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APPLICATION FOR SMALL POWER PLANT EXEMPTION

Pittsburg Backup Generating Facility (24-SPPE-1)

SUBMITTED TO: CALIFORNIA ENERGY COMMISSION

SUBMITTED BY: **Pittsburg Data Hub, LLC**

February 2024

DAYZEN LLC

Contents

SECTION 1.0 INTRODUCTION AND PURPOSE

Pittsburg Data Hub, LLC a wholly owned subsidiary of AVAIO Digital Partners I, LLC (hereinafter AVAIO), files this Application for a Small Power Plant Exemption (SPPE Application) pursuant to Public Resources Code Section 25541 and Section 1934 et seq. of the California Energy Commission (Commission) regulations for the 92 MW[1] AVAIO Pittsburg Backup Generating Facility (PBGF). The PBGF will consist of a total of thirty-seven (37) 3 MW diesel fired generators that will be used exclusively to provide up to 92 MW of backup emergency generation to support the AVAIO Pittsburg Data Hub (PDH). The PDH would be located at 2232 Gold Club Road[2], Pittsburg, California on a parcel located south of the intersection of West Leland and Golf Club Roads and within the eastern portion of the abandoned Delta View Golf Course. Thirty-six (36) of the generators would be dedicated to replacing the electricity needs of the data center and one (1) of the generators would be used to support general office loads along with building and life safety services (house generator) in the case of a loss of utility power.

Unlike the typical electrical generating facility reviewed by the Commission, the PBGF is designed to operate only when electricity from Pittsburg Power Company (PPC) is unavailable to the PDH. The PBGF will not be electrically interconnected to the electrical transmission grid. Rather, it will consist of one generation yard electrically interconnected solely to the PDH.

Section 2 of the SPPE Application provides a detailed description of the construction and proposed operation of the PBGF. To describe the context of the PBGF and its role in serving the PDH, Section 2 also includes a general description of the PDH.

Section 3 of the SPPE Application provides project information such as the project title, lead agency contact, project applicant, project location, assessor's parcel number, and general plan and zoning designations.

Section 4 of the SPPE Application includes environmental information and analyses in sufficient detail to allow the Commission to conduct an Environmental Impact Report consistent with the California Environmental Quality Act (CEQA) Guidelines.

Section 5 of the SPPE Application includes a discussion of Alternative backup generation configurations, technology, and alternative fuels considered by AVAIO.

Section 6 of the SPPE Application contains a list of applicable agencies and contact information that have jurisdiction over laws, ordinances, regulations, and standards

[1] Maximum electrical demand of the Pittsburg Data Hub

[2] The address referenced is currently the address of the entire abandoned golf course site. Since the PDH will be within a small portion of the golf course site, the City will determine the actual address to be used for the PDH in its local permit/mapping processing.

(LORS) that may be applicable to the PBGF as required by Subsection (i) of Appendix F of the CEC SPPE Regulations.

Section 7 of the SPPE Application contains a list of addresses of properties and addresses of property owners (where different from the site address) within 1,000 feet of the project site and 500 feet of offsite linear facilities for CEC noticing purposes.

Section 8 provides a list of those who assisted in the preparation of this SPPE Application.

Section 9 provides a list of acronyms used in this SPPE Application.

1.1 NEED FOR BACKUP GENERATION

The primary goal of the PDH is to be a state-of-the-art data center that provides greater than 99.999 percent reliability (five nines of reliability). The PDH has been designed to reliably meet the increased demand of digital economy, its customers, and the continued growth. The PDH's purpose is to provide its customers with mission critical space to support their servers, including space conditioning and a steady stream of high-quality power supply. Interruptions of power could lead to server damage or corruption of the data and software stored on the servers by AVAIO's clients. The PDH will be supplied electricity by PPC through a new transforming substation on the PDH site operated by PPC and a new PG&E switching station constructed on the PDH site and owned and operated by PG&E (together, the "Switching Station") .

To ensure a reliable supply of high-quality power, the PBGF was designed to provide backup electricity to the PDH only in the event electricity cannot be supplied from PPC and delivered to the PDH building. To ensure no interruption of electricity service to the servers housed in the PDH building, the servers will be connected to uninterruptible power supply (UPS) systems that store energy and provide near-instantaneous protection from input power interruptions. However, to provide electricity during a prolonged electricity interruption, the UPS systems will require a flexible and reliable backup power generation source to continue supplying steady power to the servers and other equipment. The PBGF provides that backup power generation source.

The PDH's Project Objectives are as follows:

- Develop a state-of-the-art data center large enough to meet projected growth;
- Develop the PDH on land that will be zoned for data center use at a location acceptable to the City of Pittsburg;
- Incorporate the most reliable and flexible form of backup electric generating technology into the PBGF considering the following evaluation criteria.
    - **Reliability**. The selected backup electric generation technology must be extremely reliable in the case of an emergency loss of electricity from the utility.

- The PBGF must provide a higher reliability than 99.999 percent in order for the PDH to achieve an overall reliability of equal to or greater than 99.999 percent reliability.
- The PBGF must provide reliability to the greatest extent feasible during natural disasters including earthquakes.
- The selected backup electric generation technology must have a proven built-in resilience so if any of the backup unit fails due to external or internal failure, the system will have redundancy to continue to operate without interruption.
- The PDH must have on-site means to sustain power for 24-hours minimum in failure mode, inclusive of utility outage.

- **Commercial Availability and Feasibility**. The selected backup electric generation technology must currently be in use and proven as an accepted industry standard for technology sufficient to receive commercial guarantees in a form and amount acceptable to financing entities. It must be operational within a reasonable timeframe where permits and approvals are required.

- **Technical Feasibility**. The selected backup electric generation technology must utilize systems that are compatible with one another.

1.2 COMMISSION SPPE JURISDICTION

AVAIO acknowledges that the Commission's authorizing statute grants exclusive authority for the Commission to issue licenses for the construction and operation of thermal power plants with generating capacities in excess of 50 MW.[3] For thermal power plants with generating capacities greater than 50 MW but less than 100 MW, the Commission can grant an exemption from its licensing authority[4]. The PBGF is not a typical power generating facility in that it consists of generators that can operate independently. In addition, the generators are arranged to support individual portions of the building within the PDH. None of the generators will be interconnected to the electrical transmission system and therefore no electricity can be delivered off site.[5]

[3] Public Resources Code (PRC) Section 25500.
[4] PRC Section 25541 and Title 20 California Code of Regulations (CCR) Section 1934.
[5] The Commission Staff has determined that notwithstanding these facts, the Commission has jurisdiction over the facilities like the PBGF. AVAIO reserves all its rights regarding whether or not the Commission has jurisdiction over the PBGF and the filing of this SPPE Application is not an admission by AVAIO that the Commission has exclusive jurisdiction over the PBGF or the PDH.

1.2.1 Data Center Facilities Not Within Scope of SPPE

The PDH is not within the scope of the Commission's siting jurisdiction because it is not a thermal power plant. The PDH is the sole consumer of the electricity produced by the PBGF. AVAIO is submitting a development application to construct and operate the PDH to the City of Pittsburg (City) for review. The City is anticipated to begin its Preliminary review in February 2024.

AVAIO believes that although the CEC is the lead agency for making a determination of whether the PBGF is a thermal power plant that can qualify for a SPPE, the ultimate decision does not extend to the PDH facilities. AVAIO does acknowledge that the CEC should include the potential effects of the PDH in its analysis prepared as lead agency for the California Environmental Quality Act (CEQA), but the ultimate determination of whether the PDH should be approved, denied, or subject to mitigation measures is solely within the City's jurisdiction. To assist the CEC in preparing its CEQA document, AVAIO includes a description of the PDH and its supporting facilities in addition to the PBGF in Section 2. The potential effects of the PDH are considered in environmental analyses of Section 4 in a manner to assist the Commission in evaluating combined impacts from the co-location of the PBGF and the PDH.

To enable the City to timely complete its review of the PDH, AVAIO requests the Commission complete its review of the PBGF by August, 2024 and within the Commission's statutory 135-day obligation.

1.3 PROJECT BENEFITS

The PDH provides much needed data center infrastructure for an increasingly more internet and data driven society. The PDH has been designed to:

- Use recycled water for cooling;
- Minimize extension of overhead electrical lines;
- Use of Renewable Diesel as the primary fuel source for the backup generators;
- Minimize emissions by performing generator maintenance on one generator at a time;
- Operate the backup generators only when there is an interruption of utility service to the site and not for demand response or other grid-related purposes;
- Incorporate Noise minimization measures; and
- Incorporate Energy and Water Efficiency Measures.

Due to the heat generated by the data center equipment, cooling is one of the main uses of electricity in data center operations. In order to reduce GHG emissions and reduce the use of energy related to building operations, the project proposes to implement the following efficiency measures.

- Daylight penetration to offices
- LED lighting fixtures and occupancy sensors
- Reflective roof surface
- Meet or exceed Title 24 requirements
- Electric vehicle (EV) parking
- Low flow plumbing fixtures
- Landscaping would meet City requirements for low water use
- Use a low GHG emission refrigerant in the project chillers

SECTION 2.0 PROJECT DESCRIPTION

2.1 OVERVIEW OF PROPOSED GENERATING FACILITIES

PBGF will be an emergency backup generating facility with a generation capacity of up to 92 MW to support the need for the PDH to provide uninterruptible power supply for its tenant's servers. The PBGF will consist of 37, 3 MW diesel-fired backup generators arranged in a generation yard located on the west side of the PDH. Thirty-six (36) of the generators would be dedicated to replace the electricity needs of the data center in case of a loss of utility power, and one (1) of the generators would be used to support general office loads along with building and life safety services (house generator).

2.2 GENERATING FACILITY DESCRIPTION, CONSTRUCTION AND OPERATION

2.2.1 Site Description

The proposed PDH site encompasses approximately 22.31 acres and is located at 2232 Gold Club Road, Pittsburg, California, APNs 095-160-001, 095-160-002, and 095-150-032. The property is currently zoned Open Space (OS), though the City has designated the intended use for the property as Employment Center Industrial (ECI) under the ongoing General Plan update. The City will be undertaking a General Plan conforming rezone of the project site and other parcels subsequent to adoption of the General Plan update in order to bring zoning into conformance with new land use designations. Rezonings would commence in April after adoption of the General Plan update and are projected to be complete in June 2024. Additionally, AVAIO has submitted and the City is reviewing a Specific Plan Application for the Pittsburg Technology Park that includes the Project Site and surrounding property. AVAIO anticipates adoption of the Specific Plan by the City will be completed in the third quarter of 2024. Both actions would alter the zoning of the Project Site to Employment Center Industrial (ECI). Either action by the City would specifically allow data center use and bring the property into conformance with the General Plan.

The site is currently part of the abandoned Delta View Golf Course. Golf course uses ceased in 2018. The only structures on site include a water storage tank and an associated one-story building located in the southeastern corner of the site. These structures will remain on site. Other golf course buildings that were located near the northeastern corner of the site were demolished by the City prior to AVAIO's acquisition of the land, although associated foundations and concrete slabs remain.

The project's main and secondary entrance to the site will be located off of the extension of Golf Club Road at the northeastern corner of the property. An additional emergency entrance would be located in the northwest corner of the property via an easement which will connect with West Leland Road.

Site vegetation consists of mustard seed and other weeds for most of the abandoned fairways, greens, beaches and ponds. Trees throughout the site are in varying degrees

of decline or overgrowth, and are generally species that would not be recommended for the climate. Fire damage and water deprivation have caused distress and death to a good portion of the trees on site. The project proposes to demolish the existing shrubs, groundcovers, and trees on the site, and plant new groundcover, shrubs, and trees that are coordinated with the design, drought tolerant, and suitable for the site.

The property is irregularly shaped and is generally bound to the North by West Leland Road and existing residential development, to the East by an existing PG&E transmission easement, and to the South and West by the Contra Costa Canal.

The area to the north and east of the project site consists primarily of residential land uses. The area to the south and west of the project site consists of the remainder of the abandoned golf course. The nearest residence is located to the north approximately 400 feet from the project boundary.

2.2.2 General Site Arrangement and Layout

The 37 emergency backup generators (36 for the data center suites and 1 for the house load) will be located at the site in a generation yard adjacent to the west side of the PDH building. Figures A050, A051, and C2.0, Appendix A shows the Campus, Building and Site Plans of the PBGF within the PDH site.

The generation yard will be electrically connected to the PDH building through above ground or in trenched cable bus to a location within the building that houses electrical distribution equipment.

2.2.3 Generating Capacity

2.2.3.1 Overview

In order to determine the generating capacity of the PBGF, it is important to consider and incorporate the following critical and determinative facts.

1. The PBGF uses internal combustion engines and not turbines.
2. The PBGF internal combustion engines have a peak rating and a continuous rating.
3. The PBGF through software technology and electronic devices is controlled exclusively by the (PDH).
4. The PBGF has been designed with a distributed redundant system with a 6 to make 5 redundancy.
5. There will be a total of 6 data center generators which are redundant.
6. There will be a total of 1 house generator to provide electricity during emergencies to support portions of the admin building and features necessary for emergency response.

7. The PBGF will only be operated for maintenance, testing and during emergency utility power outages and will not operate for any demand response program.
8. The PBGF will only operate at a load equal to the demand of the PDH during an emergency utility outage.
9. The PBGF is only interconnected to the PDH and is not interconnected to the transmission or distribution grid.

2.2.3.2 Generating Capacity and PUE

The Commission has determined the maximum generating capacity of a backup generating facility is the maximum capacity of the load being served. The design demand of the PDH, which the PBGF has been designed to reliably supply with redundant components during an emergency, is based on the maximum critical IT load and maximum mechanical cooling electrical load occurring during the hottest hour in the last 20 years. Such conditions are possible but extremely unlikely to ever occur. The PDH load on that worst-case day will be 92 MW.

It is important to understand that while the PDH will be designed to accommodate the full IT equipment load of the building, it is AVAIO's experience that the customers that lease data center space do not utilize the entire load identified in their lease. This typically results in data center demand loads approximately 85-90 percent. Therefore, a fully leased 60 MW data center would only be expected to reach a demand load around 54 MW.

The data center industry utilizes a factor called the Power Utilization Efficiency Factor (PUE) to estimate the efficiency of its data centers. The PUE is calculated by dividing the total demand of the data center infrastructure serving the critical IT spaces (including IT load) by the Critical IT load itself. The theoretical peak PUE for the Worst Day Calculation would be 1.51 (Total 92 MW demand of Building on Worst Case Day divided by 60.0 MW Total Critical IT Load). The average annual PUE at full load would be 1.17 (Total 71.4 MW demand of Building average conditions divided by 60.0 MW Design Critical IT Load). These PUE estimates are based on design assumptions and represent worst case.

As described above, the expected PUE is much lower because the Critical IT that is leased by clients is rarely fully utilized. AVAIO team members' experience with operation of other data centers is that the actual annualized PUE will be closer to 1.17.

2.2.4 Backup Electrical System Design

2.2.4.1 Overview

There will be 6 data center suites in the PDH. Each data center suite will be designed to handle 10 MW (megawatts) of IT equipment load. The total maximum load of each data center suite will be 15 MW which includes the IT equipment load, mechanical equipment

to cool the IT equipment load, lighting and data center monitoring equipment. The sum of the 6 center suites will result in 60 MW of IT equipment load and 90 of total electrical load.

There are 36 electrical lineups supporting the data center suites. Each backup electrical system has been designed to serve the suites in groups. Each redundant system of 6, 3 MW generators serves a single data center suite. Each group of 6 generator redundant system is designed for one generator to be taken out of service at any moment in time (called “6 to make 5”). During a utility outage all 6 generators will start and carry load up to approximately 80% of their nameplate rating supporting the suite they serve. If one of the generators fails or needs to be taken out of service during the emergency, the 6 to make 5 design allows the failing generator to be removed from operation automatically with the remaining 5 generators to continue to serve the lineups up to the maximum design load of the data center suite.

Each redundant backup generation system is made up of 6 “capacity groups” with each electrical capacity group sized at 3 MW (3000 kW) of total power. An electrical capacity group consists of one 3000 kW generator, one 3,360 kVA 34.5kV-480V medium voltage transformer, one 4,000 ampere 480-volt service switchboard and a 2,000-kW uninterruptible power supply (UPS) system.

The IT equipment will have dual cords that will take power from two different capacity groups. The dual cords are designed to evenly draw power from both cords when power is available on both cords, and automatically draw all of its power from a single cord when power becomes un-available on the other cord.

Each of the 6-to-make-5 electrical systems will be designed to continue supporting all of the IT equipment load in the data center suite it serves any time one of the six capacity groups is either scheduled to be out-of-service for maintenance or becomes un-available due to equipment failure. Therefore, the 18 MW of total power equipment capacity installed for each 6-to-make-5 system effectively provides only 15 MW of total power.

The electrical load on each electrical capacity group is monitored by the building automation system. When any of the electrical capacity groups reach 72 percent loaded (based on 90 percent of the 80 percent maximum loading under normal operation), an alarm is activated in the engineering office. The operations staff will work with the tenants to ensure that the facility power levels are not exceeded.

The consequence of electrical capacity groups exceeding 80 percent load could lead to dropping IT equipment when coupled with a capacity group failure event. If all the capacity groups serving a data center suite (six capacity groups) are loaded over 80 percent and an electrical capacity group fails, the resulting load transferring to the five available capacity group would exceed the rating of the capacity groups and would lead to over-current protection devices tripping open due to the overload condition. Therefore, it is vital to the reliability of the data center to make sure that all capacity groups remain below the 80 percent threshold.

2.2.4.2 Utility-to-Generator Transfer Control Components and Logic

In a switchboard located next to the Generator Alternator, there will be a Load Disconnect Breaker that is Normally Closed while the generator is both in and out of operation. From that load disconnect, power is brought into the data center facility terminating on a dedicated Main Generator Input Breaker on the lineup Main Switchboard.

This Generator Main Breaker is electrically interlocked with an adjacent Utility Transformer Main Breaker to allow only one of the breakers to closed at any time. Upon the loss of utility power, the PLC transfer controller will send a start signal to the generator, followed by the Utility Breaker opening, followed by a confirmation that the generator has started leading to the Generator Main Breaker being closed.

Once the Generator Main Breaker is closed, the power created from the individual generator is then transmitted to the IT equipment (via a 2.0 MW (2,000 kW) uninterruptable power supply (UPS) system) and mechanical equipment designed to cool the IT equipment load served by the UPS. This load is the same load that the dedicated Utility Transformer was supplying power to prior to the utility interruption. Power from this individual generator cannot be transferred to any other load or system, or anywhere outside the facility.

The uninterruptible power supply (UPS) system includes back-up batteries sized for five minutes of battery back-up time. During the time between a transfer between utility and generator power, the UPS system continues to support the IT equipment load without interruption. During a utility-to-generator transfer, the duration of the power outage between the sources will typically be around 15 seconds; it takes around ten seconds to get the generator started and up to voltage. During a generator-to-utility transfer, the duration of the power outage between the sources will typically be around five seconds (during this period the IT loads will be supplied by the UPS).

2.2.4.3 Uninterruptible Power Supply (UPS) System Description

The UPS System and Batteries are part of the PDH and are not part of the PBGF. However, the following description is provided to describe how the UPS system is intended to operate. The UPS will protect the load against surges, sags, under voltage, and voltage fluctuation. The UPS will have built-in protection against permanent damage to itself and the connected load for all predictable types of malfunctions. The load will be automatically transferred to the bypass line without interruption in the event of an internal UPS malfunction. The status of protective devices will be indicated on an LCD graphic display screen on the front of the UPS. The UPS will operate in the following modes:

- Normal - IGBT Rectifier converts AC input power to DC power for the inverter and for charging the batteries. The IGBT inverter supplies clean and stable AC power continuously to the critical load. The UPS Inverter output shall be synchronized with the bypass AC source when the bypass source is within the AC input voltage and frequency specifications.

- Loss of Main Power - When Main Power is lost, the battery option shall automatically back up the inverter so there is no interruption of AC power to the critical load.
- Return of Main Power or Generator Power - The system shall recover to the Normal Operating Mode and shall cause no disturbance to the critical load while simultaneously recharging the backup battery.
- Transfer to Bypass AC source - If the UPS becomes overloaded, or an internal fault is detected, the UPS controls shall automatically transfer the critical load from the inverter output to the bypass AC source without interruption. When the overload or internal warning condition is removed, after a preset “hold” period the UPS will automatically re-transfer the critical load from the bypass to the inverter output without interruption of power to the critical load.
- Maintenance Bypass - An optional manual make-before-break maintenance bypass panel may be provided to electrically isolate the UPS for maintenance or test without affecting load operation.

The UPS system batteries will have tab washers mounted on front terminal posts capable of accepting the wiring components of a battery monitoring system. Batteries will have an expected life of ten years. Each battery bank will provide a minimum of five minutes of backup at 100 percent rated inverter load of 2000kW, @ 77°F (25°C), 1.67 end volts per cell, end of life.

2.2.5 Generator System Description

Each of the 37 generators will be Cummins Model C3000 D6e standby emergency diesel fired generators equipped with Selective Catalytic Reduction (SCR) equipment and diesel particulate filters (DPF) to comply with Tier 4 emissions standards.

The maximum peak generating capacity of each generator is 3 MW for standby applications (short duration operation). Under normal operation with all when all generators are active, the maximum load on each generator is designed to be 80 percent of the peak capacity. Manufacturer specification sheets and performance data for the proposed generators are provided in Appendix B.

Each individual generator will be provided with its own package system. Within that package, the prime mover and alternator will be automatically turned on and off by a utility-generator PLC transfer controller located in the 480-volt main switchboard located within the PDH. Each generator will be controlled by a separate, independent transfer controller. The generator will be turned on if the electrical utility power becomes unavailable and will be turned off after utility power has been restored and the transfer controller has returned the utility to the active source of power serving the computer and mechanical loads within the PDH.

The generator package will integrate an SCR and Diesel Exhaust Fluid (DEF) tank . The generators will be constructed in a stacked configuration as shown in Figure A310.1 in Appendix A. The bottom generators will be placed on a concrete slab and the upper generators will be supported on a raised structural steel platform. The generators enclosures are approximately 14 feet wide, 56 feet long and 24 feet high. Generators will have stack heights approximately 60 feet above ground level. Each pair of generators will be spaced approximately seven feet apart horizontally. The west end of the generator yard will be partially enclosed with a 60 foot high perforated metal screen to obscure views of the generators

2.2.6 Fuel System

The backup generators will use renewable diesel as its primary fuel when feasible and ultra-low sulfur diesel as fuel (<15 parts per million sulfur by weight) when renewable diesel is not readily available.[6] The bottom generator of each stacked pair will have an approximately 10,400-gallon diesel fuel storage tank to serve both of the generators. The upper generator in the stacked configuration will have a day tank with a storage capacity of approximately 500 gallons. Approximately 9,700 gallons for a stacked pair of generators are required for 24-hour operation. The generators would have a combined diesel fuel storage capacity of approximately 368,600 gallons, which is sufficient to provide more than 24 hours of emergency generation at full electrical worst case demand of the PDH.

2.2.7 Cooling System

Each generator will be air cooled independently as part of its integrated package and therefore there is no common cooling system for the PBGF.

2.2.8 Water Supply and Use

The PBGF will not require any consumption of water.

2.2.9 Waste Management

The PBGF will not create any waste materials other than minor amounts of solid waste created during construction and maintenance activities.

[6] See Project Design Measure PDM GHG-1.

2.2.10 Hazardous Materials Management

The PBGF will prepare a Spill Prevention, Control and Countermeasure Plan (SPCC) to address the storage, use and delivery of diesel fuel for the generators.

Each generator unit and its integrated fuel tanks have been designed with double walls. The interstitial space between the walls of each tank is continuously monitored electronically for the existence of liquids. Additionally, the standby generator units are housed within a self-sheltering enclosure that prevents the intrusion of storm water.

Diesel fuel will be delivered on an as-needed basis in a compartmentalized tanker truck with maximum capacity of ~17,500 gallons. The tanker truck parks on the access road to the south of the generator yard and extends the fuel fill hose through one of multiple hinged openings in the precast screen wall surrounding the generator equipment yard or via a centralized fueling station with located on the exterior of the precast screen wall.

There are no loading/unloading racks or containment for re-fueling events; however, a spill catch basin is located at each fill port for the generators. To prevent a release from entering the storm drain system, storm drains will be temporarily blocked off by the truck driver and/or facility staff during fueling events. Rubber pads or similar devices will be kept in the generation yard to allow quick blockage of the storm sewer drains during fueling events.

To further minimize the potential for diesel fuel to come into contact with stormwater, to the extent feasible, fueling operations will be scheduled at times when storm events are improbable.

Warning signs and/or wheel chocks will be used in the loading and/or unloading areas to prevent vehicles from departing before complete disconnection of flexible or fixed transfer lines. An emergency pump shut-off will be utilized if a pump hose breaks while fueling the tanks. Tanker truck loading and unloading procedures will be posted at the loading and unloading areas.

Diesel Exhaust Fluid (DEF) is used as part of the diesel engine combustion process to meet the emissions requirements. Each enclosure will have a 550 gallon DEF gallon tank. Dosing is addressed at each generator within the enclosure.

2.2.11 PBGF Project Construction

Construction activities for the PDH are expected to begin in 2025 and are discussed in more detail in Section 2.3.9. Since the site preparation activities for the PDH will include the ground preparation and grading of the entire PDH site, the only construction activities for the PBGF would involve construction of the generation yard. This will include construction of concrete slabs, fencing, installation of underground and above ground conduit and electrical cabling to interconnect to the PDH Building switchgear, and placement and securing the generators.

The generators themselves will be assembled offsite and delivered to site by truck. Each generator will be placed within the generation yard by a crane.

Construction of the generation yard and placement of the generators is expected to take six months and is included in the overall construction schedule for the PDH described in section 2.3.4. Construction personnel for the PBGF are estimated to range from 10 to 15 workers including one crane operator.

2.2.12 PBGF Facility Operation

The backup generators will be run for short periods for testing and maintenance purposes and otherwise will not operate unless there is a disturbance or interruption of the utility supply. BAAQMD's Authority to Construct and the California Air Resources Board's Airborne Toxic Control Measures (ATCM) limits each engine to no more than 50 hours annually for reliability purposes (i.e., testing and maintenance). Maintenance and testing of each the of generators are anticipated to be once a month. Each generator will be tested individually during monthly and annual testing. Generators will only be run simultaneously during an emergency utility outage. For each generator testing and maintenance will not exceed 34 run hours per year.

2.3 PDH DATA CENTER FACILITIES DESCRIPTION

2.3.1 Overview

As described in Section 1.2, the Commission SPPE's determination is limited to solely to the PBGF. However, in order for the Commission to inform the decision-makers of the potential environmental effects of the PBGF, in combination with the PDH, AVAIO has included a complete description of the PDH. The components of the PDH will include:

- A three-story approximately 347,740 square foot data center building;
- A Project Substation;
- A PG&E Switching Station and Transmission Lines;
- The PBGF;
- Site Access and Surface Parking;
- Landscaping;
- Stormwater Controls and Features; and
- Water and Sewer Pipeline Interconnections.

2.3.2 Data Center Building

The PDH project's main component will be a three-story 347,740 square foot data center building will house computer servers for private clients in a secure and environmentally controlled structure and would be designed to provide 60 megawatts (MW) of power to information technology (Critical IT) equipment. Appendix A includes the Preliminary Architectural, Civil, Mechanical, Electrical and Landscaping Plans and Elevation Drawings.

The data center building will consist of two main components; the data center suites that will house client servers, and the administrative facilities including support facilities such as the building lobby, restrooms, conference rooms, landlord office space, customer office space, loading dock and storage.

The data center suite components will consist of three levels of data center space. Each level will contain two (2) data center suites and corresponding electrical/UPS rooms. The data center is being designed with an average rack power rating of 10 kW.

The data center is expected to have between 20 and 30 employees and 12-15 visitors (including deliveries) visit the site per day.

2.3.2.1 Massing, Heights and Setbacks

The three-story data hall building is composed of admin, data hall, and loading dock masses. The admin portion, located on the North side of the building, is clad with curtain wall and metal panel systems. The data hall portion is clad primarily in precast concrete panels and/or EIFS. The top of the parapet at the admin and data hall is at 81 feet. Two exterior stairs located on the SE corner and in the eastern facade of the building are semi enclosed with cladding to match that of the main datacenter block. A rooftop dunnage platform is provided at 85 feet for mechanical equipment. A sound attenuating screen topping off at 94 feet fully encloses the platform. Access to the platform is provided by a freight elevator and a staircase on the NW corner of the building. The top of the elevator parapet is at 105 feet.

The building will be located in the center of the site, orientating its longer axis in a NW-SE angle, and will be set back at a minimum of 400 feet from the nearest residential property to the north, a minimum of 90 feet from the electrical yard to the west (adjacent to a non-residential zone), a minimum of 180 feet from the eastern facade to the east (adjacent to Golf Club Road), and a minimum of 320 feet from the south facade to the south (adjacent to a non-residential zone).

2.3.2.2 Cooling Technology

Air cooled chillers are used to get rid of the heat generated in the data center. They are sized to be able to carry the full heat load under without any water requirement. The units also have an optional "adiabatic precooling system". When used in this way, water is sprayed onto the chiller coils, reducing the electric power needed for the compressor and

fans significantly. For this operation, recycled water will be utilized. However, due to water quality required by the manufacturer, water filtration is required to ensure water quality is maintained at the chillers.

Both the data halls and office areas also require humidification. Although far less than the precoolers noted above, these systems also use water and will be connected to the same water filtration system.

There is little discharge from either the precooling or humidification systems; however the filtration system requires approximately 25% of incoming water to be drained as part of the (reverse-osmosis) processing.

Conditioned air will cool the IT equipment rejecting heat to Hot Aisle Containment (HAC) and then migrates into the return air plenum above the ceiling. The heat above the ceiling will be drawn back to the gallery and conditioned by the fan wall units before being distributed back to the data hall.

The ability to provide chilled water to the IT racks will be available for high-density loads.

The office and storage areas will be conditioned via variable air volume (VAV) systems consisting of Roof Top Units (RTUs) connected to interior VAV boxes.

2.3.3 Project Substation

The project would construct a new 100 MVA (mega volt-ampere) electrical substation adjacent to the north side of the data center building (Project Station) as Shown on Figure TX-101 in Appendix A. The two-bay Project Substation (two 100 MVA 230 kV-34.5kV step-down transformers and primary distribution switchgear) will be designed to allow one of the two transformers to be taken out of service, effectively providing 100 MVA of total power (a 2-to-make-1 design).

The Project Substation will have an all-weather drivable surface. An eight foot high chain like fence would surround 3-sides of the substation with the 4th common with the PG&E switching station enclosure material. An oil containment pit surrounding each transformer will capture unintended oil leaks. Access to the substation will be from a separate entrance from the public right-of-way on Golf Club Road.

The Project Substation will be capable of delivering electricity to the PDC from PG&E's new adjacent on site Switching Station but will not allow any electricity generated from the PBGF to be delivered to the transmission grid. Availability of Project Substation control systems will be ensured through a redundant DC battery backup system.

The Project Substation will use (2)245kV, 40kA rated SF6 gas insulated high voltage breakers. These would be procured in 2025 and arrive onsite prior to the January 1, 2027 CARB phase-out date for this class of GIE. A one-line diagram of the Project Substation is included in Appendix A as Figure E 1.10.

2.3.4 PG&E Switching Station and Transmission Lines

To serve the PDH, PG&E will be constructing a “looped” transmission interconnection to the existing Pittsburg-Eastshore 230 kV Transmission Line involving two overhead transmission line extensions from the PG&E Switching Station to two new steel monopoles installed within the existing PG&E right of way and that will replace one existing steel lattice tower as shown on Figure TX-101 in Appendix A.

PG&E’s Switching Station will be constructed adjacent to the Project Substation and will be built in a Breaker and a Half (BAAH) configuration. This will consist of 2 incoming 230kV circuits entering a BAAH configuration consisting of 6 230kV circuit breakers, steel structures, 230kV switches, metering devices, and a non-occupied control enclosure.

The PG&E Switching Station will have crushed rock surface with an aggregate base. A 12ft high ballistic rated metal panel wall would surround all 4 sides of the switchyard. Access to the PG&E Switching Station will be from a separate entrance from the public right-of-way on Golf Club Road. Availability of the Switching Station control systems will be ensured through a redundant DC battery backup system

A preliminary one-line diagram for the PG&E Switching Station is provided in Appendix A, as Figure E1.20.

The PG&E Switching Station will use 245kV, 63kA rated Gas-Insulated Switchgear (GIS) with internal high voltage breakers. This would be procured in 2025 and arrive onsite prior to the January 1, 2031 CARB phase-out date for this class of GIE.

2.3.5 Site Access and Parking

The overall project site will include one primary entrance from Golf Club Road extension located in the southeastern corner of the site. A secondary emergency entrance will be located in northwestern corner of the site and will connect via easement to West Leland Road.

The project would provide a total of 70 parking spaces on site. Sixty-six (66) will be standard spaces, and within those 66, one will be equipped for EV charging, 10 will be Electric Vehicle (EV) capable spaces, and one will be EV capable and set up for conversion to being accessible. Of the remaining four stalls, all are accessible, two are van accessible and one of the van accessible stalls will also be equipped for EV charging. The proposed parking plan conforms to City Code and CalGreen Standards.

2.3.6 Landscaping

This project proposes to remove 25 protected trees and 17 dead trees on-site due to various conflicts with proposed civil, architectural, and various site improvements. The City of Pittsburg’s landscape ordinance mandates a 4:1 tree replacement ratio with 24-in box trees, for protected trees only.

New landscaping consisting of trees, large and medium shrubs, and groundcovers will be installed along the property boundaries, building perimeters, stormwater treatment facilities, and landscape beds distributed throughout the parking facilities. Trees would be planted five feet away from new or existing water mains or utility lines.

The new landscape will include drought tolerant native and non-native trees, shrubs, and groundcovers. New planting will also be tolerant of recycled water. The landscape design will meet the State and City WELO requirements for water use. We estimate that the new planting will be approximately 15% under the landscape Maximum Water Use for the site as calculated with the WELO formulas.

2.3.7 Stormwater Controls and Features

The San Francisco Bay Regional Water Quality Control Board (RWQCB) has issued the Municipal Regional Stormwater NPDES Permit (MRP) to regulate stormwater discharges from municipalities and local agencies. Under Provision C.3 of the MRP, new and redevelopment projects that create or replace 10,000 square feet or more of impervious surface area are required to implement site design, source control, and Low Impact Development (LID)-based stormwater treatment controls to treat post-construction stormwater runoff. LID-based treatment controls are intended to maintain or restore the site's natural hydrologic functions, maximizing opportunities for infiltration and evapotranspiration, and using stormwater as a resource (e.g. rainwater harvesting for non-potable uses). Examples of C.3 LID measures include bioretention areas, flow-through planters, and subsurface infiltration systems.

The PDH proposes to construct stormwater treatment areas consisting of LID (Low-Impact Development) bioretention areas and at-grade flow-through planter boxes totaling approximately 31,000 square feet, based on preliminary impervious calculations, sized according to the requirements of the MRP. The stormwater treatment areas would be located around the perimeter of the site, and adjacent to paved parking areas and building.

In the existing condition, stormwater discharges the site at two locations, one storm drain lateral located at the north end of the site, and secondly by overland flow from the low point of the site to the parcel to the east. The existing lateral located at the north end of the site will be reused. Given the extension of Golf Club Road, overland discharge from the site cannot be maintained and will be improved with a culvert undercrossing the proposed roadway to transmit flows to the east and match existing hydrology.

Downspouts for the roof drainage will connect to storm drains that will route flows either into drainage swales leading to bioretention or directly into bioretention planters.

Surface drainage of hardscape such as asphalt drive aisles and parking will be routed to curb cuts and drainage swales that will discharge to bioretention, or into inlets and pipes directly to bioretention.

Flow-through planters and bioretention planters will include perforated underdrains and overflow structures that connect to the on-site storm drains systems.

2.3.8 Utility Interconnections

As part of the construction of the new building, domestic water, recycled water, fire water, sanitary sewer, and fiber connections will be made.

2.3.8.1 Domestic Water Infrastructure

The site is served by an existing 6" water main on Golf Club Road which is not adequately sized to serve the proposed development. Rather than upsize the existing main in Golf Club Road and interrupt existing residents and the church in the vicinity, the water main located within APN 095-150-032 is proposed to be extended directly to the project site for service. Laterals will provide water service for fire and potable water needs at the building.

2.3.8.2 Recycled Water Infrastructure

There is a municipal 30-inch existing water main on the project site that feeds a private 1 million gallon storage tank located at the site. The existing storage tank includes an air gap and has back-up connection to domestic water to provide reliable service. A recycled water lateral will be extended from the tank to provide irrigation service and cooling.

2.3.8.3 Sanitary Sewer Infrastructure

There is an 8-inch water main on the project site, which received flows from the 8-inch main on Golf Club Road and flows to the north, leaving the project site and continuing north. The project will extend the water main south within Golf Club Road and provide service to the project. A service lateral will connect from the proposed data center structure to sewer main within Golf Club Road. Because of existing grading constraints, a portion of the proposed sewer main extension at the north will be offset from Golf Club Road in an easement to provide for cover and allow gravity service to be maintained, and at south end of Golf Club Road the sewer main will run directly under the Golf Club Roadway.

2.3.8.4 Site Grading, Demolition, Excavation and Construction

Site grading, demolition[7], excavation, and construction is anticipated to begin in November 2025 through May 2027; a total of approximately 18 months. The peak construction workforce is approximately 150 workers per month with an average of approximately 100 workers per month.

[7] The previous golf course buildings have been demolished by the City. However, there will likely be some demolition activities to remove concrete slabs, foundations, and underground utility pipelines from the project site. These activities are included in the construction timeline used in the air quality emission analysis as described in Appendix B.

The proposed site grading will involve cut and fill operations utilizing cut material as engineer fill. Based on preliminary grading designs, it is anticipated approximately 29,500 cubic yards of material will be exported from the site. Maximum cut depths are estimated to be 15 feet below existing grade in the western portion of the project site. As recommended in the preliminary geotechnical engineering report contained in Appendix E, the foundation system for the data center building be a cast in place aggregate pier system extending at least 10 feet into underlying formational material. Shallow foundations placed on engineered fill or stable underlying formational material may be used for ancillary support features.

The maximum depth below existing grade for any of the drainage facilities (bioretention areas) is 15 feet below existing grade.

2.3.9 Site Water Supply and Use

2.3.9.1 Construction

Grading and construction of the PDH including the PBGF is estimated to utilize 1.75 acre feet of water over the 18 month construction period.

2.3.9.2 PDH Operation

As described above in Section 2.3.2.2, the PDH uses air cooled chillers for cooling needs of the data center. An adiabatic system has been added as an option to reduce compressor use based on weather conditions. Tables 2-1 through 2-3 present the water and sewer demand for the site. .

Table 2-1: Proposed Domestic Water Demand

DESCRIPTION OF LAND USE	**DOMESTIC WATER DEMAND**		
Land Use	Average Daily Demand (gpd)	Average Yearly Demand (gpy)	Average Yearly Demand (AFY)
FTE Indoor Demand	196	71,176	0.22
Total Demand	**196**	**71,176**	**0.22**

Table 2-2: Proposed Recycled Water Demand

DESCRIPTION OF LAND USE	RECYCLED WATER DEMAND		
Land Use	Average Daily Demand (gpd)	Average Yearly Demand (gpy)	Average Yearly Demand (AFY)
Administrative HVAC	19	7,094	0.02
Data Halls	41,177	15,029,638	46.15
FTE Indoor Demand	201	73,502	0.23
Irrigation Demand	17,010	6,208,744	19.07
Total Demand	**58,407**	**21,318,978**	**65.47**

Table 2-3: Proposed Sewer Demand

DESCRIPTION OF LAND USE	SEWER DEMAND	
Land Use	Average Daily Demand (gpd)	Average Yearly Demand (gpy)
Administrative HVAC	10	3,582
Data Halls	10,236	3,736,286
FTE Indoor Demand	201	73,502
Total Demand	10,447	3,813,370

2.4 PROJECT DESIGN MEASURES

The following Project Design Measures (PDMs) are proposed by AVAIO and are incorporated into the design of the project. They are outlined here to ensure that Staff's assessment of the potential impacts of the PBGF and PDH is completed with these measures in place. These PDMs are also repeated in each environmental technical section where applicable and in many cases are identical to the Mitigation Measures adopted by Staff and approved by the Commission in recent SPPE proceedings.

2.4.1 Air Quality

PDM AQ-1 To ensure that fugitive dust impacts are minimized, the Project will implement the BAAQMD's recommended BMPs during the construction phase. These BMPs are incorporated into the design of the Project and will include:

- Water all exposed areas (e.g. parking areas, graded areas, unpaved access roads) twice a day.
- Maintain a minimum soil moisture of 12% in exposed areas by maintaining proper watering frequency.
- Cover all haul trucks carrying sand, soil or other loose material.
- Suspend excavation, grading and/or demolition activities when average wind speed exceeds 20 miles per hour.
- Pave all roadways, driveways and sidewalks as soon as possible. Lay building pads as soon as grading is completed, unless seeding or soil binders are used.
- Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction with a maximum 50 percent air porosity.
- Use a power vacuum to sweep and remove any mud or dirt-track next to public streets, if visible soil material is carried onto the streets.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- Minimize idling time for all engines by shutting engines when not in use or limiting idling time to a maximum of 5 minutes. Provide clear signage for construction workers at all access points.
- Properly tune and maintain construction equipment in accordance with manufacturer's specifications. Check all equipment against a certified visible emissions calculator.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints
- Install vegetative ground cover in disturbed areas as soon as possible and water appropriately until vegetation is established.
- Limit simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.
- Install water washers to wash all trucks and equipment prior to leaving site.
- Treat site access to a distance of 100 feet from the paved road with a 6 to 12-inch compacted layer of wood chip, mulch or gravel
- Install sandbag or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- Minimize idling time of diesel-powered construction vehicles to two minutes
- Develop a plan demonstrating that off-road equipment (more than 50 horsepower) used for construction would achieve a project wide fleet-average 20 percent NOX reduction and 45 percent PM reduction compared to the most recent ARB fleet average. These include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.
- Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).
- All construction equipment, diesel trucks, and generators be equipped with Best

Available Control Technology for emission reductions of NOx and PM.

- All contractors use equipment that meets CARB's most recent certification standard for off-road heavy-duty diesel engines

2.4.2 Biological Resources

PDM BIO-1: Project Coverage under ECC HCP/NCCP

The Project Owner shall obtain coverage for the project under the ECC HCP/NCCP. This shall include submittal of all required application materials per HCP/NCCP Section 6.2.1 and payment of a Development Fee consistent with current HCP/NCCP requirements. Alternatively, the Project Owner may, in accordance with the terms of PMC Chapter 15.108, offer to dedicate land in lieu of some or all of the HCP/NCCP Development Fee.

All applicable fees shall be paid, and/or an "in-lieu-of-fee" agreement fully executed, prior to the issuance of a grading permit for the project. If a grading permit is not required, fee payment and/or an "in-lieu-of-fee" agreement shall be fully executed prior to issuance of the project's building permit. Proof of applicable fees and/or "in-lieu-of-fee" agreement shall be provided to the City of Pittsburg Community Development Director.

PDM BIO-2: Worker Awareness Training for Biological Resources

Because of the potential for nesting birds and other protected wildlife to be present on the project site, the Project Owner shall prepare and ensure delivery of a Worker Environmental Awareness Program (WEAP). The WEAP shall include the following information:

- the sensitive habitats on the project site
- special-status species known or potentially present on the site, including their
    - listing status and causes of decline
    - habitat preferences
    - distinguishing physical characteristics
- the measures (PDMs and ECC HCP/NCCP measures) required to protect sensitive habitats and special-status species, including next steps and notifications in the event of a special-status species sighting

The WEAP shall include a hard copy handout that summarizes information presented in the training and includes photographs of habitat resources and species to facilitate identification in the field by construction personnel.

The Project Owner shall ensure that all construction personnel undergo WEAP training before they begin work. Training shall be delivered by a qualified biologist approved by

the City of Pittsburg Community Development Director and shall be provided bilingually in English and Spanish if appropriate.

PDM BIO-3: Adherence to ECC HCP/NCCP Requirements

The Project Owner shall ensure that the project adheres to all applicable ECC HCP/NCCP requirements.

Planning surveys per HCP/NCCP Section 6.3.1 were completed in 2018 – 2023 (see Section 4.4.2.1 of this application). Based on the outcomes of the planning surveys, preconstruction surveys by USFWS- and DFW-approved biologists shall be conducted for the following species per HCP/NCCP Sections 6.3.2 and 6.3.4:

- Golden Eagle (*Aquila chrysaetos*)
- Burrowing Owl (*Athene cunicularia*)
- Swainson's Hawk (*Buteo swainsonii*)
- San Joaquin kit fox (*Vulpes macrotis mutica*)

If preconstruction surveys determine that any of the above species is present on the site (or, for the bird species, within a distance where they could be disturbed by construction activity), the biologist may recommend construction monitoring; if so, the Project Owner shall ensure that monitoring is conducted per HCP/NCCP Section 6.3.3. This will include submittal of a Construction Monitoring Plan (CMP) to the East Contra Costa County Habitat Conservancy for approval; the CMP must be submitted and approved prior to issuance of the grading permit (or, if no grading permit is required, the building permit) for the project.

