



LEE'S SUMMIT MISSOURI

DESIGN AND CONSTRUCTION MANUAL DESIGN MODIFICATION REQUEST

PROJECT NAME: Aria Apartments Phase 1

PREMISE ADDRESS: NW Lee's Summit Rd & NE Douglas St.

PERMIT NUMBER: PL2020250 & PL2020269

OWNER'S NAME: Aria LS,LCC Brian Manner

TO: The City Engineer

In accordance with the Lee's Summit Design and Construction Manual (DCM) Section 1002.A, I wish to apply for a modification to one or more specification (s). The following articulates my request for your review and action. (NOTE: Cite specific code sections and engineering justification and drawings.)

The future Summit Village North and future northern residential sites that are included in the stormwater study will be required to provide analysis of their respective sites in conformance with the city requirements for extended detention of the Water Quality Volume. However, due to the location of the proposed detention basin in relation to the Aria site, it is not possible to convey stormwater runoff from the Aria site into the detention basin for extended detention treatment. As a result, a waiver is being requested for the 40-hr extended detention of the water quality volume requirements provided in APWA Section 5608.C.1.b, for the Aria property, as discussed in the "Aria & Summit Village North Macro & Aria Micro Stormwater Report".

In lieu of extended detention for the Aria site, various water quality treatment devices are being proposed to both reduce the total volume of stormwater leaving the site and to treat the stormwater that does leave the site to remove suspended solids, oils, and other contaminants prior to discharging into the creek. These treatment devices include Filtration Trenches to capture, filter, and infiltrate stormwater; Depressed Areas to capture and infiltrate stormwater; and SNOUT systems within downstream structures to intercept and collect oils and floatables prior to discharge of site stormwater into the creek.

To quantify the benefit of the proposed treatment, the Level of Service guidelines from the BMP Manual are being utilized to compare the proposed treatment value rating to what would be provided by 40-hr extended dry detention. From the BMP Manual, 40-hr extended dry detention provides a Level of Service (LoS) of 4.0 for the treated area. Assuming the entirety of the Aria site (22.50 acres) is captured by the extended dry detention basin, the resulting Value Rating is 90.00. By providing filtration (LoS=7.5) for 8.53 acres and SNOUT treatment (LoS=3.0) for the remaining 10.89 acres that is conveyed by onsite storm sewers, the Aria site is providing a total Value Rating of 96.64, exceeding the treatment level provided by extended dry detention. In addition to the increased Value Rating for the site, the filtration trenches and depressed areas will potentially reduce the volume of stormwater leaving the site by approximately 24,553 cubic feet (0.56 ac-ft) during the water quality storm event.

SUBMITTED BY:

NAME: Nicholas D. Heiser () OWNER (X) OWNER'S AGENT

ADDRESS: 1301 Burlington St. Suite 100 Tel.# 816-422-66056

CITY, STATE, ZIP North Kansas City, MO 64116

Email: nheiser@olsson.com SIGNATURE: 

FORWARDING MANAGER: _____ RECOMMENDATION () APPROVAL () DENIAL

SIGNATURE: _____ DATE: _____

GEORGE BINGER III, P.E. – CITY ENGINEER: () APPROVED () DENIED

SIGNATURE: _____ DATE: _____

COMMENTS _____

A COPY MUST BE ATTACHED TO THE APPROVED PLANS

Development Services

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