestic water service is within conformance of the 8" water service stub-out.

The proposed system consists of a 6" domestic sewer service that will connect to the existing 8" stub-out which ties into the existing 8" sanitary main within East 63rd Drive (see Appendix B). The intent of the 8" sanitary main is to collect the sanitary sewer from developments served by East 63rd Drive. After entering the existing 8" sanitary main, the sewer then continues until joining with the 8" sanitary main within North Killarney Street. The 8" sanitary main within North Killarney Street flows south before joining the 10" sanitary main within East 63rd Avenue. The 10" sanitary main within East 63rd Avenue connects with the 12" sanitary main within North Jebel Street. This connects with another 12" sanitary main within East 62nd Drive which connects to a 12" sanitary main within North Ireland Street. The 12" sanitary main within North Ireland Street is connected with a 15" sanitary main that travels west before ultimately connecting with the existing sanitary infrastructure within North Himalaya Road. The sewer main in North Himalaya Road was designed to collect these upstream flows.

Conclusion

The existing utility stub-outs provided for Lot 1, Block 2 of the Painted Prairie Town Center Subdivision Filing No. 3 per the *Painted Prairie Master Utility Report* provide more capacity than is being proposed for the Springhill Suites development, and the site is in conformance with the MUP.

III. REFERENCES

Aurora Water, Water, Sanitary Sewer & Storm Drainage Infrastructure Standards and Specifications, City of Aurora. Dated January 2023.

Painted Prairie Master Utility Report
Stantec Consulting, Inc., Denver, Colorado, January 2007.



Date: 4/9/24
By: KFD

Utility Demand
Job Name: Springhill Suites

WATER

Planning Area	Area (ac.)	Use	(bldg. sf.)	¹ Avg. Day Demand (gpd/acre)	² Max Day (gpd/acre)	³ Max Hour (gpd/acre)	Building Fire Sprinkler Flow (gpm)	⁴ Demand Scenario (gpm)
Max Day + Fire Flow								
Area 1	2.07							
Building 1	2.07	Hotel	79,991	3,105.00	8,694.00	8,694.00	2,500	6.4 + 2,500
TOTAL	2.07		79,991	3,105.00	8,694.00	8,694.00	2,500	2506.4

¹Average Day Demand: Commercial = 1,500 gpd / acre

²Max Day Demand = 4,200gpd / acre

³Maximum Day Demand = 6,750 (gpd/acre)

⁴Demand Scenario = Maximum Day Demand + Project Fire Flow



Date: 5/21/24

By: KFD

Utility Demand

Job Name: Springhill Suites

SANITARY SEWER USE CALCULATIONS

Planning Area 1	Area (ac.)	Use	Area (bldg. sf.)	¹ Avg. Day (gpd/acre)	² Equivalent Population per Acre	³ Max Peaking Factor	⁴ Peak Flow (gpm)
Area 1	2.07						
Springhill Suites	2.07	Hotel	79,991	3,105.00	45.54	8.378	33.5
TOTAL	2.07		79,991	3,105.00	45.54	8.38	33.5

¹Average Day: 1,500 (gpd/acre)

²Equivalent Population per Acre = 22

³Max Peaking Factor is 4

⁴Peak Flow is base on Curve "A": $5 \div p^{0.167}$ where p = population in thousands