Based on results of the planning surveys, which indicate that no suitable habitat is available on the project site, preconstruction surveys and construction monitoring are not required for the following species:

- Covered shrimp species
- Giant garter snake (*Thamnophis gigas*)
- Townsend's big-eared bat (*Corynorhinus townsendii*)

The Project Owner shall also comply with all applicable provisions of ECC HCP/NCCP Section 6.4, *Specific Conditions on Covered Activities*, as follows.

- **Section 6.4.1: Landscape-Level Measures**
    - Conservation Measure 1.10 – Maintain Hydrologic Conditions and Minimize Erosion
    - Conservation Measure 1.11 – Avoid Direct Impacts on Extremely Rare Plants, Fully Protected Wildlife Species [and] Covered Migratory Birds

    - Conservation Measure 1.7 – Establish Stream Setbacks
- **Section 6.4.2: Natural Community–Level Measures**
    - Conservation Measure 2.12 – Wetland, Pond, and Stream Avoidance and Minimization
- **Section 6.4.3: Species-Level Measures** for the following species
    - California tiger salamander (*Ambystoma californiense*)
    - Burrowing Owl
    - Golden Eagle
    - Swainson's Hawk
    - San Joaquin kit fox

PDM BIO-4: Rare Plant Survey & Protection

Protocol-level rare plant surveys were conducted in 2023; rainfall and temperature conditions were good that year, surveys were conducted during the peak blooming period for the species potentially present, and survey results were negative. Thus, if project construction occurs before 2025, no further action is required.

If project construction begins in 2025 or later, an updated protocol-level rare plant survey shall be conducted by a qualified biologist/botanist who is familiar with the rare plants of the project region and has been approved by the City of Pittsburg Community Development Director. Surveys shall be conducted prior to construction, with enough lead time to allow for the follow-up actions described below, if they are warranted. Surveys shall be conducted during the peak blooming periods of the target species and shall cover all potentially suitable habitats within the project site and surrounding 250-foot-wide buffer. Target species and blooming periods are listed in the matrix below; the matrix is highlighted to group species with similar blooming periods.[8]

Species	Blooming Period
Lobb's aquatic buttercup (*Ranunculus lobbii*)	February – May
Johnny-nip (*Castilleja ambigua* var. *ambigua*)	March – August
Showy golden madia (*Madia radiata*)	March – May
California alkali grass (*Puccinellia simplex*)	March – May

[8] The list of target species was developed based on studies conducted for the project, discussed at the beginning of Section 4.4.2 and in more detail in the project Biological Evaluation Report (Vollmar Natural Lands Consulting 2024; see Appendix C to this application). It reflects known distribution of special-status plants in the project region and habitat conditions at the site.

Species	Blooming Period
California androsace (*Androsace elongata* ssp. *acuta*)	March – June
Stinkbells (*Fritillaria agrestis*)	March – June
Diablo helianthella (*Helianthella castanea*)	March – June
Hogwallow starfish (*Hesperevax caulescens*)	March – June
Stinkbells (*Fritillaria agrestis*)	March – June
Mt. Diablo jewelflower (*Streptanthus hispidus*)	March – June
Sylvan microseris (*Microseris sylvatica*)	March – June
Little mousetail (*Myosurus minimus* ssp. *apus*)	March – June
Small-flowered morning-glory (*Convolvulus simulans*)	March – July
Keck's checkerbloom (*Sidalcea keckii*)	April – May, sometimes into June
Mt. Diablo fairy-lantern (*Calochortus pulchellus*)	April – June
Tehama navarretia (*Navarretia heterandra*)	April – June
Adobe navarretia (*Navarretia nigelliformis* ssp. *nigelliformis*)	April – June
Saline clover (*Trifolium hydrophilum*)	April – June
Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*)	April – July
Shining navarretia (*Navarretia nigelliformis* ssp. *radians*)	April – July
Pappose tarplant (*Centromadia parryi* ssp. *parryi*)	May – November
Parry's rough tarplant (*Centromadia parryi* ssp. *rudis*)	May – October
Woolly-headed lessingia (*Lessingia hololeuca*)	June – October
Big tarplant (*Blepharizonia plumosa*)	July – October
Mt. Diablo buckwheat (*Eriogonum truncatum*)	September, sometimes into November/December

If no special-status plants are documented within the area to be disturbed for project construction (including staging and access), no further action is required.

If special-status plants covered by the ECC HCP/NCCP, or plants designated as "no take" by the ECC HCP/NCCP, are present on the site, the relevant survey report(s) shall be submitted to the East Contra Costa Habitat Conservancy per HCP/NCCP Section 6.3.1 (see page 6-9).

If any of the following species covered by the ECC HCP/NCCP is found to be present, the Project Owner shall promptly notify the East Contra Costa County Habitat Conservancy of the species' presence and the planned construction schedule, to enable the East Contra Costa County Habitat Conservancy to salvage the occurrence(s) in accordance with HCP/NCCP Conservation Measure 3.10 (Plant Salvage when Impacts Are Unavoidable). The Project Owner shall confirm with the East Contra Costa County Habitat Conservancy that the take limits established by the HCP/NCCP for the species in question have not been breached:

- Big tarplant (*Blepharizonia plumosa*)
- Mount Diablo fairy lantern (*Calochortus pulchellus*)
- Diablo helianthella (*Helianthella castanea*)

- Showy golden madia (*Madia radiata*)
- Adobe navarretia (*Navarretia nigelliformis* ssp. *nigelliformis*)[9]

Under no circumstance shall any of the following HCP/NCCP "no-take" plants be harmed:

- Large-flowered fiddleneck (*Amsinckia grandiflora*)
- Alkali milkvetch (*Astragalus tener* ssp*. tener*)
- Mt. Diablo buckwheat (*Eriogonum truncatum*)
- Diamond-petaled poppy (*Eschscholzia rhombipetala*)
- Contra Costa goldfields (*Lasthenia conjugens*)
- Caper-fruited tropidocarpum (*Tropidocarpum capparideum*)

Due to their extreme rarity, none of these species is expected to be present on the project site, but if any of them are found, the applicant shall notify the East Contra Costa County Habitat Conservancy immediately and shall work with the Conservancy to determine and execute the appropriate course of action.

If any special-status plant not covered by the ECC HCP/NCCP is found to be present, the occurrence(s) shall be avoided and protected in place to the extent feasible. If the occurrence(s) cannot be entirely avoided, then a Plant Salvage and Mitigation Plan shall be prepared and implemented. The Plan shall be prepared by a qualified biologist/botanist who is familiar with the rare plants of the project region and has experience conducting rare plant salvage operations. Plant salvage techniques shall be consistent with those outlined in HCP/NCCP Conservation Measure 3.10. The plan shall, at a minimum, include the following:

- Quantity and species of plants to be planted or transplanted
- Location of the mitigation/transplant site(s)
- Salvage methods, such as relocation/transplantation, seed collection, etc., including storage locations and methods to preserve the plants
- Procedures for propagating collected seed, including storage methods
- Planting procedures, including the use of soil preparation and irrigation
- Schedule and action plan to maintain and monitor the mitigation/transplant site for a minimum 3-year period

[9] Note that additional special-status plant species are covered under the ECC HCP/NCCP, but are not expected to be present at the project site, due to their habitat requirements and/or their distribution. If any of the covered plant species are observed at the site, the same requirements will apply.

- Interim and final success criteria and corrective action thresholds (e.g., growth, plant cover, survivorship)
- Potential corrective actions/contingency measures in the event interim success criteria are not being met (e.g.., weed removal, supplemental irrigation, supplemental plantings, etc.).
- Reporting requirements and procedures, including the contents of annual progress reports, report submittals, review/approval responsibilities, etc.

The Project Owner shall implement the Plant Salvage and Mitigation Plan. The Plan shall be implemented under the oversight of the biologist/botanist who prepared it or another individual with equivalent qualifications. The biologist shall be approved by the City of Pittsburg Community Development Director.

PDM BIO-5: Special-Status Bumble Bee Surveys & Protection

No more than 1 year prior to the initiation of vegetation removal and grading at the project site, the Project Owner shall retain an appropriately qualified biologist (see next paragraph) who has been approved by the City of Pittsburg Community Development Director to conduct surveys for Crotch bumble bee *(Bombus crotchii*), obscure bumble bee (*B*. *caliginosus*), and American bumble bee (*B*. *pensylvanicus*).[10]

Surveys shall be performed by a qualified entomologist familiar with the species' behavior and life history and shall include both habitat evaluations and foraging bee surveys consistent with the recommendations in *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (California Department of Fish and Wildlife 2023). Surveys shall be conducted during each species' peak worker activity period, detailed in the matrix below. Surveys shall cover all areas of onsite habitat determined by the biologist to be suitable for any of the three target bumble bee species, based on habitat mapping conducted for the project to date. A minimum of 3 – 4 surveys shall be conducted, spaced 2 weeks apart; the total number, timing, and duration of surveys performed shall depend on the biologist's judgment, in consideration of weather, site conditions, and protocol requirements. Surveys shall be designed to identify all foraging bumble bee species; a single survey may be used to detect all species with peak activity periods including the survey date.

[10] As of this writing, no survey protocol has been published, although DFW has issued preliminary survey guidance for candidate bumble bee species (California Department of Fish and Wildlife 2023). Consequently, there are no official requirements for bumble bee surveyor qualifications. Biologist qualifications for bumble bee surveys will conform to current guidance prevailing at the time surveys are performed.

Species	Peak Activity
Crotch bumble bee	April 1 – July 31
Obscure bumble bee	April 20 – August 20
American bumble bee	June 1 – October 1

Source: Williams et al. (2014)

If Crotch bumble bee, obscure bumble bee, or American bumble bee is observed onsite during the surveys, an additional survey or surveys shall be conducted to determine whether a nest or colony is present, unless the biologist is satisfied that the initial survey(s) were sufficient to rule out the presence of nests/colonies.

If a nest or colony is present onsite, the biologist shall establish an appropriate avoidance buffer determined in consideration of site conditions, the species involved, and the construction activities planned prior to the close of the nesting season. No entry into the buffer shall be permitted. The buffer shall be delineated in the field using orange construction fencing or another appropriate medium, under the biologist's oversight, and shall remain in place until the end of the nesting species' gyne flying season, or until the qualified biologist determines that the nest has been abandoned

If no nest/colony is present onsite, no further action will be taken. However, all workers shall be required to avoid injury and mortality to bumble bees they may encounter; this requirement shall be discussed during the WEAP training (PDM BIO-2) and shall be reiterated to all workers if special-status bumble bees are confirmed onsite.

To support improved understanding and conservation of all three bumble bee species, survey results, including negative findings, shall be submitted to CDFW prior to implementing project-related ground-disturbing activities. At a minimum, the survey report shall include the following information.

- A description and map of the survey area, focusing on areas that could provide suitable habitat for Crotch bumble bee, obscure bumble bee, or American bumblebee
- Field survey conditions, including name(s) of qualified entomologist(s) and brief qualifications; date(s) and time(s) of survey; survey duration; general weather conditions; survey goals; and species searched
- Map(s) showing the location of nests/colonies, if any
- A description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found, including native plant composition (e.g., density, cover, and abundance) within impacted habitat (e.g., species list separated by vegetation class; density, cover, and abundance of each species)
- The measures that will be implemented to avoid adverse effects on the bumble bee species present

An assessment of potential project effects on special-status bumble bees during project construction and project operation/maintenance, with avoidance and minimization measures in place

PDM BIO-6: Monarch Butterfly Protection

No more than 2 days prior to the initiation of vegetation trimming or removal for construction, the Project Owner shall ensure that a qualified biologist approved by the City of Pittsburg Community Development Director surveys all areas of potentially suitable habitat for monarch butterfly (*Danaus plexippus*) larval host plants. If host plants are found, the biologist shall survey all host plants for monarch eggs, larvae, and pupae. If no eggs, larvae, or pupae are found, plants may be removed within 2 days. If eggs, larvae, or pupae are present, host plants shall be protected in place until the biologist has determined that no more eggs, larvae, or pupae are present.

PDM BIO-7. Western Pond Turtle Protection

Prior to the start of construction or O&M activities, The Project Owner shall ensure that a qualified biologist approved by the City of Pittsburg Community Development Director conducts a pedestrian preconstruction survey of the project site and adjacent suitable habitat for western pond turtle. The survey shall be conducted no more than 24 hours prior to start of work, and shall include walking the work area limits and interior and investigating all areas that could be used by the species. If western pond turtle individuals are found, the biologist shall relocate them to suitable habitat outside the disturbance area and far enough away that they would not be expected to return. If the biologist determines that it is warranted, exclusion measures shall be implemented to prevent individuals returning to the active work site.

PDM BIO-8: Nesting Bird Protection (General)

If project-related disturbance (e.g., vegetation removal or trimming, clearing/grubbing, grading) commences any time during the nesting/breeding season of native bird species potentially nesting in or near the study area (February 1 – August 31 for most species; January 1 through August 31 for Golden Eagle; March 15 – September 15 for Swainson's Hawk), a preconstruction survey for nesting birds shall be conducted by a qualified biologist approved by the City of Pittsburg Community Development Director, using binoculars. The survey shall take place no more than 2 weeks prior to the initiation of work.

If active nests are found in areas that could be directly affected or are within 300 feet of disturbance activities and would be subject to prolonged construction-related noise, a no-disturbance buffer zone shall be created around active nests for the remainder of the

breeding season or until the biologist determines that all young have fledged or that the nest has been abandoned. No entry into the no-activity buffer shall be permitted. The no-activity buffer shall be delineated in the field by or under the supervision of the biologist, using temporary construction fencing or another suitable low-impact medium. The size of the buffer zone(s) shall be determined by the biologist based on the species involved, the amount of vegetative and other screening between the nest and areas where construction activity shall take place, and, if appropriate, other site-specific factors. The minimum buffer width shall be 50 feet for species other than raptors, and a minimum of 500 feet for raptor species, and may be enlarged by taking into account factors such as the following.

- Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity
- Sensitivity of nesting species and behaviors of the individual nesting birds

If nesting Swainson's Hawk or Golden Eagle are observed, buffers and other avoidance measures shall conform to Species-Level Measures for these species as laid out in ECC HCP/NCCP Section 6.4.3.

PDM BIO-9: Nesting Bird Protection (Bald Eagle)

Bald Eagle (*Halieaetus leucocephalus*) nests may be built throughout the year. Consequently, the Project Owner shall retain a qualified biologist approved by the City of Pittsburg Community Development Director to conduct a preconstruction survey for nesting Bald Eagles prior to the initiation of work at the site (including vegetation removal or trimming, clearing/grubbing, grading, etc.). The survey shall be conducted using binoculars and shall take place no more than 2 weeks prior to the initiation of work.

If an occupied or active nest is present, construction-related activity shall be prohibited within 0.5 mile of the nest unless site-specific conditions or the nature of the construction activity (e.g., dense vegetation, limited noise generation, limited activities) indicate that a smaller buffer could be appropriate or that a larger buffer should be implemented. The biologist shall coordinate with the East Contra Costa County Habitat Conservancy, DFW, and USFWS to determine the appropriate buffer size.

The nest buffer shall be delineated in the field using temporary construction fencing or another suitable low-impact medium. Buffer fencing shall be placed only on the project site; the buffer shall not be put in place on neighboring properties not involved in project construction and staging

Construction shall be monitored by a qualified biologist to ensure that the buffer remains in place and that no construction activities occur within the buffer zone until the biologist has determined that the young have fledged or that the nest has been abandoned.

PDM BIO-10: Special-Status Bat Survey & Protection

Prior to the initiation of any activity that could disturb roosting bats (including vegetation trimming/removal, surveys involving the use of lasers that produce high-frequency sounds[11], drilling, or other activity producing high-frequency sounds), a qualified biologist[12] shall conduct a habitat evaluation for special-status bats, focusing on the needs of pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus frantzii* [*L. blossevillii*]), and hoary bat (*L. cinereus*), the species identified by planning surveys as having potential to be present on the site. Surveys shall include the entirety of the project site plus a 400-foot-wide buffer. If no roosting habitat suitable for these species is present on the project site, no further action is required.

If roosting habitat is present, the following additional requirements shall apply. Any potential roost trees/other potential roosting habitat shall also be considered potential bat maternity roosts.

- Before any activities with the potential to disturb roosting bats begin, the DFW-approved biologist(s) shall conduct focused surveys for roost occupancy. These shall be conducted at least 2 weeks prior to the start of work and shall include
    - daytime visual surveys for bats and evidence of bat presence such as guano or urine staining
    - evening emergence and acoustic surveys

  If bat presence is confirmed, the species, number of individuals, and roost type (maternity/non-maternity) shall be documented and reported to the CNDDB. Bats shall not be disturbed or relocated during the surveys
- Confirmed non-maternity roosts shall be protected by buffers as laid out in the matrix that follows. Buffers shall be delineated in the field with temporary construction fencing or another suitable measure, installed under biologist oversight. Note that buffer distances vary depending on the species and the type of noise/disturbance involved.[13] The biologist shall coordinate with construction staff to determine the appropriate buffer width; if there is uncertainty, the more conservative buffer width shall prevail

[11] For purposes of this PDM, *high-frequency sound* is defined as sound in the 20 kHz – 50 kHz frequency range, based on bat disturbance information in California Department of Transportation (Caltrans) bat mitigation guidelines (H.T. Harvey & Associates 2019). If Caltrans guidance is updated, or if frequency sensitivity information relevant to the bat species with potential to occur becomes available prior to project construction, this definition shall be updated accordingly.

[12] Biologist qualifications shall be as stipulated in Section 5 of the Caltrans bat mitigation guidelines (H.T. Harvey & Associates 2019); biologist(s) shall be subject to approval by the City of Pittsburg Community Development Director.

[13] If bat species other than those addressed here are encountered, buffer distances shall be consistent with Caltrans guidelines (H.T. Harvey & Associates 2019; see Table 7-1).

Disturbance Source	Pallid Bat	Other Bat Species
Construction trucks and heavy equipment	120 feet	100 feet
Smaller vehicles	90 feet	65 feet
Drilling, trenching, and small equipment	150 feet	150 feet
Unshielded light source	400 feet	300 feet
Pedestrian traffic	65 feet	65 feet
Stationary source of diesel/gasoline exhaust operating for more than 2 minutes	250 feet	250 feet
Any equipment generating high-frequency (20 kHz – 50 kHz) sound (laser survey transits, drilling, etc.), as identified by the biologist	Buffer shall be determined on a case-by-case basis by identifying the distance at which high-frequency sound generated by the equipment becomes indistinguishable from background levels, using one of the acoustic methods described on pp. 7-16 – 7-18 of the California Department of Transportation bat mitigation guidelines (H.T. Harvey & Associates 2019), or updated equivalent	

Source: H.T. Harvey & Associates 2019

If a confirmed roost must be removed or trimmed for construction, or if work must occur within the buffers laid out above, work shall be restricted to daylight hours when the DFW-approved biologist has confirmed that it the roost is not occupied, and shall be overseen by the biologist to prevent injury or mortality. The biologist shall have authority to divert or stop work in the event of excessive risk to bats

- Confirmed maternity roosts shall be protected by the same buffers identified above. Maternity roosts shall not be removed unless removal cannot be avoided, and in no case shall a confirmed maternity roost be removed during the breeding/non-volant season (April – August). If removal of a maternity roost is necessary, the Project Owner shall consult with DFW to determine appropriate compensatory mitigation such as the provision of bat boxes and shall submit a Bat Habitat Mitigation Plan for DFW approval. Consultation and submittal of the Mitigation Plan shall occur prior to the removal, and the removal shall not take place until DFW has approved the Plan. The Project Owner shall then be responsible for implementing DFW-approved mitigation for removal of bat maternity roost habitat

PDM BIO-11: San Joaquin Pocket Mouse Protection

Vegetation removal, clearing/grubbing, and grading activities for each work phase shall be conducted in a uniform direction to allow mobile animals such as San Joaquin pocket mouse (*Perognathus inornatus*) the ability to escape the disturbance area into adjacent undisturbed habitat. Project construction shall also avoid the creation of fragmented

islands of habitat where individuals may become trapped, isolated from resources, and at risk from eventual clearing/grading operations.

PDM BIO-12: American Badger Survey & Protection

No more than 4 weeks before the commencement of ground disturbance at the site, a qualified biologist approved by the City of Pittsburg Community Development Director shall conduct a survey for American badger (*Taxidea taxus*) den sites.

If an occupied den is found, and young are not present, then any badgers present shall be removed from the den either by the use of appropriate exclusionary devices or by trapping and relocation. The removal method shall be approved by DFW prior to implementation; if trapping and relocation are used, it shall be carried out by biologist(s) with all required permits for badger handling. Any trapped badgers shall be relocated to other suitable habitat at least 500 feet outside the project site boundary. Once any badgers are excluded or trapped and relocated, den(s) shall be excavated by hand and backfilled to prevent reoccupation. Exclusion shall continue until the badgers are successfully removed from the site, as determined by the biologist.

Badgers shall not be excluded or relocated if it is determined by the biologist that young are or may be present. Any occupied dens shall be protected with a 50-foot-wide no-activity buffer. The buffer shall be delineated in the field by a qualified biologist, using temporary construction fencing or another appropriate low-impact medium, and shall remain in place until the biologist has determined that the young are no longer dependent on their mother and the den site. No entry into the buffer area shall be permitted.

2.4.3 Cultural Resources

PDM CUL-1: Worker Environmental Awareness Program Training

Prior to issuance of the grading permit by the City of Pittsburg, and for the duration of ground disturbance, the project shall be required to submit evidence that Worker Environmental Awareness Program (WEAP) training was held for all existing and any new employees. The training shall be facilitated by the project archaeologist in coordination with a Native American representative registered with the Native American Heritage Commissions with an interest in the City of Pittsburg and that is traditionally and culturally affiliated with the geographic area as described in Public Resources Code, section 21080.3. This training should include: a discussion of applicable laws and penalties under the laws; samples or visual aids of artifacts that could be encountered in the project vicinity, including what those artifacts may look like partially buried, or wholly buried and freshly exposed, and instructions to halt work in the vicinity of any potential cultural resource discovery, and notify the City-approved archaeologist and Native American cultural resources monitor. The Native American monitor shall provide a Tribal Cultural Resources Sensitivity Training in conjunction with the WEAP.

PDM CUL-2: Construction Monitoring and Protection Measures

All ground-disturbing activities (e.g., grading and excavation) shall be completed under the observation of a Secretary of the Interior-qualified archaeologist and a qualified Native American monitor, registered with the Native American Heritage Commission (NAHC) with an interest in the City of Pittsburg. Preference in selecting Native American monitors shall be given to members of the Native Americans with:

- Traditional ties to the area being monitored.
- Knowledge of local Native American village sites and habitation patterns.
- Knowledge and understanding of Health and Safety Code, section 7050.5 and Public Resources Code, section 5097.9 et seq.
- Ability to effectively communicate the requirements of Health and Safety Code, section 7050.5 and Public Resources Code, section 5097.9 et seq.
- Ability to work with law enforcement officials and the Native American Heritage Commission to ensure the return of all associated grave goods taken from a Native American grave during excavation.
- Ability to travel to project sites within traditional tribal territory.
- Knowledge and understanding of Title 14, California Code of Regulations, section 15064.5.
- Ability to advocate for the preservation in place of Native American cultural features through knowledge and understanding California Environmental Quality Act (CEQA) mitigation provisions.
- Ability to read a topographical map and be able to locate site and reburial locations for future inclusion in the NAHC's Sacred Lands Inventory.
- Knowledge and understanding of archaeological practices, including the phases of archaeological investigation.

The qualified archaeologist or a qualified Native American monitor, shall have authority to halt construction activities temporarily within a 50-foot radius of any cultural resources finds.

If the archaeologist and Native American monitor believe that a reduction in monitoring activities is prudent, then a letter report detailing the rationale for making such a reduction and summarizing the monitoring results shall be provided to the City of Pittsburg. If, for any reasons, the qualified archaeologist or a qualified Native American monitor is not present, but construction crews encounter a cultural resource, all work shall stop temporarily within 50 feet of the find until a qualified archaeologist in consultation with a qualified Native American monitor has been contacted to determine the proper course of action. The City of Pittsburg shall be notified of any finds during the grading or other

construction activities. Any human remains encountered during construction shall be treated according to the protocol identified in PDM **CUL-4**

PDM CUL-3: Evaluation and Data Recovery

The City of Pittsburg shall be notified of any finds during the preliminary field investigation, grading, or other construction activities. Any historic or Native American cultural material identified in the project area during the preliminary field investigation and during grading or other construction activities shall be evaluated for eligibility for listing as a Candidate City Landmark or a California Historical Resource by a Secretary of the Interior-qualified archaeologist.

If Native American cultural materials or historic resources are encountered, all activity within a 50-foot radius of the find shall be stopped, the City of Pittsburg shall be notified, and a Secretary of the Interior-qualified archaeologist shall examine the find and record the site, including field notes, measurements, and photography, and document the find using the California Department of Parks and Recreation 523 series forms. The archaeologist shall make recommendations regarding eligibility as a Candidate City Landmark and/or a California Historical Resource, data recovery, curation, or other appropriate mitigation. Ground disturbance within the 50- foot radius can resume once these steps are taken and the City of Pittsburg has concurred with the recommendations.

Data recovery methods may include, but are not limited to, backhoe trenching, shovel test units, hand auguring, and hand-excavation. The techniques used for data recovery shall follow the protocols identified by the qualified archaeologist. Data recovery shall include excavation and exposure of features, field documentation, and recordation.

PDM CUL-4: Human Remains

If human remains are discovered during the preliminary field investigation, excavation and/or grading, building, or other construction activities at the site, all activity within a 50-foot radius of the find will be stopped. The Contra Costa County Coroner will be notified and shall determine whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) immediately. Once NAHC identifies the most likely descendants, the descendants will make recommendations regarding treatment and disposition with appropriate dignity, which will be implemented in accordance with section 15064.5(e) of the California Environmental Quality Act Guidelines. All actions taken under this mitigation measure shall comply with Health and Human Safety Code, section 7050.5(b).

2.4.4 Geology and Soils

PDM GEO-1: In order to ensure the project design conforms to the requirements of a final geotechnical engineering investigation and California and local building standards and codes, the following is proposed as mitigation incorporated into the project. Incorporation will ensure seismic hazards are reduced to less than significant levels.

- To avoid or minimize potential damage from seismic shaking, the project would be built using standard engineering and seismic safety design techniques. Building redevelopment design and construction at the site shall be completed in conformance with the recommendations of a design-level geotechnical investigation, which will be included in a report to the City. The report shall be reviewed and approved by the City of Pittsburg's Building Division as part of the building permit review and issuance process. The building shall meet the requirements of applicable Building and Fire Codes, including the 2022 California Building Code, as adopted or updated by the City. The project shall be designed to withstand potential geologic hazards identified on the site and the project shall be designed to reduce the risk to life or property to the extent feasible and in compliance with the Building Code.

PDM GEO-2: Prior to the commencement of construction, the applicant shall secure the services of a qualified paleontological specialist. The specialist shall prepare a Worker Environmental Awareness Program (WEAP) to instruct site workers of the obligation to protect and preserve valuable paleontological resources for review by the City of Pittsburg. This program shall be provided to all construction workers via a recorded presentation and shall include a discussion of applicable laws and penalties; samples or visual aids of resources that could be encountered; instructions regarding the need to halt work in the vicinity of any potential paleontological resources encountered; and measures to notify their supervisor, the applicant, and the specialists.

The applicant shall secure the services of a qualified professional paleontologist, as defined by the Society of Vertebrate Paleontology, to be on-call prior to the commencement of construction. The paleontologist shall be experienced in teaching non-specialists to recognize fossil materials and how to notify supervisors in the event of encountering a suspected fossil. If suspected fossils are encountered during construction, the construction workers shall halt construction within 50 feet of any potential fossil find and notify the paleontologist, who shall evaluate its significance.

If a fossil is encountered and determined to be significant and avoidance is not feasible, the paleontologist will develop and implement an excavation and salvage plan in accordance with Society of Vertebrate Paleontology standards. Construction work in the immediate area shall be halted or diverted to allow recovery of fossil remains in a timely manner. Fossil remains collected shall be cleaned, repaired, sorted, and cataloged, along with copies of all pertinent field notes, photos, and maps.

The paleontologist shall prepare a paleontological resource monitoring report that outlines the results of the monitoring program and any encountered fossils. The report shall be submitted to the City of Pittsburg for review and approval. The report and any fossil remains collected shall be submitted to a scientific institution with paleontological collections.

2.4.5 Greenhouse Gas Emissions

PD GHG-1: The project owner shall use renewable diesel for 100 percent of total energy use by the emergency backup generators, and only use ultra-low sulfur diesel (ULSD) as a secondary fuel in the event of supply challenges or disruption in obtaining renewable diesel. The City of Pittsburg may grant temporary relief from the 100 percent renewable diesel requirement if the project owner can demonstrate a good faith effort to comply with the requirement and that compliance is not practicable. The project owner shall provide an annual report of the status of procuring and using renewable diesel to the City of Pittsburg demonstrating compliance.

PD GHG-2: The project owner shall participate in PG&E's Renewable Energy Program or other renewable energy program that accomplishes the same objective as the PG&E Renewable Energy Program for 100 percent carbon-free electricity, or (2) purchase renewable energy credits or similar instruments that accomplish the same goals of 100 percent carbon-free electricity.

During operation, the project owner shall provide documentation to the City of Pittsburg of initial enrollment and shall submit annual reporting to the City documenting either continued participation in PG&E's Renewable Energy Program or documentation that alternative measures continue to provide 100 percent carbon-free electricity as verified by an independent third-party auditor specializing in greenhouse gas emissions.

2.4.6 Hazards and Hazardous Materials

HAZ-1: Prior to issuance of demolition or grading permits, the project applicant shall prepare a Site Management Plan (SMP) to guide activities during demolition, excavation, and initial construction to ensure that potentially contaminated soils are identified, characterized, removed, and disposed of properly. The purpose of the SMP is to establish appropriate management practices for handling impacted soil or other materials that may be encountered during construction activities. The SMP shall be reviewed and approved by the City of Pittsburg prior to any work on the site, including prior to soil and groundwater sampling.

The SMP shall be implemented during project demolition and construction and shall include, but shall not be limited to, the following components:

- A detailed discussion of the site background.

- Prior to any onsite work, Health and Safety Plans (HSPs) for the Project shall be prepared by all contractors and subcontractors that will be working at the project site and incorporated in the SMP. The HSPs shall be prepared by an industrial hygienist. The HSPs shall be specific to each of the contractors' or subcontractors' scopes of work and based upon the known environmental conditions for the site prior to project construction. The HSPs shall be updated as needed if site conditions change significantly, such as the discovery of contaminated soil or groundwater. The HSPs shall be approved by the City of Pittsburg, and implemented under the direction of a Site Safety and Health Officer. Copies of the approved HSPs shall be kept at the project site.
- Description of soil and groundwater testing, which shall include (but not be limited to) the collection of soil samples and groundwater samples and analyses for volatile organic compounds (VOCs) and any other contaminants identified in previous environmental studies in the soil and groundwater and lead and organochlorine pesticides in the soil to verify presence of absence of remnant or unknown soil or groundwater contamination. This soil and groundwater characterization shall be performed prior to initiation of project construction.
- Protocols for sampling at the site to verify or rule out a vapor encroachment conditions at the site and within the buildings to be demolished and, if verified, for remediation of vapor encroachment conditions within the existing building prior to demolition and to prevent it in the proposed structures.
- Protocols for sampling of soil and groundwater to facilitate the profiling of the soil and groundwater for appropriate off-site disposal or reuse, and for construction worker safety, dust mitigation during demolition and construction and potential exposure of contaminated soil or groundwater to future users of the site prior to project construction.
- Procedures to be undertaken in the event that contamination is identified above action levels or previously unknown contamination is discovered prior to or during project demolition or construction;
- Notification procedures if previously undiscovered significantly impacted soil or groundwater, or free fuel product is encountered during demolition or construction;
- Sampling and laboratory analyses of excess soil requiring disposal at an appropriate off-site waste disposal facility;
- Procedures and protocols for the safe storage, stockpiling, and disposal of contaminated soils; and
- Protocols to manage groundwater, including segregation or treatment of contaminated groundwater, if necessary, that may be encountered during trenching or subsurface excavation activities.

- If there are no contaminants identified on the project site that exceed applicable screening levels for construction workers published by the Regional Water Quality Control Board (RWQCB), California Department of Toxic Substances Control (DTSC), or California Environmental Protection Agency, the SMP does not need to be submitted to an oversight agency and instead only needs to be submitted to the City of Pittsburg for approval prior to issuance of a grading permit and prior to conducting any demolition activities.
- If contaminants are identified at concentrations exceeding applicable screening levels, the project applicant shall obtain regulatory oversight from Contra Costa County Department of Environmental Health or the DTSC under a Site Cleanup Program as applicable. The SMP and planned remedial measures shall be reviewed and approved by the Contra Costa County Department of Environmental Health Hazardous Materials Compliance Division or DTSC. A copy of the SMP shall be submitted to the city of Pittsburg. Copies of the approved SMP shall be kept at the project site.
- Any contaminated soils identified by testing conducted in compliance with the SMP and found in concentrations above established thresholds shall either be removed and disposed of according to California Hazardous Waste Regulations or the contaminated portions of the site shall be capped beneath the planned development under the regulatory oversight of the Contra Costa County Hazardous Materials Compliance Division or the DTSC. Contaminated soil excavated from the site shall be hauled off-site and disposed of at a licensed hazardous materials disposal site.

2.4.7 Hydrology and Water Quality

PDM HYD-1: The project will incorporate the following into the design and these measures should be treated as mitigation incorporated into the project. The following will reduce construction-related water quality impacts:

- Burlap bags filled with drain rock shall be installed around storm drains to route sediment and other debris away from the drains.
- Earthmoving or other dust-producing activities shall be suspended during periods of high winds.
- All exposed or disturbed soil surfaces shall be watered at least twice daily to control dust as necessary.
- Stockpiles of soil or other materials that can be blown by the wind shall be watered or covered.
- All trucks hauling soil, sand, and other loose materials shall be required to cover all trucks or maintain at least two feet of freeboard.

- All paved access roads, parking areas, and staging areas adjacent to the construction sites shall be swept daily (with water sweepers).
- Vegetation in disturbed areas shall be replanted as quickly as possible.
- All unpaved entrances to the site shall be filled with rock to knock mud from truck tires prior to entering City streets. A tire wash system may also be employed at the request of the City.

2.4.8 Traffic and Transportation

PDM TRANS-1: A Construction Traffic Management Plan shall be developed and implemented to minimize impacts to the transportation system. The Construction Traffic Management Plan shall detail the project's construction schedule, vehicle type time-of-day plans, route planning, advanced public notices of partial or full street closures or traffic diversion, and other strategies to reduce potential conflicts during construction. The plan shall include, but not be limited to, the following:

- Identification of the traffic controls and methods proposed during each phase of project construction. Provision of safe and adequate access for vehicles, transit, bicycles, and pedestrians. Traffic controls and methods employed during construction shall be in accordance with City of Pittsburg standards and the requirements of the Manual of Uniform Traffic Control Devices (FHWA, 2009 MUTCD with Revisions 1, 2 and 3, July 2022).
- Provision of notice to relevant emergency services, thereby avoiding interference with adopted emergency plans, emergency vehicle access, or emergency evacuation plans.
- Preservation of emergency vehicle access.
- Identification of approved truck routes in communication with City of Pittsburg.
- Location of staging areas and the location of construction worker parking.
- Identification of the means and locations of the separation (i.e., fencing) of construction areas and adjacent active uses.
- The provision of flaggers at all on-site locations where construction trucks and construction worker vehicles conflict with vehicle, bicycle, transit, or pedestrian traffic.
- Provision of a point of contact for residents to obtain construction information, have questions answered and convey complaints.

PDM TRANS-2: The project shall implement a Transportation Demand Management (TDM) program sufficient to demonstrate that vehicle miles travelled (VMT) associated with the project would be reduced to 12.8 or less per employee. The TDM program shall

include the following measure which has been determined to be feasible methods for achieving the required VMT reduction:

A. *Implement Mandatory 4-40 Work Schedule*: The project should implement a mandatory 4 days a week 10 hours a day work schedule for all employees. Implementation of this measure would reduce the number of trips made to the site on a daily and weekly basis by employees.

In addition to Measure A above the TDM program shall include, but is not limited to one, or more of the following measures, which have been determined to be feasible methods for achieving the required VMT reduction.

B. *Implement Commute Trip Reduction Marketing*: The project should provide information sharing and marketing to promote and educate employees about their travel choices to the employment location beyond driving such as carpooling, riding transit, walking, and biking.

C. *Provide New Hire Packets on Transportation Options*: The project should provide standardized materials, including information on transit routes and schedules, bike pathways, available commuter facilities, and any other available commuter programs, during the orientation process for new hires.

D. *Provide Ridesharing Program*: The project should implement a ridesharing program. Ridesharing encourages carpooled vehicle trips and reduces single-occupancy vehicle trips. The building tenant should offer priority parking for rideshare participants and offer flexible work schedules to ride share participants, if feasible. The tenant should also provide subsidies for shared trips provided by a transportation network company (TNC).

E. *Implement Subsidized or Discounted Transit Program – Work Trips Only*: The project should implement a subsidized or discounted transit program. A pre-tax commuter benefit can reduce the out-of-pocket cost for choosing transit, which improves the competitiveness of transit against driving, increasing the total number of transit trips and decreasing vehicle trips. Note that employee benefits for the building tenant may be subject to union contract negotiations.

F. *Provide End-of-Trip Bicycle Facilities*: The project should install and maintain end-of-trip facilities. End-of-trip bicycle facilities can include amenities like secure, monitored bike parking, showers, personal lockers, and basic bicycle maintenance equipment. In addition, the project shall monitor the use of short-term and long-term bicycle parking and provide additional bicycle parking, if necessary. Adequate bicycle facilities encourage commuting by bicycle instead of vehicle.

Prior to the issuance of an occupancy permit, the TDM program shall be submitted and approved by the City of Pittsburg and shall be monitored annually to gauge its effectiveness in meeting the required VMT reduction. The TDM program shall establish

an appropriate estimate of initial vehicle trips generated by the occupant of the proposed project and shall include the conducting of driveway traffic counts annually to measure peak-hour entering and exiting vehicle volumes. The volumes shall be compared to trip thresholds established in the TDM program to determine whether the required reduction in vehicle trips is being met. The results of annual vehicle counts shall be reported in writing to the City of Pittsburg.

If TDM program monitoring results show that the trip reduction targets are not being met, the TDM program shall be updated to identify replacement and/or additional feasible TDM measures to be implemented. The updated TDM program shall be subject to the same approvals and monitoring requirements listed above.

SECTION 3.0 PROJECT INFORMATION

Project Title
Pittsburg Technology Hub

Lead Agency Contact
Renee Longman
Project Manager
Siting, Transmission and Environmental Protection (STEP) Division
California Energy Commission
715 P Street
Sacramento, CA 95814
Phone: 916-937-3538
E-mail: Renee.Longman@Energy.ca.gov

Project Applicant
Pittsburg Data Hub, LLC
107 Elm St – Suite 501
Stamford, CT 06902

Project Location
2232 Golf Club Road
Pittsburg, CA 94565

Assessor's Parcel Numbers
095-160-001
095-160-002
095-150-032

General Plan Designation and Zoning District

Existing General Plan Designation:	Open Space (OS)
General Plan Update Designation:	Employment Center Industrial (ECI)
Existing Zoning District:	Open Space
Conforming Zoning District	Specific Plan or ECI

SECTION 4.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

This Section describes the environmental setting, evaluates potential impacts, and identifies measures incorporated into the project design to mitigate potential impacts to less than significant levels for each of following environmental subjects:

4.1 Aesthetics
4.2 Agriculture and Forestry Resources
4.3 Air Quality
4.4 Biological Resources
4.5 Cultural and Tribal Cultural Resources
4.6 Energy
4.7 Geology and Soils
4.8 Greenhouse Gas Emissions
4.9 Hazards and Hazardous Materials
4.10 Hydrology and Water Quality
4.11 Land Use and Planning
4.12 Mineral Resources
4.13 Noise
4.14 Population and Housing
4.15 Public Services
4.16 Recreation
4.17 Transportation
4.18 Utilities and Service Systems
4.19 Wildfire

The discussion for each environmental subject includes the following subsections:

Environmental Setting – This subsection 1) provides a brief overview of relevant plans, policies, and regulations that compose the regulatory framework for the project and 2) describes the existing, physical environmental conditions at the project site and in the surrounding area, as relevant.

Impact Discussion – This subsection includes the recommended checklist questions from Appendix G of the CEQA Guidelines to assess impacts.

- **Project Impacts** – This subsection discusses the project's impact on the environmental subject as related to the checklist questions. For significant impacts, feasible mitigation is identified. "Proposed Design Measures" are measures that the applicant has agreed to incorporate into the design of the project that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370
- **Cumulative Impacts** – This subsection discusses the project's cumulative impact on the environmental subject. Cumulative impacts, as defined by CEQA, refer to two or more individual effects, which when combined, compound or increase other environmental impacts. Cumulative impacts may result from individually minor, but collectively significant effects taking place over a period of time. CEQA Guideline Section 15130 states that an EIR should discuss cumulative impacts "when the

project's incremental effect is cumulatively considerable." The discussion does not need to be in as great detail as is necessary for project impacts but is to be "guided by the standards of practicality and reasonableness." The purpose of the cumulative analysis is to allow decision makers to better understand the impacts that might result from approval of past, present, and reasonably foreseeable future projects, in conjunction with the proposed project addressed in this EIR.

The CEQA Guidelines advise that a discussion of cumulative impacts should reflect both their severity and the likelihood of their occurrence (CEQA Guidelines Section 15130(b)). To accomplish these two objectives, the analysis should include either a list of past, present, and probable future projects or a summary of projections from an adopted general plan or similar document (CEQA Guidelines Section 15130(b)(1)). This SPPE Application.

The analysis must determine whether the project's contribution to any cumulatively significant impact is cumulatively considerable, as defined by CEQA Guideline Section 15065(a)(3). The cumulative impacts discussion for each environmental issue accordingly addresses the following issues: 1) would the effects of all of past, present, and probable future (pending) development result in a significant cumulative impact on the resource in question; and, if that cumulative impact is likely to be significant, 2) would the contribution from the proposed project to that significant cumulative impact be cumulatively considerable?

Table 4-1 identifies the approved (but not yet constructed or occupied) and pending projects in the project vicinity that are evaluated in the cumulative analysis.

Table 4-1: Cumulative Projects List

Name and Location	Description	Distance to Proposed Project	Status
Pittsburg Technology Park 2232 Golf Club Road, Pittsburg, CA	Specific Plan and Rezoning of 102.8-acre vacant site to support the future development of a Technology Park uses that accommodate technology, advanced manufacturing, logistics, and other sectors that generate substantial employment opportunities. Allowable uses may include: • administrative, • financial, • business, • professional, • medical and public offices, • business incubators,	Includes the Project parcel and immediately adjacent to Project's western and southern boundary	Pending review

	• research and development, • custom and light manufacturing, • limited assembly, • warehousing and distribution, • data centers, • technology and innovation, • energy, • services, • light and heavy automobile services, • and supporting commercial uses.		
T-Mobile Cell Tower Modification 2222 Golf Club Road, Pittsburg, CA	Cell Tower/Antenna Modification	Approximately ¼ mile to the northeast	Completed
AT&T Backup Generator 2222 Golf Club Road, Pittsburg, CA	Installation of a backup generator at an existing AT&T Cell tower/Antenna	Approximately ¼ mile to the northeast	Completed
Stoneman Park Subdivision	342 Unit Residential Subdivision	Approximately ½ mile to the southwest	Pending review

For each resource area, cumulative impacts may occur over different geographic areas. For example, the project effects on air quality would combine with the effects of projects in the entire air basin, whereas noise impacts would primarily be localized to the surrounding area. The geographic area that could be affected by the proposed project varies depending upon the type of environmental issue being considered. Section 15130(b)(3) of the CEQA Guidelines states that lead agencies should define the geographic scope of the area affected by the cumulative effect. Table 4-2 provides a summary of the different geographic areas used to evaluate cumulative impacts.

