

DEC 27 2019

## NOTICE OF EXEMPTION

**To:** Office of Planning and Research  
P.O. Box 3044  
Sacramento, CA 95812-3044

**From:** City of Santa Clara Public Works  
1500 Warburton Avenue  
Santa Clara, CA 95050

**County Clerk**  
County of Santa Clara  
70 W Hedding Street 1<sup>st</sup> Floor  
San Jose, CA 95110

**Project Title:** Santa Clara Municipal Well Installation Project Serra Tanks Well No. 37

**Project Location - Specific:**

*Refer to Figure 1: Location Map.* The project is located in the City of Santa Clara at 200 Lawrence Expressway near the northwest intersection of Lawrence Expressway and Steven Creek Boulevard. The latitude and longitude of the site is 37°19'33.8"N, 122°00'10"W. The Serra Tanks site is bordered by Agilent Technologies to the east, Jenny Strand Park to the northwest, and I-280 to the south.

**Project Location - City:** Santa Clara      **Project Location - County:** Santa Clara

**Description of Nature, Purpose, and Beneficiaries of Project:**

The proposed project is the installation of a municipal groundwater production well for the purpose of drinking water supply. The new well will serve as replacement well to augment the lost supply that was once provided by eight previously abandoned wells within the City limits. The proposed well will be located in the southern portion of the site to the west of Tank 3.

The site is approximately 5.5 acres and developed with three, approximately four million-gallon, potable water storage tanks, three booster pumps between Tanks 2 and 3, a generator and controller cabinets, and graveled access roads. A cell tower is located in the southern portion of the site. Surrounding land uses include industrial, recreational, and residential. West of the site consists of primarily industrial development, Jenny Strand Park is located to the northwest, Agilent Technologies (a research, development, and manufacturing company) is located east of the site, and the Junipero Serra Freeway (I-280) forms the southern property boundary. Topography of the site is flat with an elevation of approximately 170 feet above mean sea level (msl).

Well Design

The proposed Serra Tanks municipal groundwater production well will be drilled using the reverse circulation drilling method. The final borehole will be 30 inches in diameter and drilled to a depth of 730 feet below ground surface (bgs). The conductor casing will be installed in a 48-inch diameter borehole and cemented in place to a depth of 70 feet bgs. At 70 feet bgs the conductor will terminate 5 feet into a clay layer that extends from 65-80 feet bgs which, along with the sanitary seal will provide protection from surface contamination. The conductor casing will be fabricated of a 36-inch outside diameter by 3/8-inch wall ASTM A-53 grade B steel. The conductor casing will stabilize the upper portions of the borehole during both drilling and well construction, while ensuring requirements of the sanitary seal are met.

The well casing assembly will consist of 350 feet of 18-inch internal diameter by 3/8-inch wall ASTM A-53 grade B steel with 0.2% copper, 40 feet of 18-inch internal diameter by 3/8 inch wall ASTM A-778 Type 316 stainless steel, 154 feet of 18-inch internal diameter by 5/16-inch wall ASTM A-778, Type 316 stainless steel, and a SE type end cap. Two, 2-foot long sounding ports will be installed from 306 to 308 feet bgs. A 2-inch, Schedule 40 black steel pipe sounding tube will be connected to each sounding port. A 3-inch, Schedule 40 black steel pipe gravel fill tube will be installed to a depth of 380 feet bgs. Stainless steel casing was selected for use below a depth of 350 feet for compatibility with the stainless-steel material used for the well screens and to lengthen the service life of the well.

"Ful-Flo" louvered well screen will be utilized for this well because it provides an acceptable inlet velocity of 0.001 feet per second at the design capacity of 1,300 gallons per minute. The well screen will consist of 154 feet of 18-inch diameter, ASTM A-778, Type 316 stainless steel. The slot size of the screens will be 0.070-inches. The well screen will be installed from 390-430, 458-466, 472-482, 488-496, 504-518, 554-564, 576-598, 632-644, and 680-710 feet bgs.

A gravel envelope will be installed from approximately 370 feet bgs to the terminus of the well. After sieve analysis of selected formation samples was completed, a 6x12 Cemex graded gravel envelope material was selected for the gravel envelope. The specific gravel envelope material selected works well in fine sands formations. The gravel chosen is three times larger than the smallest formation and the 0.070-inch screen slot size will retain 90-percent of the gravel material. The gravel envelope installed around the well screens would serve to retain any unconsolidated aquifer materials (sand and gravel) and allow sand-free water production from the targeted aquifer zones.

The annular seal will consist of 10.3 sack sand/cement grout and will be placed from a depth of 370 feet bgs to the ground surface in one continuous lift. Post-drilling efforts would include swabbing and airlift development followed by pumping for well development and testing. Short- and long-term pump tests would be used to assess well performance, specific capacity, and adequacy of the pump design.

