

## TECHNICAL MEMORANDUM

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**Date:** December 13, 2018

**BKF Job Number:** 20160157-11

**Deliver To:** Tom Quaglia, Jamie Choy  
**Company:** Signature Development Group, Inc.

**From:** Simon North, P.E., LEED® AP  
Patrick Connors, P.E.

**Subject: Mills Park – Domestic Water Demand**

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The purpose of this memorandum is to provide the existing and proposed water demands for the Mills Park redevelopment project.

### BACKGROUND

The proposed project consists of constructing two new mixed use residential/retail buildings on the existing Mills Park Shopping Center site. The site is bounded by San Bruno Avenue to the North, Angus Way to the South, and El Camino Real to the East. Kains Avenue runs East-West and divides the project into two blocks – Block A to the North and Block B to the South. White Way borders the west side of Block A, and bisects Block B, south of Kains Avenue. Block B is bordered by Linden Avenue to the West.

A summary of the proposed project by Block is below:

#### Block A

- 174 Apartments
- 45,000 square feet (sf) Retail space
- 2.42 acre Parcel

#### Block B

- 226 Apartments
- 15,157 square feet (sf) Retail space
- 2.96 acre Parcel

There are multiple existing domestic water mains in the vicinity of the Mills Park site:

- 12" main in El Camino Real
- 8" main in San Bruno Avenue
- 8" main in Camino Plaza
- 8"/12" main in Kains Avenue
- 2" and 4" mains in Linden Avenue
- 2" and 4" mains in Angus Way

To facilitate development of the site, the following relocations must be completed for the domestic water system:

- Relocate existing 8" main in Camino Plaza to White Way (between San Bruno Avenue and Kains Avenue).
- Relocate existing 8"/12" main in Kains Avenue to match new alignment of roadway.

Additionally, it is anticipated that the following main upgrades will be required to provide adequate service to the project:

- Replace existing 2" and 4" mains in Linden Ave with a new 8" main
- Replace existing 2" and 4" mains in Angus Way with a new 8" main
- Extend existing 12" main in El Camino from its termination point at Kains Avenue to San Bruno Avenue.

## **DOMESTIC WATER DEMAND**

Water demands for the existing and proposed project conditions have been calculated to determine the net increase in domestic water demand once the project is complete. Unit demand factors in gallons per day (gpd) were used from Table 3-9 of the City of San Bruno Water System Master Plan, dated November 2012. Demands were calculated individually for each block.

### **Block A**

#### Existing

34,640 sf Commercial Retail at 0.19 gpd/sf = 6,582 gpd

#### Proposed

174 Multi-Family Residential Dwelling Units(du) at 120 gpd/du = 20,880 gpd

45,000 sf Commercial Retail at 0.19 gpd/sf = 8,550 gpd

**Total Proposed Water Demand = 29,430 gpd**

Net Increase from Existing = 22,848 gpd

### **Block B**

#### Existing

25,350 sf Commercial Retail at 0.19 gpd/sf = 4,816 gpd

#### Proposed

226 Multi-Family Residential Dwelling Units(du) at 120 gpd/du = 27,120 gpd

15,157 sf Commercial Retail at 0.19 gpd/sf = 2,880 gpd

**Total Proposed Water Demand = 30,000 gpd**

Net Increase from Existing = 25,184 gpd

The proposed water demand values provided, along with the proposed main relocations and upgrades shown on the project tentative map, will allow City of San Bruno staff to update existing domestic water system models to confirm capacity for the proposed project.