Table 4-2: Geographic Considerations in Cumulative Analysis	
Resource Area	**Geographic Area**
Aesthetics	Project site and adjacent parcels
Agriculture and Forestry Resources	Countywide
Air Quality	San Francisco Bay Area Air Basin
Biological Resources	Project site and adjacent parcels
Cultural Resources	Project site and adjacent parcels
Energy	Energy provider's territory
Geology and Soils	Project site and adjacent parcels
GHGs	Planet-wide
Hazards and Hazardous Materials	Project site and adjacent parcels
Hydrology and Water Quality	Project site and adjacent parcels
Land Use and Planning/Population and Housing	Citywide
Minerals	Identified mineral recovery or resource area
Noise and Vibration	Project site and adjacent parcels
Public Services and Recreation	Citywide
Transportation/Traffic	Citywide
Tribal Cultural Resources	Project site and adjacent parcels
Utilities and Service Systems	Citywide
Wildfire	Within or adjacent to the wildfire hazard zone

4.1 AESTHETICS

4.1.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Aesthetics				
Would the project:				
1) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
3) In non-urbanized areas, substantially degrade the existing visual character or quality of public views[14] of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	
4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

4.1.2 Environmental Setting

4.1.2.1 Regulatory Framework

California Scenic Highway Program. The California Scenic Highway Program was established by the Legislature as Article 2.5 (commencing with section 260) of the Streets and Highways Code. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. Section 263 of the Streets and Highways Code, the "State Scenic Highway System List," provides a list of highways that have been either officially designated or are eligible for designation as a state scenic highway. Review of the list shows the project site is not along a designated state scenic highway, however, a segment of State Route (SR) 24 from the east portal of the Caldecott Tunnel to SR 680 near Walnut Creek a section of

[14] Public views are those that are experienced from publicly accessible vantage points.

the highway in Contra Costa County is listed as a Designated Scenic Highway. The Project Site is not visible from this section of the highway.

Conta Costa County General Plan. The Contra Costa County General Plan identifies scenic resources in the region that include scenic ridges, hillsides, and rock outcroppings and the San Francisco Bay/Delta estuary system. The Project Site is not identified as a scenic resource. Figure 9-1 of the Contract Costa County General Plan identifies several scenic ridges and scenic waterways within the County[15]. The closest identified scenic ridge is located approximately 3 miles south of the Project Site and it sits approximately 500 to 800 feet above the Project Site elevation and therefore the Project would not impede views, in the limited areas the ridge may be visible from surrounding properties. The Sacramento River is located approximately 2 miles north of the Project Site and is identified in the Contra Costa General Plan as a scenic waterway but is not visible from the project site.

City of Pittsburg General Plan 2040[16]. The City of Pittsburg General Plan 2040 does not designate any scenic corridors within the City. The General Plan 2040 at Page 10-1 identifies that scenic resources are addressed in Chapter 4, Urban Design Element. Figure 4-1 identifies viewsheds and ridgelines and Chapter does include policies designed to protect visual resources by encouraging the built environment that respects the City's natural features and viewsheds. The Project Site is not within any designated viewshed or ridgeline.

4.1.2.2 Existing Conditions on Site

As discussed in Section 2.2.1 Existing Site Description, the approximately 22.31 acre site is currently part of the abandoned Delta View Golf Course. The general visual character of the Project Site can be seen in the photographs included in the Arborist Report in Appendix C. The Project is within an urbanized area.

Surrounding Land Uses

The property is irregularly shaped and is generally bound to the North by West Leland Road and existing residential development, to the East by an existing PG&E transmission easement, and to the South and West by the Contra Costa Canal.

[15] Contra Costa County General Plan 2005-2020, January 18, 2005, Page 9-6.
[16] Pittsburg General Plan 2040, Draft December 2023.

The area to the north and east of the Project Site consists primarily of residential land uses. The area to the south and west of the Project Site consists of the remainder of the abandoned golf course. The nearest residence is located to the north approximately 400 feet from the Project boundary.

4.1.3 Environmental Impact Discussion

For purposes of analyzing potential Aesthetic related impacts, it is not necessary or prudent to separate the potential impacts of the PBGF and the PDH. Therefore, the following analysis uses the term "Project" which encompasses both construction and operation of the PBGF, the PDH and all related ancillary facilities.

4.1.3.1 Would the project have a substantial adverse effect on a scenic vista?

There are no scenic vistas within the project area. The Project, therefore, would not have a substantial adverse effect on a scenic vista. **(No Impact)**

4.1.3.2 Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The site is not visible from a scenic highway. The Project would not substantially damage scenic resources within a state scenic highway. **(No Impact)**

4.1.3.3 If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The Project is in an urbanized area. The Project does not conflict with any of the City of Pittsburg General Plan 2040 policies governing scenic quality because those policies apply to projects within designated viewsheds or ridgelines and hillside developments. The Project is not within either designation or is it a hillside development. In addition, the Project Site is an abandoned golf course and has no unique natural topographic rock outcropping or mature creeks. An arborist survey (See Appendix C) was conducted for the Project Site, which concluded that the site also does not support any mature trees that can or should be preserved.

As discussed in Section 4.11 of this SPPE Application, the City is undertaking a zoning modification to conform the zoning code to the General Plan 2040 once it is adopted. The City is also considering a Specific Plan for the Project Site and property to the north which would authorize development of a technology park on additional abandoned golf course property. The City will also have ultimate land use approval authority over the PDH and PBGF should the Commission grant the SPPE. Therefore, the City would ensure that the Project would conform to the ultimate zoning requirements in its Development Review

process that would ensure compliance with any of its requirements to protect scenic resources. **(Less Than Significant Impact)**

4.1.3.4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Chapter 18 (Zoning) of Pittsburg Municipal Code, includes requirements for lighting and glass installation with the intent of minimizing the effects of lighting and glare. Section 18.82.030, Glare, states:

a) From Glass. Mirror or highly reflective glass may not cover more than 20 percent of a building surface visible from a street unless an applicant submits information demonstrating to the satisfaction of the city planner that use of such glass will not significantly increase glare visible from an adjacent street and property or pose a hazard for moving vehicles.

b) From Outdoor Lighting. Parking lot lighting must comply with Pittsburg Municipal Code 18.78.050(F). Security lighting may be indirect or diffused, or be shielded or directed away from an R district within 100 feet. Lighting for outdoor court or field games within 300 feet of an R district requires approval of a use permit.

The Project is not incorporating large glass panels that would significantly increase glare. The Project would include pole mounted site light fixtures along the site perimeter, as well as along the perimeter of the PBGF utility yard, and outdoor security lighting along the PDH building and driveway entrances. Security lighting will be indirect and diffused and parking lot lighting will comply with Pittsburg Municipal Code 18.78.05(F).

Building materials and lighting plans would be reviewed by the City through its Development Review process to issuance of building permits to ensure that the Project would not create a substantial new source of light or glare. The Project, therefore, would not create a new source of substantial light or glare, nor would it adversely affect day or nighttime views in the area. **(Less than Significant Impact)**

4.1.4 Project Design Measures

No Project Design Measures are required to support a finding by the Commission that the Project will not result in significant adverse visual resource or aesthetic impacts.

4.1.5 Governmental Agencies

The only governmental agency with regulatory authority applicable to aesthetics and visual resources for the Project would be the City of Pittsburg. Compliance with the City of Pittsburg requirements will be ensured through its design review process.

4.2 AGRICULTURAL AND FORESTRY RESOURCES

4.2.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Agriculture and Forest Resources				
Would the project:				
1) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
3) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
4) Result in a loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
5) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

4.2.2 Environmental Setting

According to the Pittsburg General Plan 2040 Draft Environmental Impact Report Figure 3.2-1 and Figure 3.2-2, the Project Site is designated as Urban and Built-Up Land, It is not designated as Prime Farmland, Farmland of Statewide or Local Importance, or subject to a Williamson Act Contract.

4.2.3 Environmental Impact Discussion

For purposes of analyzing potential agricultural impacts, it is not necessary or prudent to separate the potential impacts of the PBGF and the PDH. Therefore, the following analysis uses the term “Project” which encompasses construction and operation of the PBGF, the PDH and all related ancillary facilities.

4.2.3.1 Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The Project Site is designated as Urban and Built-Up Land. It is not designated as Prime Farmland, Farmland of Statewide or Local Importance and therefore no conversion of any protected farmland would occur if developed. **(No Impact)**

Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The Project Site and adjacent property is not designated by the City of Pittsburg General Plan or existing or proposed zoning for agricultural uses, and is not subject to a Williamson Act contract. **(No Impact)**

4.2.3.2 Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

The Project Site and surrounding property is not zoned as forest or timberland. Therefore, would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **(No Impact)**

4.2.3.3 Would the project result in a loss of forest land or conversion of forest land to non-forest use?

No forestland is located on or near the site. The Project, therefore, would not result in a loss of forest land or conversion of forest land to non-forest use. **(No Impact)**

4.2.3.4 Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

As described above, no farmland or forest land is located on or near the site. The Project, therefore, would not involve other changes in the existing environment which could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use. **(No Impact)**

4.2.4 Project Design Measures

No Project Design Measures are required to support a finding by the Commission that the Project will not result in significant impacts to agricultural resources.

4.2.5 Governmental Agencies

There are no government agencies with agricultural or forest service-related regulatory authority applicable to the Project.

4.3 AIR QUALITY

This section presents the evaluation of emissions and impacts resulting from the construction and operation of PBGF which supports the PDH. The analysis incorporates the proposed design measures to be used to minimize emissions and limit impacts to below established significance thresholds. This section is based upon an analysis prepared by Ramboll US Consulting Inc. dated February 2024 and included in Appendix B..

This section summarizes the methodology, findings and conclusions of the contained in Appendix B and this summary is intended to be read together with the analyses contained in Appendix B.

4.3.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Air Quality				
Would the project:				
1) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
2) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
3) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

4.3.2 Environmental Setting

The Project is located in the San Francisco Bay Area Air Basin (SFBAAB). Air Quality in the SFBAAB is better than most other areas, including the South Coast, San Joaquin Valley, and Sacramento regions. This is due to a more favorable climate, with cooler temperatures and better air circulation[17]. PBGF's proximity to both the Pacific Ocean and the San Francisco Bay has a moderating influence on the climate.

[17] The rapid horizontal movement of air and injection of cleaner air.

Pollutants in the air can cause health problems, especially for children, the elderly, and people with heart or lung problems. Healthy adults may experience symptoms during periods of intense exercise. Pollutants can also cause damage to vegetation, animals, and property.

Air quality is determined by measuring ambient concentrations of criteria pollutants, which are those pollutants for which acceptable levels of exposure can be determined and for which standards have been set. Degradation of air quality is determined by comparing projected air concentrations to the available ambient air quality standards. Toxic air contaminants (TACs) are different from criteria pollutants as there are no ambient air quality standards for TACs, and a health risk assessment (HRA) is conducted to evaluate whether risks of exposure to TACs create an adverse impact.

Please see Section 4.8 of this SPPE Application for more details on the project's greenhouse gas emissions.

4.3.2.1 Overview of Existing Air Quality

Air Quality Standards. The U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for the following seven pollutants, termed criteria pollutants: ozone, nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter with aerodynamic diameter less than or equal to 10 microns (PM_{10}), particulate matter with aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), and airborne lead. Similarly, the California Air Resources Board (CARB) has established California Ambient Air Quality Standards (CAAQS) for the seven pollutants listed above and for visibility-reducing particles (VRP), sulfates, hydrogen sulfide, and vinyl chloride. Unique meteorological conditions in California and differences of opinion by medical panels established by the CARB and EPA cause considerable diversity between state and federal standards currently in effect in California. In general, the CAAQS are more stringent than the corresponding NAAQS. The standards currently in effect in California are shown in Table 20 of Appendix B.

Attainment Status. The EPA, CARB, and local air districts classify areas as attainment, unclassified, or nonattainment. The classification depends on whether the monitored ambient air quality data show compliance, insufficient data available, or non-compliance with the ambient air quality standards, respectively. PBGF would be located within Contra Costa under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). Table 4.3-1 below summarizes attainment status for the criteria pollutants in the SFBAAB with regards to both the federal and state standards.

Table 4.3-1. Attainment Status for the San Francisco Bay Area Air Basin

Pollutant	Averaging Time	Federal Designation	State Designation
Ozone	1 hour 8 hours	-- Marginal Non-attainment[a]	Non-attainment Non-attainment
CO	1 hour 8 hours	Maintenance Maintenance	Attainment Attainment
NO_2	1 hour Annual Arithmetic Mean	Attainment Attainment	Attainment --
SO_2	1 hour 3 hours 24 hours Annual Arithmetic Mean	Attainment Attainment Attainment Attainment	Attainment -- Attainment --
PM_{10}	24 hours Annual Arithmetic Mean	Unclassified --	Non-attainment Non-attainment
$PM_{2.5}$	24 hours Annual Arithmetic Mean	Non-attainment[b] Unclassified/Attainment	-- Non-attainment
Lead	30-Day Average Calendar Quarter Rolling 3-Month Average	Attainment Attainment --	-- -- --
VRP	8 hours	--	Unclassified
Sulfates	24 hours	--	Attainment
Hydrogen Sulfide	1 hour	--	Unclassified
Vinyl Chloride	24 hours	--	No information available

Sources: EPA, 2019b; CARB, 2019a; BAAQMD, 2017a

a On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. USEPA made recommendations on attainment designations for California by October 1, 2016 and issued final designations on June 4, 2018, classifying the San Francisco Bay Area Air Basin as being in Nonattainment (Federal Register Vol. 83, No. 107, pp. 25776-25848). Nonattainment areas will have until 2020 to 2037 to meet the health standard, with attainment dates varying based on ozone level in the area.

b On January 9, 2013, EPA issued a final rule to determine that the Bay Area attains the 24-hour $PM_{2.5}$ national standard. This EPA rule suspends key State Implementation Plan requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this EPA action, the Bay Area will continue to be designated as "non-attainment" for the national 24- hour $PM_{2.5}$ standard until such time as the BAAQMD submits a "redesignation request" and a "maintenance plan" to EPA, and EPA approves the proposed redesignation.

-- = No standard has been adopted for this averaging time

4.3.2.2 Existing Conditions

The existing conditions in the project area are summarized in Table 21, Appendix B, which provides the background ambient air concentrations of criteria pollutants for the previous 3 years (2020-2022) as measured at certified monitoring stations near the PBGF site. To evaluate air quality degradation as a result of PBGF, modeled air concentrations are combined with the respective background concentrations presented in Table 21,

Appendix B and used for comparison to the NAAQS and CAAQS, identified in Table 20, Appendix B.

Each criteria pollutant and TAC is described in this section, including their known health risks.

Ozone. Ozone is a photochemical oxidant that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NOX) react in the presence of ultraviolet sunlight. The principal sources of VOCs and NOX, often termed ozone precursors, are combustion processes (including motor vehicle engines) and evaporation of solvents, paints, and fuels. Exposure to levels of ozone above the current ambient air quality standards can lead to human health effects such as lung inflammation, lung tissue damage, and impaired lung functioning. Ozone exposure is also associated with symptoms such as coughing, chest tightness, shortness of breath, and the worsening of asthma symptoms. The greatest risk for harmful health effects belongs to outdoor workers, athletes, children, and others who spend greater amounts of time outdoors during smoggy periods. Elevated ozone levels can reduce crop and timber yields, as well as damage native plants. Ozone can also damage materials such as rubber, fabrics, and plastics.

Carbon Monoxide. CO is a colorless, odorless gas formed by incomplete combustion of fossil fuels. Exposure to CO near the levels of the NAAQS and CAAQS can lead to fatigue, headaches, confusion, and dizziness.

Nitrogen Dioxide. NO2 is a byproduct of combustion sources such as on-road and off-road motor vehicles or stationary fuel combustion sources. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO); however, NO reacts quickly with oxygen to form NO2, creating a mixture of NO and NO2 commonly called NOX. Exposures to NO2, along with pollutants from vehicle exhaust, are associated with respiratory symptoms, episodes of respiratory illness, and impaired lung function.

Sulfur Dioxide. SO2 is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Effects from SO2 exposures at levels near the 1-hour standard include bronchoconstriction accompanied by symptoms that may include wheezing, shortness of breath, and chest tightness, especially during exercise or physical activity.

Particulate Matter. Particulate matter (PM10 and PM2.5) includes a wide range of solid or liquid particles, including smoke, dust, aerosols, and metallic oxides. Extensive research indicates that exposures to ambient PM10 and PM2.5 concentrations that exceed current air quality standards are associated with increased risk of hospitalization for lung- and heart-related respiratory illness, including emergency room visits for asthma. Particulate matter exposure is also associated with increased risk of premature death, especially in the elderly and people with pre-existing cardiopulmonary disease. In

children, studies have shown association between particulate matter exposure and reduced lung function and increased respiratory symptoms and illnesses.

TACs. The health effects associated with TACs are quite diverse, and generally are assessed locally, rather than regionally. TACs could cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage; or short-term effects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches (BAAQMD, 2017c). Numerous other health effects also have been linked to exposure to TACs, including heart disease, Sudden Infant Death Syndrome, respiratory infections in children, lung cancer, and breast cancer (OEHHA, 2015).

Regulatory Background

Federal, state, and regional agencies regulate air quality in the SFBAAB, where PDH is located.

Federal. At the federal level, EPA is responsible for overseeing implementation of the federal Clean Air Act and its subsequent amendments (CAA). As required by the federal CAA, NAAQS have been established for the criteria pollutants described above.

CAA Section 112 (Title 42, U.S. Code Section 7412) addresses emissions of hazardous air pollutants (HAPs). This act requires new sources that emit more than 10 tons per year of any specified HAP or more than 25 tons per year of any combination of HAPs to apply Maximum Achievable Control Technology (MACT).

State. CARB is the state agency that regulates mobile sources throughout the state and oversees implementation of the state air quality laws and regulations, including the California Clean Air Act. CARB also established the CAAQS, which are typically considered more stringent than the NAAQS.

TACs are primarily regulated through state and local risk management programs, which are designed to eliminate, avoid, or minimize the risk of adverse health effects from exposures to TACs. A chemical becomes a regulated TAC in California based on designation by the California Office of Environmental Health Hazard Assessment (OEHHA) (BAAQMD, 2017c). Assembly Bill 2588, also known as the Air Toxics “Hot Spots” Information and Assessment Act,[18] requires that, based on results of an HRA conducted per CARB/OEHHA guidelines, TACs do not exceed acceptable levels. As part of its jurisdiction under Assembly Bill 2588,[19] OEHHA derives cancer potencies and reference exposure levels (RELs) for individual air contaminants, based on the current

[18] California Health and Safety Code Sections 44360 – 44366.

[19] California Health and Safety Code Section 44360(b)(2).

scientific knowledge that includes consideration of possible differential effects on the health of infants, children, and other sensitive subpopulations, and in accordance with the mandate of the Children's Environmental Health Protection Act.[20] Sections of the California Public Resources Code require a quantitative HRA for new or modified sources, including power plants that emit one or more TACs.[21]

Regional. BAAQMD is the primary regional agency responsible for attaining and maintaining air quality conditions in the SFBAAB through a comprehensive program of planning, regulation, and enforcement (BAAQMD, 2017c). Some of the BAAQMD's key air plans and regulations are described below.

2017 Bay Area Clean Air Plan. The 2017 Bay Area Clean Air Plan was adopted by the BAAQMD on April 19, 2017, and provides a regional strategy to protect public health and protect the climate. The 2017 Bay Area Clean Air Plan updates the most recent Bay Area ozone plan, the 2010 Clean Air Plan, and is a multi-pollutant air quality plan addressing four categories of air pollutants (BAAQMD, 2017b):

1. Ground-level ozone and the key ozone precursor pollutants (VOCs and NOX)
2. Particulate matter (PM10 and PM2.5), as well as the precursors to secondary PM2.5
3. TACs
4. Greenhouse gases

BAAQMD Regulation 2, Rule 2: New Source Review. This rule applies to all new or modified sources requiring a Permit to Operate and requires Best Available Control Technology (BACT) for any new source with a Potential to Emit 10.0 or more pounds per day (lb/day) of any single pollutant. Offsets are required at a ratio of 1:1 if more than 10 tons per year but less than 35 tons per year of NOX or Precursor Organic Compounds, or more than 100 tons per year of PM2.5, PM10, or SO2, are emitted. Offsets are required at a ratio of 1.15:1 if more than 35 tons per year of NOx or Precursor organic compound is emitted.

BAAQMD Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants. This rule provides for the review of new and modified sources of TAC emissions to evaluate potential public exposure and health risk. Under this rule, a project would be denied an Authority to Construct if it exceeds any of the specified risk limits, which are consistent with BAAQMD's California Environmental Quality Act (CEQA) significance thresholds. Best Available Control Technology for Toxics (TBACT) would also be required for any

[20] Senate Bill 25, Escutia, Chapter 731, Statutes of 1999; California Health and Safety Code Sections 39669.5 et seq.

[21] California Public Resources Code Section 25523(a); Title 20, Sections 1752.5, 2300 – 2309 and Division 2, Chapter 5, Article 1, Appendix B, Part (1), California Code of Regulations (CCR); California Clean Air Act; California Health and Safety Code Section 39650, et seq.

new or modified source of TACs where the source has a cancer risk greater than 1.0 in 1 million or a chronic hazard index (HI) greater than 0.20. The specific toxicity values of each particular TAC, as identified by OEHHA, are listed in Table 2-5-1 of this rule for use in the HRA.

4.3.3 Environmental Impact Discussion

4.3.3.1 Significance Criteria

This analysis is based upon the general methodologies in the most recent BAAQMD CEQA Guidelines (last updated in April 2022) and numeric thresholds for the SFBAAB, including the criteria pollutant thresholds listed in Table 20.

For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Therefore, there are two kinds of thresholds for TACs. Cancer risk is expressed as excess cancer cases per 1 million exposed individuals, typically over a lifetime of exposure. Acute and chronic exposure to non-carcinogens is expressed as an HI, which is the ratio of expected exposure levels to an acceptable REL.

The significance thresholds for TACs and PM2.5 applied to the siting of a single source are provided in Table 4.3-2 and are as follows:

- An excess lifetime cancer risk level of more than 10 in 1 million
- A non-cancer chronic HI greater than 1.0
- A non-cancer acute HI greater than 1.0
- An incremental increase in the annual average $PM_{2.5}$ concentration of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$)

The significance thresholds for cumulative impacts are also summarized below and included in Table 4.3-2. A project would have a cumulative considerable impact if the aggregate total of all past, present, and reasonably foreseeable future sources within a 1,000-foot distance from the fence line of a source plus the contribution from the project, exceeds the following:

- An excess lifetime cancer risk level of more than 100 in 1 million
- A non-cancer chronic HI greater than 10.0
- An annual average $PM_{2.5}$ concentration of greater than 0.8 µg/m3

For assessing community risks and hazards, a 1,000-foot distance is recommended around the project property boundary. BAAQMD recommends that any proposed project that includes the siting of a new source assess associated impacts within 1,000 feet, taking into account both individual and nearby cumulative sources (that is, proposed project plus existing and foreseeable future projects).

Cumulative sources represent the combined total risk values of each individual source within the 1,000-foot evaluation zone.

Table 4.3-2. Bay Area Air Quality Management District Thresholds of Significance

Pollutant	Construction	Operation	
	Average Daily Emissions (lb/day)	Average Daily Emissions (lb/day)	Maximum Annual Emissions (tons per year)
VOCs, NOX	54	54	10
PM10	82 (exhaust only)	82	15
PM2.5	54 (exhaust only)	54	10
Fugitive Dust	BMPs	None	None
Risk and Hazards for New Sources and Receptors (Project)	Same as Operational Threshold	Increased cancer risk of > 10.0 in 1 million Increased non-cancer risk of > 1.0 HI (chronic or acute) Ambient PM2.5 increase of > 0.3 µg/m3 (Zone of influence: 1,000-foot radius from property line of source or receptor)	
Risk and Hazards for New Sources and Receptors (Cumulative)	Same as Operational Threshold	Increased cancer risk of > 100 in 1 million (from all local sources) Increased non-cancer risk of > 10.0 HI (from all local sources) (chronic) Ambient PM2.5 increase of > 0.8 µg/m3 (from all local sources) (zone of influence: 1,000-foot radius from property line of source or receptor)	

Source: BAAQMD, 2017c.
> = greater than
BMP = best management practice

4.3.3.2 Would the project conflict with or obstruct implementation of the applicable air quality plan?

The PDH and the PBGF project would not conflict with or obstruct the implementation of the applicable air quality plan due to the following:

- The PBGF will comply with all applicable rules and regulations of the BAAQMD regarding emissions of criteria pollutants.
- The PBGF will comply with all applicable rules and regulations of the BAAQMD regarding emissions of toxic pollutants.
- The proposed engines at the PBGF will comply with the applicable federal Tier 4 emissions standards for emergency standby electrical generation CI engines.
- The PBGF will comply with all applicable provisions of the applicable 2017 BAAQMD Air Quality Implementation Plan.
- The PBGF will obtain and maintain all required air quality related permits from the BAAQMD.

(Less than Significant Impact)

4.3.3.3 Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Construction

Tables ES-1 and 7 in Appendix B, summarize the results of the construction air quality analysis and demonstrate that the Project will not result in a cumulatively considerable net increase of any criteria pollutant using the BAAQMD CEQA significance thresholds identified above for construction activities.

In addition to the analysis required to compare the project emissions to the BAAQMD CEQA significance thresholds for construction activities, an air quality modeling analysis was performed to compare the modeled impacts during construction to the national and California air quality standards. Tables 33 and 34 in Appendix B present the results of the analysis and demonstrate maximum modeled ambient concentrations from Project construction and operation of the PBGF, when combined with background concentrations were found to be less than the applicable NAAQS and CAAQS for all pollutants, except the 24-hour PM2.5 NAAQS and 24- hour PM10 CAAQS. In these two cases, the PM2.5 and PM10 background concentrations exceed the standards on their own. Therefore, Project concentrations were compared against the respective significant impact levels (SILs) and were found to be below those values. See Table 36 in Appendix B. As a result, emissions from Project construction of the Project would not cause or contribute to an exceedance of these standards.

The emissions estimated during construction activities assume that emissions are reduced with the implementation of PDM AQ-1 which incorporates the most effective of the best management practices recommended by the BAAQMD CEQA Guidelines.

(Less than Significant Impact with Mitigation Incorporated into the Project Design - PDM AQ-1)

Operation

Tables ES-2 and 18 of Appendix B demonstrate that operation of the Project would not result in a cumulatively considerable net increase of any criteria pollutant when compared with BAAQMD CEQA significance thresholds. This analysis relies on existing BAAQMD regulations that require full offsets for NOx emissions.

In addition to the analysis required to compare the project emissions to the BAAQMD CEQA significance thresholds for operational activities, an air quality modeling analysis was performed to compare the modeled impacts during maintenance and testing of the generators to the national and California air quality standards. Tables 31 and 32 in Appendix B present the results of the analysis and demonstrate maximum modeled

ambient concentrations from Project operation, when combined with background concentrations were found to be less than the applicable NAAQS and CAAQS for all pollutants, except the 24-hour PM2.5 NAAQS and 24- hour PM10 CAAQS. In these two cases, the PM2.5 and PM10 background concentrations exceed the standards on their own. Therefore, Project concentrations were compared against the respective significant impact levels (SILs) and were found to be below those values. See Table 36 in Appendix B. As a result, emissions from Project operations would not cause or contribute to an exceedance of these standards.

(Less than Significant Impact with Mitigation Incorporated into the Project Design)

4.3.3.4 Would the project expose sensitive receptors to substantial pollutant concentrations?

As described in Appendix B, the methodology for evaluating potential effects to public health, including modeling criteria pollutants and comparing to the national and California air quality standards because these standards were set partially based on health standards. As described in Section 4.3.3.3 above, comparison the maximum concentrations of criteria pollutants from construction and operation of the Project do not violate the national or California standards and for PM10 and PM 2.5 emissions, the project's contribution to background is not significant.

The second methodology to evaluate potential public health impacts employed was conducting a Health Risk Assessment (HRA) in accordance with BAAQMD guidance. The methodology for conducting and the results of the HRA are discussed below.

Construction

As shown in Table 42 in Appendix B, the potential health-related impacts from construction of the Project at all sensitive receptors are significantly below the BAAQMD CEQA significance thresholds. Figure 4 in Appendix B identifies the sensitive receptors by category within 1000 meters that were used in the evaluation. The emissions from the construction of the Project will not result in significant air quality or health-related impacts. **(Less Than Significant Impacts)**

Operation

As shown in Table 43 in Appendix B, the potential health-related impacts from operation of the Project at all sensitive receptors are significantly below the BAAQMD CEQA significance thresholds. Figure 4 in Appendix B identifies the sensitive receptors by category within 1000 meters that were used in the evaluation. The emissions from operation of the Project will not result in significant air quality of health-related impacts. **(Less Than Significant Impacts)**

Cumulative Operation

As described in Appendix B, the potential cumulative air quality and health-related impacts from operation of the Project along with operation of other existing and foreseeable emissions sources provided by BAAQMD was conducted. Table 44 of Appendix B demonstrates that the potential cumulative effects on public health for all sensitive receptors were less than the BAAQMD CEQA significance thresholds. Therefore the Project will not result in cumulative air quality or public health-related significant impacts.

(Less Than Significant Impacts)

4.3.3.5 Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Construction and Operation

The PBGF project would not result in other emissions or odors that would adversely affect a substantial number of people due to the following:

- Similar facilities, both larger and smaller in scale, have not been identified as sources of odors that would adversely affect offsite receptors.
- The PBGF and PDH are not one of the project types listed in the BAAQMD CEQA guidelines as producing odors that may affect offsite receptors.
- The analysis has not identified any operational or construction practices that are planned for use at the project site, which would generate substantial amounts of odors that would affect offsite receptors.

(Less than Significant Impact)

4.3.4 Project Design Measures

Construction. AVAIO incorporates the following measure into the design of the project to minimize construction related air emissions.

PDM AQ-1: To ensure that fugitive dust impacts are less than significant, the project will implement the BAAQMD's recommended BMPs during the construction phase. These BMPs are incorporated into the design of the project and will include:

- Water all exposed areas (e.g. parking areas, graded areas, unpaved access roads) twice a day.
- Maintain a minimum soil moisture of 12% in exposed areas by maintaining proper watering frequency.

- Cover all haul trucks carrying sand, soil or other loose material.
- Suspend excavation, grading and/or demolition activities when average wind speed exceeds 20 miles per hour.
- Pave all roadways, driveways and sidewalks as soon as possible. Lay building pads as soon as grading is completed, unless seeding or soil binders are used.
- Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction with a maximum 50 percent air porosity.
- Use a power vacuum to sweep and remove any mud or dirt-track next to public streets, if visible soil material is carried onto the streets.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- Minimize idling time for all engines by shutting engines when not in use or limiting idling time to a maximum of 5 minutes. Provide clear signage for construction workers at all access points.
- Properly tune and maintain construction equipment in accordance with manufacturer's specifications. Check all equipment against a certified visible emissions calculator.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints
- Install vegetative ground cover in disturbed areas as soon as possible and water appropriately until vegetation is established.
- Limit simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.
- Install water washers to wash all trucks and equipment prior to leaving site.
- Treat site access to a distance of 100 feet from the paved road with a 6 to 12-inch compacted layer of wood chip, mulch or gravel
- Install sandbag or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- Minimize idling time of diesel-powered construction vehicles to two minutes
- Develop a plan demonstrating that off-road equipment (more than 50
- horsepower) used for construction would achieve a project wide fleet-average 20 percent NOX reduction and 45 percent PM reduction compared to the most recent ARB fleet average. These include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.
- Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).
- All construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM.
- All contractors use equipment that meets CARB's most recent certification standard for off-road heavy-duty diesel engines

Operations. No Project Design Measures are required for operations related to air quality impacts because the project will fully offset its NOx emissions in accordance with BAAQMD existing rules.

4.3.5 Governmental Agencies

As discussed above the BAAQMD has regulatory authority over the air emissions from the PBGF. The PBGF will obtain and comply with the BAAQMD's Authority to Construct and Permit to Operate requirements.

4.4 BIOLOGICAL RESOURCES

This section evaluates potential effects on biological resources that may result from project implementation. This section is based on the Biological Evaluation Report dated February 2024 prepared by Vollmar Natural Lands Consulting and included in Appendix C. Appendix C describes the results of the survey conducted by Volmar and assesses the site's potential to support special-status species, sensitive biological communities such as wetlands or riparian habitats, and the potential presence of other sensitive biological resources protected by local, State, and federal laws and regulations.

An arborist report for the project site was prepared by to identify and map the trees present on-site, determine each tree's overall condition, and determine if any trees are regulated under any local policies or city ordinances. The arborist report is presented as Attachment C to the Biological Evaluation Report.

This section is intended to be read in conjunction with the materials contained in Appendix C.

4.4.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Biological Resources				
Would the project:				
1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
3) Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	☐	☒
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	☐	☐	☐	☒

4.4.2 Regulatory Setting

4.4.2.1 Federal Regulations

Federal Endangered Species Act

The federal Endangered Species Act of 1973 (ESA) (16 USC Section 1531 *et seq*.) provides comprehensive protection for at-risk plants, fish, and wildlife, and the habitats on which they depend. It requires that federal departments and agencies "seek to conserve endangered and threatened species", and it provides the means to ensure that

the policy is translated into action by establishing a process for identifying ("listing") and protecting species, subspecies, and populations that qualify as *Endangered* (in danger of extinction in all or a significant portion of their range) or *Threatened* (likely to become endangered in the near future). Recognizing that a species cannot be preserved outside the context of its ecosystem, the ESA also requires the designation of *critical habitat* for each listed species; this refers to habitat that has been found essential to the species' conservation, which may require special management and/or protection. The ESA is administered by the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries). USFWS is responsible for terrestrial and freshwater species, and NOAA Fisheries oversees marine and anadromous[22] species.

Species that have been listed as Endangered or Threatened are protected from unauthorized "take", which is defined as including various kinds of harm ranging from harassment up to injury and killing, as well as the attempt to engage in any such activity. The ESA also generally prohibits digging up, removing, cutting and maliciously damaging or destroying federally listed plants on sites under federal jurisdiction.

The ESA establishes processes to enable limited take of listed species where take occurs as a corollary of otherwise legal activities and is not the purpose of the activities, referred to as *incidental take*. Under ESA Section 10[a][1][B], nonfederal entities such as cities, counties, private concerns, and individuals may obtain permits for incidental take subject to federal agency approval of a habitat conservation plan (HCP) that analyzes the extent and effects of the anticipated take and describes the measures that will be taken to avoid, minimize, and compensate for it. ESA Section 7 establishes a parallel process to authorize incidental take for activities with federal agency involvement. This requires

(1) preparation of a Biological Assessment (BA) that identifies the species affected, the level and nature of take anticipated, and the measures that will be implemented to avoid and minimize take where possible and to compensate for take that cannot be avoided

(2) consultation between the federal agency proposing, permitting, or funding the proposed activities and the agency with jurisdiction over the affected species (USFWS and/or NOAA Fisheries)

Approval of the BA by USFWS and/or NOAA Fisheries is followed by issuance of a Biological Opinion (BO) that formalizes the terms and conditions under which take may occur.

[22] *Anadromous* refers to species that migrate between fresh- and saltwater habitats, such as salmon and steelhead.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA) (16 USC Sections 703 – 712 *et seq*.) implemented a prior agreement between the Unites States and Great Britain (as the administrative authority for Canada) for the protection of migratory birds.[23] The MBTA was subsequently amended to implement similar treaties with Mexico, Japan, and the former Soviet Union. An important 1976 amendment to the MBTA extended its protection to the ecosystem level by ratifying an agreement with the Soviet Union to protect ecosystems with special importance to migratory birds against pollution and other forms of environmental degradation.

The MBTA is intended to prevent harm to migratory birds, their nests, and their eggs; in general, it prohibits their pursuit, hunting, take, possession, sale, purchase, shipment, delivery, and export, although these activities may be authorized by permitting in limited circumstances—for example, for activities such as scientific collecting, falconry, education, rehabilitation, and migratory game bird propagation. The MBTA also establishes seasons and bag limits for species that are hunted.

Knowing violation of the MBTA's provisions may constitute a felony, and both misdemeanor and felony convictions under the Act are punishable by imprisonment or fines. In total, the MBTA protects more than 800 species; this includes many species that are separately protected under other regulations such as the federal ESA, but part of the MBTA's importance is that it extends protection to a large number of common species that are not otherwise regulated.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC Sections 668 – 668[c])—originally enacted in 1940 and amended several times thereafter—prohibits and criminalizes the take, possession, sale, barter, transport, import, and export of Bald Eagles (*Haliaeetus leucocephalus*), Golden Eagles (*Aquila chrysaetos*), their parts (e.g., feathers), their nests, and their eggs. *Take* is defined in the Act as including pursuit, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, and disturbance. *Disturbance* includes both direct disturbance resulting in injury, nest abandonment, or decrease in productivity due to interference with normal breeding, feeding, or sheltering behavior, and indirect disturbance resulting from habitat modifications that interfere with normal activities or lead to nest abandonment.

USFWS may grant exceptions for traditional Native American cultural uses and for scientific activities, but no permits are allowed for import, export, or commercial activities involving eagles. Violations of the Act carry fines of up to $100,000 for individuals and

[23] *Migratory birds* are those that relocate from one region to another to take advantage of different habitat conditions during different seasons, or to complete different stages of their life cycle, such as robins and some sparrows.

$200,000 for organizations; penalties increase with repeated offenses, and a second violation of the Act is an automatic felony.

Fish and Wildlife Coordination Act

When it was originally signed into law in 1934, the Fish and Wildlife Coordination Act (FWCA) authorized the Secretaries of Agriculture and Commerce to assist federal and state agencies with the protection, rearing, and stocking of game and fur-bearing mammals, and the study of pollutant effects on wildlife. The original FWCA also required consultation with the Bureau of Fisheries (a precursor agency that eventually became part of USFWS), prior to the construction of new dams, and further required the Bureau of Fisheries to use impounded waters for fisheries culture and migratory bird habitat. Several amendments since that time have expanded the Act such that it is now the cornerstone of USFWS and NOAA Fisheries jurisdiction over the fish and wildlife impacts of projects that involve federal jurisdictional waters (Waters of the United States).

In its present form, FWCA (16 USC Sections 661 – 666[e]) requires federal agencies undertaking, permitting, or funding activities that would control or modify federally jurisdictional waters to consult with USFWS and/or NOAA Fisheries and the corresponding state agency, and to incorporate these agencies' recommendations for the protection, development, and improvement of wildlife resources into the project where feasible. For FWCA purposes, "control or modification" is understood to include construction of dams, levees, impoundments, and diversion structures; relocation of stream courses; placement of dredged and fill materials in federally jurisdictional waters; and discharge of pollutants, including municipal, industrial, and mining wastes into federal jurisdictional waters. This effectively gives USFWS and NOAA Fisheries authority to make recommendations for all projects requiring authorization from the U.S. Army Corps of Engineers (Corps) under Section 404 of the federal Clean Water Act and projects requiring authorization from the State Water Resources Control Board (SWRCB) via the Regional Water Quality Control Boards (RWQCBs) under Section 402 of the Clean Water Act.

4.4.2.2 State Regulations

California Endangered Species Act

Similar to its federal counterpart, the California Endangered Species Act (CESA) (Fish and Game Code Sections 2050 – 2115) identifies the protection and preservation of declining species as a state-level priority and establishes comprehensive protection for at-risk species within the state. It lays out a procedure for identifying and formally listing species that qualify as Endangered and Threatened, and clarifies the definitions of these terms as they are applied under California law: *Endangered* refers to native plant, fish, and wildlife species and subspecies that are in serious danger of extinction in a significant portion of their range due to one or more causes; *Threatened* encompasses native species and subspecies that are not currently under threat of extinction but are likely to

become Endangered in the foreseeable future unless special protection and management efforts are put in place. CESA is overseen by the California Department of Fish and Wildlife (DFW).

CESA prohibits all unauthorized take—defined in a manner similar to the ESA but excluding the prohibition on harassment—of Endangered and Threatened species. DFW may authorize incidental take (i.e., take that occurs as a corollary, and not the goal, of otherwise legal activities) of many listed species under Sections 2080 – 2081 of the Fish and Game Code, subject to review and approval of measures adopted to limit the extent of the take and compensate for its overall effects on the species. A critical exception is made for certain species considered Fully Protected; for these species, take and possession are prohibited except for purposes of scientific research. Fully Protected species include a number of fishes (Fish and Game Code Section 3515); amphibians and reptiles (Section 5050); birds, including birds of prey (Sections 3503.5, 3511, 3513, and 3800); and mammals (Section 4700).

California Native Plant Protection Act

The California Native Plant Protection Act of 1977 (CNPPA) (Fish and Game Code Sections 1900 – 1913), which prohibits the take, possession, importation, or sale of Rare and Endangered native plants except under specific circumstances, was the state's first law protecting at-risk plant species. It is now supplemented by more extensive protections afforded under CESA but continues to play an important role in protecting California's native plants.

In particular, CNPPA established the designation *Rare* for plants that are not currently under threat of extinction but are present in such small numbers that they may become Endangered if their present situation worsens (Fish and Game Code Section 1901). With the passage of CESA, the Threatened designation superseded the prior usage of Rare for fish and wildlife species, but this change did not extend to plants; as a result, there are three protected categories for at-risk plants in California: Rare, Threatened, and Endangered. As noted above, plants that qualify and have been formally listed as Threatened or Endangered are protected under CESA; those that are not CESA-listed but meet the definition of Rare continue to be protected under the CNPPA.

Other Sections of California Fish & Game Code

In addition to the sections that comprise CESA and the CNPPA, other portions of the Fish and Game Code provide additional protections, such as the following.

- Section 3513 establishes that take and possession of species designated by the MBTA as migratory nongame birds may occur only in a manner consistent with MBTA rules and regulations
- Section 4800 designates the mountain lion (*Puma concolor*) as a "specially protected" mammal and renders it a misdemeanor offense to "take, injure,

possess, transport, import, or sell" mountain lions and their products except under certain limited circumstances. Penalties of as much as 1 year in prison and/or a fine of up to $10,000 apply to violations. An exception applies in demonstrable cases of self-defense or defense of others, which are not considered to violate Section 4800

CNPS Rare Plant Inventory

The California Native Plant Society (CNPS) maintains an inventory of California's rare and endangered plants, and assigns species to one of several ranks—referred to as California Rare Plant Ranks or CRPRs—based on the degree of threat they face, as follows.

- Rank 1A: plants that are believed to be extinct, or at least extirpated from California, because they have not been seen in the wild in many years
- Rank 1B: plants that rare throughout their range, the majority of which are endemic to California and most of which have declined significantly over the last century; this rank includes more than 1,000 plants and represents the majority of taxa in the CNPS inventory
- Rank 2A: plants that are presumed to be extirpated from California, but are more common elsewhere in their range
- Rank 2B: plants that would have been ranked 1B based solely on their status within California, but are more common outside California
- Rank 3: "review list" plants about which too little is known to assess their status accurately; more information is needed either to show that these plants are not rare or to assign them to another appropriate rank
- Rank 4: "watch list" plants that are of limited or infrequent distribution but occur throughout a broad area in the state; these plants are not rare in the statewide context, but they are sufficiently uncommon that their status should be monitored regularly. If changes in status warrant, Rank 4 plants may be moved to another rank, or they may be de-ranked

Plants assigned to CNPS Ranks 1A, 1B, 2A, and 2B are presumed to qualify for listing under CESA; many of those assigned to Rank 3 also qualify (California Native Plant Society *n.d.*).

Further nuance is provided using "threat ranks" appended to the primary CRPR, as follows (California Native Plant Society *n.d.*).

- 0.1: seriously threatened in California (over 80% of occurrences threatened, representing a high degree and immediacy of threat)
- 0.2: moderately threatened in California (20 – 80% of occurrences threatened, representing a moderate degree and immediacy of threat)

- 0.3: not very threatened in California (less than 20% of occurrences threatened, reflecting either a low degree and immediacy of threat or no current threats known)

For example, a species assigned CRPR 4.3 has limited distribution but is subject to a low degree of threat; a species assigned CRPR 1B.1 is rare throughout its range and is under significant threat.

4.4.2.3 Regional Conservation Planning

The East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (ECC HCP/NCCP) is a regional conservation plan developed to provide a streamlined and simplified vehicle for authorization of take under the federal ESA and CESA. It lays out a conservation strategy to protect and recover listed species whose take is authorized via the HCP/NCCP process ("covered species"); central to this is an extensive preserve system compensating for habitat losses due to projects implemented under the HCP/NCCP (East Contra Costa County Habitat Conservation Plan Association 2006).

Under the ECC HCP/NCCP, which was approved by the resource agencies and adopted in 2006, the participating entities—the County of Contra Costa (County), the Contra Costa County Flood Control and Water Conservation District, the East Bay Regional Park District, and the Cities of Pittsburg, Brentwood, Clayton, and Oakley—are empowered to issue take permits for specific types of projects whose impacts on listed species are analyzed in the Plan document ("covered projects"). Project proponents seeking take authorization under the ECC HCP/NCCP pay development fees that are then pooled to fund various activities, including the acquisition and management of compensatory preserve lands. Fees are calculated on a per-acre basis and include a per-acre surcharge for impacts to jurisdictional wetlands and waters, to ensure that compensation is proportional in extent and kind to losses incurred due to covered projects (East Contra Costa County Habitat Conservation Plan Association 2006).

Projects that obtain coverage under the ECC HCP/NCCP are also required to implement specific avoidance and minimization measures, as follows (East Contra Costa County Habitat Conservation Plan Association 2006).

