

7 Potential Utility Conflicts and Relocation Requirements

Existing underground and above-ground utilities may be a consideration for construction of some of the alternatives; therefore, a search for existing utilities was conducted at each of the alternative sites. In addition, as-built records were reviewed to identify the type and location of utilities. These utilities should be located and marked as part of the detailed design process. The following summary is provided to further describe the general conditions existing at each alternative site. A specific evaluation of the utilities is provided in Section 9.

7.1 Electric Utilities

There are existing PG&E high voltage overhead lines in the corridor between the Olympic Club and John Muir Drive which would potentially interfere with the staging access areas for Alternatives 1A, 5B, 6, and 7. Most of the overhead lines are less than 20 feet from the edge of the pavement of John Muir Drive, but there are a few lines on the west side of the canal and on the east side just south of the tunnel portal for Alternative 6. Some of the overhead lines, which are close to the edge of pavement, are no greater than 20 feet above the ground and would have to be temporarily raised or relocated so as not to interfere with equipment crossing under them. Figure 7.1, presents a photograph taken looking downstream at the proposed Alternative 6 tunnel staging area, and shows the electric overhead.

On the east side of Westlake Park and along the 60-inch San Francisco Water District right-of-way, overhead power lines could interfere with the construction staging of the new intercept culvert needed for Alternatives 4 and 9.

Within Westlake Park there are multiple overhead power lines along the road from Lake Merced Boulevard to the parking lot west of the baseball fields. In Alternatives 4 and 9 this road would be used for construction equipment, and the overhead lines would need to be relocated or raised.

Within Westlake Park there are underground power lines in the parking lots west and north of the baseball fields. At the intersection of Lake Merced Boulevard and John Muir Drive there is an underground power line crossing Lake Merced Boulevard.

7.2 Telephone

Along the corridor between the Vista Grande canal and John Muir Drive there appear to be underground telephone lines present. Figure 7.2 presents an image of an underground service monument located along the corridor. It is assumed that the telecommunications line is in operation. In Alternatives 1A, 5B, 6, and 7 these lines could conflict with the proposed canal improvements, tunnel portal construction, or other construction activities. Temporary relocation of the line may be necessary prior to the start of construction. The status and specific locations of the telecommunications lines should be confirmed during the detailed design phase.

7.3 Storm Drains

Existing stormwater system pipes and culverts will be adjacent to the new facilities. In some cases, tie-ins will be necessary to connect the new and existing facilities. In Westlake Park existing catch basins and smaller culvert lines may need to be relocated.

7.4 Sanitary Sewer

Existing sanitary sewer lines are present along the corridor between the canal and John Muir Drive. A 33-inch-diameter pipe and an abandoned 18-inch-diameter pipe may conflict with the canal excavation for Alternatives 1A, 5B, 6, and 7. In addition, the sewers may need protection from construction activities.

Near the start of the tunnel for Alternative 6 is a 6-inch sanitary sewer line running from the Olympic Club to a larger San Francisco sanitary sewer mainline in John Muir Drive. The size and location of the San Francisco sanitary sewer mainline is currently unknown and will be confirmed during the detailed design phase. Figure 7.3 presents an image of a typical sewer manhole lid.

Alternatives 4 and 9, which require connections on Cliffside Drive and within Westlake Park, would require avoiding or relocating multiple sanitary sewer lines. The new intercept from Cliffside Drive would cross under an 8-inch and 10-inch line, which runs along Cliffside, and an abandoned 15-inch line, which is on the northeast side of the baseball fields in Westlake Park. In the parking lot west of the baseball fields are a 27-inch force main and a 33-inch culvert. The slopes and elevations of these are not currently known, but will be investigated in a later phase.

7.5 Water Pipelines

On the east side of Westlake Park and behind residences on Cliffside Drive, San Francisco Water District operates a 60-inch-diameter, high-pressure water pipeline. The slope and elevation of the pipe is not clearly identified and should be confirmed during the detailed design phase.

A 6-inch-line water main services residences on Cliffside Drive with individual 2-inch diameter service lines to each residence. In Alternatives 4 and 9, a connection with the existing stormwater culvert may conflict with the water main or services in Westlake Park. The Alternative 4 tunnel alignment is relatively shallow as it crosses beneath Lake Merced Boulevard and the Fire Station No. 91. In this area, a 6-inch water main may conflict with Alternative 4's initial tunnel alignment. As the Alternative 4 tunnel continues west beneath the Northgate Avenue, the ground cover increases and potential interferences with water lines should decrease.

7.6 Natural Gas Pipelines

A 20-inch natural gas distribution line runs beneath Lake Merced Boulevard between John Daly Boulevard and John Muir Drive. At the intersection of Lake Merced Boulevard and John Muir Drive a 4-inch line breaks off from the 20-inch line and crosses Lake Merced Boulevard then continues north beneath the west pavement edge of John Muir Drive. For Alternatives 1A, 5B, 6, and 7 the 4-inch line will need to be avoided or protected during construction. In the vicinity of Alternative 5B's tunnel portal is a 2-inch line that runs from the 4-inch line under the canal to the Olympic Club.

For Alternative 4, the 20-inch line will need to be protected or avoided so that the tunnel alignment does not cross or damage the pipeline during construction. On the north side of Northgate Avenue there is a 4-inch line that the tunnel alignment might go under. The elevation of this line is currently unknown, but it is suspected that it is shallow enough to not interfere with the tunnel alignment. On the west side of Cliffside Drive is a 6-inch line that must be avoided during construction of the new intercept culvert and receiving shaft. Also along Cliffside Drive are multiple service lines that run from the 6-inch line to each house.