County of Loudoun

Department of Planning and Zoning

MEMORANDUM

DATE: November 5, 2018

TO: Loudoun County Planning Commission

FROM: Brandon Mark, AICP, Project Manager, Planning & Zoning
Kenny Young, Acting Director, Planning & Zoning

SUBJECT: **November 10, 2018 Planning Commission Briefing**
CMPT-2018-0002, CMPT-2018-0003, SPEX-2018-0010 - Round Hill Water Tank,

UPDATE

Subsequent to publishing the Planning Commission Briefing Summary, the applicant confirmed the water storage tank will be approximately 160 feet tall. The height of the proposed water storage tank is determined by the existing height of the Evening Star Tank that is located along the northern boundary of the Town of Round Hill. The water storage tanks must be of similar height to equalize pressure on the overall water system.

It should be noted that the overall height of the proposed water storage tank and the telecommunication facilities will not exceed 165 feet.

ATTACHMENTS

1. Application Response Letter (November 2, 2018)

Mark, Brandon

From: Melissa Hynes <mhynes@roundhillva.org>
Sent: Friday, November 02, 2018 5:12 PM
To: Mark, Brandon; Keith Lane; Dan Botsch
Subject: [EXTERNAL] Answers to your Final Questions (Water Tank SPEX)

1) How is the tank height determined?

The tank height is determined by the necessary high (overflow) water elevation. In order for the new tank to properly operate in the Town's water system, the water height must match the existing Evening Star Tank. The Evening Star Tank overflow elevation is 733.5', so the proposed tank overflow needs to also be 733.5'. Based on the available topo information, the ground elevation is approximately 586', so the tank height to overflow is 147.5' (733.5' minus 586'). The physical roof of the tank will be around 4-5' higher than that, so a total of around 152-153'. Then there will be cell antenna equipment/handrail that will go on top of the roof. On Sheet 02 of the SPEX plat (under the "General Tank Notes" box in the middle/right side of the page) we noted the height to overflow at 147.5' and a total tank height (including equipment) of 165'. (Note: 165' was intended to be a conservative estimate to accommodate potential variations in tank manufacturers, actual telecom equipment, final survey grades, etc. Actual final height will hopefully be a couple of feet lower than that.)

2) What is the height of the Evening Star Tank?

As noted in the response to Item #1, the overflow elevation of the Evening Star Tank is 733.5'. According to the original drawings that I have, the height to overflow was 142', meaning that ground elevation should be 591.5'. The top of the tank itself is shown as 145', and according to the Verizon plans the top of their antenna structure is approximately 153' above ground level. So to compare the two, the proposed tank will be very slightly taller, but ultimately quite similar to the existing Evening Star Tank. The water surface elevations will be the same – the difference is due to the ground being approximately 5.5' higher at Evening Star.

3) Our application said the new Tank will be about 150 ft - Is this a good number?

This depends on what you mean. If you are asking about 150' as being an absolute maximum tank height, then I would say that no that will not work. As indicated in the Item #1 response above, the height to overflow will be approximately 147.5', but the expected TOTAL tank height (including roof, accessories, and telecom equipment) may be as high as 165' as indicated on Sheet 02 of the SPEX plat. I thought that the application was consistent on this, but if not then we need to clarify.

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Melissa Hynes, CZA

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