- **For all covered projects: planning surveys.** Planning surveys are conducted early in project development to identify the resources (species and habitats) potentially affected by the project and determine whether additional preconstruction surveys for particular species or other resources will be necessary. Planning surveys also quantify the extent of various habitat resources impacted by the project (acreages by habitat type); the HCP/NCCP Implementing Entity tracks these data and uses them to make sure the preserve system keeps pace with or exceeds total impact acreages and continues to provide adequate compensation for covered projects' aggregate impacts. Accordingly, planning surveys are

required for all covered projects except those that have no permanent impacts and only minimal temporary impacts

- **For projects with the potential to impact certain covered species: preconstruction surveys.** Because the ECC HCP/NCCP assumes (and provides compensation for) some take of covered species, preconstruction surveys are limited to the species that are expected to benefit most from minimizing take of individuals
- **For projects that warrant it, based on results of planning or preconstruction surveys:** construction monitoring by qualified biologist staff

4.4.2.4 Local Ordinances & Policies

City of Pittsburg Municipal Code

Habitat Conservation Plan/Natural Community Conservation Plan Ordinance

The City's Habitat Conservation Plan/Natural Community Conservation Plan Implementation Ordinance (HCP/NCCP Ordinance; Municipal Code Chapter 15.08), establishes procedures to implement the ECC HCP/NCCP at the City level. It applies to all development projects within the City's urban development area, with the exception of those that

- would result in permanent disturbance of less than 1 acre
- are entirely within an area mapped by the HCP/NCCP as *urban*, *turf*, *landfill* and/or *aqueduct*
- are not "covered projects" as defined by the HCP/NCCP
- are exempt under any provision of law

Projects with vested rights approved prior to the adoption of the HCP/NCCP Ordinance, and those with all City entitlements approved prior to the adoption of the Ordinance, are naturally also exempt. Projects are also exempted if City Council determines that compliance with the Ordinance would "deprive the project applicant of all reasonable economic use of the property in violation of federal or state constitutional prohibitions against the taking of property without just compensation", based on consideration of written evidence (Municipal Code Section 15.108.030).

Under the HCP/NCCP Ordinance, the City Planner administers HCP/NCCP implementation, reviews applications for completeness, and verifies fee payments (Municipal Code Section 15.108.040). All development applications for non-exempt projects must include an HCP application that includes the following (Municipal Code Sections 15.108.050 – 060).

- The City's standard HCP/NCCP application form, completed for the project

- A written description of the project (including construction and O&M), a grading plan, and a site plan
- A survey report summarizing the results of the planning surveys required by the HCP/NCCP
- Evidence of compliance with HCP/NCCP avoidance and minimization measures
- Quantification of permanent project-related land disturbance
- Estimated HCP/NCCP development and wetland mitigation fees due, and/or documentation of alternate approaches to offset these fees, plus an administrative fee to cover the City's review and processing costs (Municipal Code Section 15.108.070).

The HCP/NCCP Ordinance lays out options in lieu of the standard HCP/NCCP development and wetland mitigation fees: dedications of land and creation/restoration of habitat. Additional, if a project has received separate final take authorization from USFWS and/or DFW for all listed species that would be affected, the applicant has the option of negotiating payment to support conservation of habitat and open space under the HCP/NCCP in lieu of the usual HCP/NCCP implementation fees (Municipal Code Section 15.108.080).

The City Attorney is explicitly granted authority to enforce the provisions of the HCP/NCCP Ordinance through "civil action and any other proceeding or method permitted by law" (Municipal Code Section 15.108.100[A]).

Street Tree Ordinance

The City's Street Tree Ordinance (Municipal Code Chapter 12.32) regulates the planting, maintenance, and removal of trees within the City. Among other provisions, it

- defines *street trees* as trees within public rights-of-way, easements, streets, alleys, roads, and "ways" within the City (Municipal Code Section 12.32.030[F])
- prohibits unpermitted work on street trees (Municipal Code Section 12.32.070[A]), although if a building permit is obtained and street tree work is required or authorized under that permit, there is no need for a separate street tree permit (Municipal Code Section 12.32.070[B])
- makes the Public Services Department responsible for supervising the performance of street tree work (Municipal Code Sections 12.32.070[A] – [B])
- prohibits abuse, mutilation, and destruction of street trees (Municipal Code Section 12.32.080[A])
- requires the maintenance of at least 12 square feet of open ground around each street tree and prohibits the placement of materials that would impede "free access of water or air" to street trees (Municipal Code Section 12.32.090)

- imposes penalties (fines and/or imprisonment) for violations of the Ordinance (Municipal Code Section 12.32.140)
- in addition to any other penalties imposed, requires persons who remove or destroy a tree in violation of the Ordinance to replace the tree or compensate the City for its value (Municipal Code Section 12.32.150)

The Street Tree Ordinance is administered by the Public Services Director, who is empowered to develop additional policies and procedures to implement the Ordinance (Municipal Code Section 12.32.040).

City of Pittsburg General Plan

The current City General Plan (City of Pittsburg 2001) was adopted more than 20 years ago, prior to the development of the ECC HCP/NCCP, and although it has been amended numerous times since then, it does not contain goals or policies specifically relating to HCP/NCCP implementation. It does, however, include goals and policies emphasizing conservation of the City's biological resources and natural habitats, such as the following.

- Goal 9-G-1: "Protect conservation areas, particularly habitats that support special status species, including species that are State or Federally listed as endangered, threatened, or rare"
- Goal 9-G-2: "Guide development in such a way that preserves significant ecological resources"
- Policy 9-P-1: "Ensure that development does not substantially affect special status species … Conduct assessments of biological resources as required by CEQA prior to approval of development within habitat areas of identified special status species"
- Policy 9-P-2: "Establish an on-going [sic] program to remove and prevent the re-establishment of invasive species and restore native species as part of development approvals on sites that include ecologically sensitive habitat"

Importantly, Policy 9-P-3—now outdated—charges the City with participating in the "development of a regional Habitat Conservation Plan (HCP) and consider[ing] its adoption for preservation of native species throughout eastern Contra Costa County". The current General Plan also includes numerous policies for hillside protection, protection of creek corridors and wetland areas, drainage and erosion management, and protection of water quality.

The City is currently in the process of updating the General Plan. A draft 2040 General Plan (City of Pittsburg 2023) and accompanying Environmental Impact Report (EIR) were released for public review in December 2023. Since the 2040 General Plan will likely be adopted and in place before the CEC completes the Draft Environmental Impact Report for the Project, a discussion of the Draft 2040 General Plan goals and policies applicable

to biological resources and natural habitats and relevant to the Project include the following.

- Goal-10-2: Conserve biological and ecological resources, particularly the health of Suisun Bay and Marsh (Bay) and the Sacramento-San Joaquin Delta (Delta), special status species, including species that are State or Federally listed as endangered, threatened, or rare, habitats that support special status species, and sensitive habitats.
- Policy 10-P-2.8: Require new development projects and expansion of existing uses to conserve sensitive habitat, including special status species.
- Policy 10-P-2.11: Encourage the preservation of wildlife corridors to ensure the integrity of habitat linkages.
- Policy 10-P-2.12: Continue to support and implement the East Contra Costa County Habitat Conservation Plan (Eastern County HCP).
- Policy 10-P-2.15: Protect and restore threatened natural resources, such as wildlife, estuaries, tidal zones, marine life, wetlands, and waterfowl habitat.

4.4.3 Environmental Setting

4.4.3.1 Studies Conducted for the Project

The description of existing biological and habitat conditions presented in this section is based primarily on information in the *Biological Evaluation Report* prepared for the project (Vollmar Natural Lands Consulting 2024; Appendix C to this application). Additional sources are cited as appropriate; a list of all cited references in provided in Section 4.4.7.

The following studies were conducted for the *Biological Evaluation Report*.

- Background information review, including
    - Review of the current (September 2023) California Natural Diversity Database (CNDDB) for the nine U.S. Geological Survey 7.5-minute topographic quadrangles surrounding the project site: Honker Bay, where the site is located, plus Walnut Creek, Clayton, Antioch South, Vine Hill, Fairfield South, Denverton, Birds Landing, and Antioch North
    - A search of the CNDDB for the 10-mile-radius around the project site (partially overlapping the nine-quadrangle search; but including some additional areas and excluding some areas covered in the nine-quadrangle search)
    - A search of the California Native Plant Society (CNPS) online *Inventory of Rare Plants* for the same nine quadrangles

- Review of a USFWS Information Planning and Consultation list (IPaC) list for the project site and surrounding 250-foot-wide buffer ("study area", discussed further below)
- Review of the *California Essential Habitat Connectivity Project* (Spencer 2010)
- Review of site aerial imagery, topographic maps, and soil maps

- Field studies at the project site and immediately surrounding area, including
  - Reconnaissance-level habitat assessment surveys (April 2022 – July 2023)
  - Formal wetland delineation surveys of the project site (December 2022) and 250-foot-wide buffer (July 2023)
  - Protocol-level peak blooming period rare plant survey and floristic inventory of the project site and buffer area (April 12, May 19, and July 12, 2023)

Multiple surveys of the project site and buffer area to document hydrologic conditions within basins that hold ponded water (ten rounds of surveys; February 6 – June 25, 2018)

These studies were intended to satisfy ECC HCP/NCCP requirements for pre-project planning surveys, discussed further above (see Section 4.4.2.3 *Regional Conservation Planning*). Additional information on study methodology and staffing is provided in the Appendix C.

4.4.3.2 Regional Setting

Overview

As shown in Figure Appendix C, Figure 1, the project site is located in rolling hill country at the south edge of the City of Pittsburg. As such, it lies on the approximate boundary between extensive development bordering Suisun Bay, and largely open space to the immediate south. Urban/suburban development is present

Open space to the south consists of grasslands typical of the dry slopes of the Diablo Range, and more generally of Mediterranean California as a whole. This habitat—dominated by introduced annual grasses, typically wild oats (*Avena* spp.), brome grasses (*Bromus* spp.), and annual fescues (*Festuca* spp.)—matches the ECC HCP/NCCP description of *annual grassland* (in contrast to *native grassland*, *alkali grassland*, or *ruderal* habitat) (East Contra Costa County Habitat Conservation Plan Association 2006). Trees are almost entirely absent, and shrubs are sparse, except where low-density, aerially limited stands of native oaks (*Quercus* spp.)[24] are sheltered along ephemeral drainages or growing on exposed hilltops. Localized unvegetated areas are

[24] These are mapped as *oak savannah* or *oak woodland* in the ECC HCP/NCCP.

also present, including rock outcrops as well as areas denuded by grazing and/or erosion. The grasslands south of the project site are primarily managed as dryland cattle pasture, though they may historically have been disked for increased productivity (East Contra Costa County Habitat Conservation Plan Association 2006).

Immediately east of the project site is a Pacific Gas & Electric (PG&E) transmission line corridor that supports an intermittent stream with associated riparian habitat within a mosaic of annual grassland and ruderal habitat. Immediately west of the project site are former golf course lands, and farther west a second narrow riparian corridor. Medium-density residential development is present to the east and west, beyond the riparian corridors.

Regional Special-Status Species Use

For purposes of this evaluation, *special-status species* was considered to include all plants and wildlife considered at risk and protected under federal, state, and/or local regulations, or otherwise identified as rare or at risk, as follows. This is consistent with direction in Section 15380 of the state's *CEQA Guidelines*.

- Species listed or proposed for listing as Threatened or Endangered under the federal ESA or CESA
- Species identified as Fully Protected in the California Fish and Game Code
- Species protected by the MBTA
- Plant species listed as Rare under the CNPPA
- Species identified by local, state, and/or federal agencies as needing protection (e.g., wildlife designated as Species of Special Concern, Specially Protected, or Special Animals by DFW; wildlife designated as Species of Concern by USFWS or NOAA Fisheries; plants assigned CRPR rankings)
- Locally significant species (those that are rare or uncommon in the local context or are so designated in local or regional plans, policies, or ordinances)

Appendix C, Figure 9; shows documented occurrences of special-status plants and wildlife in the project region, based on a search of the current California Natural Diversity Database (CNDDB) and CNPS Inventory of Rare and Endangered Plants for the nine U.S. Geological Survey 7.5-minute topographic quadrangles surrounding the project site. Complete lists of species known from the region are provided in Appendix C, Tables 2 and 3.

4.4.3.3 Project Site & Vicinity

Local Context

Assessment of biological resources at the project site considered the site itself plus a 250-foot-wide buffer as shown in Appendix C, Figure 2; together, the site and buffer are

referred to as the **study area** in the discussion that follows. The study area totals just under 76 acres: 35.7 acres at the site itself, and another 40.2 acres in the buffer. Elevation within the study area ranges from approximately 57 feet above mean sea level to 161 feet above sea level, increasing gradually from the northeast to the southwest.

The climate of the study area and surrounding vicinity is characterized as Mediterranean-type, with cool wet winters and warm dry summers, and high inter- and intra-annual variability in precipitation. On average, almost 98% of precipitation occurs as rainfall from October through May. Mean annual temperature between 1991 and 2020 was 60.9° Fahrenheit (F); mean annual precipitation over the same period was 17.5 inches. By contrast, mean 1991 – 2020 precipitation along the coast was substantially higher at more than 32 inches, with a mean temperature of 54° F. Inland areas to the east received less than half the study area's precipitation and were hotter on average due to the lack of coastal influence.

The study area was previously owned by the City of Pittsburg and most of it was managed as the public Delta View Golf Course. To the south and west are additional portions of the former golf course, which remain undeveloped as of 2024. To the east is additional open space supporting the PG&E transmission line corridor mentioned in *Regional Setting* above. To the north is an area of medium-density residential development at the south edge of the City. The Contra Costa Canal, owned and operated by the U.S. Bureau of Reclamation as part of the federal Central Valley Project, bisects the southern portion of the buffer from southeast to northwest, just south of the project site boundary. See Appendix C, Figure 2.

Study Area Habitats

Appendix C, Figure 3 shows habitats within the study area, which include

- annual grassland (49.33 acres)
- areas of remnant landscaping trees/shrubs (6.08 acres)
- seasonal and perennial wetlands (1.9 acres)
- areas of remnant open channel (0.01 acre)
- riparian vegetation (1.87 acres)
- constructed aquatic features, including the Contra Costa Canal (1.6 acres) and remnant golf course ponds (1.67 acres)
- paved/developed areas (13.48 acres)

Microhabitats are limited within the study area—there are areas of heavy clay soils with large, deep cracks, but no significant areas of sandy soils, alkaline soils, or rock outcrops.

Habitats are described in the sections that follow.

Annual Grassland

Grasslands include both areas that were previously managed as part of the Delta View Golf Course and areas that were not part of the course.

Areas that were part of the Delta View Golf Course were subject to intensive management from the late 1940s until the course closed in 2018. Here, native soils were replaced or amended, and a wide range of trees, shrubs, and grasses were imported and maintained via irrigation, mowing, and pruning. Not surprisingly, these intensively managed areas have undergone dramatic changes since the closure of the course and the cessation of management activities. Where turf grass was previously maintained, the herb layer has been colonized by a variety of invasive weeds; as of 2023, when field surveys were performed for the project, these formed extensive, tall, and dense stands representing two distinct plant communities: wild oat and brome grasslands, and upland mustard or star-thistle fields.

Oat and brome grasslands within the study area are dominated by non-native annual species, including Italian rye grass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), and soft chess (*B. hordeaceus*), as well as wild oat (*Avena fatua*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), wall barley (*H. murinum*), horseweed (*Erigeron canadensis*), Italian thistle (*Carduus pycnocephalus* ssp. *pycnocephalus*), and bristly ox-tongue (*Helminthotheca echioides*). Upland mustard or star-thistle fields are dominated by black mustard (*Brassica nigra*) with an admixture of cheeseweed (*Malva parviflora*) or yellow star-thistle (*Centaurea solstitialis*).

Areas that were not managed as part of the former golf course—most of which are located within the buffer zone at the east and southwest edges of the study area—support a more diverse vegetation assemblage. This includes native wildflowers such as several species of lupine (*Lupinus affinis*, *L. bicolor*, *L. formosus* var. *formosus*, *L. nanus*), California poppy (*Eschscholzia californica*), purple owl's clover (*Castilleja exserta* ssp. *exserta*), and common fiddleneck (*Amsinckia menziesii*). The grassland plant communities consisting of primarily non-native species—oat and brome grasslands and upland mustard/star-thistle fields—are also present in these areas.

Moderate numbers of ground squirrel (*Otospermophilus beecheyi*) burrow complexes are present on gentle slopes within both the former golf course areas and surrounding un-managed grassland habitats.

Landscape Trees

This community consists primarily of non-native species that were originally planted as part of the golf course landscaping and have persisted since its closure. The dominant species is non-native Peruvian pepper tree (*Schinus molle*), with Bishop pine (*Pinus muricata*) and some lodgepole pine (*P. contorta* ssp. *murrayana*) and ponderosa pine (*P. ponderosa*); the three pine species are native to California but not to the project region. Other species of trees likely planted as landscaping include shamel ash (*Fraxinus uhdei*),

Italian stone pine (*P. pinea*), deodar cedar (*Cedrus deodara*), and a few gum trees (*Eucalyptus camaldulensis* and *E. globulus*). Scattered among these exotic species are a few coast live oaks (*Quercus agrifolia* var. *agrifolia*), valley oaks (*Q. lobata*), and other upland tree species that are native to the region. However, historical aerial photography of the area suggests that these species may not have been present in the area prior to the golf course. Many of the planted trees throughout the study area are mature and quite large, particularly the gum trees.

Aquatic Resources

A variety of natural, enhanced, and created aquatic features are present in the study area as shown on Appendix C, Figures 5 and 6. Although some natural drainages remain, the area's original hydrologic function was significantly altered to support and protect golf course landscaping, resulting in the concentration of runoff in some areas at the expense of others.

Vegetation density in aquatic features is variable, depending on hydroperiod, degree of scouring due to turbulent flow, and/or the degree of water turbidity. Some features are sparsely vegetated as result of long ponding duration and/or high water turbidity, while stretches of narrow channel appear to have limited plant growth as a result of scouring due to flows. However, most of the basin features in the study area hold water for only short periods, or have sufficiently clear and/or shallow water that light can penetrate and photosynthesis enables relatively dense plant growth.

Depressional seasonal wetlands are concentrated in the eastern portion of the study area are shonw on Appendix C, Figure 6. This habitat is dominated by Italian rye grass, prickly lettuce (*Lactuca serriola*), tall annual willowherb (*Epilobium brachycarpum*), annual beard grass (*Polypogon monspeliensis*), knotweed (*Polygonum aviculare*), curly dock (*Rumex crispus*), and spiny cocklebur (*Xanthium spinosum*).

Additional seasonal wetlands are present within drainages distributed throughout the study area (Appendix C, Figures 5 and 6). These wetlands are dominated by lamb's quarters (*Chenopodium album*), curly dock, cocklebur (*Xanthium strumarium*), tall annual willowherb, horseweed, dallis grass (*Paspalum dilatatum*), tall flatsedge (*Cyperus eragrostis*), and barnyard grass (*Echinochloa crus-galli*).

Perennial wetlands are present within two drainages in the northern portion of the study area (Appendix C, Figures 5 and 6). These wetlands are dominated by species such as broad-leaved cattail (*Typha latifolia*), curly dock, dallis grass, alkali mallow (*Malvella leprosa*), and rescue grass (*B. catharticus* var. *catharticus*).

A short reach of unvegetated channel is present within the former golf course at the south edge of the study area, south of the Contra Costa Canal (Appendix C, Figures 5 and 6). This appears to be natural feature that was modified for golf course construction.

Riparian Habitat

Two kinds of riparian habitat are present in the study area

- Himalayan blackberry thicket
- Valley Foothill Riparian

Himalayan blackberry thicket is restricted to the northeast portion of the study area where it borders a drainage supporting seasonal and perennial wetlands. This habitat is characterized by dominance (>75% absolute cover) of non-native Himalayan blackberry (*Rubus armeniacus*).

Valley Foothill Riparian habitat is concentrated along seasonal wetlands and seasonal wetland drainages in the eastern portion of the study area, where it is characterized by a mixture of native and non-native species, including Fremont cottonwood (*Populus fremontii*), Siberian elm (*Ulmus pumila*), Mexican fan palm (*Washingtonia robusta*), northern California black walnut (*Juglans hindsii*), olive (*Olea europa*), and occasional Bishop pine. Cover in these areas is intermittent (~30% absolute cover). Riparian areas in the south portion of the study area are primarily composed of Peruvian pepper trees, a remnant landscape plant.

Constructed Aquatic Features

Contra Costa Canal. The Contra Costa Canal, which parallels the south boundary of the project site within the buffer area (Appendix C, Figures 5 and 6) is an aqueduct constructed in the 1930s – 1940s as part of the U.S. Bureau of Reclamation's Central Valley Project. The Bureau of Reclamation uses it to deliver Central Valley Project water from the Sacramento–San Joaquin Delta near Knightsen to the Contra Costa Water District, which distributes the water to customers throughout its central and eastern Contra Costa County its service area, including the City of Pittsburg. This east-west flow along the southern edge of the Delta and Suisun Bay is not characteristic of the area's natural hydrology; rather, it represents artificial delivery of water through a system of constructed canals and pump stations (Contra Costa Water District 2006 – 2024).

In the study area and immediate surrounding vicinity, the Contra Costa Canal is an open, unvegetated trapezoidal channel about 25 feet wide at top of bank, bordered on its north bank by a public-access paved trail.

Golf Course Ponds. Two ponds constructed as part of the former golf course landscaping are present within uplands in the northwest portion of the study area (Appendix C, Figures 5 and 6). Presumably maintained with irrigation/landscaping water while the golf course was active, they have since transitioned into rain-fed seasonal features. Dominant species within the pond basins include dotted smartweed (*Persicaria punctata*), Mediterranean barley, knotweed, and Italian rye grass. Other common species within the ponds include rattail sixweeks grass (*Festuca myuros*), stinkwort (*Dittrichia graveolens*), and lamb's quarters. The margins of the ponds have been invaded by predominantly non-native species common in the study area's annual grasslands.

Paved/Developed Areas

The majority of the paved/developed areas are in the northern part of the study area. They include the former golf course parking lot as well as neighboring residential and roadway development within the buffer area. With the exception of landscaping associated with houses, the paved/developed areas support minimal vegetation consisting of weedy species that have managed to grow through cracks such as black mustard, rough cat's-ear (*Hypochaeris radicata*), slender wild oat (*Avena barbata*), cheeseweed, yellow star-thistle, Mediterranean barley, and ripgut brome.

Special-Status Species in Study Area

Special-Status Plants

The study area provides little or no habitat for the special-status plant species known to be present in the region. As described above, it is dominated by the former golf course area, which features amended or imported soils over extensive areas and was intensively managed for more than 70 years. With the exception of a few planted oaks *(Quercus* spp.) and remnant cottonwoods (*Populus* spp.) and willows (*Salix* spp.), all of the dominant plant species throughout the golf course area are exotic. Moreover, once golf course management ceased, much of the formerly groomed and managed turf area was colonized by invasive non-native weedy vegetation, which now forms tall, dense stands, as noted above. Steeper slopes within the fenced portion of the study area, which were never managed as part of the golf course, feature semi-natural habitats, with scattered planted trees and annual grassland. These areas support tall, dense growth of exotic grasses with scattered invasive weeds. Where native soils remain, heavy clay soils are locally present, but in general soils on the site are otherwise unspecialized—they are not derived from serpentine or limestone rock, and are not sandy, gravelly, or alkaline. In general, where such areas are not actively managed for habitat value, there is very limited potential for special-status plants to occur.

As identified above, protocol-level surveys for special-status plants and a floristic inventory were conducted for the study area during the peak of the 2023 blooming period. No special-status plants were found within the study area.

In this context, special-status plants are considered unlikely to occur in the study area. Table 4.4-1 lists the species known from the region that may have some potential to be present. Species not covered in the ECC HCP/NCCP are indicated with an asterisk (*). A number of other special-status plants are known from the region but not expected to occur within the study area due to the absence of suitable habitat. These are discussed in more detail in the Appendix C, including the reasons why they are not expected to be present.

Table 4.4-1. Special-Status Plants with Potential to Occur in Study Area

Scientific Name Common Name	Status (Fed/CA/CRPR)	Habitat & Blooming Period	Potential to Occur
Androsace elongata ssp. *acuta* California androsace*	—/—/4.2	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, valley and foothill grassland at elevations of 490 – 4,280 feet; blooms March – June	**Low Potential.** Grasslands in study area offer suitable habitat, but species not observed during 2023 surveys
Blepharizonia plumosa Big tarplant	—/—/1B.1	Valley and foothill grassland, usually on clay soils, at elevations of 100 – 1,655 feet; blooms July – October	**Potential.** Extensive but moderately disturbed valley and foothill grasslands and clay soils are present within the study area, and the closest documented CNDDB occurrence is ~1.1 miles from the study area but is from 1937 and is a low-accuracy polygon with the location described as "Pittsburg". Closest CNDDB occurrence more recent than 1930s (from 2000) is ~4 miles away, near Black Diamond Mines State Park. Species not observed during 2023 surveys
Calochortus pulchellus Mt. Diablo fairy-lantern	—/—/1B.2	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland at elevations of 100 – 2,755 feet; blooms April – June	**Potential.** Valley and foothill grassland is present within the study area and the closest documented CNDDB occurrence (from 2003) is ~3.6 miles from the study area. However, the site is not modelled as suitable for the species in the ECC HCP/NCCP, and species not observed during 2023 surveys
Castilleja ambigua var. *ambigua* Johnny-nip*	—/—/4.2	Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pool margins at elevations of 0 – 1,425 feet; blooms March – August	**Low Potential.** Weedy grassland in study area offers marginal habitat. Not observed during 2023 surveys
Centromadia parryi ssp. *parryi* Pappose tarplant*	—/—/1B.2	Chaparral, coastal prairie, coastal salt marshes and swamps, meadows and seeps, vernally mesic valley and foothill grassland, commonly on alkaline soils, at elevations of 1 – 1,380 feet; blooms May – November	**Low Potential.** Weedy grassland in study area offers marginal habitat. Not observed during 2023 surveys
Centromadia parryi ssp. *rudis* Parry's rough tarplant*	—/—/4.2	Valley and foothill grassland, vernal pools, roadsides, seeps, vernally mesic areas, sometimes on alkaline soils, at elevations of 0 – 330 feet; blooms May – October	**Low Potential.** Weedy grassland in study area offers marginal habitat. Not observed during 2023 surveys
Convolvulus simulans Small-flowered morning-glory*	—/—/4.2	Chaparral openings, coastal scrub, valley and foothill grassland, on clay soils or serpentinite, in seeps, at elevations of 100 – 2,430 feet; blooms March – July	**Low Potential.** Weedy grassland in study area offers marginal habitat. Not observed during 2023 surveys

Scientific Name Common Name	Status (Fed/CA/CRPR)	Habitat & Blooming Period	Potential to Occur
Eriogonum truncatum Mt. Diablo buckwheat	—/—/1B.1	Chaparral, coastal scrub, valley and foothill grassland, on sandy soils, at elevations of 10 – 1,150 feet; blooms April – September, sometimes into November/December	**Low Potential.** Valley and foothill grassland and limited sandy soils are present within the study area; however, there are no CNDDB occurrences within 5 miles. The closest documented CNDDB occurrence (from 2016) is ~5.6 miles away. Not observed during 2023 surveys
Fritillaria agrestis Stinkbells*	—/—/4.2	Chaparral, cismontane woodland, pinyon and juniper woodland, valley and foothill grassland, on clay soils or (sometimes) serpentinite, at elevations of 35 – 5,100 feet; blooms March – June	**Low Potential.** Some suitable valley and foothill grassland with clay soils is present in the study area, but species not observed during 2023 surveys
Helianthella castanea Diablo helianthella	—/—/1B.2	Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland, on azonal soils, often in partial shade, usually in rocky areas, at elevations of 195 – 4,265 feet; blooms March – June	**Potential.** The closest documented CNDDB occurrence (from 2012) is ~2.0 miles from the study area. Disturbed valley and foothill grassland and riparian woodland habitats are present within the study area, but suitable rocky microhabitat is absent. Site is not modelled as suitable habitat for species in ECC HCP/NCCP. Species not observed during 2023 surveys
Hesperevax caulescens Hogwallow starfish*	—/—/4.2	Valley and foothill grassland on mesic clay, shallow vernal pools, sometimes on alkaline soils, at elevations of 1 – 1,655 feet; blooms March – June	**Low Potential.** Vernal pools and clay flats are not present in the study area, which offers only marginal habitat (valley and foothill grassland on mesic clay). Not observed during 2023 surveys
Lessingia hololeuca Woolly-headed lessingia*	—/—/3	Broadleafed upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland, on clay or serpentine soils, at elevations of 50 – 1,000 feet; blooms June – October	**Low Potential.** Study area provides valley and foothill grassland clay soil, but species not observed during 2023 surveys
Madia radiata Showy golden madia	—/—/1B.1	Cismontane woodland, valley and foothill grassland, at elevations of 80 – 3,985 feet; blooms March – May	**Low Potential.** The only documented CNDDB occurrence within 5 miles is a historical occurrence from 1983, ~3.4 miles from the study area. Valley and foothill grassland is present in the study area, but species was not observed during the 2023 surveys
Microseris sylvatica Sylvan microseris*	—/—/4.2	Chaparral, cismontane woodland, Great Basin scrub, pinyon and juniper woodland, valley and foothill grassland, rarely on serpentine soils, at elevations of 150 – 4,920 feet; blooms March – June	**Low Potential.** Valley and foothill grassland habitat is present in study area, but species not observed during 2023 surveys
Myosurus minimus ssp. *apus* Little mousetail	—/—/3.1	Valley and foothill grassland, alkaline vernal pools, at elevations of 65 – 2,100 feet; blooms March – June	**Low Potential.** Vernal pools are absent from study area although valley and foothill grassland occurs. Not observed during 2023 surveys

Scientific Name Common Name	Status (Fed/CA/CRPR)	Habitat & Blooming Period	Potential to Occur
Navarretia heterandra Tehama navarretia*	—/—/4.3	Mesic valley and foothill grassland, vernal pools, at elevations of 100 – 3,315 feet; blooms April – June	**Low Potential.** Vernal pools are absent from study area although valley and foothill grassland occurs. Not observed during 2023 surveys
Navarretia leucocephala ssp. *bakeri* Baker's navarretia*	—/—/1B.1	Cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland, vernal pools, in mesic areas, at elevations of 15 – 5,710 feet; blooms April – July	**Low Potential.** Vernal pools absent, valley and foothill grassland habitat present on site. Not observed during 2023 surveys.
Navarretia nigelliformis ssp. *nigelliformis* Adobe navarretia	—/—/4.2	Vernally mesic valley and foothill grassland, sometimes in vernal pools, on clay soils (sometimes serpentinite), at elevations of 330 – 3,280 feet; blooms April – June	**Low Potential.** Vernal pools are absent from study area although valley and foothill grassland occurs. Not observed during 2023 surveys
Navarretia nigelliformis ssp. *radians* Shining navarretia*	—/—/1B.2	Cismontane woodland, valley and foothill grassland, vernal pools, sometimes on clay soils, at elevations of 215 – 3,280 feet; blooms April – July	**Low Potential**. The nearest CNDDB occurrence (from 2008) is ~5.5 miles from the study area. Disturbed valley and foothill grassland and mesic areas are present in study area, but species not observed during 2023 surveys
Puccinellia simplex California alkali grass*	—/—/1B.2	Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools, in sinks alkaline flats, lake margins, vernally mesic areas, at elevations of 5 – 3,050 feet; blooms March – May	**Low Potential.** Vernal pools, chenopod scrub, meadows, and seeps are absent from study area, although valley and foothill grassland occurs. Not observed during 2023 surveys
Ranunculus lobbii Lobb's aquatic buttercup*	—/—/4.2	Cismontane woodland, North Coast coniferous forest, valley and foothill grassland, vernal pools, in mesic areas, at elevations of 50 – 1,540 feet; blooms February – May	**Low Potential.** Study area offers limited area of seasonal wetland in drainage within valley and foothill grassland. Not observed during 2023 surveys
Sidalcea keckii Keck's checkerbloom	FE/—/1B.1	Cismontane woodland, valley and foothill grassland, on clay soils or serpentinite, at elevations of 245 – 2,135 feet; blooms April – May, sometimes into June	**Low Potential.** Study area offers suitable valley and foothill grassland habitat, but species not observed during 2023 surveys.
Streptanthus hispidus Mt. Diablo jewelflower	—/—/1B.3	Chaparral, valley and foothill grassland, in rocky areas, at elevations of 1,200 – 3,935 feet; blooms March – June	**Low Potential.** Valley and foothill grassland is present in study area, but chaparral is absent. Not observed during 2023 surveys
Trifolium hydrophilum Saline clover*	—/—/1B.2	Marshes and swamps, mesic alkaline valley and foothill grassland, vernal pools at elevations of 0 – 985 feet; blooms April – June	**Low Potential.** Study area offers limited valley and foothill grassland but species not observed during 2023 surveys

Key to Status Abbreviations:

FE = federally listed as Endangered

— = no federal or state listing status

1B.1 = species rare throughout its range and seriously threatened in California

1B.2 = species rare throughout its range and moderately threatened in California

1B.3 = species rare throughout its range but not very threatened in California (low degree and immediacy of threat or no current threats known)

Scientific Name Common Name	Status (Fed/CA/CRPR)	Habitat & Blooming Period	Potential to Occur

3 = "review list" species; insufficient information available to assess status accurately and no threat level assigned

3.1 = "review list" species; insufficient information available to assess status accurately but seriously threatened in California

4.2 = "watch list" species of limited or infrequent distribution throughout the state—not rare but status should be monitored regularly; moderately threatened in California

Source: Appendix C

Special-Status Wildlife

Two special-status wildlife species have been observed in the study area: White-tailed Kite (*Elanus leucurus*) (not listed under ESA/CESA; state Fully Protected) and Cooper's Hawk (*Accipiter cooperii*) (not listed; DFW Watch List species), both of which were seen foraging in the vicinity during biological surveys conducted for the. Table 4.4-2 lists these and the other special-status species with potential to be present. Species not covered in the ECC HCP/NCCP are indicated with an asterisk (*); note that take of these species cannot be authorized through the HCP/NCCP mechanism.

Numerous other special-status wildlife species are known from the region but not expected to occur within the study area. These are discussed in more detail in the Appendix C, including the reasons why they are not thought to be present.

Table 4.4-2. Special-Status Wildlife With Potential to Occur in Study Area

Species	Status	Habitat Requirements	Potential to Occur
Insects			
Obscure bumble bee* *Bombus caliginosus*	SA	Relatively humid and often foggy areas; pollinates plants of the pea, heath, and sunflower families	**Low Potential.** Nearest documented occurrences are approximately 9 miles away at Mount Diablo State Park. Some potential pollinator resources are present in study area
Crotch bumble bee* *Bombus crotchii*	SCE	Open grasslands, shrublands, chaparral, desert margins, and semi-urban habitat	**Low Potential.** Multiple historical occurrences in present-day Antioch and Mount Diablo State Park. Closest recent occurrence is at Brentwood Lake, from iNaturalist. Some potential pollinator resources are present in study area
American bumble bee* *Bombus pensylvanicus*	SA	Nests in long grass, hay, or underground	**Low Potential.** Multiple historical occurrences are present around Suisun Bay. Some potential pollinator resources are present in study area
Monarch butterfly* (California overwintering population) *Danaus plexippus plexippus* pop. 1	FC	Found in a variety of habitat types wherever flowering plants occur; requires milkweed as larval host plant for reproduction	**Potential.** Many nearby occurrences, one less than 0.5 mile from study area. Milkweed is present within the study area and vicinity
Amphibians & Reptiles			
California tiger salamander (central California Distinct Population Segment) *Ambystoma californiense* pop. 1	FT, ST, WL	Primarily found in annual grasslands. Adults spend most of the year in subterranean upland refugia, especially burrows of California ground squirrels and occasionally in	**Potential.** Numerous occurrences are documented in the project vicinity, including multiple breeding ponds, and potential breeding habitat is present within the study area. Portions of the project site are within the

Species	Status	Habitat Requirements	Potential to Occur
		structures, migrating during rainy nights to vernal pools, seasonal ponds, or stock ponds for breeding. Aquatic larvae seek cover in turbid water, clumps of vegetation, and other submerged debris	species' known maximum dispersal distance (1.3 miles) from documented breeding ponds, though the Contra Costa Canal is a barrier between the site and those ponds. The study area is not within designated critical habitat for this species but is mapped as suitable migration and aestivation habitat in the ECC HCP/NCCP
Western pond turtle *Emys marmorata*	SSC	Perennial ponds, deep slow-moving streams, marshes, irrigation ditches, small lakes, and permanent pools along intermittent streams. Requires logs, rocks, cattail mats, and exposed banks for basking	**Potential.** Low-quality habitat is present within the study area, in the form of constructed ponds and seasonal stream/swale corridors. ECC HCP/NCCP models the stream corridor along the east edge of study area as potential movement habitat. HCP/NCCP also shows the golf course ponds as "core habitat", but site studies conducted for the project suggest this is inaccurate
California red-legged frog *Rana draytonii*	FT, SSC	Breeds in perennial and seasonal ponds and quiet pools in slow-moving freshwater streams; shelters in adjacent uplands and shrubby or emergent riparian vegetation. Prefers shorelines with extensive vegetation. Requires permanent or nearly permanent pools for larval development	**Potential.** Multiple occurrences are documented in the vicinity of the study area, including an occurrence less than 1 mile southwest of the site. Given the presence of known and potential breeding habitat, and the known maximum dispersal distance of the species (up to 2 miles), much of the study area provides potential upland/ aestivation habitat. Study area is not within designated critical habitat for this species but is mapped as suitable migration and aestivation habitat in the ECC HCP/NCCP. HCP/NCCP shows stream along east edge of study area as potential breeding habitat, but site studies conducted for the project suggest this is inaccurate
Birds			
Cooper's Hawk* *Accipiter cooperii*	WL	Forests, woodlands, and often suburbs with trees. Nests in dense woods of pines, oaks, Douglas firs, beeches, spruces and other trees, often on flat ground	**Present (foraging).** Species was observed foraging in the vicinity of the study area I 2023. Scattered landscaping trees provide limited nesting opportunities. This species is tolerant of suburban development and may nest in the project vicinity, though the nearest CNDDB documentation is more than 10 miles away
Tricolored Blackbird *Agelaius tricolor*	ST, BCC, SSC	Forages in a variety of open habitats including pastures, agricultural fields, rice fields, feedlots, and grasslands with scattered seasonal wetlands. Nests in large freshwater marshes with tules or cattails, or in other dense thickets of willow, thistle, blackberry, or wild rose in close proximity to open water	**Low Potential.** Study area does not offer stands of marsh vegetation large enough to support breeding colonies, but portions of the study area are mapped as suitable habitat for the species in the ECC HCP/NCCP. The closest CNDDB occurrence considered potentially extant is more than 8 miles away
Grasshopper Sparrow *Ammodramus savannarum*	SSC	Frequents dense, dry or well-drained grassland, especially native grassland with a mix of grasses and forbs for	**Low Potential.** Suitable nesting and foraging habitat is present in the study area, but the

Species	Status	Habitat Requirements	Potential to Occur
		foraging and nesting. Uses scattered shrubs for singing perches	closest CNDDB occurrence is more than 10 miles away
Golden Eagle *Aquila chrysaetos*	FP, WL	Rolling foothills, mountain areas, sage-juniper flats, desert. Nests are constructed on cliffs or in large trees in open areas	**Potential.** The study area provides suitable foraging habitat but lacks nesting habitat. The species has also been observed foraging at the Concord Naval Weapons Station, approximately 4 miles away. CNDDB does not show any nesting occurrences in the study area. The site is mapped as suitable habitat for the species as in the ECC HCP/NCCP
Short-eared Owl *Asio flammeus*	BCC, SSC	Breeds in extensive marshes and moist grasslands; forages over wetlands, grasslands, and ruderal habitats	**Low Potential.** Study area provides limited-quality foraging habitat in grasslands but lacks nesting habitat, due to absence of moist areas and large wetlands. The closest CNDDB records are from 5 miles away, but date to the 1980s
Burrowing Owl *Athene cunicularia*	BCC, SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation; nests in rodent (e.g., ground squirrel) burrows	**Potential.** Study area grasslands provide potential nesting and wintering habitat. The closest CNDDB nesting occurrence is 2.2 miles west of the study area, and the study area is mapped as suitable habitat for the species in the ECC HCP/NCCP
Northern Harrier *Circus hudsonius*	BCC, SSC	Found throughout California; breeds and forages in open habitats with sufficient vegetation	**Low Potential.** Study area lacks large, open areas preferred for foraging. Grasslands with scattered trees in study area offer low-quality potential foraging habitat. Closest CNDDB occurrence is 4 miles away
White-tailed Kite *Elanus leucurus*	FP	Forages in undisturbed open grasslands, meadows, farmlands, and emergent wetlands. Nests near tops of dense oak, willow, or other tree stands	**Present (foraging).** Suitable nesting and foraging habitat is present within the study area, and the species was observed foraging on the site in 2023
California Horned Lark *Eremophila alpestris actia*	WL	Nests in open areas that contain relatively barren ground with short grass and scattered bushes	**Low Potential.** Limited open habitat provides some potential for nesting and foraging. Not documented in the CNDDB in the vicinity of the study area
Merlin* *Falco columbarius*	WL	Winter migrant found uncommonly in coastlines, open grasslands, savannahs, wetlands, etc.	**Low Potential.** Study area offers limited winter habitat in the form of grasslands. Not documented in the CNDDB in the vicinity of the study area
Prairie Falcon* *Falco mexicanus*	WL	Uncommonly found in Central Valley, along inner Coast Ranges and Sierra Nevada, southeast to the desert; associated with perennial grasslands, savannah, rangeland, agricultural fields, and desert scrub	**Low Potential.** Open grassland habitat in the study area may provide marginal foraging habitat for the species. Closest CNDDB occurrences are ~9 miles away
American Peregrine Falcon *Falco peregrinus anatum*	SA (delisted)	Adaptable, and can be seen in a wide range of habitats; often found in areas with steep cliffs, as well as around coastal mudflats and open areas with shorebirds	**Low Potential.** Open grassland habitat in the study area may provide marginal foraging habitat for the species but nesting habitat is absent. Closest CNDDB occurrences are ~9 miles away

Species	Status	Habitat Requirements	Potential to Occur
Bald Eagle *Haliaeetus leucocephalus*	SE, FP	Requires large water bodies or rivers; primarily a resident of northern California, scattered nests elsewhere	**Low Potential.** No large freshwater bodies are present nearby, and there are no CNDDB occurrences within 10 miles
Loggerhead Shrike *Lanius ludovicianus*	SSC	Habitat consists of open spaces such as grasslands with scattered trees, shrubs, utility lines, and/or fences for perching. Typically nests in dense growth of trees and shrubs	**Potential.** Suitable nesting and foraging habitat is present. No CNDDB occurrences documented within 10 miles
California Gull* *Larus californicus*	BCC, WL	Nests on isolated islands; common along coasts, at landfills, and in pastures	**Potential.** No suitable nesting habitat in study area, but species may visit nearby landfills. No CNDDB occurrences documented within 10 miles
Mammals			
Pallid bat* *Antrozous pallidus*	SSC	Occurs in mountainous areas, intermontane basins, lowland desert scrub, arid deserts, and grasslands, often near rocky outcrops and water; in some areas, also inhabits open coniferous forest and woodland. Prefers open dry lands with rocky areas for roosting	**Potential.** No cavities within large trees were observed within the study area, though more targeted surveys might reveal such trees. Other roosting habitat is limited given a lack of caves/crevices and accessible buildings. Foraging habitat is present on the site. Closest CNDDB occurrence (from 1942) is ~5 miles away in Concord
Western red bat* *Lasiurus frantzii* [*L. blossevillii*]	SSC	Roosts in trees in a wide variety of habitats between the coast and western Sierra Nevada. Strongly associated with riparian habitats, particularly mature stands of cottonwood/sycamore	**Low Potential.** Study area lacks mature cottonwood/sycamore stands. Closest CNDDB documentations are approximately 5 miles away, dating to the 1990s
Hoary bat* *Lasiurus cinereus*	SA	Primarily occurs in deciduous and coniferous forests and woodlands, including areas altered by humans, roosting at the edge of clearings. Foraging habitat includes various open areas, including spaces over water and along riparian corridors	**Low Potential.** This foliage roosting species may fly over, forage, or roost within the study area on occasion. Closest CNDDB occurrences are 5 – 8 miles away, dating to more than 20 years ago
San Joaquin pocket mouse* *Perognathus inornatus*	SA	This species inhabits grasslands and blue oak woodlands with friable soils in the foothills and valley bottoms of the Central Valley	**Low Potential.** The study area lacks characteristic friable soils, but there is some potential the species could occur on the site. CNDDB occurrences are present 3 – 5 miles southeast of the study area, but date to the 1990s or earlier.
American badger* *Taxidea taxus*	SSC	Most abundant in drier, open stages of shrub, forest, and herbaceous habitats with friable soils where they can dig burrows	**Low Potential.** No badger dens have been observed in the study area vicinity and soils are not particularly friable. The nearest documented occurrence in the CNDDB is nearly 9 miles southeast of the site. However, as the species is known from the region, and general habitat requirements are present, there is potential that badger could den on the site

Key to Status Abbreviations:

FT = federally listed as Threatened
ST = state-listed as Threatened
SE = state-listed as Endangered
SSC = state Species of Special Concern
SA = included on DFW Special Animals List (April 2023)
FP = Fully Protected under California Fish and Game Code
BCC = USFWS Bird of Conservation Concern

Species	Status	Habitat Requirements	Potential to Occur
FC = candidate for federal listing SCE = candidate for state listing as Endangered		WL = DFW Watch List species	

Source: Appendix C

Designated Critical Habitat

The study area is located within designated critical habitat for Delta smelt (*Hypomesus transpacificus*), which is endemic to the Sacramento – San Joaquin Delta. However, it offers no habitat suitable for the species, as all of the drainages are seasonal or ephemeral and the species requires year-round flow.

