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DRAINAGE ANALYSIS

MEMORANDUM

To: **Chis Robertson**
From: **Robert Schmidt, PE**
Flowers and associates

W.O.: **2024**
Date: **4/17/2023**
Subject: **Commons at Calabasas –
Drainage analysis**

OBJECTIVE

The purpose of this report is to analyze existing and proposed drainage characteristics of The Commons At Calabasas. This report provides a conceptual analysis of the proposed drainage facilities and demonstrates the site is preliminarily designed in accordance with Los Angeles County design standards.

PROJECT DESCRIPTION

The proposed project is a redevelopment located on a portion of “The Commons At Calabasas” at 4719 Commons Way in Calabasas, California. The property is shown with an APN of 2068-003-021 and a total area of 11.7 acres. The redevelopment project will disturb approximately 2.55 acres (111,300 square feet) of the existing parking lot and existing movie theatre building. See Figure 1 below for location of the project and reference.

The proposed project is the construction of commercial mixed-use retail, restaurants, and a 5-story residential building. The proposed project will include alterations to the existing surface parking lot. The project will include storm drain, sewer, and water improvements, as well as dry utility improvements.



Figure 1: Project Vicinity Map
Not to scale

SITE CONDITIONS

EXISTING CONDITION AND DRAINAGE PATTERNS

Currently, part of the project site is an asphalt parking lot for the commercial center and the other part is an existing movie theater building. The project site generally drains northeasterly to various drain inlets and further conveyed to the onsite underground storm water detention basin. The underground storm water detention basin is a series of (4) 135' long 36" diameter HDPE pipes and (4) 36' long 36" diameter HDPE pipes located in the northeast corner of the development. Stormwater is then released through an 18" RCP outlet pipe that connects to the city storm drain system at Calabasas Road.

The existing storage volume of the underground detention basin is 5,530 Cubic Feet which is considerably more than the initial project requirement of 4,560 Cubic Feet.

REDEVELOPMENT CONDITION AND DRAINAGE PATTERNS

The proposed redevelopment of the site will not alter existing drainage patterns. Runoff from the project site (redeveloped area) is reduced based on the site having approximately 3,900 sf less impervious area than the existing site condition. The project runoff will connect to the existing storm drain system and will not change the preexisting condition of entering the existing underground detention system located in the northeast corner of the development.

Because the impervious areas are being reduced, we can assume the runoff volume will also be reduced and therefore no changes are required to the underground detention basin.

Storm water treatment for this site will meet County of Los Angeles Requirements per the LID Standard Manual.

CONCLUSION

The preliminary design of the onsite storm drain system and stormwater treatment meets the County of Los Angeles requirements. The storm drain system is sized for a 10-year storm event and will connect to the existing system with no change to the capacity of the existing detention system. The design at this point is preliminary and subject to change when more data is known and the appropriate City departments provide specific project conditions.