#### Pump Station

After construction of the well, construction of a well pump station would commence. The well, pump, and associated appurtenances will be housed on a 10 foot by 10-foot concrete apron as required by DDW well standards. A water well pump assembly including pump, motor, column pipe, discharge head, and water level measuring equipment will be installed in the well. The site is already fenced with gravel access roads and parking that will serve the new well and associated structures. All valves, instruments, and controls will be housed above ground, as opposed to existing vaults at other City well pump station sites. All above and below ground pipe will be ductile iron. At this time, no chemical treatment is required, however, the project will include design provisions for future chlorine disinfection including station couplings for injector/sampling line, spare underground chemical conduit, electrical input/output slots, etc. No significant landscaping and architectural features are required at this site.

A drainage inlet and pipeline will be installed to convey waste pumpage to an existing storm water system in order to remove stagnant water from the well prior to water discharging into the distribution system, to prevent and moderate surges into the distribution system, and permit routine controlled testing and rehabilitation of the well. An electrical service, including a 460 hertz, 3-phase, 4-wire electrical service which includes underground primary and secondary conduits and conductors from the transformer pad to the motor control center would be installed to provide power for the pump and operation of associated machinery. An emergency backup generator and fuel storage will be present to provide power in the event of a power outage. The generator will be sized to meet demand at the site, it is anticipated a 450-kilowatt genset manufactured by Cummins Power Generation (or equal) will be utilized.

#### Construction Equipment

During drilling operations, the following equipment is anticipated to be utilized: drill rig, pipe trailer, generator, crane, compressor, fluid circulation tanks, fluid storage tanks, lights, storage trailer, fluid conditioning system, backhoe or forklift, and personal work trucks. During pump testing operations a crane, test engine, and personal work vehicles are anticipated to be necessary. During pump station construction a backhoe, forklift, crane, generator, and personal work trucks will be necessary to complete the project.

#### Construction Timing and Schedule

All work will be performed according to City standards which are between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday other than holidays and between 8 a.m. and 6:00 p.m. on Saturdays which are not holidays. The only exception to the designated work hours would be made for the purpose of drilling the borehole and construction the well. For this operation, continuous work (up to 24 hours a day) would be

necessary to protect the integrity of the well structure. It is expected this phase of work will take no more than seven days.

It is anticipated that project construction will fall into two overlapping phases. The first phase involves the production well design and construction which includes the well construction and testing. It is anticipated this phase will commence in the Spring of 2020 and extend into the Summer of 2020. Well construction and testing are anticipated to take approximately 18 weeks.

The second phase is the pump station design and construction which includes pump station design, geotechnical and survey base map investigation, construction specifications, a bidding period, and pump station construction and commissioning. The beginning tasks of this phase will commence in the late summer early fall of 2019 with construction beginning in March 2020 and extending approximately eight months and terminating in October of 2020.

**Name of Public Agency Approving Project:** City of Santa Clara

**Name of Person or Agency Carrying Out Project:** City of Santa Clara

**Exempt Status:**

- Ministerial (Sec. 21080(b)(1); 15268);
- Declared Emergency (Sec. 21080(b)(3) 15269(a));
- Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- Categorical Exemption (type and section number); Section 15301(b): Existing Facilities, Section 15303(d): New Construction, and Section 15304(a): Minor Alterations to Land
- Statutory Exemption (state code number): \_\_\_\_\_

**Reason why project is exempt:**

The proposed project is the installation of a municipal groundwater supply well that will augment supply that was lost by previously abandoned wells within the City's limits.


The proposed location is within an existing and developed site utilized for water storage and delivery within the City of Santa Clara. The site currently contains booster pumps, a generator, and three water storage tanks ranging in size from 4.2 to 4.6 million gallons in capacity that the City uses to send municipal water to customers. The project also involves new construction of the well which will include utility extensions to connect the new well to the existing distribution system that is present at the Serra Tanks site. In addition, the project involves only minor alterations to land in an already developed site that is generally flat. The project does not involve any tree removal and no sensitive biological resources would be impacted by the drilling of the well and the construction of the pump station.

**Lead Agency**

**Contact:** Nelson Lui, P.E. **Phone:** (408) 615-2000

**If filed by applicant:**

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project?  Yes  No

Signature:  (NELSON LUI) Title: Utility operations Eng. Date: 12/24/19

- Signed by Lead Agency
- Signed by Applicant

Date received for filing at OPR: \_\_\_\_\_

Governor's Office of Planning & Research

DEC 31 2019

STATE CLEARINGHOUSE