The study area is not within designated critical habitat for any other listed or candidate species. The closest designated critical habitat for a species with potential to occur within the study area is for California red-legged frog (*Rana draytonii*), about 8 miles away to the south.

Sensitive Habitats

Several vegetation communities that qualify as sensitive are present in the study area. These include:

- potentially jurisdictional wetlands and waters (~1.9 acres total)
    - perennial wetlands in drainages (0.17 acre)
    - seasonal wetlands in drainages (0.78 acre)
    - other seasonal wetlands (0.95 acre)
- riparian areas (1.87 acres total)
    - Himalayan blackberry thickets (0.44 acre)
    - Valley Foothill Riparian areas (1.43 acres)

Location and extent of sensitive habitats is shown on Appendix C, Figures 3 and 5.

Wildlife Corridors

Wildlife corridors—also referred to as wildlife migration corridors or wildlife movement corridors—are pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, roadways, urbanization, or other obstacles. Their importance lies in enabling wildlife to travel between areas of suitable habitat, increasing access to habitat resources.

As noted above, the *California Essential Habitat Connectivity Project* (Spencer 2010), which identifies major habitat corridors connecting large areas of open space, was reviewed for the project. No such regional wildlife corridors have been identified within the study area. The two closest documented corridors are at a substantial remove from the study area, one on the north side of Suisun Bay, and one approximately 10 miles southwest of the study area in the East Bay Hills.

The ECC HCP/NCCP also emphasizes smaller, local corridors, particularly riparian corridors. As described above, the study area is located at the south edge of the

urbanized City of Pittsburg. To the north lies suburban development and State Route (SR) 4. To the west and south are the Contra Costa Canal and the southwest extent of the former golf course. Extensive fencing remains from the former golf course use, as shown in Appendix C, Figure 11: the approximate west boundary of the study area is fenced, and fencing is also present along the Canal, precluding wildlife movement from adjacent open areas farther south. Golf course barrier netting also remains in place along a portion of the study area's east boundary. However, the PG&E transmission line corridor to the east is accessible from the study area, is generally open, and contains a stream. This corridor (see Appendix C, Figure 11) provides direct connectivity from the Diablo Range hills to the edge of Suisun Bay. As such, it represents a potentially important wildlife movement corridor. Other than this corridor, the study area itself provides little opportunity for wildlife movement due to the barriers along the north, west, and south.

North-south habitat connectivity in the vicinity of the study area is partially obstructed by the Contra Costa Canal, which has relatively few crossings accessible to wildlife. One of the largest such crossings is present where the PG&E transmission corridor crosses the Canal. This crossing may provide important opportunities for wildlife movement along the transmission corridor.

Wildlife Nursery Sites

Nursery sites are locations or areas where animals breed, lay eggs, or rear their young. Depending on the species involved, they can include features as diverse as nest trees, ponds, estuaries, caves, and various kinds of structures.

At least one of the constructed golf course ponds in the study area—the one to the northeast; see Appendix C, Figure 11—provides potential breeding habitat for California tiger salamander (*Ambystoma californiense*) (CTS). Hydrologic surveys conducted during the 2018 wet season found that this pond retained water from February through June. This long hydroperiod, combined with the presence of potential prey species for CTS and a lack of predator species, suggests that the pond could support breeding CTS. Other ponded basins within the study area provide sub-optimal breeding conditions for CTS, either because they do not hold water long enough (hydroperiods well under 3 months) or because they support dense vegetation and/or predators such as non-native mosquitofish (*Gambusia affinis*) or bullfrogs (*Lithobates catesbeiana*) (Vollmar Natural Lands Consulting 2024). The study area lacks ponds or pools that hold water long enough to support breeding California red-legged frogs (*Rana draytonii*).

Trees in the study area provide potential nesting habitat for birds, including several special-status species (see Table 4.4-2) as well as common species protected under the MBTA. They may also offer maternity roost opportunities for bats.

No other wildlife nursery sites are present within the study area.

4.4.4 Environmental Impacts

4.4.4.1 Significance Criteria

Impacts were evaluated as Significant if the project would:

- result in a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by DFW or USFWS[25,26]
- result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by DFW or USFWS
- result in a substantial adverse effect on state- or federally protected wetlands or waters through direct removal, filling, hydrological interruption, or other means
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors
- impede the use of a native wildlife nursery site
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

4.4.4.2 Impacts & Mitigation

The paragraphs below evaluate impacts at the project-specific level (i.e., in consideration of the project and its context independent of the effects of other projects in the area); cumulative impacts (those that result from multiple projects or from repeated similar actions over time) are discussed in a separate section that follows this one.

As noted above, it is the Project Owner's intent to seek take authorization from the City of Pittsburg under the ECC HCP/NCCP. The project will incorporate all applicable HCP/NCCP requirements, and the Project Owner has adopted a number of additional Project Design Measures (PDMs) to protect biological resources; both HCP/NCCP compliance and the additional PDMs are detailed below in Section 4.4.5. These additional PDMs were also developed for consistency with the HCP/NCCP's approach and

[25] NOAA Fisheries is not included because the study area offers no habitat suitable for species under NOAA Fisheries jurisdiction; see Table 2 in Vollmar Natural Lands Consulting (2024; Appendix C to this application).

[26] A "substantial adverse effect" on special-status species is generally construed under CEQA to refer to impacts at the occurrence or population level; i.e., impacts that become regionally important. This usage is adopted here.

requirements, to the extent feasible. Impact analysis assumed implementation of all adopted PDMs for biological resources.

Impact BIO-1. Potential for Adverse Effects on Special-Status Species

Special-Status Plants

As discussed above protocol-level surveys conducted during the peak of the 2023 blooming period did not identify any special-status plants within the study area, and the study area is considered generally unlikely to support special-status plants, although several species may have some potential to occur (see Table 4.4-1). The species with the greatest potential to be present are big tarplant (*Blepharizonia plumosa*), Mt. Diablo fairy-lantern (*Calochortus pulchellus*), and Diablo helianthella (*Helianthella castanea*). None of these plants is state- or federally listed or is a candidate for listing, but all are assigned CRPR 1B by the CNPS, indicating that they are rare throughout their native ranges. The CNPS considers big tarplant in particular seriously threatened in California; Mt. Diablo fairy-lantern and Diablo helianthella are considered moderately threatened (Table 4.4-1).

Although the loss of a small number of individuals might not increase risks to these or other special-status plants substantially, removal of an entire occurrence could represent a threat at the population (regional) level, and thus would represent a Significant impact under CEQA. The Project Owner proposes to avoid this by implementing **PDM BIO-4**, which requires

- an updated survey for special-status plants if construction occurs in 2025 or later[27]
- coordination with the East Contra Costa Habitat Conservancy to enable salvage and replanting of any special-status plant occurrences removed for the project, followed by active monitoring and maintenance to ensure survivorship

PDM BIO-4 also explicitly prohibits removal of plants considered "no-take" under the ECC HCP/NCCP due to their extreme rarity: large-flowered fiddleneck (*Amsinckia grandiflora*), alkali milkvetch (*Astragalus tener* ssp. *tener*), Mt. Diablo buckwheat (*Eriogonum truncatum*), diamond-petaled poppy (*Eschscholzia rhombipetala*), Contra Costa goldfields (*Lasthenia conjugens*), and caper-fruited tropidocarpum (*Tropidocarpum capparideum*), and requires prompt consultation with the East Contra Costa County Habitat Conservancy to determine next steps and the Project Owner's responsibility in the extremely unlikely event one of these very rare species is observed onsite.

[27] As identified in the text, protocol-level rare plant surveys were conducted in 2023. Survey results are generally considered to remain valid for ~2 subsequent years, assuming they were conducted under favorable conditions, which is the case here.

With PDM BIO-4 incorporated, direct impacts on special-status plants are expected to be Less than Significant, and no mitigation beyond the measures contained in the PDM is required.

The project would also arguably result in loss of potential habitat for a number of special-status plants (those identified in Table 4.4-2 as having potential to occur within the study area). Again, the greatest concern is for big tarplant, Mt. Diablo fairy-lantern, and Diablo helianthella, as the species with the highest—albeit still fairly low—potential to be present. However, the Project Owner will pay development fees under the ECC HCP/NCCP, which will support expansion and long-term conservation of preserve lands proportionate to the habitat losses that result from the project. Big tarplant, Mt. Diablo fairy-lantern, and Diablo helianthella are all covered under the HCP/NCCP, so the needs of these species are taken into account in selection and management of compensatory preserve lands. **As a result of this offset, long-term indirect impacts related to loss of special-status plant habitat are considered Less than Significant. No mitigation is required.**

Special-Status Wildlife

Insects. Several insect species that qualify for special status may use the study area: obscure bumble bee (*Bombus caliginosus*), Crotch bumble bee (*B. crotchii*), American bumble bee (*B. pensylvanicus*), and overwintering monarch butterfly (*Danaus plexippus* pop. 1) (Table 4.4-2). Obscure bumble bee and American bumble bee are included on DFW's Special Animals list, Crotch bumble bee is a candidate for state listing as Endangered, and monarch butterfly is a candidate for federal listing as Threatened. None of these species is covered by the ECC HCP/NCCP, since they were not listed at the time the HCP/NCCP was prepared and adopted.

Depending on the number of individuals affected, injury or mortality of Crotch bumble bee or monarch butterfly in particular could rise to the level of a Significant impact, given the level of threat these species are currently experiencing. Injury or mortality of the other bumble bee species also has some potential to constitute a Significant impact, again depending on the number of individuals involved and the potential for population-level effects.

The Project Owner will implement **PDM BIO-5**, which requires surveys for the three special-status bumble bee species with the potential to be present in the study area. These will include further evaluation of habitat suitability, surveys for foraging individuals, and surveys for active nests/colonies. If any nests are found, they will be avoided and protected through the active season. Workers will also be directed to avoid injury and mortality to bumble bees. **With the implementation of PDM BIO-5 in place, direct impacts on obscure bumble bee, Crotch bumble bee, and American bumble bee would be reduced to the extent feasible and in a manner consistent with current best practices for the species' conservation. Residual impacts, if any, are accordingly considered Less than Significant. No mitigation beyond the measures identified in PDM BIO-5 is required.**

The Project Owner has also adopted **PDM BIO-6** for protection of monarch butterflies. **PDM BIO-6** requires preconstruction surveys for the species' larval host plants, followed by inspection for eggs, larvae, and pupae if the larval host plant is present. If eggs, larvae, or pupae are observed, the host plants will be protected in place until the biologist has determined that the breeding season has concluded and no more eggs, larvae, or pupae are present. **With implementation of PDM BIO-6, direct impacts on monarch butterfly are expected to be Less than Significant. No mitigation beyond the measures incorporated into PDM BIO-6 is required.**

The project's contribution to supporting HCP/NCCP preserve lands is expected to offset losses of habitat for the three special-status bumble bees and monarch butterfly. **Indirect impacts on special-status insects are therefore also considered Less than Significant. No additional mitigation is required.**

Fishes. No fishes or reptiles are expected to be present within the study area since it offers no suitable habitat for them as shown in Appendix C, Table 2. **No Impact on special-status fishes is anticipated, and no mitigation is required.**

Amphibians. Two special-status amphibians have the potential to be present: California tiger salamander (*Ambystoma californiense*) (CTS) and California red-legged frog (*Rana draytonii*) (CRLF) (see Table 4.4-2). CTS is state- and federally listed as Threatened; CRLF is federally listed as Threatened and is a state Species of Special Concern. The study area offers both aquatic breeding habitat and upland migration/aestivation habitat for CTS, and upland aestivation habitat for CRLF. No breeding habitat for CRLF is available in the study area.

Depending on the number of individuals involved, direct injury or mortality affecting either CTS or CRLF could rise to the level of a Significant impact. Loss of habitat—including breeding opportunities for CTS and out-migration, aestivation, and habitat connectivity opportunities for both species—could also rise to the level of a Significant indirect impact on either or both of these species. However, both CTS and CRLF are covered under the ECC HCP/NCCP. This means that the needs of both species are considered in allocating use of development fees paid under the HCP/NCCP (including those that will be paid by the Project Owner) and preserve lands are selected and managed for the long-term success of both species. This regional approach is generally held to be more effective in addressing the needs of at-risk species than isolated permittee-responsible mitigation projects. In this context, since the Project Owner's HCP/NCCP fees would provide an offset for project impacts and would support both species, **both direct and indirect impacts on CTS and CRLF over the short and long term are considered Less than Significant. No mitigation is required.**

Reptiles. One special-status reptile species has the potential to occur within the study area: western pond turtle (*Emys marmorata*), which is not listed but is a state Species of Special Concern (Table 4.4-2). The ECC HCP models the golf course ponds as core habitat for western pond turtle, but site-specific studies conducted for the project found

that they offer only low-quality opportunities for the species. Seasonal stream corridors in the study area also provide only low-quality habitat. The ECC HCP/NCCP identifies a movement corridor for western pond turtle via the stream in the PG&E transmission line corridor at the east edge of the study area (East Contra Costa County Habitat Conservation Plan Association 2006), and while this habitat is not of high quality, it is important since it represents the only through-going habitat corridor for western pond turtle in the project vicinity.

Due to the low quality of available habitat, western pond turtle is not expected to be present, but since its presence cannot be ruled out, the Project Owner has committed to implementing **PDM BIO-7**, which requires pre-construction survey for western pond turtle, and relocation of any individuals found onsite. If the biologist conducting the survey determines that it is warranted, exclusion measures will be put in place to prevent individuals from returning to the active work area. **With implementation of PDM BIO-7, impacts related to direct injury and mortality of western pond turtle are expected to be Less than Significant. No additional mitigation beyond the measures incorporated into PDM BIO-7 is required.**

Neither of the golf course ponds is within the project footprint, and project effects on the transmission line corridor would be minimal and would not involve the stream itself (Appendix C, Figure 3]). **There would thus be No Impact related to direct removal of western pond turtle habitat, and no mitigation is required.**

Over the long term, the utility of the former golf course ponds for western pond turtle may be diminished due to proximity of additional development and the loss of adjacent upland habitat. However, the current quality of the habitat is low, and the Project Owner will pay both wetland impact fees and development fees under the ECC HCP/NCCP; because western pond turtle is an HCP/NCCP covered species, these will contribute to long-term sustainability of better aquatic and upland habitat elsewhere within the western pond turtle's regional range. **In this context, long-term indirect impacts on western pond turtle habitat are also considered Less than Significant, with no additional mitigation required.**

Birds. Two special-status birds have been observed foraging at the study area: Cooper's Hawk (*Accipiter cooperii*), a state Watch List species, and White-tailed Kite (*Elanus leucurus*), a state Fully Protected species. Trees within the study area also provide potential nesting opportunities for both species.

As detailed in Table 4.4-2, a number of other special-status birds may also use the study area for nesting and/or foraging. Of these, the most likely to be present are Golden Eagle (*Aquila chrysaetos*) (state Fully Protected, Watch List species) (foraging only; no nesting habitat), Burrowing Owl (*Athene cunicularia*) (federal Bird of Conservation Concern, state Species of Special Concern) (nesting and foraging/wintering), and Loggerhead Shrike (*Lanius ludovicianus*) (state Species of Special Concern) (nesting and foraging).

Numerous additional common bird species protected under the MBTA may also forage or nest on the site.

Golden Eagle and Burrowing Owl are covered under the ECC HCP/NCCP. Direct impacts on both species would be reduced or avoided by adherence to the HCP/NCCP's Species-Level Measures per **PDM BIO-3** and loss of potential habitat would be compensated through the HCP/NCCP mechanism, as discussed above for CTS and CRLF. **With the implementation of PDM BIO-3, both short- and long-term direct and indirect impacts on Golden Eagle and Burrowing Owl are therefore considered Less than Significant. No additional mitigation beyond the measures incorporated into PDM BIO-3 is required.**

To protect other birds that may use the site, the Project Owner has adopted **PDMs BIO-8 and BIO-9**, which require preconstruction surveys and protection/avoidance of any active nests found. This is expected to reduce the potential for impacts on nesting birds, their nests, eggs, and young to the extent feasible, consistent with current best practices. **With the implementation of PDMs BIO-9 and BIO-9 residual direct impacts on other bird species are accordingly considered Less than Significant, with no mitigation required. Indirect impacts on other bird species due to loss of potential habitat would be addressed through the project's contributions to supporting the ECC HCP/NCCP preserve lands, and are also considered Less than Significant. No additional mitigation beyond the measures incorporated into PDMs BIO-8 and BIO-9 is required.**

Mammals. Several special-status mammal species may be present in the study area. These include three species of bats—pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus frantzii* [*L. blossevillii*]), and hoary bat (*L. cinereus*)—as well as San Joaquin pocket mouse (*Perognathus inornatus*) and American badger (*Taxidea taxus*). None of these is listed, and none is covered by the ECC HCP/NCCP.

The likelihood that pallid bat, western red bat, and/or hoary bat use the site for either foraging or roosting is unclear (Vollmar Natural Lands Consulting 2024). Of the three, pallid bat is most likely, since the site does offer foraging habitat for this species; the closest documented occurrences are about 5 miles away, although they are from the 1940s (Table 4.4-2). The other two species may also forage in the study area, but the closest documented occurrences of these species are more than 5 miles away and at least 20 – 30 years old (Table 4.4-2). The availability of roosting opportunities—and more importantly, of maternity roosts—at the site is unknown (Table 4.4-2).

To address the potential for impacts on special-status bats, the Project Owner has adopted **PDM BIO-10**, which requires further evaluation of the site and surrounding buffer area by a qualified biologist to determine whether it offers roosts suitable for pallid bat, western red bat, or hoary bat. If roosting opportunities are present, the following additional requirements will apply.

- Focused surveys for roost occupancy conducted at least 2 weeks before the start of work, including daytime visual surveys as well as evening emergence and acoustic surveys; if presence is confirmed, the species, number of individuals, and roost type (maternity/non-maternity) will be documented and reported to DFW.
- Protection of non-maternity roosts with no-activity setback buffers based on species and type of construction activity, if possible; if protection is not possible, restriction of work within setback buffers to daylight hours when the biologist has confirmed the roost is not occupied, with oversight by the biologist to ensure that bats are not disturbed or harmed
- Protection of maternity roosts with no-activity setback buffers based on species and type of construction activity for the duration of the breeding/non-volant season (April – August); avoidance of maternity roost removal if possible; provision of compensatory habitat approved by DFW, such as bat boxes, if removal of a maternity roost cannot be avoided

With implementation of PDM BIO-10, direct impacts on pallid bat, western red bat, and hoary bat are expected to be Less than Significant. No additional mitigation beyond the measures incorporated into PDM BIO-10 is required.

Like indirect impacts on CTS, CRLF, and birds, indirect impacts on special-status bats due to loss of potential habitat would be addressed through the project's support of ECC HCP/NCCP preserve lands. **Indirect impacts on special-status bats are therefore also considered Less than Significant, with no mitigation required.**

San Joaquin pocket mouse and American badger both prefer locales with friable soils conducive to burrowing. Soils in the study area are not especially friable, and neither species has been documented in the immediate vicinity; the closest occurrences of San Joaquin pocket mouse are 3 – 5 miles away and those of American badger are almost 9 miles away. Both species are therefore considered to have relatively low potential to be present (see Table 4.4-2). Nonetheless, the Project Owner has adopted measures to avoid and reduce impacts on them: **PDM BIO-11** for San Joaquin pocket mouse, and **PDM BIO-12** for American badger.

PDM BIO-11 requires that vegetation removal, clearing/grubbing, and grading for project construction—all of which could result in injury or mortality of San Joaquin pocket mouse—be conducted in a uniform direction to enable mice to escape into adjacent undisturbed habitat outside the construction area. It also prohibits the creation of fragmented "islands" of remaining habitat where mice could become isolated and trapped, and would be at greater risk from eventual clearing and grading. **With implementation of PDM BIO-11, direct impacts on San Joaquin pocket mouse as a result of construction are expected to be Less than Significant. No additional mitigation beyond the measures incorporated into PDM BIO-11is required.**

PDM BIO-12 requires preconstruction survey by an appropriately qualified biologist for American badger den sites. If occupied dens are found but young are not present,

badgers may be excluded, or may be trapped and relocated to suitable habitat at a remove from the project site. The badger removal method will be subject to approval by DFW prior to implementation, and any trapping/relocation will be conducted by biologist(s) with the necessary permits. No exclusion or relocation will be permitted if badger young are present. In this case, the occupied den will be protected by a 50-foot-wide no-entry/no-activity buffer until the biologist has determined that the young are no longer dependent on the mother and the den site. **With the implementation of PDM BIO-12, direct impacts on American badger as a result of construction are expected to be Less than Significant. No additional mitigation beyond the measures incorporated into PDM BIO-12 is required.**

Long-term indirect impacts on San Joaquin pocket mouse and American badger due to loss of habitat, like those on special-status bats and other taxa, would be addressed through the project's support of the ECC HCP/NCCP preserve system, and are accordingly expected to be Less than Significant. No additional mitigation is required.

Impact BIO-2. Potential for Adverse Effects on Sensitive Natural Communities

Construction Period

As discussed in Section 4.4.2, the study area supports several sensitive natural communities, including potentially jurisdictional wetlands and other waters as well as riparian habitat (Himalayan blackberry thickets and Valley Foothill Riparian areas). Wetlands and other waters are discussed in the next impact; this analysis focuses on riparian habitats.

Appendix C, Figure 3 presents the anticipated project footprint overlaid on habitat mapping for the site. As it shows, no riparian habitat would be removed for the project. **There would be No Impact with regard to direct removal of riparian vegetation, and no mitigation is required.**

The Project Owner has committed to compliance with all applicable requirements of the ECC HCP/NCCP in **PDM BIO-3** and implementing a Worker Environmental Awareness Program (WEAP) as outlined in **PDM BIO-2**. Per HCP/NCCP Conservation Measure 2.12 (Wetland, Pond, and Stream Avoidance and Minimization) riparian areas will be staked and delineated for avoidance by a qualified biologist before the construction contractor mobilizes, and WEAP training will be provided to ensure that contractor staff understand the importance of avoiding damage to riparian habitat. **With implementation of PSDs BIO-2 and BIO-3, no Impact with regard to temporary disturbance of riparian vegetation is anticipated. No additional mitigation beyond the measures incorporated into PDMs BIO-2 and BIO-3 is required.**

Operations & Maintenance

Riparian habitat is subject to degradation due to human incursions, windblown trash, and other effects of nearby development. The project would have some potential to increase

these effects over the long term. However, coverage under the ECC HCP/NCCP will require that the project conform to HCP/NCCP Conservation Measure 1.7 (Establish Stream Setback), which stipulates maintenance of a protective buffer between new development and existing stream corridors. These setback buffers are intended primarily to protect water quality and instream habitat for sensitive fish species (East Contra Costa County Habitat Conservation Plan Association 2006), but would also protect the riparian corridor at the east edge of the study area by decreasing the potential for damaging incursions and trash accumulation.

As described in Section 2.3.7 of this application, the project would replace the existing stormwater outlet that discharges to the riparian corridor with a new outlet consistent with applicable HCP requirements. With development of the site, this could have potential to alter stormwater runoff to the stream and could increase delivery of sediment, trash, and debris to the corridor. The potential for corollary effects on water quality and stream hydraulics is discussed in Section 4.10 (*Hydrology & Water Quality*); the analysis that follows focuses on effects on riparian corridor health.

The existing stormwater outlet from the former golf course consists of a 22-inch-diameter corrugated metal (CMP) pipe that discharges upslope from the stream. The existing discharge pipe is undersized, such that overland flow around the pipe is expected during larger storm events, with some flow conveyed by the culvert and the excess delivered overland. The project would replace the existing single outlet pipe with dual pipes "right-sized" to convey all flows from the site under design event conditions. Rip-rap or other stabilization would be provided at the discharge point to prevent erosion due to overland flow from the discharge pipe to the stream. Stormwater infrastructure internal to the project site would be configured to ensure that flows delivered offsite are not increased by comparison with existing conditions. This is expected to include stormwater retention features incorporated into landscaping, and will also include trash racks or other capture devices to prevent delivery of refuse to the stream and riparian corridor. With this approach, the replaced stormwater discharge system would not worsen effects of stormwater discharge on the riparian corridor, and would likely improve it.

In view of HCP-mandated protections for riparian corridors and the design features discussed above, **impacts on riparian habitat over the long term are expected to be Less than Significant. No mitigation is required.**

Impact BIO-3. Potential for Adverse Effects on Protected Wetlands

As shown on Appendix C, Figure 3, the project would result in direct removal of 0.15 acre of seasonal wetland and 0.128 acre of perennial wetland within drainage courses on the site.

Under the ECC HCP/NCCP, the Project Owner will be required to pay a per-acre fee for wetland impacts in addition to the per-acre development fee, which helps to support

acquisition, restoration, and long-term management of aquatic resources on compensatory preserve lands.

Wetland impacts will also require resource agency authorization, as follows.

- Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers, Sacramento District (Corps)
- Clean Water Act Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB)
- Streambed Alteration Agreement with DFW

Clean Water Act Section 404 authorization is expected to proceed via the Corps' Regional General Permit (RGP) 1 (Minimal Impact Activities in East Contra Costa County, California), which is intended to facilitate projects covered by the ECC HCP/NCCP. Compensatory mitigation for wetland losses will be required under RGP 1, and is expected to be provided through payment to a Corps-approved bank serving the East Contra Costa County area. Additional mitigation may be required by the RWQCB and/or DFW if these agencies feel it is warranted. **Impacts related to fill of jurisdictional wetlands would thus be appropriately offset and are considered Less than Significant. No additional mitigation is required.**

The Project Owner has adopted **PDM BIO-3** which requires adherence to the ECC HCP/NCCP. This measure ensures wetlands outside the project footprint would be protected during construction by implementation of ECC HCP/NCCP Conservation Measure 2.12 (Wetland, Pond, and Stream Avoidance and Minimization), which requires staking and avoidance. Additional protection would be provided by the project Stormwater Pollution Prevention Plan (SWPPP), discussed in more detail in Section 4.10 (*Hydrology & Water Quality*) of this application, and likely also by conditions of the project's Corps, RWQCB, and DFW permits. **In this context, impacts related to inadvertent disturbance and degradation of wetlands during construction would be avoided consistent with current best practices and regulatory requirements. Residual impacts, if any, are considered Less than Significant. No additional mitigation beyond the measures incorporated into PDM BIO-3 is required.**

Impact BIO-4. Potential to Interfere with Wildlife Movement or Wildlife Corridors

As described above in Section 4.4.1, the Project site itself currently enables limited if any wildlife passage due to remaining golf course fencing and the barrier presented by the Contra Costa Canal. The most important avenue for wildlife movement in the project vicinity is likely the PG&E transmission line corridor immediately to the east, which is generally open, contains a through-flowing stream as noted above, and provides direct connectivity from to the edge of Suisun Bay. Importantly, this corridor also connects to the south via a crossing over the Contra Costa Canal at the southeast corner of the study area.

As shown in Appendix C, Figure 3, the project would result in a minor encroachment on the corridor along the transmission line associated with replacement of the existing stormwater discharge pipe, and would not alter the existing Canal crossing in any way. **Impacts on wildlife corridors are therefore considered Less than Significant, and no mitigation is required.**

Impact Bio-5. Potential to Impede Use of Wildlife Nursery Sites

The Project Site provides at least two types of wildlife nursery sites: trees that provide potential nesting habitat for numerous bird species, and potential aquatic breeding habitat for CTS. The possibility of bat maternity roosts in trees on the site has not been conclusively ruled out.

Project impacts on nesting and rearing birds are addressed, and found to be Less than Significant with project PDMs incorporated, in Impact BIO-1 above. Impacts on bat roosts, including maternity roosts if any such are present, are also addressed and found to be Less than Significant with project PDMs incorporated in Impact BIO-1.

As noted in Section 4.4.2 and in Impact BIO-1, at least one of the constructed golf course ponds adjacent to the project site provides potential breeding habitat for CTS. The golf course ponds would not be directly affected by the project since they are outside the project footprint (see Appendix C, Figure 3), but their utility to breeding CTS would likely be reduced over the long term because the presence of project facilities would substantially reduce the availability of open upland habitat for CTS outmigration. In isolation, this could be construed as a Significant impact. However, the project will obtain take coverage for CTS under the ECC HCP/NCCP. This will entail payment of development fees and wetland impact fees that directly support preserve lands managed for CTS success. This is expected to compensate in full for the reduction in utility of potential CTS breeding habitat adjacent to the project site. In this context, impacts on CTS breeding habitat are also considered Less than Significant.

Overall, impacts on wildlife nursery sites are evaluated as Less than Significant. No mitigation is required.

Impact BIO-6. Potential to Conflict with Local Ordinances or Policies Protecting Biological Resources

Local Ordinances

The City has two ordinances relevant to biological resources: the Habitat Conservation Plan/Natural Community Conservation Plan Ordinance and the Street Tree Ordinance.

As described in more detail in Section 4.4.1.4, the Habitat Conservation Plan/Natural Community Conservation Plan Ordinance governs implementation of the ECC HCP/NCCP at the City level. The project will need to comply with the requirements of this ordinance to obtain coverage under the ECC HCP/NCP; compliance will be enforced through City Planning review. The Street Tree Ordinances regulates all aspects of work

on street trees (i.e., trees within public roadways, rights-of-way, and other public spaces) within the City. It is not expected to apply to the project, since the project would be implemented on private lands. **Consequently, there would be No Impact with regard to conflict with local ordinances, and no mitigation is required.**

Local Policies

The current City General Plan and the Draft City General Plan 2040 Update contains several goals and policies relevant to biological resources. All are intended to guide actions by the City itself; thus, they are not directly applicable to the project. However, because of the need for City entitlements to move ahead with the project, they apply indirectly as they will guide the City's review of the project. General Plan goals and policies are itemized, and project consistency assessed, in Table 4.4-4 below.

Table 4.4-4. Project Consistency with General Plan Policies for Biological Resources

Goal/Policy	Project Consistency
Goal 9-G-1: Protect conservation areas, particularly habitats that support special status species, including species that are State or Federally listed as endangered, threatened, or rare	The project site is not located on or adjacent to conservation lands, and is not identified as a conservation (i.e., acquisition) priority in the ECC HCP/NCCP (East Contra Costa County Habitat Conservation Plan Association 2006; see Figure 5-2). Additionally, the project will be applying for coverage under the ECC HCP/NCCP and thus will be supporting the system of preserve lands that forms the core of the HCP/NCCP's conservation strategies. The project is therefore considered consistent with this goal
Goal 9-G-2: Guide development in such a way that preserves significant ecological resource"	As discussed in Section 4.4.2, the project site is a former golf course; in general, ecological values on the site have been substantially degraded by decades of management for golf course use, and are not considered "significant" in the sense intended by Goal 9-G-2. Probably the most important ecological resource in the project vicinity is the potential wildlife corridor along the PG&E transmission line immediately east of the site. As discussed in Impact BIO-4, the project would not reduce connectivity along this corridor. Consequently, the project is considered consistent with this goal
Policy 9-P-1: Ensure that development does not substantially affect special status [sic] species … Conduct assessments of biological resources as required by CEQA prior to approval of development within habitat areas of identified special status species	Biological resources on the site were inventoried for CEQA and ECC HCP/NCCP purposes during the preparation of this application. Results are presented in Section 4.4.2 and in more detail in Appendix C to this application The project's potential to affect special-status species is discussed in Impact BIO-1. Based on that analysis and the conduct of planning surveys discussed in Section 4.4.2, this project is considered consistent with this policy
Policy 9-P-2: Establish an on-going [sic] program to remove and prevent the re-establishment of invasive species and restore native species as part of development approvals on sites that include ecologically sensitive habitat	The project site was used as golf course for many years and the bative plant community is or poor quality asa result of the planting and maintenance of many non-native grasses, shrubs and treees. The project would remove these non-native species and will implement a landscaping plan in consultaton with the City to incorporate native species where appropriate.
Updated GP Goal-10-2: Conserve biological and ecological resources, particularly the health of Suisun Bay and Marsh (Bay) and the Sacramento-San Joaquin Delta (Delta), special status species,	The Proejct Site is not near the water sources identified in the Goal. Additionally, the project will be applying for coverage under the ECC HCP/NCCP and thus will be supporting the system of preserve lands that forms the core of the HCP/NCCP's conservation strategies. The

Goal/Policy	Project Consistency
including species that are State or Federally listed as endangered, threatened, or rare, habitats that support special status species, and sensitive habitats.	Project is imcorporating PDMs BIO-1 through BIO-12 to protect and support protected species. The project is therefore considered consistent with this goal
Updated GP Policy 10-P-2.8: Require new development projects and expansion of existing uses to conserve sensitive habitat, including special status species	The Project will be applying for coverage under the ECC HCP/NCCP and thus will be supporting the system of preserve lands that forms the core of the HCP/NCCP's conservation strategies.
Updated GP Policy 10-P-2.11: Encourage the preservation of wildlife corridors to ensure the integrity of habitat linkages.	The Project site is adjacent to the PG&E easement and although the project's transmission line will extend approximately X feet from its boundary into the PG&E easement, the minor construction will not create any barrieri to the easement which is likely a corrider used for habitat linkage by species in the project area.
Updated GP Policy 10-P-2.12: Continue to support and implement the East Contra Costa County Habitat Conservation Plan (Eastern County HCP).	The Project will be applying for coverage under the ECC HCP/NCCP and thus will be supporting the system of preserve lands that forms the core of the HCP/NCCP's conservation strategies.
Update GP Policy 10-P-2.15: Protect and restore threatened natural resources, such as wildlife, estuaries, tidal zones, marine life, wetlands, and waterfowl habitat.	The project will affect minor portions of wetlands that have been used in the recent past for golf course operations. The project will not affect wetlands ouside the project footprint. The project will comply with all wetlands related requirments of the federal and state agencies to ensure that wetlands are protected including paying a per-acre fee for wetland impacts in addition to the per-acre development fee, which helps to support acquisition, restoration, and long-term management of aquatic resources on compensatory preserve lands.

As itemized in the table above, the project would be consistent with City current and future goals and policies for biological resources protection. **There would be No Impact with regard to conflict with local goals or policies, and no mitigation is required.**

Potential to Conflict with an Adopted Conservation Plan

The only conservation plan in place for the project area is the ECC HCP/NCCP. The project has been developed for consistency with HCP/NCCP requirements, since the Project Owner intends to seek coverage under this document, and the Project Owner has committed to implement applicable HCP/NCCP requirements. **As a result, No Impact with regard to an adopted conservation plan is anticipated. No mitigation is required.**

4.4.4.3 Cumulative Impacts

This section analyzes

- the project's potential to contribute to existing Significant cumulative impacts on biological resources
- the project's potential to create new Significant cumulative impacts on biological resources through repeated activities over the long term

Analysis used a modified version of the a “summary of projections” approach per *CEQA Guidelines* Section 15130[b][1][B], taking into account regional trends in development but also considering impacts of known development planning for immediately adjacent lands south of the project site (i.e., development under the Pittsburg Technology Park Specific Plan, currently being drafted). Geographically, analysis focused on eastern Contra Costa County. This is because the nature and distribution of biological resources are controlled by physiography and climate, with a secondary overprint resulting from human influences via patterns of land development, and all of these controlling factors differ substantially between the eastern and western portions of the County, and are also substantially different across Suisun Bay to the north. Focusing on eastern Contra Costa County thus places assessment of cumulative impacts within a cohesive resource context.

As noted above for analysis of project-specific (incremental) impacts, analysis assumed implementation of all PDMs for biological resources detailed in Section 4.4.6

Potential to Contribute to Existing Significant Cumulative Impacts

Impacts on Special-Status Species

Numerous special-status species are present in the project region, and a number of these have potential to occur on or immediately surrounding the project site, and thus have the potential to be directly and/or indirectly affected by the project. Special-status species—those that have been formally identified as rare and at-risk—are by definition subject to an existing Significant impact, and by definition that impact is cumulative since it is the result of multiple influences operating over a long period of time. The project’s potential to affect special-status species must therefore be considered in the cumulative as well as the project-specific context.

The project’s potential impacts on special-status species are discussed in detail in Impact BIO-1 above, and found to be Less than Significant at the project-specific level.

For species covered by the ECC HCP/NCCP, this is based on compliance with HCP/NCCP requirements, including project-level measures to avoid direct impacts on individual special-status plants and wildlife and landscape-level compensation for take of listed species and indirect impacts due to loss of habitat

For species not covered by the ECC HCP/NCCP this is based on incorporation of project-specific measures (**PDMs**) to avoid, reduce, or compensate for adverse effects on special-status species and the resources on which they depend, consistent with current best practices and best available conservation science

Incorporation of the **PDMs** called out in Impact BIO-1 would reduce impacts to the extent feasible, and would address them both at a site-specific perspective and in the larger, regional and long-term, context. **Residual impacts, if any, are accordingly evaluated as Less than Cumulatively Considerable. No further mitigation is feasible or warranted at the cumulative level.**

Impacts Related to Atmospheric Nitrogen Deposition

California ecosystems are typically nitrogen-limited (Weiss 2006); if available nitrogen supply is increased, non-native vegetation can become increasingly competitive with native species (Fenn et al. 2003), leading to long-term habitat degradation. Regionally in the Bay Area, deposition of atmospheric nitrogen—largely attributable to anthropogenic sources such as smog and vehicular emissions—is recognized as an important source of increased nitrogen supply and a key driver on habitat degradation (e.g., Bay Area Open Space Council 2019). This impact is inherently cumulative in nature due to the multiplicity of sources in play, and is increasingly recognized as Significant (again, see Bay Area Open Space Council 2019). The paragraphs that follow evaluate the project's potential to contribute to this existing Significant cumulative impact, focusing on habitats officially designated as sensitive by DFW along with USFWS-designated critical habitat for listed species, consistent with current CEC practice.

As described in Section 2.0 of this application, the project would include 37 2.75-MW backup generators for use in the event grid power to project facilities is interrupted. Generators are planned to be Cummins Model D6e stationary standby diesel generator sets. Routine maintenance and testing of the generators to ensure they are in working condition is expected to include operation once a month for approximately 15 minutes, plus an annual test with each generator. Each generator would be tested individually during monthly and annual testing. For each generator testing and maintenance will not exceed 34 hours per year. Generators will only be operated simultaneously during a utility outage which has been shown to be very rare.

Although the generators would be equipped with emissions reduction equipment and diesel particulate filters to comply with Tier 4 emissions standards, generator operation would nonetheless result in emissions of several air pollutants, including nitrogen oxides (NO_x) and ammonia (NH_3). Generator operation, including routine testing, could therefore have some potential to increase nitrogen supply via atmospheric nitrogen deposition, fostering the spread of invasive vegetation in sensitive habitats and ultimately contributing to long-term habitat degradation.

Nitrogen deposition modeling is not currently available for the project. However, modeling for other similar projects suggests that any nitrogen plume produced would quickly dissipate and become indistinguishable from background nitrogen levels by the time it reached a distance of about 6 miles from the source site.

Assessment of risks related to increased nitrogen deposition in sensitive habitats accordingly considered effects within a 6-mile radius of the project site. Potentially affected habitats designated as sensitive by DFW include areas of coastal brackish marsh and the Antioch dunes located about 1.8 miles north and 5.9 miles east of the site, respectively (Appendix C, Figure 11). The 6-mile radius also encompasses areas of USFWS-designated critical habitat for Delta smelt, Alameda whipsnake (*Masticophis lateralis euryxanthus*), Antioch dunes evening primrose (*Oenothera deltoides* ssp.

howellii), and Contra Costa wallflower (*Erysimum capitatum* var. *angustatum*). This was also conservatively considered to represent sensitive habitat.

One key tool for assessing the impacts of nitrogen deposition is *critical load*, defined as "the input of a pollutant below which no detrimental ecological effects occur over the long term" (Fenn et al. 2010). Meaningful adverse impacts could occur if total nitrogen deposition—the project's contribution plus background nitrogen deposition—were to exceed the critical load for any of the sensitive habitats within the 6-mile radius studied. Another way to look at this is to ask, "would the project push nitrogen deposition over the critical load threshold for any of the sensitive habitats in the project vicinity?". Exceedance of the critical load as a result of project contributions thus serves to delineate the threshold at which project contributions become Cumulatively Considerable.

Table 4.4-3. Nitrogen Critical Loads by Habitat

Habitat	Critical Load	Comments
Early successional coastal brackish marsh	30 – 40 kgN/ha/yr	Delta smelt is presumed to use all suitable aquatic habitat within the 6-mile study radius; these values thus apply to each habitat per se and also provide a proxy for Delta smelt critical habitat
Intertidal salt marsh	63 – 400 kgN/ha/yr	
Intertidal marsh	50 – 100 kgN/ha/yr	
Stabilized coastal dunes	10 – 20 kgN/ha/yr	The Antioch dunes were historically a shifting coastal dune habitat, but are now classified as stabilized by DFW
Woodlands, chaparrals	10 – 14 kgN/ha/yr	Terrestrial habitat values are provided as an approximate proxy for Alameda whipsnake and listed plant critical habitat Note that none of the specialized grasslands listed here occur within the 6-mile study radius, but non-specialized grasslands such as those that are present are less well studied, and no critical load values are available for non-specialized grasslands. However, the specialized grasslands listed here support vegetation adapted to low-nutrient conditions and thus are particularly sensitive to elevated nitrogen input. Non-specialized grasslands—adapted to more nutrient-rich conditions—are presumed to have a much higher critical load threshold
Scrub habitat	7.8 – 10 kg N/ha/yr	
Serpentine grasslands	6 kgN/ha/yr	
Desert grasslands	3 – 8.4 kgN/ha/yr	
Alpine grasslands	4 – 10 kgN/ha/yr	

Source: Appendix C

Baseline atmospheric nitrogen deposition within the project area and 6-mile buffer is thought to range from 5.16 kilograms of nitrogen per hectare per year (kgN/ha/yr) to a maximum of 7.41 kgN/ha/yr (Bay Area Open Space Council 2019).

Conservative modeling performed by CEC staff using the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) has estimated very low nitrogen generation rates for facilities similar to those proposed under the project. For example,

- the CA3 project (47 2.75-MW diesel backup generators): estimated contributions to existing nitrogen deposition of 0.02 – 0.20 kg N/ha/yr at a distance of 2 miles (California Energy Commission 2022)
- McLaren Data Center (47 2.75-MW diesel backup generators) and Laurelwood Data Center (56 3.0-MW diesel backup generators): estimated contributions to existing nitrogen deposition of 0.01 – 0.03 kgN/ha/yr at a distance of 4 – 5 miles (California Energy Commission 2021)

Taking the higher (more conservative) end of each of these ranges, project-related deposition of 0.2 kgN/ha/yr could result in a total nitrogen deposition rate of 5.36 – 7.61 kgN/ha/yr at a distance of about 2 miles. At a distance of 4 – 5 miles, project contributions of 0.03 kgN/ha/yr would result in total nitrogen deposition of 5.19 – kgN/ha/yr – 7.44 kgN/ha/yr. All of these values are far below the minimum critical load estimates of any of the sensitive aquatic habitats and coastal dune habitats within the study radius (10 – 63 kgN/ha/yr).

Projected total nitrogen deposition values are also below the lower end of estimated critical load thresholds for woodlands, chaparral, and scrublands within Alameda whipsnake critical habitat (7.8 – 10 kgN/ha/yr). This is particularly so since the closest whipsnake critical habitat is approximately 5.6 miles from the project site; due to the drop-off in nitrogen deposition with distance, total nitrogen deposition at this distance is expected to less than 5.19 – kgN/ha/yr – 7.44 kgN/ha/yr.

With total nitrogen deposition projected below critical load values for sensitive aquatic and coastal dune habitats and woodlands, chaparral, and scrublands in designated critical habitat within the area expected to receive airborne nitrogen input from the project, the project's contribution to atmospheric nitrogen deposition impacts on these habitats is evaluated as Less than Cumulatively Considerable. No mitigation is required at the cumulative level.

Projected total nitrogen deposition levels exceed the lower end of the critical threshold ranges for specialized grasslands such as serpentine grassland (6 kgN/ha/yr/), desert grassland (3 – 8.4 kgN/ha/yr), and alpine grassland (4 – 10 kgN/ha/yr). However, as Table 4.4-3 notes, these specialized grasslands all support vegetation assemblages that are adapted to low-nutrient conditions; they are thus particularly sensitive—and vulnerable—to increases in nitrogen availability, reflected in low critical load thresholds. None of the grasslands within the 6-mile study radius is specialized; all are generalist grasslands adapted to much higher nutrient availability. They are thus expected to have substantially higher critical load thresholds, and the project's comparatively small contribution to total atmospheric nitrogen deposition is not expected to markedly increase effects due to existing background nitrogen deposition levels. In this context, **the effect of project contributions to cumulative atmospheric nitrogen deposition in grassland habitats within Alameda whipsnake critical habitat is also evaluated as Less than Cumulatively Considerable. No mitigation is required at the cumulative level.**

4.4.5 Project Design Measures

PDM BIO-1: Project Coverage under ECC HCP/NCCP

The Project Owner shall obtain coverage for the project under the ECC HCP/NCCP. This shall include submittal of all required application materials per HCP/NCCP Section 6.2.1 and payment of a Development Fee consistent with current HCP/NCCP requirements. Alternatively, the Project Owner may, in accordance with the terms of PMC Chapter 15.108, offer to dedicate land in lieu of some or all of the HCP/NCCP Development Fee.

