

Vera Kolias

From: Justin Gericke
Sent: Friday, July 26, 2019 2:13 PM
To: Robinson, Michael C.
Cc: Vera Kolias; Dennis Egner; Steve Adams; Beth Britell
Subject: MMC 18.04.030 Design Flood Height for Elk Rock Estates

Mike,

At the hearing this week, you entered into the record an objection to the definition of "design flood height" in MMC 18.04.030. Specifically, your objection was to the City's conversion of the water surface elevation of the February 1996 flood event from National Geodetic Vertical Datum (NGVD) to North American Vertical Datum (NAVD). The purpose for the conversation was to enable a comparison between the February 1996 flood elevation and the elevation of the 100 year flood as depicted on the relevant FEMA Flood Insurance Rate Map (FIRM). This comparison is necessary in order to determine which of the two elevations is higher as required by the code. It is important to note that also contained in MMC 18.04.030 is the definition of "water surface elevation," which means the "height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, (or other datum, where specified)..." Likewise, "[a]rea of February 1996 inundation" is defined in MMC 18.04.030 as "the areas along the Willamette River and its backwaters of Johnson and Kellogg Creeks that were flooded to elevation 34.5 (NGVD) in February of 1996."

Based on these definitions, the 34.5 elevation noted in the definition of "design flood height" is unmistakably in relation to NGVD. In order to compare that elevation to the FEMA 100 year flood elevation, which the most recent FIRM depicts in NAVD, the elevations must be converted to a common datum. Otherwise, they cannot be compared. In this case, city staff used the accepted conversion algorithm developed by NOAA (VERTCON) to convert 34.5 (NGVD) to its equivalent in NAVD. Staff could have also made that comparison by using VERTCON to convert the FIRM measurement in NAVD to its equivalent in NGVD. Regardless of the conversion used, staff determined that the elevation of the February 1996 flood event – 34.5 (NGVD) – is higher than the FEMA 100 year flood elevation.

As this information will likely influence project design, I wanted to pass it along as soon as possible. This information will also be placed into the record pursuant to the briefing schedule.

Please let me know if you have any questions.

Best,

Justin

JUSTIN D. GERICKE

City Attorney
o: 503.786.7529 c: 971.221.6423
City of Milwaukie
10722 SE Main St • Milwaukie, OR 97222