All applicable fees shall be paid, and/or an "in-lieu-of-fee" agreement fully executed, prior to the issuance of a grading permit for the project. If a grading permit is not required, fee payment and/or an "in-lieu-of-fee" agreement shall be fully executed prior to issuance of the project's building permit. Proof of applicable fees and/or "in-lieu-of-fee" agreement shall be provided to the City of Pittsburg Community Development Director.

PDM BIO-2: Worker Awareness Training for Biological Resources

Because of the potential for nesting birds and other protected wildlife to be present on the project site, the Project Owner shall prepare and ensure delivery of a Worker Environmental Awareness Program (WEAP). The WEAP shall include the following information:

- the sensitive habitats on the project site
- special-status species known or potentially present on the site, including their
    - listing status and causes of decline
    - habitat preferences
    - distinguishing physical characteristics
- the measures (PDMs and ECC HCP/NCCP measures) required to protect sensitive habitats and special-status species, including next steps and notifications in the event of a special-status species sighting

The WEAP shall include a hard copy handout that summarizes information presented in the training and includes photographs of habitat resources and species to facilitate identification in the field by construction personnel.

The Project Owner shall ensure that all construction personnel undergo WEAP training before they begin work. Training shall be delivered by a qualified biologist approved by the City of Pittsburg Community Development Director and shall be provided bilingually in English and Spanish if appropriate.

PDM BIO-3: Adherence to ECC HCP/NCCP Requirements

The Project Owner shall ensure that the project adheres to all applicable ECC HCP/NCCP requirements.

Planning surveys per HCP/NCCP Section 6.3.1 were completed in 2018 – 2023 (see Section 4.4.2.1 of this application). Based on the outcomes of the planning surveys, preconstruction surveys by USFWS- and DFW-approved biologists shall be conducted for the following species per HCP/NCCP Sections 6.3.2 and 6.3.4:

- Golden Eagle (*Aquila chrysaetos*)
- Burrowing Owl (*Athene cunicularia*)
- Swainson's Hawk (*Buteo swainsonii*)
- San Joaquin kit fox (*Vulpes macrotis mutica*)

If preconstruction surveys determine that any of the above species is present on the site (or, for the bird species, within a distance where they could be disturbed by construction activity), the biologist may recommend construction monitoring; if so, the Project Owner shall ensure that monitoring is conducted per HCP/NCCP Section 6.3.3. This will include submittal of a Construction Monitoring Plan (CMP) to the East Contra Costa County Habitat Conservancy for approval; the CMP must be submitted and approved prior to issuance of the grading permit (or, if no grading permit is required, the building permit) for the project.

Based on results of the planning surveys, which indicate that no suitable habitat is available on the project site, preconstruction surveys and construction monitoring are not required for the following species:

- Covered shrimp species
- Giant garter snake (*Thamnophis gigas*)
- Townsend's big-eared bat (*Corynorhinus townsendii*)

The Project Owner shall also comply with all applicable provisions of ECC HCP/NCCP Section 6.4, *Specific Conditions on Covered Activities*, as follows.

- **Section 6.4.1: Landscape-Level Measures**
    - Conservation Measure 1.10 – Maintain Hydrologic Conditions and Minimize Erosion
    - Conservation Measure 1.11 – Avoid Direct Impacts on Extremely Rare Plants, Fully Protected Wildlife Species [and] Covered Migratory Birds
    - Conservation Measure 1.7 – Establish Stream Setbacks
- **Section 6.4.2: Natural Community–Level Measures**

- Conservation Measure 2.12 – Wetland, Pond, and Stream Avoidance and Minimization

- **Section 6.4.3: Species-Level Measures** for the following species
  - California tiger salamander (*Ambystoma californiense*)
  - Burrowing Owl
  - Golden Eagle
  - Swainson's Hawk
  - San Joaquin kit fox

PDM BIO-4: Rare Plant Survey & Protection

Protocol-level rare plant surveys were conducted in 2023; rainfall and temperature conditions were good that year, surveys were conducted during the peak blooming period for the species potentially present, and survey results were negative. Thus, if project construction occurs before 2025, no further action is required.

If project construction begins in 2025 or later, an updated protocol-level rare plant survey shall be conducted by a qualified biologist/botanist who is familiar with the rare plants of the project region and has been approved by the City of Pittsburg Community Development Director. Surveys shall be conducted prior to construction, with enough lead time to allow for the follow-up actions described below, if they are warranted. Surveys shall be conducted during the peak blooming periods of the target species and shall cover all potentially suitable habitats within the project site and surrounding 250-foot-wide buffer. Target species and blooming periods are listed in the matrix below; the matrix is highlighted to group species with similar blooming periods.[28]

Species	Blooming Period
Lobb's aquatic buttercup (*Ranunculus lobbii*)	February – May
Johnny-nip (*Castilleja ambigua* var. *ambigua*)	March – August
Showy golden madia (*Madia radiata*)	March – May
California alkali grass (*Puccinellia simplex*)	March – May
California androsace (*Androsace elongata* ssp. *acuta*)	March – June
Stinkbells (*Fritillaria agrestis*)	March – June

[28] The list of target species was developed based on studies conducted for the project, discussed at the beginning of Section 4.4.2 and in more detail in the project Biological Evaluation Report (Vollmar Natural Lands Consulting 2024; see Appendix C to this application). It reflects known distribution of special-status plants in the project region and habitat conditions at the site.

Species	Blooming Period
Diablo helianthella (*Helianthella castanea*)	March – June
Hogwallow starfish (*Hesperevax caulescens*)	March – June
Stinkbells (*Fritillaria agrestis*)	March – June
Mt. Diablo jewelflower (*Streptanthus hispidus*)	March – June
Sylvan microseris (*Microseris sylvatica*)	March – June
Little mousetail (*Myosurus minimus* ssp. *apus*)	March – June
Small-flowered morning-glory (*Convolvulus simulans*)	March – July
Keck's checkerbloom (*Sidalcea keckii*)	April – May, sometimes into June
Mt. Diablo fairy-lantern (*Calochortus pulchellus*)	April – June
Tehama navarretia (*Navarretia heterandra*)	April – June
Adobe navarretia (*Navarretia nigelliformis* ssp. *nigelliformis*)	April – June
Saline clover (*Trifolium hydrophilum*)	April – June
Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*)	April – July
Shining navarretia (*Navarretia nigelliformis* ssp. *radians*)	April – July
Pappose tarplant (*Centromadia parryi* ssp. *parryi*)	May – November
Parry's rough tarplant (*Centromadia parryi* ssp. *rudis*)	May – October
Woolly-headed lessingia (*Lessingia hololeuca*)	June – October
Big tarplant (*Blepharizonia plumosa*)	July – October
Mt. Diablo buckwheat (*Eriogonum truncatum*)	September, sometimes into November/December

If no special-status plants are documented within the area to be disturbed for project construction (including staging and access), no further action is required.

If special-status plants covered by the ECC HCP/NCCP, or plants designated as "no take" by the ECC HCP/NCCP, are present on the site, the relevant survey report(s) shall be submitted to the East Contra Costa Habitat Conservancy per HCP/NCCP Section 6.3.1 (see page 6-9).

If any of the following species covered by the ECC HCP/NCCP is found to be present, the Project Owner shall promptly notify the East Contra Costa County Habitat Conservancy of the species' presence and the planned construction schedule, to enable the East Contra Costa County Habitat Conservancy to salvage the occurrence(s) in accordance with HCP/NCCP Conservation Measure 3.10 (Plant Salvage when Impacts Are Unavoidable). The Project Owner shall confirm with the East Contra Costa County Habitat Conservancy that the take limits established by the HCP/NCCP for the species in question have not been breached:

- Big tarplant (*Blepharizonia plumosa*)
- Mount Diablo fairy lantern (*Calochortus pulchellus*)
- Diablo helianthella (*Helianthella castanea*)
- Showy golden madia (*Madia radiata*)

- Adobe navarretia (*Navarretia nigelliformis* ssp. *nigelliformis*)[29]

Under no circumstance shall any of the following HCP/NCCP "no-take" plants be harmed:

- Large-flowered fiddleneck (*Amsinckia grandiflora*)
- Alkali milkvetch (*Astragalus tener* ssp*. tener*)
- Mt. Diablo buckwheat (*Eriogonum truncatum*)
- Diamond-petaled poppy (*Eschscholzia rhombipetala*)
- Contra Costa goldfields (*Lasthenia conjugens*)
- Caper-fruited tropidocarpum (*Tropidocarpum capparideum*)

Due to their extreme rarity, none of these species is expected to be present on the project site, but if any of them are found, the applicant shall notify the East Contra Costa County Habitat Conservancy immediately and shall work with the Conservancy to determine and execute the appropriate course of action.

If any special-status plant not covered by the ECC HCP/NCCP is found to be present, the occurrence(s) shall be avoided and protected in place to the extent feasible. If the occurrence(s) cannot be entirely avoided, then a Plant Salvage and Mitigation Plan shall be prepared and implemented. The Plan shall be prepared by a qualified biologist/botanist who is familiar with the rare plants of the project region and has experience conducting rare plant salvage operations. Plant salvage techniques shall be consistent with those outlined in HCP/NCCP Conservation Measure 3.10. The plan shall, at a minimum, include the following:

- Quantity and species of plants to be planted or transplanted
- Location of the mitigation/transplant site(s)
- Salvage methods, such as relocation/transplantation, seed collection, etc., including storage locations and methods to preserve the plants
- Procedures for propagating collected seed, including storage methods
- Planting procedures, including the use of soil preparation and irrigation
- Schedule and action plan to maintain and monitor the mitigation/transplant site for a minimum 3-year period

[29] Note that additional special-status plant species are covered under the ECC HCP/NCCP, but are not expected to be present at the project site, due to their habitat requirements and/or their distribution. If any of the covered plant species are observed at the site, the same requirements will apply.

- Interim and final success criteria and corrective action thresholds (e.g., growth, plant cover, survivorship)
- Potential corrective actions/contingency measures in the event interim success criteria are not being met (e.g.., weed removal, supplemental irrigation, supplemental plantings, etc.).
- Reporting requirements and procedures, including the contents of annual progress reports, report submittals, review/approval responsibilities, etc.

The Project Owner shall implement the Plant Salvage and Mitigation Plan. The Plan shall be implemented under the oversight of the biologist/botanist who prepared it or another individual with equivalent qualifications. The biologist shall be approved by the City of Pittsburg Community Development Director.

PDM BIO-5: Special-Status Bumble Bee Surveys & Protection

No more than 1 year prior to the initiation of vegetation removal and grading at the project site, the Project Owner shall retain an appropriately qualified biologist (see next paragraph) who has been approved by the City of Pittsburg Community Development Director to conduct surveys for Crotch bumble bee *(Bombus crotchii*), obscure bumble bee (*B*. *caliginosus*), and American bumble bee (*B*. *pensylvanicus*).[30]

Surveys shall be performed by a qualified entomologist familiar with the species' behavior and life history and shall include both habitat evaluations and foraging bee surveys consistent with the recommendations in *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (California Department of Fish and Wildlife 2023). Surveys shall be conducted during each species' peak worker activity period, detailed in the matrix below. Surveys shall cover all areas of onsite habitat determined by the biologist to be suitable for any of the three target bumble bee species, based on habitat mapping conducted for the project to date. A minimum of 3 – 4 surveys shall be conducted, spaced 2 weeks apart; the total number, timing, and duration of surveys performed shall depend on the biologist's judgment, in consideration of weather, site conditions, and protocol requirements. Surveys shall be designed to identify all foraging bumble bee species; a single survey may be used to detect all species with peak activity periods including the survey date.

[30] As of this writing, no survey protocol has been published, although DFW has issued preliminary survey guidance for candidate bumble bee species (California Department of Fish and Wildlife 2023). Consequently, there are no official requirements for bumble bee surveyor qualifications. Biologist qualifications for bumble bee surveys will conform to current guidance prevailing at the time surveys are performed.

Species	Peak Activity
Crotch bumble bee	April 1 – July 31
Obscure bumble bee	April 20 – August 20
American bumble bee	June 1 – October 1

Source: Williams et al. (2014)

If Crotch bumble bee, obscure bumble bee, or American bumble bee is observed onsite during the surveys, an additional survey or surveys shall be conducted to determine whether a nest or colony is present, unless the biologist is satisfied that the initial survey(s) were sufficient to rule out the presence of nests/colonies.

If a nest or colony is present onsite, the biologist shall establish an appropriate avoidance buffer determined in consideration of site conditions, the species involved, and the construction activities planned prior to the close of the nesting season. No entry into the buffer shall be permitted. The buffer shall be delineated in the field using orange construction fencing or another appropriate medium, under the biologist's oversight, and shall remain in place until the end of the nesting species' gyne flying season, or until the qualified biologist determines that the nest has been abandoned

If no nest/colony is present onsite, no further action will be taken. However, all workers shall be required to avoid injury and mortality to bumble bees they may encounter; this requirement shall be discussed during the WEAP training (PDM BIO-2) and shall be reiterated to all workers if special-status bumble bees are confirmed onsite.

To support improved understanding and conservation of all three bumble bee species, survey results, including negative findings, shall be submitted to CDFW prior to implementing project-related ground-disturbing activities. At a minimum, the survey report shall include the following information.

- A description and map of the survey area, focusing on areas that could provide suitable habitat for Crotch bumble bee, obscure bumble bee, or American bumblebee
- Field survey conditions, including name(s) of qualified entomologist(s) and brief qualifications; date(s) and time(s) of survey; survey duration; general weather conditions; survey goals; and species searched
- Map(s) showing the location of nests/colonies, if any
- A description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found, including native plant composition (e.g., density, cover, and abundance) within impacted habitat (e.g., species list separated by vegetation class; density, cover, and abundance of each species)

- The measures that will be implemented to avoid adverse effects on the bumble bee species present

An assessment of potential project effects on special-status bumble bees during project construction and project operation/maintenance, with avoidance and minimization measures in place

PDM BIO-6: Monarch Butterfly Protection

No more than 2 days prior to the initiation of vegetation trimming or removal for construction, the Project Owner shall ensure that a qualified biologist approved by the City of Pittsburg Community Development Director surveys all areas of potentially suitable habitat for monarch butterfly (*Danaus plexippus*) larval host plants. If host plants are found, the biologist shall survey all host plants for monarch eggs, larvae, and pupae. If no eggs, larvae, or pupae are found, plants may be removed within 2 days. If eggs, larvae, or pupae are present, host plants shall be protected in place until the biologist has determined that no more eggs, larvae, or pupae are present.

PDM BIO-7. Western Pond Turtle Protection

Prior to the start of construction or O&M activities, The Project Owner shall ensure that a qualified biologist approved by the City of Pittsburg Community Development Director conducts a pedestrian preconstruction survey of the project site and adjacent suitable habitat for western pond turtle. The survey shall be conducted no more than 24 hours prior to start of work, and shall include walking the work area limits and interior and investigating all areas that could be used by the species. If western pond turtle individuals are found, the biologist shall relocate them to suitable habitat outside the disturbance area and far enough away that they would not be expected to return. If the biologist determines that it is warranted, exclusion measures shall be implemented to prevent individuals returning to the active work site.

PDM BIO-8: Nesting Bird Protection (General)

If project-related disturbance (e.g., vegetation removal or trimming, clearing/grubbing, grading) commences any time during the nesting/breeding season of native bird species potentially nesting in or near the study area (February 1 – August 31 for most species; January 1 through August 31 for Golden Eagle; March 15 – September 15 for Swainson's Hawk), a preconstruction survey for nesting birds shall be conducted by a qualified biologist approved by the City of Pittsburg Community Development Director, using binoculars. The survey shall take place no more than 2 weeks prior to the initiation of work.

If active nests are found in areas that could be directly affected or are within 300 feet of disturbance activities and would be subject to prolonged construction-related noise, a no-disturbance buffer zone shall be created around active nests for the remainder of the breeding season or until the biologist determines that all young have fledged or that the nest has been abandoned. No entry into the no-activity buffer shall be permitted. The no-activity buffer shall be delineated in the field by or under the supervision of the biologist, using temporary construction fencing or another suitable low-impact medium. The size of the buffer zone(s) shall be determined by the biologist based on the species involved, the amount of vegetative and other screening between the nest and areas where construction activity shall take place, and, if appropriate, other site-specific factors. The minimum buffer width shall be 50 feet for species other than raptors, and a minimum of 500 feet for raptor species, and may be enlarged by taking into account factors such as the following.

- Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity
- Sensitivity of nesting species and behaviors of the individual nesting birds

If nesting Swainson's Hawk or Golden Eagle are observed, buffers and other avoidance measures shall conform to Species-Level Measures for these species as laid out in ECC HCP/NCCP Section 6.4.3.

PDM BIO-9: Nesting Bird Protection (Bald Eagle)

Bald Eagle (*Halieaetus leucocephalus*) nests may be built throughout the year. Consequently, the Project Owner shall retain a qualified biologist approved by the City of Pittsburg Community Development Director to conduct a preconstruction survey for nesting Bald Eagles prior to the initiation of work at the site (including vegetation removal or trimming, clearing/grubbing, grading, etc.). The survey shall be conducted using binoculars and shall take place no more than 2 weeks prior to the initiation of work.

If an occupied or active nest is present, construction-related activity shall be prohibited within 0.5 mile of the nest unless site-specific conditions or the nature of the construction activity (e.g., dense vegetation, limited noise generation, limited activities) indicate that a smaller buffer could be appropriate or that a larger buffer should be implemented. The biologist shall coordinate with the East Contra Costa County Habitat Conservancy, DFW, and USFWS to determine the appropriate buffer size.

The nest buffer shall be delineated in the field using temporary construction fencing or another suitable low-impact medium. Buffer fencing shall be placed only on the project site; the buffer shall not be put in place on neighboring properties not involved in project construction and staging

Construction shall be monitored by a qualified biologist to ensure that the buffer remains in place and that no construction activities occur within the buffer zone until the biologist has determined that the young have fledged or that the nest has been abandoned.

PDM BIO-10: Special-Status Bat Survey & Protection

Prior to the initiation of any activity that could disturb roosting bats (including vegetation trimming/removal, surveys involving the use of lasers that produce high-frequency sounds[31], drilling, or other activity producing high-frequency sounds), a qualified biologist[32] shall conduct a habitat evaluation for special-status bats, focusing on the needs of pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus frantzii* [*L. blossevillii*]), and hoary bat (*L. cinereus*), the species identified by planning surveys as having potential to be present on the site. Surveys shall include the entirety of the project site plus a 400-foot-wide buffer. If no roosting habitat suitable for these species is present on the project site, no further action is required.

If roosting habitat is present, the following additional requirements shall apply. Any potential roost trees/other potential roosting habitat shall also be considered potential bat maternity roosts.

- Before any activities with the potential to disturb roosting bats begin, the DFW-approved biologist(s) shall conduct focused surveys for roost occupancy. These shall be conducted at least 2 weeks prior to the start of work and shall include
    - daytime visual surveys for bats and evidence of bat presence such as guano or urine staining
    - evening emergence and acoustic surveys

  If bat presence is confirmed, the species, number of individuals, and roost type (maternity/non-maternity) shall be documented and reported to the CNDDB. Bats shall not be disturbed or relocated during the surveys
- Confirmed non-maternity roosts shall be protected by buffers as laid out in the matrix that follows. Buffers shall be delineated in the field with temporary construction fencing or another suitable measure, installed under biologist

[31] For purposes of this PDM, *high-frequency sound* is defined as sound in the 20 kHz – 50 kHz frequency range, based on bat disturbance information in California Department of Transportation (Caltrans) bat mitigation guidelines (H.T. Harvey & Associates 2019). If Caltrans guidance is updated, or if frequency sensitivity information relevant to the bat species with potential to occur becomes available prior to project construction, this definition shall be updated accordingly.

[32] Biologist qualifications shall be as stipulated in Section 5 of the Caltrans bat mitigation guidelines (H.T. Harvey & Associates 2019); biologist(s) shall be subject to approval by the City of Pittsburg Community Development Director.

oversight. Note that buffer distances vary depending on the species and the type of noise/disturbance involved.[33] The biologist shall coordinate with construction staff to determine the appropriate buffer width; if there is uncertainty, the more conservative buffer width shall prevail

Disturbance Source	Pallid Bat	Other Bat Species
Construction trucks and heavy equipment	120 feet	100 feet
Smaller vehicles	90 feet	65 feet
Drilling, trenching, and small equipment	150 feet	150 feet
Unshielded light source	400 feet	300 feet
Pedestrian traffic	65 feet	65 feet
Stationary source of diesel/gasoline exhaust operating for more than 2 minutes	250 feet	250 feet
Any equipment generating high-frequency (20 kHz – 50 kHz) sound (laser survey transits, drilling, etc.), as identified by the biologist	Buffer shall be determined on a case-by-case basis by identifying the distance at which high-frequency sound generated by the equipment becomes indistinguishable from background levels, using one of the acoustic methods described on pp. 7-16 – 7-18 of the California Department of Transportation bat mitigation guidelines (H.T. Harvey & Associates 2019), or updated equivalent	

Source: H.T. Harvey & Associates 2019

If a confirmed roost must be removed or trimmed for construction, or if work must occur within the buffers laid out above, work shall be restricted to daylight hours when the DFW-approved biologist has confirmed that it the roost is not occupied, and shall be overseen by the biologist to prevent injury or mortality. The biologist shall have authority to divert or stop work in the event of excessive risk to bats

- Confirmed maternity roosts shall be protected by the same buffers identified above. Maternity roosts shall not be removed unless removal cannot be avoided, and in no case shall a confirmed maternity roost be removed during the breeding/non-volant season (April – August). If removal of a maternity roost is necessary, the Project Owner shall consult with DFW to determine appropriate compensatory mitigation such as the provision of bat boxes and shall submit a Bat Habitat Mitigation Plan for DFW approval. Consultation and submittal of the Mitigation Plan shall occur prior to the removal, and the removal shall not take place until DFW has approved the Plan. The Project Owner shall then be

[33] If bat species other than those addressed here are encountered, buffer distances shall be consistent with Caltrans guidelines (H.T. Harvey & Associates 2019; see Table 7-1).

responsible for implementing DFW-approved mitigation for removal of bat maternity roost habitat

PDM BIO-11: San Joaquin Pocket Mouse Protection

Vegetation removal, clearing/grubbing, and grading activities for each work phase shall be conducted in a uniform direction to allow mobile animals such as San Joaquin pocket mouse (*Perognathus inornatus*) the ability to escape the disturbance area into adjacent undisturbed habitat. Project construction shall also avoid the creation of fragmented islands of habitat where individuals may become trapped, isolated from resources, and at risk from eventual clearing/grading operations.

PDM BIO-12: American Badger Survey & Protection

No more than 4 weeks before the commencement of ground disturbance at the site, a qualified biologist approved by the City of Pittsburg Community Development Director shall conduct a survey for American badger (*Taxidea taxus*) den sites.

If an occupied den is found, and young are not present, then any badgers present shall be removed from the den either by the use of appropriate exclusionary devices or by trapping and relocation. The removal method shall be approved by DFW prior to implementation; if trapping and relocation are used, it shall be carried out by biologist(s) with all required permits for badger handling. Any trapped badgers shall be relocated to other suitable habitat at least 500 feet outside the project site boundary. Once any badgers are excluded or trapped and relocated, den(s) shall be excavated by hand and backfilled to prevent reoccupation. Exclusion shall continue until the badgers are successfully removed from the site, as determined by the biologist.

Badgers shall not be excluded or relocated if it is determined by the biologist that young are or may be present. Any occupied dens shall be protected with a 50-foot-wide no-activity buffer. The buffer shall be delineated in the field by a qualified biologist, using temporary construction fencing or another appropriate low-impact medium, and shall remain in place until the biologist has determined that the young are no longer dependent on their mother and the den site. No entry into the buffer area shall be permitted.

4.4.6 References Cited in this Section

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4.5 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

This section describes the existing cultural, archaeological, and historical resources setting and potential effects from project implementation on the project site and its surrounding area. This section is based on, relies upon, and hereby incorporates by reference, an Archaeological and Built Environment Resources Inventory Report for the Project, prepared by ECORP Consulting, Inc., dated January 2024, which is also included in Appendix D of this SPPE Application (hereinafter referred to as the "Cultural Resources Report"). The Cultural Resources Report has been prepared in accordance with previous CEC Staff guidance and will be docketed pursuant to a Request For Confidentiality.

To avoid any potential disclosure of sensitive information and to avoid inconsistencies, this section contains only a summary of the conclusions of the Cultural Report relevant to a CEQA analysis, and includes applicant proposed Project Design Measures (PDMs). This section is intended to be read together with the Cultural Resources Report.

4.5.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Cultural Resources and Tribal Cultural Resources				
Would the project:				
1) Cause a substantial adverse change in the significance of a historical resource as pursuant to Section 15064.5?	☐	☐	☒	☐
2) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
3) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
4) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☐	☒	☐
5) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

4.5.2 Environmental Setting

4.5.2.1 Regulatory Framework

Federal

National Historic Preservation Act

Federal protection is legislated by the National Historic Preservation Act of 1966 (NHPA) and the Archaeological Resource Protection Act of 1979. These laws maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA and related regulations (36 Code of Federal Regulations [CFR] Part 800) constitute the primary federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed or eligible for listing in the NRHP. Impacts to properties listed in the NRHP must be evaluated under CEQA.

The NRHP is the nation's master inventory of historic resources that are considered significant at the national, state, or local level. The minimum criteria for determining NRHP eligibility include:

- The property is at least 50 years old (properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP);
- It retains integrity of location, design, setting, materials, workmanship, feeling, and associations; and
- It possesses at least one of the following characteristics:
    - Association with events that have made a significant contribution to the broad patterns of history;
    - Association with the lives of persons significant in the past;
    - Distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction; or
    - Has yielded, or may yield, information important to prehistory or history.

State

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is administered by the State Office of Historic Preservation and encourages protection of resources of architectural, historical, archeological, and cultural significance. The CRHR identifies historic resources for state and local planning purposes and affords protections under CEQA. Under Public

Resources Code Section 5024.1(c), a resource may be eligible for listing in the CRHR if it meets any of the NRHP criteria.

Historical resources eligible for listing in the CRHR must meet the significance criteria described previously and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if it maintains the potential to yield significant scientific or historical information or specific data.

The concept of integrity is essential to identifying the important physical characteristics of historical resources and, therefore, in evaluating adverse changes to them. Integrity is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance." The processes of determining integrity are similar for both the CRHR and NRHP and use the same seven variables or aspects to define integrity that are used to evaluate a resource's eligibility for listing. These seven characteristics include 1) location, 2) design, 3) setting, 4) materials, 5) workmanship, 6) feeling, and 7) association.

Assembly Bill 52

AB 52, effective July 2015, established a new category of resources for consideration by public agencies called Tribal Cultural Resources (TCRs). AB 52 requires lead agencies to provide notice of projects to tribes that are traditionally and culturally affiliated with the geographic area if they have requested to be notified. Where a project may have a significant impact on a tribal cultural resource, consultation is required until the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource or until it is concluded that mutual agreement cannot be reached.

Under AB 52, TCRs are defined as follows:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are also either:
- Included or determined to be eligible for inclusion in the California Register of Historic Resources, or
- Included in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).
- A resource determined by the lead agency to be a TCR.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The act requires that upon discovery of human remains, construction or excavation activity must cease and the county coroner be notified.

Public Resources Code Sections 5097 and 5097.98

Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These procedures are outlined in Public Resources Code Sections 5097 and 5097.98. These codes protect such remains from disturbance, vandalism, and inadvertent destruction, establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establish the Native American Heritage Commission (NAHC) as the authority to resolve disputes regarding disposition of such remains.

Pursuant to Public Resources Code Section 5097.98, in the event of human remains discovery, no further disturbance is allowed until the county coroner has made the necessary findings regarding the origin and disposition of the remains. If the remains are of a Native American, the county coroner must notify the NAHC. The NAHC then notifies those persons most likely to be related to the Native American remains. The code section also stipulates the procedures that the descendants may follow for treating or disposing of the remains and associated grave goods.

4.5.2.2 Project Site

ECORPS conducted a records search, literature review and field surveys as described in the Cultural Resources Report. ECORPS completed an archaeological and architecture history survey of the Project Area, which includes the Project footprint and surrounding areas.

A complete description of the environmental setting is contained in Section 2 of Cultural Resources Report; Section 3 describes the cultural context of the study area. The inventory indicated that eight previous cultural resources studies have been conducted within the Project Area.

ECORP observed the remains of the Delta View Golf Course throughout the Project Area, which included a large net that was used for a driving range, a paved parking lot, sand traps, golf cart paths, and the foundations of prior buildings. Visibility of the ground surface ranged from 0 to 100 percent; portions of the Project Area were paved over, while other portions were covered with tall dense grasses. A herd of goats had recently grazed through the Project Area, as evidenced by the presence of droppings, which increased visibility of the ground surface in many areas.

Per CEC guidelines, ECORP surveyed an additional 200-foot buffer around the Project Area for archaeological resources. The ground surface of the buffer to the west of the Project Area was covered in short, dense grasses. The ground surface to the north was paved with asphalt and contained modern residences and a church. The buffer to the east

of the Project Area contained an asphalt-paved access road; the area to the south of the access road contained short, dense grasses. A buried pipeline is oriented east–west within the Project Area's northern buffer (north of the parking lot).

Per CEC guidelines, ECORP also conducted a survey to identify architectural resources within 0.25 mile or one parcel width of the Project Area. ECORP applied a hybrid strategy to ensure adequate consideration of architectural resources. Substantial residential and commercial growth is present immediately north and northwest of the Project Area; therefore, ECORP established a one-parcel-width buffer. Rural lands are present immediately adjacent to the Project Area to the south, east, and southwest; therefore, one-parcel width was included, which also included a 0.25-mile buffer.

Section 4 of the Cultural Resources Report provides a complete description of the survey, literature search and consultation methodology employed by ECORP. Section 5 discusses the results of the surveys and records search and Section 6 discusses management methodology, conclusions and recommendations by ECORP.

4.5.3 Environmental Impact Discussion

The Project owner has proposed Project Design Measures (PDMs) to minimize potential adverse effects on potentially significant cultural resources. The **PDMs** are provided in Section 4.5.4. It should be noted that the Project Owner has included the specific language used by the CEC Staff in prior EIRs when incorporating the recommendations for training, monitoring, evaluation, data recovery and reporting contained in the Cultural Resources Report.

4.5.3.1 Would the project cause a substantial adverse change in the significance of a historical resource as pursuant to Section 15064.5?

Construction

As a result of the field surveys, ECORP recorded two cultural resources within the Project Area: PT-01 (Delta View Golf Course) and PT-02 (telephone line). ECORP evaluated PT-01 (Delta View Golf Course) for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) and determined that it is not eligible for either register. ECORP also evaluated PT-02 and determined that it is not eligible for the NRHP and CRHR. Resource P-7-2956 (Pittsburg-Tesla Transmission Line) was previously evaluated for the NRHP and CRHR, and the segment that passes through the Project Area was determined to be eligible for the NRHP and CRHR (Supernowiz 2017).

Construction of the project will involve site grading activities including cut and fill operations, excavation, and demolition of the remnant foundations and potentially underground utility pipelines associated with the previously demolished Delta View Golf Course support buildings. Excavation depths may be up to 15 feet in the bioretention basin areas proposed as part of the proposed stormwater infrastructure. Since PT-01

(Delta View Golf Course) and PT-02 (telephone line) have been determined not to be eligible for listing on the NRHP and CRHR, and therefore not significant historical resources, the proposed construction activities will not result in a significant impact to a known historical resource. (**Less Than Significant Impact)**

Approximately 650 feet of length and only one tower of the Pittsburg-Tesla PG&E transmission line is within the Project Area. The vast majority of the transmission line is well outside of the Project Area. The Project proposes to install a data center which will interconnect and use the power from the adjacent transmission line system. The minor alteration will not significantly alter the transmission and utilizing the transmission line for its intended use, with minimal physical impacts to the line itself, will not cause adverse effect or significant impact to the resource. Introduction of the proposed data center will have minimal visual impact to the setting of the transmission line. Further, the Proposed Project will have no impact or adverse effect to the feeling or historical association of early electric transmission for the resource, which is what makes the transmission line historically significant. The Project will not significantly alter the transmission lines materials, workmanship, and will not alter its current route or location along the landscape. As such, the proposed project will have no adverse effect to P-7-2956 as an Historic Property and no significant impact as an Historical Resource. **(Less Than Significant Impact)**

Resource P-7-2695 (Contra Costa Canal) is adjacent to the southern boundary of the Project Site. and was evaluated in 2003 and determined to be eligible for the NRHP and CRHR under Criterion A/1 (Herbert 2003). The Contra Costa Canal is located within an easement that extends beyond its physical structure. Construction of the facility will not extend into the easement and will involve limited grading activities near the canal. To ensure the construction activities will not affect the Contra Costa Canal, **PDMs CUL-1 and CUL-2** have been proposed. **PDM CUL-1** will ensure that workers are trained to avoid and/or protect against accidental damage to the Contra Costa Canal. **PDM CUL-2** requires the presence of an archaeological monitor on-site during grading and excavation activities to ensure that such activities avoid damage to the canal. Since no work is proposed inside the canal easement and with the implementation of **PDMs CUL-1** and **CUL-2**, the potential impact to the Contra Costa Canal is less than significant. **(Less than Significant Impact)**

While the records search and surveys did not identify any historic resources on the project site, it is possible that previously uncovered historic resources are found during construction activities. **PDMs CUL-1** and **CUL-2** would ensure that such unanticipated discoveries do not result in significant impacts to historic resources. **(Less Than Significant Impact)**

Operation

Impacts related to a substantial adverse change in historic resources are limited to construction impacts because no subsurface activity would occur during operation that could uncover previously undiscovered historic resources. Therefore, no impacts would occur during operation. **(No Impact)**

4.5.3.2 Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Construction

Archaeological sensitivity was also assessed in Cultural Resources Report. The underlying geology of the Project Area consists of Pliocene-Pleistocene-aged deposits of sandstone, shale, and gravel (Jennings et al. 1977). The Pliocene-Pleistocene era spans from 5.3 million to 11,700 years ago, and it is generally accepted that humans were present in North America as many as 20,000 years ago. Therefore, the northern portion of the Project Area has a low-to-moderate potential for containing intact buried deposits. This potential increases to moderate in areas within 200 feet of the unnamed seasonal streams that flow through the Project Area. The potential along streams is moderate due to the fact that pre-contact resources are generally located closer to natural waterways and alluvium, which is located along streams. The hillsides within the Project Area have a low potential for buried precontact archaeological sites.

To minimize potential cultural resource-related potential effects from the Project and in accordance with the recommendations of the Cultural Resources Report the Project Owner proposes **PDMs CUL-1**, **CUL-2**, and **CUL-3**. As discussed above **PDMs CUL-1** and **CUL-2** provide worker training and monitoring requirements. **PDM CUL-3** requires the evaluation and data collection recovery of the potentially significant resources. With the implementation of PDMs CUL-1, CUL-2 and CUL-3, construction of the Project will not result in significant impacts to archaeological resources **(Less than Significant Impact)**

Operation

Impacts related to a substantial adverse change in the significance of an archeological resource are limited to construction impacts. No respective direct or indirect operational impacts related to archeological resources would occur. **(No Impact)**

4.5.3.3 Would the project disturb any human remains, including those interred outside of formal cemeteries?

Construction

No human remains or cemeteries are known to exist within or near the project site. However, there is always the possibility that subsurface construction activities associated with the proposed project, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. This represents a potentially significant impact related to human remains. **PDM CUL-4** would require that work be halted, and the County Coroner is called to make a determination as to the nature of the remains and to confirm the next steps regarding contacting the NAHC and appropriate tribal representatives. In addition, in the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5(d)—Effects on Human Remains, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and Section 5097.98 must be followed. Therefore, with implementation of **PDM CUL-4** and compliance with aforementioned CEQA Guidelines, direct and indirect impacts related to disturbance of human remains would be less than significant. **(Less than Significant Impact)**

Operation

Impacts related to a project's potential to disturb human remains are limited to construction impacts as no subsurface activity or excavation would occur during operation. Therefore, no respective direct or indirect operational impacts related to human remains would occur. **(No Impact)**

4.5.3.4 Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

Construction

No listed or potentially eligible TCRs have been identified within the project site. Specifically, a review of the CRHR, the NAHC Sacred Lands File (See CRA, Appendix B) a records search conducted at the NWIC, and a pedestrian survey of the project site failed to identify any listed TCRs that could be adversely affected by construction of the proposed project. As such, there are no known eligible or potentially eligible TCRs that could be adversely affected by the proposed project. Therefore, impacts related to previously listed TCRs would be less than significant. **(Less Than Significant Impact)**

Operation

Impacts related to a project's potential to cause a substantial adverse change in the significance of a State listed or eligible TCR are limited to construction impacts. No respective operational impacts would occur. **(No Impact)**

4.5.3.5 Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

Construction

ECORP contacted the NAHC on June 15, 2023 for a review of the SLF. The objective of the SLF search was to determine if the NAHC had any knowledge of Native American cultural resources (e.g., traditional use or gathering area, place of religious or sacred activity, etc.) within the immediate vicinity of the Project area. The search for the Project was negative and provided a contact list of local Native American groups to be contacted for additional information.

On December 18, 2023, ECORP sent letters via certified mail and email to the potentially interested tribes that were identified by the NAHC on December 18, 2023. Andrew Galvan of the Ohlone Indian Tribe responded on December 18, 2023 and requested the results and list of contacts provided by the NAHC.

ECORP responded and forwarded the results on December 19, 2023. On January 11, 2024, The Confederated Villages of Lisjan Nation responded requesting a copy of the records search results, EIR, and results of the SLF search. ECORP replied with a copy of the SLF and record search results on January 15, 2024 and informed the Lisjan that their request would be included in the cultural resources report and continued consultation would be under AB 52 and SB 18. ECORP has not received any other responses from the potentially interested tribes as of the date of this report.

The results of the SLF Search and Native American Contacts List and correspondence provided by the NAHC can be found in the Appendix B, to the Cultural Resources Report. Impacts related to previously listed TCRs would be less than significant. **(Less Than Significant Impact)**

Operation

Impacts related to a project's potential to cause a substantial adverse change in the significance of a State listed or eligible TCR are limited to construction impacts. No respective operational impacts would occur. **(No Impact)**

4.5.4 Project Design Measures

PDM CUL-1: Worker Environmental Awareness Program Training

Prior to issuance of the grading permit by the City of Pittsburg, and for the duration of ground disturbance, the project shall be required to submit evidence that Worker Environmental Awareness Program (WEAP) training was held for all existing and any new employees. The training shall be facilitated by the project archaeologist in coordination with a Native American representative registered with the Native American Heritage Commissions with an interest in the City of Pittsburg and that is traditionally and culturally affiliated with the geographic area as described in Public Resources Code, section 21080.3. This training should include: a discussion of applicable laws and penalties under the laws; samples or visual aids of artifacts that could be encountered in the project vicinity, including what those artifacts may look like partially buried, or wholly buried and freshly exposed, and instructions to halt work in the vicinity of any potential cultural resource discovery, and notify the City-approved archaeologist and Native American cultural resources monitor. The Native American monitor shall provide a Tribal Cultural Resources Sensitivity Training in conjunction with the WEAP.

PDM CUL-2: Construction Monitoring and Protection Measures

All ground-disturbing activities (e.g., grading and excavation) shall be completed under the observation of a Secretary of the Interior-qualified archaeologist and a qualified Native American monitor, registered with the Native American Heritage Commission (NAHC) with an interest in the City of Pittsburg. Preference in selecting Native American monitors shall be given to members of the Native Americans with:

- Traditional ties to the area being monitored.
- Knowledge of local Native American village sites and habitation patterns.
- Knowledge and understanding of Health and Safety Code, section 7050.5 and Public Resources Code, section 5097.9 et seq.
- Ability to effectively communicate the requirements of Health and Safety Code, section 7050.5 and Public Resources Code, section 5097.9 et seq.
- Ability to work with law enforcement officials and the Native American Heritage Commission to ensure the return of all associated grave goods taken from a Native American grave during excavation.
- Ability to travel to project sites within traditional tribal territory.
- Knowledge and understanding of Title 14, California Code of Regulations, section 15064.5.

- Ability to advocate for the preservation in place of Native American cultural features through knowledge and understanding California Environmental Quality Act (CEQA) mitigation provisions.
- Ability to read a topographical map and be able to locate site and reburial locations for future inclusion in the NAHC's Sacred Lands Inventory.
- Knowledge and understanding of archaeological practices, including the phases of archaeological investigation.

The qualified archaeologist or a qualified Native American monitor, shall have authority to halt construction activities temporarily within a 50-foot radius of any cultural resources finds.

If the archaeologist and Native American monitor believe that a reduction in monitoring activities is prudent, then a letter report detailing the rationale for making such a reduction and summarizing the monitoring results shall be provided to the City of Pittsburg. If, for any reasons, the qualified archaeologist or a qualified Native American monitor is not present, but construction crews encounter a cultural resource, all work shall stop temporarily within 50 feet of the find until a qualified archaeologist in consultation with a qualified Native American monitor has been contacted to determine the proper course of action. The City of Pittsburg shall be notified of any finds during the grading or other construction activities. Any human remains encountered during construction shall be treated according to the protocol identified in **PDM CUL-4**

PDM CUL-3: Evaluation and Data Recovery

The City of Pittsburg shall be notified of any finds during the preliminary field investigation, grading, or other construction activities. Any historic or Native American cultural material identified in the project area during the preliminary field investigation and during grading or other construction activities shall be evaluated for eligibility for listing as a Candidate City Landmark or a California Historical Resource by a Secretary of the Interior-qualified archaeologist.

If Native American cultural materials or historic resources are encountered, all activity within a 50-foot radius of the find shall be stopped, the City of Pittsburg shall be notified, and a Secretary of the Interior-qualified archaeologist shall examine the find and record the site, including field notes, measurements, and photography, and document the find using the California Department of Parks and Recreation 523 series forms. The archaeologist shall make recommendations regarding eligibility as a Candidate City Landmark and/or a California Historical Resource, data recovery, curation, or other appropriate mitigation. Ground disturbance within the 50- foot radius can resume once these steps are taken and the City of Pittsburg has concurred with the recommendations.

Data recovery methods may include, but are not limited to, backhoe trenching, shovel test units, hand auguring, and hand-excavation. The techniques used for data recovery shall follow the protocols identified by the qualified archaeologist. Data recovery shall include excavation and exposure of features, field documentation, and recordation.

PDM CUL-4: Human Remains

If human remains are discovered during the preliminary field investigation, excavation and/or grading, building, or other construction activities at the site, all activity within a 50-foot radius of the find will be stopped. The Contra Costa County Coroner will be notified and shall determine whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) immediately. Once NAHC identifies the most likely descendants, the descendants will make recommendations regarding treatment and disposition with appropriate dignity, which will be implemented in accordance with section 15064.5(e) of the California Environmental Quality Act Guidelines. All actions taken under this mitigation measure shall comply with Health and Human Safety Code, section 7050.5(b).

4.5.5 Governmental Agencies

The CEC as lead agency will conduct outreach to Native American tribes. The City of Pittsburg will ensure the project applicant complies with all archaeological or historic resource related regulations as part of its permitting review and compliance process.

4.6 ENERGY AND ENERGY RESOURCES

4.6.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Energy and Energy Resources				
Would the project:				
1) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?	☐	☐	☒	☐
2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

4.6.2 Environmental Setting

4.6.2.1 Regulatory Framework

Federal and State

Energy Star and Fuel Efficiency

At the federal level, energy standards set by the EPA apply to numerous consumer products and appliances (e.g., the EnergyStar™ program). The EPA also sets fuel efficiency standards for automobiles and other modes of transportation.

Renewables Portfolio Standard Program

In 2002, California established its Renewables Portfolio Standard Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2010. In 2008, Executive Order S-14-08 was signed into law, requiring retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. In October 2015, Governor Brown signed SB 350 to codify California's climate and clean energy goals. A key provision of SB 350 requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from renewable sources by 2030. SB 100, passed in 2018, requires 100 percent of electricity in California to be provided by 100 percent renewable and carbon-free sources by 2045.

California Building Standards Code

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6 of the California Code of Regulations (Title 24), was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three years, and the 2019 Title 24 updates went into effect on January 1, 2020[34]. Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments. [35]

California Green Building Standards Code

CALGreen establishes mandatory green building standards for buildings in California. CALGreen was developed to reduce GHG emissions from buildings, promote environmentally responsible and healthier places to live and work, reduce energy and water consumption, and respond to state environmental directives. The most recent update to CALGreen went into effect on January 1, 2019, and covers five categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality.

Local

City of Pittsburg General Plan 2040 Draft

The General Plan 2040 includes several energy use and conservation policies designed to protect energy resources in the City. These policies include the following:

Policy 10-P-6.10: Require and condition all new public and privately constructed buildings to exceed, where feasible, and comply with construction and design standards that promote energy conservation, including the most current "green" development standards in the California Green Building Standards Code.

Policy 10-P-6.13: Implement development standards, mitigation measures, and best practices that require energy conservation and the reduction in greenhouse gases, including:

a) Require new development to incorporate energy-efficient features through passive design concepts (e.g., techniques for heating and cooling, building siting orientation, street and lot layout, landscape placement, and protection of solar access);

b) Require construction standards which promote energy conservation including window placement, building eaves, and roof overhangs

[34] California Building Standards Commission. "Welcome to the California Building Standards Commission." http://www.bsc.ca.gov/.
[35] California Energy Commission (CEC). "2019 Building Energy Efficiency Standards.". https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency

c) Require construction standards which promote energy conservation including window placement, building eaves, and roof overhangs;

d) Require all projects to meet or, when feasible, exceed the most current "green" development standards in the California Green Building Standards Code;

e) Require projects to implement applicable Sustainability Plan strategies and actions;

f) Require developments to include vehicle charging stations that meet or exceed the requirements of State law and to include outdoor electrical outlets. Discourage portable generators or other portable power sources;

g) Require best practices in selecting construction methods, building materials, project appliances and equipment, and project design;

h) Encourage projects to incorporate enhanced energy conservation measures, electric-only appliances, and other methods of reducing energy usage and greenhouse gas emissions; and

a) Require large energy users to implement an energy conservation plan, which may include solar or other non-fossil fuel sources to meet the operation's full power demand and 100% fleet electrification, as part of the project review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.

4.6.2.2 Existing Conditions

Total energy usage in California was approximately 6,958.1 trillion British thermal units (Btu) in the year 2021, the most recent year for which this data was available[36]. Out of the 50 states, California is ranked second in total energy consumption and 48th in energy consumption per capita. The breakdown by sector was approximately 18.2 percent (for residential uses, 17.1 percent for commercial uses, 23.6 percent for industrial uses, and 41.2 percent for transportation[37]. This energy is primarily supplied in the form of natural gas, petroleum, nuclear electric power, and hydroelectric power.

[36] U.S. Energy Information Administration "California Energy Consumption Estimates, 2021" https://www.eia.gov/state/?sid=CA
[37] United States Energy Information Administration. *State Profile and Energy Estimates, 2021.* https://www.eia.gov/state/?sid=CA#tabs-2.

Electricity

Electricity in Contra Costa County in 2022 was consumed primarily by the commercial sector (63 percent), followed by the residential sector consuming 37 percent. In 2022, a total of approximately 8,338 gigawatt hours (GWh) of electricity was consumed in Contra Costa County[38].

Pittsburg Power Company (PPC) is the City of Pittsburg's energy utility and would provide electricity service to the project site. PPC is a California municipal Joint Powers Agency ("JPA") established in 1997 between the City of Pittsburg and the City's Redevelopment Agency. As a California JPA, PPC performs as an electric and natural gas municipal utility, with the authority to provide wholesale and retail electric and gas utility services under authorized franchise agreements within California. PPC is in the process of securing electricity through an agreement with PG&E and will be providing the electricity to the Project.

Fuel for Motor Vehicles

In 2022, 15.4 billion gallons of gasoline were sold in California.[39] The average fuel economy for light-duty vehicles (autos, pickups, vans, and sport utility vehicles) in the United States has steadily increased from about 13.1 miles per gallon (mpg) in the mid-1970s to 24.9 mpg in 2019.[40] Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. That standard, which originally mandated a national fuel economy standard of 35 miles per gallon by the year 2020, was subsequently revised to apply to cars and light trucks model years 2020 through 2035. [41,42]

4.6.3 Environmental Impact Discussion

For purposes of analyzing potential Energy related impacts, it is necessary to quantify the potential impacts of the PBGF and the PDH separately.

[38] California Energy Commission. Energy Consumption Data Management System. "Electricity Consumption by County." http://ecdms.energy.ca.gov/elecbycounty.aspx.
[39] California Department of Tax and Fee Administration. "Net Taxable Gasoline Gallons.". https://www.cdtfa.ca.gov/dataportal/dataset.htm?url=VehicleTaxableFuelDist.
[40] United States Environmental Protection Agency. "The 2020 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975." https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1010U68.pdf
[41] United States Department of Energy. *Energy Independence & Security Act of 2007.* http://www.afdc.energy.gov/laws/eisa.
[42] Public Law 110–140—December 19, 2007. *Energy Independence & Security Act of 2007.*. http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/pdf/PLAW-110publ140.pdf.

4.6.3.1 Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?

Construction

Construction of the project would require energy for the demolition of remnant foundations, slabs and underground utilities associated with the Gold Course demolished buildings, manufacture and transportation of building materials, site preparation and grading, and the actual construction of the buildings and infrastructure. As discussed in Section 4.3 Air Quality, the project would implement measures to minimize the idling of construction equipment. Additionally, the project would participate in the City's Construction and Demolition Debris Recycling Program by recycling or diverting at least 50 percent of materials generated for discards by the project in order to reduce the amount of demolition and construction waste going to the landfill. Diversion saves energy by reusing and recycling materials for other uses (instead of landfilling materials and using additional non-renewable resources).

PBGF Operation

Energy would be consumed by the PBGF during regular testing and maintenance of the 37 emergency backup generators. The total number of hours of operation for reliability purposes (i.e., readiness testing and maintenance) for the gensets would be limited by the data center to no more than 34 hours per genset annually. The primary fuel for the gensets would be renewable diesel, with ultra-low sulfur diesel (USLD or conventional) as backup fuel. Renewable diesel is a direct replacement alternative to conventional diesel fuel for the project's gensets. It is not a fossil fuel and is made of nonpetroleum renewable resources (vegetable oil or other biomass feedstock such as wood, agricultural waste, garbage, etc.). Renewable diesel is produced through various thermochemical processes, such as hydrotreating, gasification, and pyrolysis. For informational purpose, it is noted that renewable diesel is different than biodiesel and has different fuel properties than biodiesel.

The total quantities of renewable diesel or ULSD diesel fuel used for all the gensets operating at full load would be approximately 6,200 barrels per year (bbl/yr).[43] California has a renewable diesel and ULSD fuel supply of approximately 6,300,000 bbl/yr[44] and 310,000,000 bbl/yr[45], respectively. The project's use of fuel constitutes a small fraction of the renewable diesel and ULSD's available resources (less than 0.1 and 0.002 percent, respectively)—the supply from the combination of these two resources is more than

[43] Calculated as: (207 gal/hr x 34 hours per year x 37 generators) = 260,406 gallons per year = 6,200 bbl/yr.
[44] This is the annual production of 265,000,000 gallons obtained from the U.S. Energy Information Administration's U.S. Renewable Diesel Fuel and Other Biofuels Plant Production Capacity
[45] This is the sum of the annual production of 108,657,000 bbl and available stocks of 202,075,000 bbl obtained from the Energy Commission's Weekly Fuels Watch Report for 2022 (latest annual report available).

sufficient to meet the project's necessary demand. Moreover, the current supply of renewable diesel does not account for more refineries that are coming online and any future and import supply would bolster renewable diesel's available resource. Since the project would use renewable diesel, with ULSD as backup supply, the impacts from the project's use of fuel on energy resources would be less than significant.

It is important to note that maintenance and readiness testing of the gensets are crucial to the project's viability. The most important data center criterion is reliability. Crucial public services, such as the 911, Offices of Emergency Management, and utility infrastructure, are increasingly using data centers for their operation. The reliability and data security requirements of a data center would be compromised by limiting or reducing fuel consumption for maintenance and readiness testing. This includes both the primary and redundant gensets. Even though the redundant gensets are purposed to provide backup service to the primary gensets, their operational reliability is equally important, and they are designed to start up at the same time as the primary gensets during emergency operations, with each genset running at 75 percent capacity If any of the primary gensets fails to operate, a redundant one must be immediately ready to run to assume the lost load. So, it is crucial that the redundant gensets be regularly tested and maintained according to the same testing and maintenance requirements as the primary ones and as prescribed by the manufacturer's warranty conditions.

The Cummins generator models selected for this project have an efficiency rating comparable to other Tier 4 commercially available diesel-fueled generators of similar generating capacity. Because the generators would only be operated when necessary for testing and maintenance, and would not be used regularly for electricity generation, the PBGF would not result in a wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources. Additionally, the PBGF would not have a significant adverse effect on local or regional energy supplies and will not create a significant adverse impact on California's energy resources. (**Less Than Significant Impact)**

PDH Operation

Operation of the PDH would consume energy for multiple purposes including, but not limited to, building heating and cooling, lighting, appliances and electronics. Energy would also be consumed during each vehicle trip generated by employees and visitors. The PDH would be built in accordance with Title 24 and CALGreen and include green building measures to reduce energy consumption. The PDH would also utilize lighting control to reduce energy usage for new exterior lighting and air economization for building cooling. Water efficient landscaping and ultra-low flow plumbing fixtures in the building would be implemented to limit water consumption. Due to the energy efficiency measures incorporated into the facility, the PDH would not result in a wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources. **(Less Than Significant Impact)**

4.6.3.2 Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

During operation, PDH would use both nonrenewable energy resources and renewable energy resources in PG&E's portfolio of resources. PG&E's 2022 power content label shows that PG&E has a power mix of 38.3 percent renewable, 7.7 percent large hydro, 49.3 percent nuclear, and 4.8 percent natural gas. As PG&E procures more renewable energy for its portfolio, less nonrenewable energy sources will be needed and therefore less nonrenewable power would be provided to PDH. Additionally, the Project Owner has proposed **PDM GHG-2** which would require the Project Owner to either participate in PG&E's Renewable Energy Program or participate in another renewable energy program that accomplishes the same objective as PG&E Renewable Energy Program for 100 percent carbon-free electricity. This measure would not obstruct PG&E from implementing its current Plans to achieve the State's goals pursuant to SB 100.

The PBGF's use of renewable diesel fuel is a significant departure from typical power generating facilities that use fossil fuels as their primary source of energy, as the PBGF's generators would operate only during testing and during emergencies when the primary source of energy to operate the PDH, electricity from PG&E, is cut off. The PBGF's use of renewable diesel fuel would not obstruct PG&E's ability to meet the requirements of SB 100.

The Project would participate in the city's Construction and Demolition Debris Recycling Program and implement measures to promote walking, bicycling, and transit use, thereby reducing motor vehicle use. Through the city's design review process, PDH would be required to comply with the California Green Building Code.

Power Usage Effectiveness (PUE) is a metric used to compare the efficiency of facilities that house computer servers. It is defined as the ratio of total facility energy draw (including the facility's mechanical and electrical loads) to IT server electrical power draw (PUE = total facility source energy [including the Critical IT source energy]/ Critical IT source energy). While the PUE is always greater than 1, the closer it is to 1, the greater the portion of the power drawn by the facility that goes to the Critical IT server equipment.

The PUE has been used as a guideline for assessing and comparing energy and power efficiencies associated with data centers since 2007. According to the Uptime Institute 2019 Annual Data Center Survey Results the current average PUE is 1.67. As discussed in Section 2.2.3.2 AVAIO estimates that for the PDH, the maximum peak PUE is expected to be 1.51, the actual annualized PUE will be closer to 1.17, both well below the industry average.

As described in Section 2.3.2 the design for PDH is for an average rack power rating of 10 kW. Through energy efficient design and increased renewable electricity use, the Project would neither conflict with, nor obstruct state or local plans for renewable energy

or energy efficiency, and therefore would have no adverse impact on them. **(Less Than Significant Impact)**

4.6.4 Project Design Measures

No Project Design Measures are necessary as the Project is designed to ensure no significant energy or energy resource-related environmental impacts.

4.6.5 Governmental Agencies

The only governmental agency affected by the Project's energy use is the City of Pittsburg.

4.7 GEOLOGY AND SOILS

The following discussion is based on a Geotechnical Investigation (November 23, 2023) prepared by WSP. The report is attached as Appendix E of this Application.

4.7.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Geology and Soils				
Would the project:				
1) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42)?	☐	☐	☒	☐
- Strong seismic ground shaking?	☐	☐	☒	☐
- Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
- Landslides?	☐	☐	☒	☐
2) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
3) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
4) Be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
6) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☒	☐

4.7.2 Environmental Setting

4.7.2.1 Regulatory Framework

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed following the 1971 San Fernando earthquake. The act regulates development in California near known active faults due to hazards associated with surface fault ruptures. Alquist-Priolo maps are distributed to affected cities, counties, and state agencies for their use in planning and controlling new construction. Areas within an Alquist-Priolo Earthquake Fault Zone require special studies to evaluate the potential for surface rupture to ensure that no structures intended for human occupancy are constructed across an active fault.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) was passed in 1990 following the 1989 Loma Prieta earthquake. The SHMA directs the California Geological Survey (CGS) to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. CGS has completed seismic hazard mapping for the portions of California most susceptible to liquefaction, landslides, and ground shaking, including the central San Francisco Bay Area. The SHMA requires that agencies only approve projects in seismic hazard zones following site-specific geotechnical investigations to determine if the seismic hazard is present and identify measures to reduce earthquake-related hazards.

California Building Standards Code

The California Building Standards Code (CBC) prescribes standards for constructing safer buildings. The CBC contains provisions for earthquake safety based on factors including occupancy type, soil and rock profile, ground strength, and distance to seismic sources. The CBC requires that a site-specific geotechnical investigation report be prepared for most development projects to evaluate seismic and geologic conditions, such as surface fault ruptures, ground shaking, liquefaction, differential settlement, lateral spreading, expansive soils, and slope stability. The CBC is updated every three years; the current version is the 2022 CBC.

California Division of Occupational Safety and Health Regulations

Excavation, shoring, and trenching activities during construction are subject to occupational safety standards for stabilization by the California Division of Occupational Safety and Health (Cal/OSHA) under Title 8 of the California Code of Regulations and

Excavation Rules. These regulations minimize the potential for instability and collapse that could injure construction workers on the site.

Paleontological Resources Regulations

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. They range from mammoth and dinosaur bones to impressions of ancient animals and plants, trace remains, and microfossils. These are valued for the information they yield about the history of the Earth and its past ecological settings.

Section 5097.5 prohibits “knowing and willful” excavation, removal, destruction, injury, and defacement of any “vertebrate paleontological site, including fossilized footprints,” on public lands, except where the agency with jurisdiction has granted express permission. “As used in this section, ‘public lands’ means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.”

Public Resources Code (PRC) Section 30244 requires reasonable mitigation for impacts on paleontological resources that occur as a result of development on public lands.

The sections of the California Administrative Code relating to the State Division of Beaches and Parks afford protection to geologic features and “paleontological materials” but grant the director of the State Park system authority to issue permits for specific activities that may result in damage to such resources, if the activities are in the interest of the State park system and for State Park purposes (California Administrative Code, Title 14, Section 4307 – 4309).

4.7.2.2 Existing Conditions

The terrain within the former golf course can generally be described as relatively flat to slightly undulating. The lowest ground surface elevation is about +80 feet above mean sea level near the northeast corner of the property. The embankment crest elevation of the Contra Costa Canal is about +120 feet above mean sea level. Hillsides outside the project site area to the east, west, and south sides of the property reach elevations of about +230 to +250 feet above mean sea level, respectively. The project area is dissected by several natural short drainage courses emanating from the south and southwest

Contra Costa County is located east of San Francisco and extends from California’s Great Valley geomorphic province in the east to the Diablo Range portion of the Coast Range geomorphic province to the west. The Great Valley geomorphic province is a deep basin filled with a thick sequence of Jurassic to Quaternary period alluvial deposits eroded from the eastern Sierra Nevada Mountain Range and western coastal mountain ranges. The thickness of these deposits varies from thin veneers along the valley edges to greater

than 20,000 feet in the south and central portions of the valley. Tertiary and Cretaceous period outcrops border the central plain of the valley.

The project site is located along the northern portion of Contra Costa County which is adjacent to San Pablo Bay, Suisun Bay, and the Sacramento River from west to east, respectively. An unnamed creek with a series of dissecting ephemeral drainages traverses the site in a natural dendritic pattern with coalescing flow paths that generally tend north toward towards Suisun Bay.

Four geologic units have been identified within the project vicinity based on a review of available information, published geologic maps, and observations made during our site reconnaissance and field explorations. From youngest to oldest, these units consist of man-placed artificial fill (af), Holocene (young) alluvium (Qa), Pleistocene (old) alluvium (Qoa), and Tertiary-age Oro Loma Formation (Tol). These units are described in the following sections.

Soil Conditions

Undocumented man-placed artificial fill (af) soils may be found in many locations throughout the project site. These soils have been placed along the low natural drainages traversing the site in order to raise the ground within the former driving range field of the golf course. They are also located in areas that were disturbed and graded as part of the Contra Costa Canal construction and maintenance. This may include areas of access roads, a water tank, canal siphon, down slope canal embankments, and spoil disposal/balance areas. Artificial fill soils may be located surrounding and within the former small water feature ponds and ancillary buildings of the golf course (i.e., clubhouse, restaurant, pro-shop, golfcart garage and maintenance building. It is understood that a 1,100-gallon underground storage tank near the maintenance building was removed and backfilled in 1997. Maximum thickness of artificial fill is estimated to be on about 10 to 15 feet thick.

The Holocene (Qa) young alluvial sediments are typically along the narrow bottoms of the natural drainages and may be on the order of 3 to 5 feet thick. These alluvial deposits include low to high plasticity clays (CL/CH) and silts (ML), clayey medium to fine sands (SC) with isolated sandier zones with or without fine to coarse gravel. The majority of the Holocene alluvium may be considered medium stiff (firm) to stiff lean sandy lean clay (CL) Some zones of the Holocene alluvium are soft, moist, compressible and have a low undrained shear strength.

Although a shallow groundwater table was not encountered during the field investigation, it may be considered reasonable to assume that these materials in the low-lying natural drainages periodically become saturated during and shortly after periods of heavy precipitation.

Pleistocene (Qoa) sediments form the broader elevated dissected alluvial fan deposits within the project area. These materials are generally located in the northly, southeasterly,

and westerly zones of the project site. Somewhat similar to the Holocene alluvium, these materials include low to high plasticity clays (CL/CH) and silts (ML), clayey medium to fine sands (SC) with isolate sandier zones with few fine to coarse gravel. A shallow groundwater table was not observed in this geologic.

Rocks outcropping south of the project site within the northern tip of the Diablo Range include the Los Medanos Hills which consist of Tertiary-age (Miocene to Pliocene) sediments of the Oro Loma Formation (Tol). Oro Loma Formation may be up to 300 feet thick and consists of moderately consolidated claystone, siltstone, and sandstone with interbedded pebble conglomerate. This geologic unit was not encountered in the any of the exploratory borings. However, two 1.5H:1V cut slope exposures for the Contra Costa Canal west of the project site are visible in the hillside. The northerly and southerly cut slope faces are about 20 and 35 feet high, respectively.

The extent of the soil formations are shown in Appendix E, Figures 4, 8 and 10.

Groundwater

A groundwater table was not encountered in any of the exploratory borings. However, groundwater levels at the site are subject to variations due to seasonal fluctuations, the presence of the Contra Costa Canal, and other artificial/natural influences. In general, groundwater levels at the project site may be considered at or slightly above the elevations of the natural drainages that cross the site. Groundwater table phreatic surface gradients are likely less than 2 percent emanating away from the natural drainages that cross the site. During the wet season, groundwater levels are expected to rise several feet. Isolated zones of perched groundwater may exist within the mass of the hillsides adjacent to the site albeit that there is little evidence such as lateral seeps or springs in the area.

Seismicity and Seismic Hazards

The San Francisco Bay Area is located near the western edge of the North American Plate. The western edge of the North American Plate is generally defined by the San Andreas Fault zone, with the land west of the San Andreas fault zone considered part of the Pacific Plate. The crustal deformation related to this plate boundary is expressed by numerous faults within the San Andreas Fault system, and this system includes the Hayward Fault, Calaveras Fault, Concord Fault, Clayton Fault-Greenville Fault, and Napa Fault, among others. These Quaternary faults have varying degrees of seismic activity. However, they define a broad area susceptible to earthquake hazards. A regional fault map is presented as Figure 20, of Appendix E.

In the state of California an “active fault” is defined as a fault that exhibits surface displacement having occurred during Holocene time (within the last 11,700 years). The definition of “potentially active” varies. A generally accepted definition is of a fault showing evidence of displacement that occurred between 11,700 years and 2.6 million years ago.

However, “potentially active” is no longer used as a criterion for zoning by the California Geological Survey (CGS). The terms “sufficiently active” and “well defined” are now used by the CGS as criteria for zoning faults under the Alquist-Priolo Earthquake Fault Zoning Act. A “sufficiently active” fault is one that shows evidence of Holocene surface displacement along one or more of its segments and branches. A “well-defined” fault is one whose trace is clearly detectable by a physical feature at or just below the ground surface. The definition “inactive” generally implies that a fault has not been subjected to seismic activity for more than 2.6 million years.

The project site is not located within an active Earthquake Fault Zone as defined by the CGS. However, many of the faults in the area are considered active but have not typically generated surface fault rupture. The location, historical seismicity, and maximum magnitudes for earthquakes in the vicinity are presented in Appendix E, Table 3.1. The project site may be subject to ground shaking from seismic events associated with the active and potentially active fault systems in the area. The intensity of ground shaking that occurs during an earthquake depends upon the magnitude of the earthquake, the location of the seismic source relative to the site, and the subsurface conditions.

Liquefaction and Lateral Spreading

Liquefaction is a phenomenon in which saturated, cohesionless soils lose their inherent shear strength and stiffness due to build-up of excess pore water induced by cyclic loading, such as that caused by an earthquake. Liquefaction potential depends on several factors, primarily the (a) relative density and type of soil, (b) the depth to the groundwater, (c) overburden pressures, and (d) the duration and intensity of seismic shaking (PGA). Loose, saturated granular materials (sands and low to non-plastic silts) are most susceptible to liquefaction. Cyclic softening is a phenomenon in which saturated silts and clays exhibit significant strains and strengths loss during cyclic loading.

The potential consequences of liquefaction to engineered structures include loss of bearing capacity, buoyancy forces on underground structures and utilities, ground oscillations or “cyclic mobility,” increased lateral earth pressures on retaining walls, post-liquefaction settlement, lateral spreading/slope instability, and “flow failures” or lateral spreading in slopes. Due to the existing and anticipated predominately clayey subsurface materials and absence of a shallow groundwater condition at the site, the liquefaction potential may be considered negligible.

Lateral spreading is defined as the finite, lateral displacement of gently sloping ground because of pore pressure build-up or liquefaction in a shallow underlying deposit during an earthquake. Notwithstanding, lateral spreading hazard may be considered negligible.

Expansive Soils

Since the subject site is expected to be underlain by predominantly low to high plasticity clays (CL/CH) and clayey sand (SC), medium to high expansion potential is anticipated.

Observed desiccation cracks in the project area also provide evidence of potentially expansive soils. Inasmuch, the potential hazard to the project due to expansive soils may be deemed moderate to high.

Paleontological Resources

According to the University of California Museum of Paleontology, Berkeley, Contra Costa County has over 2,500 recorded paleontological sites. Of these, two are identified as located in the City of Pittsburg; a number of the recorded sites do not have a specific location identifier[46].

It is possible that undiscovered paleontological resources could be encountered during ground-disturbing activities. Damage to or destruction of a paleontological resource would be considered a potentially significant impact under local, state, or federal criteria.

4.7.3 Environmental Impact Discussion

For purposes of analyzing potential Geology and Soils- related impacts, it is not necessary or prudent to separate the potential impacts of the PBGF and the PDH. Therefore, the following analysis uses the term "Project" which encompasses both construction and operation of the PBGF, the PDH and all related ancillary facilities.

4.7.3.1 Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides.?

As discussed in Section 4.7.2.2, there are no known active or potentially active faults crossing the project site. The site is not located within an Earthquake Fault Zone as defined by the State of California Alquist-Priolo Earthquake Fault Zoning Act. The project site is not located within a fault rupture zone.

The project site is located in a seismically active region. Geologic conditions on the site would require the new building be designed and constructed in accordance with standard engineering techniques and current California Building Code requirements, to avoid or minimize potential damage from seismic shaking and liquefaction on the site.

[46] General Plan 2004 Update Draft EIR, December 2023.

The project site is located in a mapped liquefaction hazard zone. The site is not located within a landslide hazard zone. The project incorporates Project Design Measure **PDM GEO-1** outlined in Section 4.7.4 below. With the implementation of **PDM GEO-1** of this the project will not result in earthquake-related impacts. **(Less than Significant Impact)**

4.7.3.2 Would the project result in substantial soil erosion or the loss of topsoil?

Ground disturbance at the site would be required for demolition and on-site improvements. Ground disturbance would expose soils and increase the potential for wind or water related erosion and sedimentation at the site until construction is complete. Compliance with the erosion control measures, as required by the National Pollutant Discharge Elimination System (NPDES) is the primary means of enforcing erosion control measures through the grading and building permit process. In accordance with General Plan policies, construction activities would be subject to the requirements of the regulatory programs and policies in place and, therefore, would have a less than significant soil erosion impact. **(Less than Significant Impact)**

4.7.3.3 Would the project be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

The project site soils have a low potential for liquefaction. The site is not located within a landslide hazard zone. **(Less than Significant Impact)**

4.7.3.4 Would the project be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?

The project site is located on expansive soil as defined in Section 1803.5.3 of the CBC. The project would be required to adhere to the SHMA and CBC, which would reduce impacts related to expansive soils to a less than significant level. With the incorporation of the design level Geotechnical Engineering report recommendation required by **PDM GEO-1** impacts from expansive soils will be reduce to less than significant levels **(Less than Significant Impact)**

4.7.3.5 Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The project site is located within an urban area of City of Pittsburg where sewers are available to dispose wastewater from the project site. Therefore, the project site would not need to support septic tanks or alternative wastewater disposal systems. **(No Impact)**

4.7.3.6 Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

According to the University of California Museum of Paleontology, Berkeley, Contra Costa County has over 2,500 recorded paleontological sites. Of these, two are identified as located in the City of Pittsburg; a number of the recorded sites do not have a specific location identifier. Damage to or destruction of a paleontological resource would be considered a potentially significant impact under local, state, or federal criteria. The PDH would require excavation trenching of depths of up to 15 feet. Although unlikely, paleontological resources could be encountered during construction. The applicant has incorporated **PDM GEO-2** to address the potential for discovery of paleontological resources during excavation in native materials. See Section 4.7.4.

With the implementation of **PDM GEO-2** any potential impacts from the trenching or grading activities would be reduced to less than significant levels. **(Less than Significant Impact).**

4.7.4 Project Design Measures

No mitigation measures are necessary because the project applicant has incorporated the following Project Design Measures into the project.

PDM GEO-1: In order to ensure the project design conforms to the requirements of a final geotechnical engineering investigation and California and local building standards and codes, the following is proposed as mitigation incorporated into the project. Incorporation will ensure seismic hazards are reduced to less than significant levels.

To avoid or minimize potential damage from seismic shaking, the project would be built using standard engineering and seismic safety design techniques. Building redevelopment design and construction at the site shall be completed in conformance with the recommendations of a design-level geotechnical investigation, which will be included in a report to the City. The report shall be reviewed and approved by the City of Pittsburg's Building Division as part of the building permit review and issuance process. The building shall meet the requirements of applicable Building and Fire Codes, including the 2022 California Building Code, as adopted or updated by the City. The project shall be designed to withstand potential geologic hazards identified on the site and the project shall be designed to reduce the risk to life or property to the extent feasible and in compliance with the Building Code.

PDM GEO-2: Prior to the commencement of construction, the applicant shall secure the services of a qualified paleontological specialist. The specialist shall prepare a Worker Environmental Awareness Program (WEAP) to instruct site workers of the obligation to

protect and preserve valuable paleontological resources for review by the City of Pittsburg. This program shall be provided to all construction workers via a recorded presentation and shall include a discussion of applicable laws and penalties; samples or visual aids of resources that could be encountered; instructions regarding the need to halt work in the vicinity of any potential paleontological resources encountered; and measures to notify their supervisor, the applicant, and the specialists.

The applicant shall secure the services of a qualified professional paleontologist, as defined by the Society of Vertebrate Paleontology, to be on-call prior to the commencement of construction. The paleontologist shall be experienced in teaching non-specialists to recognize fossil materials and how to notify supervisors in the event of encountering a suspected fossil. If suspected fossils are encountered during construction, the construction workers shall halt construction within 50 feet of any potential fossil find and notify the paleontologist, who shall evaluate its significance.

If a fossil is encountered and determined to be significant and avoidance is not feasible, the paleontologist will develop and implement an excavation and salvage plan in accordance with Society of Vertebrate Paleontology standards. Construction work in the immediate area shall be halted or diverted to allow recovery of fossil remains in a timely manner. Fossil remains collected shall be cleaned, repaired, sorted, and cataloged, along with copies of all pertinent field notes, photos, and maps.

The paleontologist shall prepare a paleontological resource monitoring report that outlines the results of the monitoring program and any encountered fossils. The report shall be submitted to the City of Pittsburg for review and approval. The report and any fossil remains collected shall be submitted to a scientific institution with paleontological collections.

4.7.5 Governmental Agencies

The only governmental agency that would be affected by the project is the City of Pittsburg as it is the agency with authority to implement the building codes during its project review and monitoring of construction. The City of Pittsburg is likely to incorporate compliance with the building codes as conditions of approval and will ensure they are complied with during construction.

4.8 GREENHOUSE GAS EMISSIONS

The following discussion is based, in part, on emission calculations prepared for the project by Ramboll US Consulting, Inc., dated February 2024 and included in Appendix B.

4.8.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Greenhouse Gas Emissions				
Would the project:				
1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
2) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

4.8.2 Environmental Setting

4.8.2.1 Background Information

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of CO2 equivalents (CO2e). The most common GHGs are carbon dioxide (CO2) and water vapor but there are also several others, most importantly methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO2 and N2O are byproducts of fossil fuel combustion.
- N2O is associated with agricultural operations such as fertilization of crops.
- CH4 is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.

- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents, but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and SF6 emissions are commonly created by industries such as aluminum production and semiconductor manufacturing.

An expanding body of scientific research supports the theory that global climate change is currently causing changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

4.8.2.2 Regulatory Framework

State

Assembly Bill 32

Under the California Global Warming Solutions Act, also known as AB 32, CARB established a statewide GHG emissions cap for 2020, adopted mandatory reporting rules for significant sources of GHGs, and adopted a comprehensive plan, known as the Climate Change Scoping Plan, identifying how emission reductions would be achieved from significant GHG sources.

In 2016, SB 32 was signed into law, amending the California Global Warming Solution Act. SB 32, and accompanying Executive Order B-30-15, require CARB to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. CARB updated its Climate Change Scoping Plan in December of 2017 to express the 2030 statewide target in terms of million metric tons of CO2E (MMTCO2e). Based on the emissions reductions directed by SB 32, the annual 2030 statewide target emissions level for California is 260 MMTCO2e.

Senate Bill 375

SB 375, known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. SB 375 builds upon AB 32 by requiring CARB to

develop regional GHG reduction targets for automobile and light truck sectors for 2020 and 2035. The per-capita GHG emissions reduction targets for passenger vehicles in the San Francisco Bay Area include a seven percent reduction by 2020 and a 15 percent reduction by 2035.

Consistent with the requirements of SB 375, the Metropolitan Transportation Commission (MTC) partnered with the Association of Bay Area Governments (ABAG), BAAQMD, and the Bay Conservation and Development Commission to prepare the region's Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan process. The SCS is referred to as Plan Bay Area 2040. Plan Bay Area 2040 establishes a course for reducing per-capita GHG emissions through the promotion of compact, high-density, mixed-use neighborhoods near transit, particularly within identified Priority Development Areas (PDAs).

Regional and Local

2017 Clean Air Plan

To protect the climate, the 2017 CAP (prepared by BAAQMD) includes control measures designed to reduce emissions of methane and other super-GHGs that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

BAAQMD 2022 CEQA Guidelines

The 2022 BAAQMD CEQA Guidelines (BAAQMD Guidelines) are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. The jurisdictions in the San Francisco Bay Area Air Basin are encouraged by the BAAQMD to utilize the thresholds and methodology for assessing GHG impacts developed by BAAQMD within the BAAQMD Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

Other Implementing Laws and Regulations

There are a number of laws that have been adopted as a part of the State of California's efforts to reduce GHG emissions and their contribution to climate change. State laws and regulations related to growth, development, planning and municipal operations in Pittsburg include, but are not limited to:

- California Mandatory Commercial Recycling Law (AB 341)
- California Water Conservation in Landscaping Act of 2006 (AB 1881)

- California Water Conservation Act of 2009 (SBX7-7)
- Various Diesel-Fuel Vehicle Idling regulations in Chapter 13 of the California Code of Regulations
- Building Energy Efficiency Standards (Title 24, Part 6)
- California Green Building Code (Title 24, Part 11)
- Appliance Energy Efficiency Standards (Title 20)

Implementation of the policies in the City's General Plan as a part of the City's development permitting and other programs provides for meeting building standards for energy efficiency, recycling, and water conservation, consistent with the laws and regulations designed to reduce GHG emissions.

Local

City of Pittsburg General Plan 2040

The Pittsburg General Plan is currently being updated. The Draft Plan (Pittsburg GP 2040) has been prepared, released for public comment and a Draft EIR has been circulated for public comment (public comment period has closed). The City of Pittsburg expects it soon. Since the amended plan is likely to take effect prior to the CEC complete its CEQA analysis for the Project, this SPPE Application uses the goals and policies related to GHG emissions as they relate to the Project development as the baseline for analysis.

The Pittsburg General Plan 2040 includes the following policies that address the reduction of GHG gas emissions on a project level basis.

- 7-P-3.6: Encourage secure bicycle facilities and other alternative transportation facilities to be provided as part of new developments, especially future employment sites, public facilities, and multi-family residential complexes.
- 7-A-1.b: Require proposed development projects with VMT levels above the City's threshold to consider reasonable and feasible project modifications and other measures during the project design and review stage and the environmental review stage that would reduce VMT effects in a manner consistent with the City's sustainability goals, the City's Transportation Impact Analysis Guidelines, and with State guidance on VMT reduction.
- 7-A-2.k: Encourage developers to provide enhanced TDM programs and alternative transportation infrastructure that exceeds minimum requirements, as per 7-A-2.j, in exchange for reduced parking requirements, with a focus on priority development areas and locations in proximity to high capacity transit.

4.8.2.3 Existing Conditions

Unlike emissions of criteria and toxic air pollutants, which have regional and local impacts, emissions of GHGs have a broader, global impact. Global warming is a process whereby GHGs accumulating in the upper atmosphere contribute to an increase in the temperature of the Earth and changes in weather patterns.

4.8.3 Environmental Impact Discussion

GHG emissions worldwide contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. No single land use project could generate sufficient GHG emissions on its own to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects in Pittsburg, the entire state of California, and across the nation and around the world, contribute cumulatively to the phenomenon of global climate change and its associated environmental impacts.

As outlined in the CEQA Guidelines, a lead agency may analyze and mitigate significant GHG emissions in a plan for the reduction of GHG emissions that has been adopted in a public process following environmental review. The City of Pittsburg is developing a Sustainability Plan which will set forth a plan for the reduction of GHG emissions. Since the City's Sustainability Plan has not yet been adopted, the GHG impacts from project-related emission sources are evaluated using the BAAQMD 2022 CEQA Guidelines and supporting documents. The BAAQMD 2022 CEQA Guidelines set significance thresholds for land use projects and stationary sources. Since the Project includes both the PDH and the PBGF, the PDH components of the project will evaluate emissions using the land use significance thresholds and the operation of the PBGF will evaluate emissions for comparison to the stationary source significance thresholds.

The BAAQMD 2022 CEQA Guidelines do not identify a numeric significance threshold for GHG emission, bus instead request the emissions be quantified and recommends incorporation of best management practices to reduce GHG emissions, as feasible and applicable.

The BAAQMD has established guidance for stationary sources such as the project's backup generators. The threshold to determine the significance of an impact from GHG emissions is 10,000 metric tons of CO_2e per year. This threshold is consistent with stationary source thresholds adopted by other air quality management districts throughout the state and is intended to capture 95 percent of all GHG emissions from new permit applications from stationary sources in the San Francisco Bay Area Basin. Stationary-source projects include land uses that would accommodate processes and equipment that emit GHG emissions and would require a BAAQMD permit to operate. The standby

generators included as part of the project would be permitted sources, and as such, the BAAQMD's 10,000 metric tons of CO2e per year threshold is appropriate for analyzing the significance of emissions produced by the generators. If annual emissions of operational-related GHGs from the generators exceed these levels, the project would result in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact to global climate change. Emissions from mobile sources and area sources associated with data center operation would not be included for comparison to this threshold, based on guidance in the BAAQMD's CEQA Guidelines.

GHG impacts from operation of the PDH would be considered to have a less than significant impact if the project is consistent with the following updated BAAQMD thresholds.

BAAQMD GHG Thresholds for Land Use Projects

A. Projects must include, at a minimum, the following project design elements:
    1. Buildings
        a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
        b. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
    2. Transportation
        a. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
            i. Residential projects: 15 percent below the existing VMT per capita
            ii. Office projects: 15 percent below the existing VMT per employee
            iii. Retail projects: no net increase in existing VMT
        b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

4.8.3.1 Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction Emissions

GHG emissions associated with construction of the PDH and PBGF are estimated to be approximately 1,171 metric tons per year (See Table 7 in Appendix C), including demolition, site preparation, grading, and on-and-off-site construction. Because construction emissions would cease once construction is complete, they are considered short-term. Neither the City nor BAAQMD have an adopted threshold of significance for construction related GHG emissions. Because construction of the project would be temporary in nature and would not result in a permanent increase in emissions, the project would not interfere with the implementation of AB 32 or SB 32.

In addition, while not required to mitigate GHG emissions, the Project Owner has proposed **PDM AQ-1** (See Section 4.3), which includes the applicable best management practices for reduction of construction emissions contained in the BAAQMD 2022.

Stationary Source Emissions from Routine Generator Testing and Maintenance

The consumption of diesel fuel to test generators at the PBGF would result in direct CO_2 emissions. On an annual basis, the project's total operational emissions related to emergency backup generator maintenance and testing use would be approximately 2,862 metric tons of CO_2e per year (See Table 19 in Appendix C). This is well below the BAAQMD threshold for stationary sources of 10,000 metric tons per year of CO_2e for stationary sources. It should be noted that although not required to mitigate any impact, the Project Owner has proposed **PDM GHG-2** making renewable diesel fuel as its primary fuel source. This would indirectly reduce GHG emissions from the upstream manufacture of fuel for the generators.

PDH Operational Emissions

As described previously, BAAQMD adopted updated GHG thresholds in April 2022. Operational emissions from the project would be considered less than significant impact if the project is consistent with the updated BAAQMD thresholds. An analysis of the project's consistency with these thresholds is included in Table 4.8-1, below.

Table 4.8-1: Consistency with BAAQMD Thresholds for Land Use Projects	
BAAQMD Threshold	**Project Consistency**
Buildings	
a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).	**Consistent.** The project would not include natural gas appliances or natural gas plumbing.
b. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.	**Consistent.** As described in further detail in Section 4.6 Energy, the project would not result in any wasteful, inefficient, or unnecessary energy usage. In addition the Project Owner has proposed **PDM GHG-2** which decreases the net indirect GHG emissions from Project electricity use to zero.
Transportation	
a. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA: i. Residential projects: 15 percent below the existing VMT per capita ii. Office projects: 15 percent below the existing VMT per employee iii. Retail projects: no net increase in existing VMT	**Consistent.** As described in further detail in Section 4.17 Transportation, project generated VMT would be 15 percent below the countywide average with implementation of Transportation Demand Management (TDM) measures included in the project as **PDM TRANS-2**
b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.	**Consistent.** The project is working with the City to include the necessary electric vehicle parking spaces to comply with the requirements of CALGreen Tier 2.

Because the project would have stationary source emissions below BAAQMD's stationary source threshold and would be consistent with the requirements for operational emissions in BAAQMD's updated GHG thresholds for land use projects, the project would not

generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. **(Less Than Significant Impact)**

Overview of Project-Related GHG Emissions

Although the updated BAAQMD GHG thresholds prescribe a qualitative analysis of a project's GHG emissions, it is our understanding that the CEC prefers SPPE Applications to include a quantitative discussion of a project's GHG emissions. The quantification of emissions in the following discussion is included for informational purposes only.

GHG emissions from the proposed project would consist of emissions from vehicle trips to and from the building and emissions related to the generation of electricity used in the data center building. Data centers are an energy-intensive land use, requiring more electricity than other types of development. The primary function of the data center is to house computer servers, which require electricity and cooling 24 hours a day to operate.

GHG emissions generated by the project are summarized in Table 4.8-2.

Table 4.8-2: BDC GHG Emissions

Source	Annual Emissions (Metric Tons of CO_2e)
Landscaping	7.0
Electricity Use[1]	0
Water Use	33
Waste Disposed	183
Mobile Emissions	433
Generator Testing and Maintenance	2,862
Total	**3,518**

Notes:
[1] Based on a carbon intensity factor of zero due Applicant Proposed Design Measure **PDM GHG** which ensures the Project will use 100% carbon free electricity . Without **PDM GHG-2** the indirect emissions from procurement of electricity using 2025 PG&E carbon intensity projections would be 80,216 Metric Tons of CO_2e.
Source: Table 19, Appendix C

As shown in Table 4.8-2, the primary source of GHG emissions from the project is generator testing and maintenance. As discussed previously, the project's total operational emissions related to emergency backup generator maintenance and testing of 2,862 metric tons of CO_2e per year is well below the BAAQMD threshold for stationary sources of 10,000 metric tons per year of CO_2e for stationary sources. **PDM GHG-2** the project would utilize 100% carbon neutral energy, and therefore would result in zero GHG emissions from electricity use.

CEC Staff has requested prior data center project proponents to provide GHG emission calculations related to potential leakage of chiller refrigerant and is provided in Table 4.8-3.

Table 4.8-3

Parameter	Value	Unit
Refrigerant Type:	R-513A	
Refrigerant GWP[1]:	629.76	
Number of Chillers:	72	
Refrigerant Charge Per Chiller[2]:	692	lbs
Total Refrigerant Charge:	49,846	lbs
Estimated Annual Leak Rate:	1.0%	
Annual Emissions R-513A:	498	lbs/yr
Annual Emissions CO_2e:	313,908	lbs/yr
Annual Emissions CO_2e:	142	MT/yr

Notes:

Global warming potential for R-513A pulled from IPCC's fourth Assessment Report (AR4) consistent with CARB's Refrigerant Management Program.

Refrigerant charge per chiller obtained from equipment specifications.

Proposed Efficiency Measures

Overview: Power Usage Effectiveness During Operation

The data center industry utilizes a factor called the Power Utilization Efficiency Factor (PUE) to estimate the efficiency of its data centers. The PUE is calculated by dividing the total demand of the data center infrastructure serving the critical IT spaces (including IT load) by the Critical IT load itself. The theoretical peak PUE for the Worst Day Calculation would be 1.51 (Total 92 MW demand of Building on Worst Case Day divided by 60.0 MW Total Critical IT Load). The average annual PUE at full load would be 1.17 (Total 71.4 MW demand of Building average conditions divided by 60.0 MW Design Critical IT Load). These PUE estimates are based on design assumptions and represent worst case.

As described above, the expected PUE is much lower because the Critical IT that is leased by clients is rarely fully utilized. AVAIO team members' experience with operation of other data centers is that the actual annualized PUE will be closer to 1.17.

Energy and Water Use Efficiency Measures in Building Design

Due to the heat generated by the data center equipment, cooling is one of the main uses of electricity in data center operations. In order to reduce GHG emissions and reduce the use of energy related to building operations, the project proposes to implement the following efficiency measures:

- Daylight penetration to offices
- LED lighting fixtures and occupancy sensors
- Reflective roof surface
- Meet or exceed Title 24 requirements
- Electric vehicle (EV) parking
- Low flow plumbing fixtures
- Landscaping would meet City requirements for low water use
- Use a low GHG emission refrigerant in the project chillers

4.8.3.2 Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

2017 BAAQMD Clean Air Plan

As discussed in Section 4.3 Air Quality, the project supports the goals of the 2017 Clean Air Plan for protecting public health and the climate and is consistent with 2017 Clean Air Plan control measures of reducing exposure to TACs and reducing DPM emissions by:

- The PBGF will comply with all applicable rules and regulations of the BAAQMD regarding emissions of criteria and toxic pollutants.
- The proposed engines at the PBGF will comply with the applicable federal Tier 4 emissions standards for emergency standby electrical generation CI engines.
- The PBGF will obtain and maintain all required air quality related permits from the BAAQMD, and requirements imposed by the California Energy Commission.
- Implementing BMPs to reduce criteria air pollutants during construction,
- Including a program of 4/40 workhour shifts to reduce vehicle trips,
- Complying with applicable regulations that would result in energy and water efficiency including Title 24 and California Green Building Standards Code,
- Planting new trees in accordance to reduce the urban heat island effect, and
- Complying with the City's construction debris diversion ordinance and state waste diversion requirements to reduce the amount of waste in landfills.

In addition, the project would not disrupt or hinder the implementation of applicable control measures in the 2017 Clean Air Plan.

General Plan Policies

The City of Pittsburg General Plan has goals and policies to address sustainability (see Appendix 8.13: Sustainability Goals and Policies Matrix in the General Plan) aimed at reducing the City's contribution to GHG emissions. For the proposed project, implementation of policies that increase energy efficiency or reduce energy use would effectively reduce indirect GHG emissions associated with energy generation. The consistency of the proposed project with the applicable policies to the project is provided in Table 4.8-4.

Table 4.8-4: General Plan 2040 Project Applicable GHG Reduction Policies

Policy	Project Consistency
7-P-3.6: Encourage secure bicycle facilities and other alternative transportation facilities to be provided as part of new developments, especially future employment sites, public facilities, and multi-family residential complexes.	The Project has incorporated secure bicycle facilities into its design.
7-A-1.b: Require proposed development projects with VMT levels above the City's threshold to consider reasonable and feasible project modifications and other measures during the project design and review stage and the environmental review stage that would reduce VMT effects in a manner consistent with the City's sustainability goals, the City's Transportation Impact Analysis Guidelines, and with State guidance on VMT reduction.	The Project Owner has performed a VMT analysis contained in Appendix H and has incorporated PDM TRANS-2 into the design of the Project which would employ TDM measures including alternative work schedules designed to meet the VMT reduction requirements.
7-A-2.k: Encourage developers to provide enhanced TDM programs and alternative transportation infrastructure that exceeds minimum requirements, as per 7-A-2.j, in	See discussion above and the Project has been located near the Pittsburg/Bay Point BART Station.

Table 4.8-4: General Plan 2040 Project Applicable GHG Reduction Policies	
Policy	**Project Consistency**
exchange for reduced parking requirements, with a focus on priority development areas and locations in proximity to high capacity transit.	

Plan Bay Area 2040/California SB 375

Under the requirements of SB 375, the MTC and ABAG developed a Sustainable Communities Strategy (SCS) with the adopted Plan Bay Area 2040 to achieve the Bay Area's regional GHG reduction target. Plan Bay Area 2040 sets a 15 percent GHG emissions reduction per capita target from passenger vehicles by 2035 when compared to the project 2005 emissions. However, these emission reduction targets are intended for land use and transportation strategies only. The project would be required to implement TDM measures to reduce vehicle trips and VMT and would not contribute to a substantial increase in passenger vehicle travel within the region.

California SB 100

SB 100 advances the RPS renewable resources requirement to 50 percent by 2026 and 60 percent by 2030. It also requires renewable energy resources and zero-carbon resources to supply 100 percent of all retail sales of electricity by 2045. Because all electricity supplied to the project by PG&E would be subject to the RPS requirements promulgated under SB 100, the project would not conflict with plans, policies, or regulations adopted pursuant to SB 100.

ARB Scoping Plan

The ARB Scoping Plan outlines the State's plan for achieving the emissions reductions necessary to meet the 2030 emission target set by SB 32. As described above, the project's stationary source emissions are under relevant thresholds set by BAAQMD, and the project would be consistent with BAAQMD's updated GHG thresholds for operational emissions which are intended to ensure projects do not interfere with the State's ability to achieve the 2030 GHG emissions target. Additionally, the project would utilize 100% carbon-neutral electricity, resulting zero emissions related to electricity consumption. The project, therefore, would be consistent with the ARB Scoping Plan.

Conclusion

The project is consistent with the 2017 Clean Air Plan, the City's General Plan 2040 and measures, Plan Bay Area 2040/SB 375, SB 100, and the ARB Scoping Plan. The project, therefore, would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. **(Less Than Significant Impact)**

4.8.4 Project Design Measures

The Project has proposed Project Design Measures **PDM GHG-1** and **PDM GHG-2**.

PD GHG-1: The project owner shall use renewable diesel for 100 percent of total energy use by the emergency backup generators, and only use ultra-low sulfur diesel (ULSD) as a secondary fuel in the event of supply challenges or disruption in obtaining renewable diesel. The City of Pittsburg may grant temporary relief from the 100 percent renewable diesel requirement if the project owner can demonstrate a good faith effort to comply with the requirement and that compliance is not practicable. The project owner shall provide an annual report of the status of procuring and using renewable diesel to the City of Pittsburg demonstrating compliance.

PD GHG-2: The project owner shall participate in PG&E's Renewable Energy Program or other renewable energy program that accomplishes the same objective as PG&E Renewable Energy Program for 100 percent carbon-free electricity, or (2) purchase renewable energy credits or similar instruments that accomplish the same goals of 100 percent carbon-free electricity.

During operation, the project owner shall provide documentation to the City of Pittsburg of initial enrollment and shall submit annual reporting to the City documenting either continued participation in PG&E's Renewable Energy Program or documentation that alternative measures continue to provide 100 percent carbon-free electricity as verified by an independent third-party auditor specializing in greenhouse gas emissions.

4.8.5 Governmental Agencies

The City of Pittsburg is the only agency with regulatory authority covering the project's greenhouse gas emissions. The City of Pittsburg will administer its authority through its permit review and implementation process.

4.9 HAZARDS

The following discussion is based on a Phase I Environmental Site Assessment (January 2023) prepared by WSP USA Inc. and is included Appendix F of this Application.

4.9.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Hazards				
Would the project:				
1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
4) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?	☐	☐	☒	☐
5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
6) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
7) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

4.9.2 Environmental Setting

4.9.2.1 Regulatory Framework

Overview

The storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated under federal and state laws. Federal regulations and policies related to development include the Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as Superfund, and the Resource Conservation and Recovery Act. In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, local agencies have been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) program.

Worker health and safety and public safety are key issues when dealing with hazardous materials. Proper handling and disposal of hazardous material is vital if it is disturbed during project construction. Cal/OSHA enforces state worker health and safety regulations related to construction activities. Regulations include exposure limits, requirements for protective clothing, and training requirements to prevent exposure to hazardous materials. Cal/OSHA also enforces occupational health and safety regulations specific to lead and asbestos investigations and abatement.

Federal and State

Government Code Section 65962.5

Section 65962.5 of the Government Code requires CalEPA to develop and update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by state and local agencies and developers to comply with CEQA requirements. The Cortese List includes hazardous substance release sites identified by the Department of Toxic Substances Control (DTSC), State Water Resources Control Board (SWRCB), and Contra Costa County. The project site is part of the abandoned Delta View Golf Course. The Delta View Golf Course is on the Cortese List.

California Accidental Release Prevention Program

The California Accidental Release Prevention (CalARP) Program aims to prevent accidental releases of regulated hazardous materials that represent a potential hazard beyond the boundaries of a property. Facilities that are required to participate in the CalARP Program use or store specified quantities of toxic and flammable substances (hazardous materials) that can have off-site consequences if accidentally released. The

Contra Costa County Department of Environmental Health reviews CalARP risk management plans as the CUPA.

Asbestos-Containing Materials

Friable asbestos is any asbestos containing material (ACM) that, when dry, can easily be crumbled or pulverized to a powder by hand, allowing the asbestos particles to become airborne. Common examples of products that have been found to contain friable asbestos include acoustical ceilings, plaster, wallboard, and thermal insulation for water heaters and pipes. Common examples of non-friable ACMs are asphalt roofing shingles, vinyl floor tiles, and transite siding made with cement. The EPA phased out use of friable asbestos products between 1973 and 1978. National Emission Standards for Hazardous Air Pollutants guidelines require that potentially friable ACMs be removed prior to building demolition or remodeling that may disturb the ACMs.

CCR Title 8, Section 1532.1

The United States Consumer Product Safety Commission banned the use of lead-based paint in 1978. Removal of older structures with lead-based paint is subject to requirements outlined by Cal/OSHA Lead in Construction Standard, CCR Title 8, Section 1532.1 during demolition activities. Requirements include employee training, employee air monitoring, and dust control. If lead-based paint is peeling, flaking, or blistered, it is required to be removed prior to demolition.

Local

Other regional agencies responsible for programs regulating emissions to the air, surface water, and groundwater include the Bay Area Air Quality Management District (BAAQMD), which has oversight over air emissions, and the Regional Water Quality Control Board (RWQCB) which regulates discharges and releases to surface waters and groundwater.

Municipal Regional Permit Provision C.12.f

Polychlorinated biphenyls (PCBs) were produced in the United States between 1955 and 1978 and used in hundreds of industrial and commercial applications, including building and structure materials such as plasticizers, paints, sealants, caulk, and wood floor finishes. In 1979, the EPA banned the production and use of PCBs due to their potential harmful health effects and persistence in the environment. PCBs can still be released to the environment today during demolition of buildings that contain legacy caulks, sealants, or other PCB-containing materials.

With the adoption of the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (MRP) by the San Francisco Bay Regional Water Quality Control Board on November 19, 2015, Provision C.12.f requires that permittees develop an assessment protocol methodology for managing materials with PCBs in applicable structures planned for demolition to ensure PCBs do not enter municipal storm drain systems.[47] Municipalities throughout the Bay Area are currently modifying demolition permit processes and implementing PCB screening protocols to comply with Provision C.12.f. As of July 1, 2019, buildings constructed between 1955 and 1978 that are proposed for demolition must be screened for the presence of PCBs prior to the issuance of a demolition permit.

4.9.2.2 Existing Conditions

Historic Uses

The Site appears to have been undeveloped from 1907-1937. By it appears that a northern segment of the Site showed signs of tillage might have been used for agricultural purposes bused for agricultural purposes. The Contra Costa Canal was constructed across the southern boundary of the Project Site by 1939. The Property was developed and in use as part of the Delta View Golf Course by 1953, which operated until it was closed in 2018. It does not appear that topographic contours in the Site area have significantly changed since the development of the golf course.

Current Uses

The Project Site is currently not being used and has not been since 2018 when golf course activities ceased.

Adjoining Property History

Historical uses of adjoining properties were reviewed and determined from appropriate historical sources including aerial photographs, topographic maps, and city directories.

North of the subject property was the historical Small Arms Ranges of the former Camp Stoneman constructed in 1942 and closed in 1954 (Figure 3). Camp Stoneman was the main staging area and firing range for the San Francisco Port of Embarkation. By 1984, some development along Golf Club Road adjoining the northern boundary of the subject property had been constructed, including a residential neighborhood south of Golf Club

[47] California Regional Water Quality Control Board. *San Francisco Bay Region Municipal Regional Stormwater NPDES Permit.* November 2015.

Road and a church, presently the Church of Jesus Christ of Latter-day Saints, north of Golf Club Road.

West of the subject property was part of the former Camp Stoneman that operated 1942 to 1954. By 1993 an expansion of the Golf Course including two ponds had been constructed west of the property.

South of the subject property was part of the former Camp Stoneman that operated 1942 to 1954 and Stoneman Park. It had been generally undeveloped since 1907.

East of the subject property was part of the former Camp Stoneman that operated 1942 to 1954. The former Delta View Golf Course included areas east of the property from 1953 to 2018. An electric transmission corridor was present by 1979.

Potential Sources of Contamination

As discussed in the Phase I ESA included Appendix F, a limited soil sampling program was conducted to assess whether topsoil in select areas within the Project Site had been potentially impacted by agricultural use or the operation of the nearby Camp Stoneman. Detailed descriptions of the sampling methodology and the results are included in Section 4.1.4 of Appendix F. The limited soil investigation found no evidence of significant releases of metals, total petroleum hydrocarbons (TPH), polychlorinated biphenyl (PCBs) pesticides, or herbicides. No significant impacts from historical operations of the Gold Course or the adjoining former Camp Stoneman were found.

Wildland Fire Hazards

The project site is located in an urban area and is not within a Very-High Fire Hazard Severity Zone for wildland fires. [48]

4.9.3 Environmental Impact Discussion

On December 17, 2015, the California Supreme Court issued an opinion in "CBIA vs. BAAQMD" holding that CEQA is primarily concerned with the impacts of a project on the environment and generally does not require agencies to analyze the impact of existing conditions on a project's future users or residents, with certain important exceptions. One of those exceptions is that environmental documents must consider potential noise and safety impacts on projects due to proximity to an airport, pursuant to Public Resources Code 21096.

[48] Sources: 1) Figure 3.16-1 and page 3.16-1 Pittsburg General Plan 2040 Draft EIR

4.9.3.1 Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction

During the construction phase of the project, the only hazardous materials used would be paints, cleaners, solvents, gasoline, motor oil, welding gases, and lubricants. When not in use, any hazardous material would be stored in designated construction staging areas in compliance with local, state, and federal requirements. Any impacts resulting from spills or other accidental releases of these materials would be limited to the site due to the small quantities involved and their infrequent use, hence reduced chances of release. Temporary containment berms would also be used to help contain any spills during the construction of the project.

During construction, all 37 diesel generator fuel tanks would have to be filled. The transportation of the diesel fuel to the site would take several tanker truck trips. Diesel fuel has a long history of being routinely transported and used as a common motor fuel. It is appropriate to rely upon the extensive regulatory program that applies to the shipment of hazardous materials on California highways and roads to ensure safe handling in general transportation (see Federal Hazardous Materials Transportation Law 49 USC § 5101 et seq., DOT regulations 49 C.F.R. subpart H, §§ 172–700, and California Department of Motor Vehicles (DMV) regulations on hazardous cargo). Thus, the transportation of diesel fuel would pose a less than significant risk to the surrounding public.

Therefore, the routine transport, use or disposal of hazardous materials during construction would have a less than significant impact to the public or the environment. **(Less Than Significant Impact)**

Operations

During the operational phase of the project, diesel fuel would be stored on-site but the generators would only be filled to 95 percent capacity of its tank. The diesel fuel would be used during emergencies, testing, and maintenance. Each generator would run once a month for up to 15 minutes. Each generator would also be required to run for a total of four hours per year, under maximum load, for yearly testing purposes.

PBGF would use industry standard practice for fuel quality and maintenance of stored renewable and CARB diesel fuel. Standard practice includes that each engine would have a dual fuel filter system and that the fuel would be replenished after testing. The fuel water separators (a three bank system) would be the primary fuel filter. The secondary fuel filter, installed just before the fuel would be injected into the engine, would filter the fuel down to particles less than five microns in size. Routine replacement of the engine dual fuel

filters would reduce any effects of fuel degradation on engine components and operation. Commercial diesel fuels also contain biocides that prevent microbial growth and additives that help to stabilize the fuel for several months. Additionally, the diesel fuel would be replenished with fresh fuel when needed to maintain 24 hours of emergency electrical capacity for the PDH.

The proposed diesel generators would use selective catalytic reduction (SCR) to meet Tier 4 requirements. The SCR works by injecting a liquid-reductant through a special catalyst into the exhaust stream of the diesel engine to reduce the amount of oxides of nitrogen in the final exhaust stream. The reductant, commonly called diesel exhaust fluid (DEF), is a non-hazardous solution of 67.5 percent water and 32.5 percent automotive grade urea, as is used for SCR on highway-going diesel transport trucks. DEF consumption would vary depending upon the environment, operation, and duty cycle of equipment. On average, DEF consumption would be 3 percent to 5 percent of diesel fuel consumption. DEF will be stored in tanks located within each generator enclosure and fluid levels will be monitored and refilled as necessary.

With the above listed safety features and precautions, the risk to the off-site public or environment through the routine transport, use or disposal of hazardous materials would have a less than significant impact. **(Less than Significant Impact)**

4.9.3.2 Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction

As described under the discussion for impact criterion a., project construction would require the limited use of hazardous materials, such as fuels, lubricants, and solvents. The storage and use of hazardous materials during construction could result in the accidental release of small quantities of hazardous materials typically associated with minor spills or leaks. However, hazardous materials would be stored, handled, and used in accordance with applicable regulations. Personnel would be required to follow instructions on health and safety precautions and procedures to follow in the event of a release of hazardous materials. All equipment and materials storage would be routinely inspected for leaks. Records would be maintained for documenting compliance with the storage and handling of hazardous materials.

The limited subsurface investigation conducted during the Phase I Site Investigation found low levels of fuel-related VOCs, arsenic and metals, but at levels that are acceptable for the commercial development. Construction workers could be exposed to contaminated soil and or groundwater during excavation, grading, and construction activities.

The Project Owner proposes **PDM HAZ-1** to ensure that contaminated soil and or groundwater exposed during construction would result in less than significant impacts to construction workers and the public. With implementation of **PDM HAZ-1** the proposed project would result in a less than significant soil and groundwater contamination impacts. **(Less than Significant Impact)**

Operations

The project would not create a significant hazard to the public or environment due to an accidental release of a hazardous material. Although a substantial quantity of diesel fuel would be stored on-site, its storage would be split among many separate tanks, each with double-walled tank in each generator enclosure, effectively limiting a worse case spill to the quantity held within one tank. The lower tank in each stacked configuration is capable of holding 10,500 gallons of diesel fuel and the tank within the upper enclosure is capable of holding 500 gallons of diesel fuel.

Each generator's integrated fuel tank would be of a double-walled high integrity design. The interstitial space between the inner and outer walls of each tank would be continuously monitored electronically for the presence of leaks through the inner wall. The monitoring system would be electronically linked to an alarm system in the security office that would alert personnel if a leak were detected in any of the inner tanks.

Deliveries of diesel fuel by tanker truck during the project's operation would be scheduled on an as needed basis. Diesel tanker trucks would use wheel chocks to prevent the truck from moving before complete disconnection of the transfer lines. An emergency pump shut-off would be available in case a pump hose breaks during the fueling. In addition, a temporary spill catch basin would be located at the fill port of each belly tank during refilling. With the incorporation the design and handling features described above the project would not result in significant soil or groundwater impacts during operations. **(Less Than Significant Impact)**

4.9.3.3 Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

While the Rancho Medanos Junior High School is located within approximately 1/3 north of the project site, the project would not emit hazardous emissions in quantities or concentrations that would cause health impacts (See Section 4.1, Air Quality), nor would it handle hazardous or acutely hazardous materials, substances or waste. In addition, the project would comply with all relevant laws and regulations related to hazardous materials, as discussed in Sections 4.9.3.1 and 4.9.3.2. While the project site may contain contaminated soil, unknown fill, groundwater and soil vapor from previous on- and off-site uses and spills, implementation of **PD HAZ-1**, which is incorporated into the project, would reduce impacts to less than significant. **(Less than Significant Impact)**

4.9.3.4 Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?

According to a review of the Envirostor and GeoTracker databases, the project site had a case listed on the hazardous materials sites compiled pursuant to Government Code section 65962.5. According to the Phase I ESA contained in Appendix F, in 1994, an underground storage tank (UST) leak was discovered on the Project Site during the removal of a 1,100-gallon UST. Soil was the potential medium of concern and gasoline was the potential contaminant of concern.

Substantially impacted soil was removed with extensive excavation and no groundwater was encountered during excavation. Pockets of impacted soils remain in the sidewalls. The case was closed in 1997.

Ground disturbing activities associated with the demolition of existing buildings foundations, the removal of underground utilities, and construction of the project would have the potential to encounter contaminated soil. The contaminated soil could contain residual pesticides and herbicides from agricultural use or fuel-related VOCs from industrial use. While not required to mitigate any impact, if contaminated soils are found, the project would halt construction and the soil would be treated in place or removed to an appropriate disposal facility in accordance with **PD HAZ-1**. Therefore, the construction of the project would create a less than significant impact to the public or the environment. **(Less Than Significant Impact)**

4.9.3.5 Would the project be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?

Airport Plans

The closest airport is over 7 miles to the west of the Project Site. The Project Site is not within an airport land use plan. **(No Impact)**

4.9.3.6 Would the project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

The project would be constructed in accordance with current building and fire codes to ensure structural stability and safety in the event of a seismic or seismic-related hazard. In addition, the Fire Department would review the site development plans to ensure fire protection design features are incorporated and adequate emergency access is provided. For these reasons, the proposed project would not impair implementation of or physically interfere with the City's Emergency Operations Plan. **(Less than Significant Impact)**

4.9.3.7 Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, the project would not result in wildfire impacts. **(No Impact)**

4.9.4 Project Design Measures

No mitigation measures are necessary as the project has included the following Project Design Measure into the design of the Project

HAZ-1: Prior to issuance of demolition or grading permits, the project applicant shall prepare a Site Management Plan (SMP) to guide activities during demolition, excavation, and initial construction to ensure that potentially contaminated soils are identified, characterized, removed, and disposed of properly. The purpose of the SMP is to establish appropriate management practices for handling impacted soil or other materials that may be encountered during construction activities. The SMP shall be reviewed and approved by the City of Pittsburg prior to any work on the site, including prior to soil and groundwater sampling.

The SMP shall be implemented during project demolition and construction and shall include, but shall not be limited to, the following components:

- A detailed discussion of the site background.
- Prior to any onsite work, Health and Safety Plans (HSPs) for the Project shall be prepared by all contractors and subcontractors that will be working at the project site and incorporated in the SMP. The HSPs shall be prepared by an industrial hygienist. The HSPs shall be specific to each of the contractors' or subcontractors' scopes of work and based upon the known environmental conditions for the site prior to project construction. The HSPs shall be updated as needed if site conditions change significantly, such as the discovery of contaminated soil or groundwater. The HSPs shall be approved by the City of Pittsburg, and implemented under the direction of a Site Safety and Health Officer. Copies of the approved HSPs shall be kept at the project site.
- Description of soil and groundwater testing, which shall include (but not be limited to) the collection of soil samples and groundwater samples and analyses for volatile organic compounds (VOCs) and any other contaminants identified in previous environmental studies in the soil and groundwater and lead and organochlorine pesticides in the soil to verify presence of absence of remnant or unknown soil or groundwater contamination. This soil and groundwater characterization shall be performed prior to initiation of project construction.

- Protocols for sampling at the site to verify or rule out a vapor encroachment conditions at the site and within the buildings to be demolished and, if verified, for remediation of vapor encroachment conditions within the existing building prior to demolition and to prevent it in the proposed structures.
- Protocols for sampling of soil and groundwater to facilitate the profiling of the soil and groundwater for appropriate off-site disposal or reuse, and for construction worker safety, dust mitigation during demolition and construction and potential exposure of contaminated soil or groundwater to future users of the site prior to project construction.
- Procedures to be undertaken in the event that contamination is identified above action levels or previously unknown contamination is discovered prior to or during project demolition or construction;
- Notification procedures if previously undiscovered significantly impacted soil or groundwater, or free fuel product is encountered during demolition or construction;
- Sampling and laboratory analyses of excess soil requiring disposal at an appropriate off-site waste disposal facility;
- Procedures and protocols for the safe storage, stockpiling, and disposal of contaminated soils; and
- Protocols to manage groundwater, including segregation or treatment of contaminated groundwater, if necessary, that may be encountered during trenching or subsurface excavation activities.
- If there are no contaminants identified on the project site that exceed applicable screening levels for construction workers published by the Regional Water Quality Control Board (RWQCB), California Department of Toxic Substances Control (DTSC), or California Environmental Protection Agency, the SMP does not need to be submitted to an oversight agency and instead only needs to be submitted to the City of Pittsburg for approval prior to issuance of a grading permit and prior to conducting any demolition activities.
- If contaminants are identified at concentrations exceeding applicable screening levels, the project applicant shall obtain regulatory oversight from Contra Costa County Department of Environmental Health or the DTSC under a Site Cleanup Program as applicable. The SMP and planned remedial measures shall be reviewed and approved by the Contra Costa County Department of Environmental Health Hazardous Materials Compliance Division or DTSC. A copy of the SMP shall be submitted to the city of Pittsburg. Copies of the approved SMP shall be kept at the project site.
- Any contaminated soils identified by testing conducted in compliance with the SMP and found in concentrations above established thresholds shall either be removed

and disposed of according to California Hazardous Waste Regulations or the contaminated portions of the site shall be capped beneath the planned development under the regulatory oversight of the Contra Costa County Hazardous Materials Compliance Division or the DTSC. Contaminated soil excavated from the site shall be hauled off-site and disposed of at a licensed hazardous materials disposal site.

4.9.5 Governmental Agencies

Contra Costa County Health Department is the agency responsible for regulating potential hazards discussed above under its Comprehensive Unified Agency Program (CUPA) status. The City of Pittsburg will review the project plans during the its permit review process and conduct inspections during construction.

4.10 HYDROLOGY AND WATER QUALITY

4.10.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Hydrology and Water Quality				
Would the project:				
1) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
2) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
- result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
- substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
- create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
- impede or redirect flood flows?	☐	☐	☒	☐
4) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
5) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

4.10.2 Environmental Setting

4.10.2.1 Regulatory Framework

Water Quality

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality in California. Regulations set forth by the U.S. Environmental Protection Agency (EPA) and the State Water Resources Control Board (SWRCB) have been developed to fulfill the requirements of this legislation. EPA regulations include the National Pollutant Discharge Elimination System (NPDES) permit program, which controls sources that discharge pollutants into the waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by the Regional Water Quality Control Boards (RWQCBs). These regulations are implemented at the regional level by water quality control boards, which for the City of Pittsburg area is the San Francisco Bay Regional Water Quality Control Board (RWQCB).

Federal

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) established the National Flood Insurance Program (NFIP) in order to reduce impacts of flooding on private and public properties. The program provides subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the program, FEMA publishes Flood Insurance Rate Maps (FIRM) that identify Special Flood Hazard Areas (SFHA). An SFHA is an area that would be inundated by the one-percent annual chance flood, which is also referred to as the base flood or 100-year flood.

State

Statewide Construction General Permit

The SWRCB has implemented a NPDES General Construction Permit for the State of California (Construction General Permit). For projects disturbing one acre or more of soil, a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) must be prepared by a qualified professional prior to commencement of construction. The Construction General Permit includes requirements for training, inspections, record keeping, and for projects of certain risk levels, monitoring. The general purpose of the requirements is to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

Regional

San Francisco Bay Basin Plan

The San Francisco Bay RWQCB regulates water quality in accordance with the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). The Basin Plan lists the beneficial uses that the San Francisco Bay RWQCB has identified for local aquifers, streams, marshes, rivers, and the San Francisco Bay, as well as the water quality objectives and criteria that must be met to protect these uses. The San Francisco Bay RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements, including permits for nonpoint sources such as the urban runoff discharged by a City's stormwater drainage system. The Basin Plan also describes watershed management programs and water quality attainment strategies.

Municipal Regional Stormwater Permit

The San Francisco Bay RWQCB has issued a Municipal Regional Stormwater NPDES Permit[49] (MRP) to regulate stormwater discharges from municipalities and local agencies (co-permittees) in Alameda, Contra Costa, San Mateo, and Santa Clara Counties, and the cities of Fairfield, Suisun City, and Vallejo.

Provision C.3 – New Development and Redevelopment

Under Provision C.3 of the MRP, new and redevelopment projects that create or replace 10,000 square feet or more of impervious surface area are required to implement site design, source control, and Low Impact Development (LID)-based stormwater treatment controls to treat post-construction stormwater runoff. LID-based treatment controls are intended to maintain or restore the site's natural hydrologic functions, maximizing opportunities for infiltration and evapotranspiration, and using stormwater as a resource (e.g. rainwater harvesting for non-potable uses). The MRP also requires that stormwater treatment measures be properly installed, operated and maintained.

In addition to water quality controls, the MRP requires all new and redevelopment projects that create or replace one acre or more of impervious surface to manage development-related increases in peak runoff flow, volume, and duration, where such hydromodification is likely to cause increased erosion, silt pollutant generation or other impacts to beneficial uses of local rivers, streams, and creeks. Projects may be deemed exempt from these requirements if they do not meet the size threshold, drain into tidally influenced areas or

[49] MRP Number CAS612008

directly into the Bay, drain into hardened channels, or are infill projects in subwatersheds or catchment areas that are greater than or equal to 65 percent impervious.

Provision C.12 – PCBs Controls

Provision C.12 of the MRP requires the co-permittee agencies to implement a control program for polychlorinated biphenyls (PCBs) that reduces PCBs loads by a specified amount during the term of the permit, thereby making substantial progress toward achieving the urban runoff PCBs wasteload allocation in the Basin Plan by March 2030.[50] The program must include focused implementation of PCBs control measures (source control, treatment control, and pollution prevention strategies) through a collaborative effort. One of the strategies that has been recently adopted by municipalities region-wide is the updating of their building demolition permitting processes to incorporate the management of PCBs in building materials. The goal is to ensure that PCBs are not discharged to storm drains during demolition of buildings that contain PCBs in building materials (such as certain older caulks, paints, and mastics).

The Bay Area Stormwater Management Agencies Association (BASMAA) is assisting Bay Area municipalities to comply with these new stormwater permit building demolition requirements.

National Flood Insurance Program

The National Flood Insurance Program (NFIP) makes federally-backed flood insurance available for communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage. The Federal Emergency Management Agency (FEMA) manages the NFIP and creates Flood Insurance Rate Maps (FIRMs) that designate 100-year flood hazard zones and delineate other flood hazard areas. A 100-year flood hazard zone is the area that has a one in one hundred (i.e., one percent) chance of being flooded in any one year based on historical data.

4.10.2.2 Existing Conditions

Flooding

According to the FEMA's Flood Insurance Rate Map, the majority of the site is located within Zone X, described as "Areas determined to be outside the 0.2 percent annual chance floodplain." The Project Site slopes from approximately 110 to 86 feet amsl.

[50] San Francisco Bay RWQCB, Municipal Regional Stormwater Permit, Provision C.12. November 19, 2015.

Inundation Hazards

The proposed project site is located adjacent to the Contra Costa Canal. There are no creeks, dams or levee systems in the project area. In the ocean, seismically-induced waves are caused by displacement of the sea floor by a submarine earthquake and are called tsunamis. Seiches are waves produced in a confined body of water such as a lake or reservoir by earthquake ground shaking or land sliding. Seiches are possible at reservoir, lake or pond sites.

The Project Site is not subject to inundation from a seiche, tsunami, or mudflow nor subject to inundation from a dam failure[51].

Storm Drainage

The San Francisco Bay Regional Water Quality Control Board (RWQCB) has issued the Municipal Regional Stormwater NPDES Permit (MRP) to regulate stormwater discharges from municipalities and local agencies. Under Provision C.3 of the MRP, new and redevelopment projects that create or replace 10,000 square feet or more of impervious surface area are required to implement site design, source control, and Low Impact Development (LID)-based stormwater treatment controls to treat post-construction stormwater runoff. LID-based treatment controls are intended to maintain or restore the site's natural hydrologic functions, maximizing opportunities for infiltration and evapotranspiration, and using stormwater as a resource (e.g. rainwater harvesting for non-potable uses). Examples of C.3 LID measures include bioretention areas, flow-through planters, and subsurface infiltration systems.

The PDH proposes to construct stormwater treatment areas consisting of LID (Low-Impact Development) bioretention areas and at-grade flow-through planter boxes totaling approximately 31,000 square feet, based on preliminary impervious calculations, sized according to the requirements of the MRP. The stormwater treatment areas would be located around the perimeter of the site, and adjacent to paved parking areas and building.

In the existing condition, stormwater discharges the site at two locations, one storm drain lateral located at the north end of the site, and secondly by overland flow from the low point of the site to the parcel to the east. The existing lateral located at the north end of the site will be reused. Given the extension of Golf Club Road, overland discharge from the site cannot be maintained and will be improved with a culvert undercrossing the proposed roadway to transmit flows to the east and match existing hydrology

[51] City of Pittsburg General Plan 2040 Draft EIR, Figure 3.9-3 and page 3.9-32.

Downspouts for the roof drainage will connect to storm drains that will route flows either into drainage swales leading to bioretention or directly into bioretention planters.

Surface drainage of hardscape such as asphalt drive aisles and parking will be routed to curb cuts and drainage swales that will discharge to bioretention, or into inlets and pipes directly to bioretention.

Flow-through planters and bioretention planters will include perforated underdrains and overflow structures that connect to the on-site storm drains systems.

Groundwater

The Project Site is within the Pittsburg Plain Groundwater Basin. The Pittsburg Plain Groundwater Basin is located in northern Contra Costa County along the south shore of Suisun Bay. The Pittsburg Plain Groundwater Basin is about 40 miles northeast of San Francisco. It is bounded by Suisun Bay on the north, on the east by the Tracy basin, and on the west by the Clayton basin. The southern boundary extends inland from Suisun Bay one to three miles. Hydrographs created from the Department of Water Resources (DWR) well data in the Pittsburg Plain Groundwater Basin indicate that groundwater levels have remained fairly stable over the period of record, with the exception of static water level drops and subsequent recovery associated with the 1976 to 1977 and 1987 to 1992 drought periods.

According to the geotechnical investigation ground water was not encountered in any of the borings which extended from 21 to 41 feet at various locations within the Project footprint.

4.10.3 Environmental Impact Discussion

For purposes of analyzing potential Aesthetic related impacts, it is not necessary or prudent to separate the potential impacts of the PBGF and the PDH. Therefore, the following analysis uses the term “Project” which encompasses both construction and operation of the PBGF, the PDH and all related ancillary facilities.

4.10.3.1 Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The PDH would create or replace more than 10,000 square feet of impervious surface area and, therefore, is classified as a Regulated Project under the MRP’s Provision C.3, meaning it is subject to the LID source control, site design and stormwater treatment control requirements of Provision C.3.

The PDH proposes to construct stormwater treatment areas consisting of LID (Low-Impact Development) bioretention areas and at-grade flow-through planter boxes totaling approximately 31,000 square feet, based on preliminary impervious calculations, sized

according to the requirements of the MRP. The stormwater treatment areas would be located around the perimeter of the site, and adjacent to paved parking areas and building.

In the existing condition, stormwater discharges the site at two locations, one storm drain lateral located at the north end of the site, and secondly by overland flow from the low point of the site to the parcel to the east. The existing lateral located at the north end of the site will be reused. Given the extension of Golf Club Road, overland discharge from the site cannot be maintained and will be improved with a culvert undercrossing the proposed roadway to transmit flows to the east and match existing hydrology

Downspouts for the roof drainage will connect to storm drains that will route flows either into drainage swales leading to bioretention or directly into bioretention planters.

Surface drainage of hardscape such as asphalt drive aisles and parking will be routed to curb cuts and drainage swales that will discharge to bioretention, or into inlets and pipes directly to bioretention.

Flow-through planters and bioretention planters will include perforated underdrains and overflow structures that connect to the on-site storm drains systems.

Implementation of the project would disturb approximately 23 acres. Therefore, requirements under the City's MRP would apply to the project. Construction activities could generate dust, sediment, litter, oil, and other pollutants that could temporarily contaminate water runoff from the site. The PDH would include Project Design Measure **PDM HYD-1** to avoid or reduce construction-related water quality impacts to less than significant level. **(Less Than Significant Impact)**

4.10.3.2 Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The project does not propose to pump groundwater or install groundwater extraction wells. In addition, the project site is not within an area used for groundwater recharge. For these reasons, the project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. **(Less Than Significant Impact)**

4.10.3.3 Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows?

The project would not alter the course of a stream, river, or other waterway. Although the Project will result in an increase of impervious surfaces the project design proposes to construct stormwater treatment areas consisting of LID (Low-Impact Development) bioretention areas and at-grade flow-through planter boxes totaling approximately 31,000 square feet, based on preliminary impervious calculations, sized according to the requirements of the MRP. The stormwater treatment areas would be located around the perimeter of the site, and adjacent to paved parking areas and building.

In the existing condition, stormwater discharges the site at two locations, one storm drain lateral located at the north end of the site, and secondly by overland flow from the low point of the site to the parcel to the east. The existing lateral located at the north end of the site will be reused. Given the extension of Golf Club Road, overland discharge from the site is not feasible and will be improved with a culvert undercrossing the proposed roadway to transmit flows to the east and match existing hydrology. With the use of bioretention and detention basins, the post-project flows will not exceed pre-project flows. **(Less than Significant Impact)**

4.10.3.4 Would the project risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones?

Flooding, Tsunami and Seiche

The project site is located within Flood Zone X. Hazardous materials on-site would be stored and contained in accordance with regulations to prevent accidental release (refer to Section 4.9 for additional details). For this reason, the project would not risk release of pollutants due to project flooding. Additionally, as discussed in Section 4.7.1.2, the project area is not subject to inundation from a seiche, tsunami, or mudflow. Additionally the project site is not within any known dam inundation zone.

For the reasons described above, the project would have a less than significant impact. **(Less than Significant Impact)**

4.10.3.5 Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As discussed above, the project would comply with applicable water quality control regulations and would not substantially decrease groundwater supplies or interfere with groundwater recharge. **(Less than Significant Impact)**

4.10.4 Project Design Measures

No mitigation measures are necessary as the project applicant has incorporated the following Project Design Measure into the Project.

PDM HYD-1: The project will incorporate the following into the design and these measures should be treated as mitigation incorporated into the project. The following will reduce construction-related water quality impacts:

- Burlap bags filled with drain rock shall be installed around storm drains to route sediment and other debris away from the drains.
- Earthmoving or other dust-producing activities shall be suspended during periods of high winds.
- All exposed or disturbed soil surfaces shall be watered at least twice daily to control dust as necessary.
- Stockpiles of soil or other materials that can be blown by the wind shall be watered or covered.
- All trucks hauling soil, sand, and other loose materials shall be required to cover all trucks or maintain at least two feet of freeboard.
- All paved access roads, parking areas, and staging areas adjacent to the construction sites shall be swept daily (with water sweepers).
- Vegetation in disturbed areas shall be replanted as quickly as possible.
- All unpaved entrances to the site shall be filled with rock to knock mud from truck tires prior to entering City streets. A tire wash system may also be employed at the request of the City.

4.10.5 Government Agencies

The City of Pittsburg is the only agency with regulatory authority over the hydrology and water quality related effects of the project. The City of Pittsburg will ensure compliance with its requirements during its permit review and implementation process.

4.11 LAND USE AND PLANNING

4.11.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Land Use and Planning				
Would the project:				
1) Physically divide an established community?	☐	☐	☐	☒
2) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

4.11.2 Environmental Setting

4.11.2.1 Regulatory Framework

City of Pittsburg General Plan

The City of Pittsburg (City) General Plan was last comprehensively updated in 2001, and an update to the Housing Element was completed in 2015. The City is currently updating the General Plan Land (City of Pittsburg's 2040 General Plan Update or "GP Update")[52]. At the time of the preparation of this SPPE Application, the City has completed and circulated for public comment a Draft EIR analyzing the potential environmental effects of the GP Update. For the purposes of this analysis, it assumed that the GP Update would be completed and adopted prior to the issuance of the CEC's environmental analysis of the PBGF and PDH. The GP Update designates the project site as Employment Center Industrial, which expressly allows data center uses and establishes a FAR of up to 1.5.[53] The Project's FAR is estimated to be 0.47.

[52] General Plan Update: Pittsburg 2040 webpage, with supporting documents; https://www.pittsburgca.gov/services/community-development/planning/advanced-planning-special-projects/general-plan-update

[53] Pittsburg 2040 Geneal Plan December 2023, Table 2-1, page 2-4 indicates that for Employment Center Industrial classification there is no minimum FAR and the FAR to be up to 1.5.

Zoning Designation

Under the City's current Zoning Ordinance, the Site is zoned Open Space (OS), which is not in conformance with the GP Update designation. The City will be undertaking a General Plan conforming rezone of the project site and other parcels subsequent to adoption of the GP Update in order to bring zoning into conformance with new land use designations. Rezonings would commence in April after adoption of the General Plan update and are projected to be complete in June 2024. Additionally, AVAIO has submitted and the City is reviewing a Specific Plan Application for the Pittsburg Technology Park that includes the Project Site and surrounding property. AVAIO anticipates adoption of the Specific Plan by the City will be completed in the third quarter of 2024. Both actions would alter the zoning of the Project Site to Employment Center Industrial (ECI). Either action by the City would specifically allow data center as a permitted use and bring the property into conformance with the General Plan.

4.11.2.2 Existing Conditions

The site is currently part of the abandoned Delta View Golf Course. Golf course uses ceased in 2018. The only structures on site include a water storage tank and an associated one-story mechanical equipment storage building located in the southeastern corner of the site. These structures will remain on site. Other golf course buildings that were located near the northeastern corner of the site were demolished by the City prior to AVAIO's acquisition of the land.

4.11.3 Environmental Impact Discussion

For purposes of analyzing potential land use impacts, it is not necessary or prudent to separate the potential impacts of the PBGF and the PDH. Therefore, the following analysis uses the term "Project" which encompasses construction and operation of the PBGF, the PDH and all related ancillary facilities.

4.11.3.1 Would the project physically divide an established community?

The project site is located in a portion of an abandoned golf course. Currently the site does not act as an established link between communities. The site is bounded to the North by West Leland Road and existing residential development, to the East by an existing PG&E transmission easement, and to the South and West by the Contra Costa Canal. No changes are proposed involving construction of new off-site facilities that could physically divide the community (e.g., blocking of roadways or sidewalks) and would not interfere with the movement of residents through a neighborhood. Therefore, project construction, operation and maintenance activities would not physically divide an established community, and no impact would occur. **(No Impact)**

4.11.3.2 Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Consistency with Applicable Local Plans, Policies, and Regulations

City of Pittsburg General Plan

As discussed above, the adopted General Plan designates the project site as Open Space, which will soon be modified to Employment Center Industrial (ECI) by the GP Update. The ECI designation specifically allows data centers under the list of permitted uses. Therefore, the proposed project will be consistent with the General Plan prior to the City's authorization to proceed with the construction and operation of the Project.

The GP Update allows a floor area ratio (FAR) of up to 1.5 for ECI land uses. The proposed FAR of the Project is estimated to be 0.47, which would be consistent with the GP Update.

Noise and lighting levels associated with the proposed Project are not anticipated to adversely affect adjacent properties and are more thoroughly described in Sections 4.1 and 4.13 of this SPPE Application. The proposed Project, therefore, would not introduce a land use to the site that would create a land use compatibility conflict in the project area.

City of Pittsburg Zoning Code

The City will be undertaking a General Plan conforming rezone of the project site and other parcels subsequent to adoption of the GP Update in order to bring zoning into conformance with new land use designations. Rezonings would commence in April after adoption of the General Plan update and are projected to be complete in June 2024. Additionally, AVAIO has submitted and the City is reviewing a Specific Plan Application for the Pittsburg Technology Park that includes the Project Site and surrounding property. AVAIO anticipates adoption of the Specific Plan by the City will be completed in the third quarter of 2024. Both actions would alter the zoning of the Project Site to Employment Center Industrial (ECI). Either action by the City would specifically allow data center as a permitted use and bring the property into conformance with the General Plan.

The proposed Project, therefore, would not conflict with the City's General Plan or Zoning Ordinance. For all the reasons listed above, the Project would not conflict with any land use plans, policies, or regulations; therefore, the project would have a less than significant impact. **(No Impact)**

4.11.4 Project Design Measures

No Project Design Measures are required.

4.11.5 Governmental Agencies

The City of Pittsburg is the land use and planning authority and will implement its requirements as part of its permit process.

4.12 MINERAL RESOURCES

4.12.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Mineral Resources				
Would the project:				
1) Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?	☐	☐	☐	☒
2) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

4.12.2 Environmental Setting

4.12.2.1 Regulatory Framework

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA) was enacted by the California Legislature in 1975 to address the need for a continuing supply of mineral resources, and to prevent or minimize the negative impacts of surface mining to public health, property and the environment. As mandated under SMARA, the State Geologist has designated mineral land classifications in order to help identify and protect mineral resources in areas within the state subject to urban expansion or other irreversible land uses which would preclude mineral extraction. SMARA also allowed the State Mining and Geology Board, after receiving classification information from the State Geologist, to designate lands containing mineral deposits of regional or statewide significance.

4.12.2.2 Existing Conditions

According the City of Pittsburg General Plan 2040 Draft EIR, there are no significant mineral deposits or active mining operations in the City. The Project Site is designated as MRZ-3 which infers mineral deposits may be present but the significance of which cannot be evaluated from available data. The area is not known to support significant mineral resources of any type. The State Office of Mine Reclamation's list of mines (AB 3098 list) regulated under the Surface Mining and Reclamation Act does not include any mines within the City.

4.12.3 Environmental Impact Discussion

For purposes of analyzing potential mineral resource impacts, it is not necessary or prudent to separate the potential impacts of the PBGF and the PDH. Therefore, the following analysis uses the term “Project” which encompasses construction and operation of the PBGF, the PDH and all related ancillary facilities.

4.12.3.1 Would the project result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?

The project site does not contain any known or designated mineral resources. The Project, therefore, would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **(No Impact)**

4.12.3.2 Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The project site is not delineated in the General Plan or other land use plan as a locally important mineral resource recovery site. For this reason, the Project would not result in the loss of availability of locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. **(No Impact)**

4.12.4 Project Design Measures

No Project Design Measures are necessary.

4.12.5 Government Agencies

No governmental agencies with regulatory authority over mineral resources are affected by the project.

4.13 NOISE AND VIBRATION

The following discussion is based, in part, on a Noise and Vibration Report prepared by Ramboll in February, 2024, which is included as Appendix G to this application.

4.13.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Noise and Vibration				
Would the project:				
1) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
2) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
3) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

4.13.2 Environmental Setting

4.13.2.1 Introduction

Noise

Noise is sometimes defined as unwanted sound, and the terms noise and sound are used more or less synonymously in this exhibit. The human ear responds to a very wide range of sound intensities. The decibel scale (dB) used to describe sound is a logarithmic rating system which accounts for the large differences in audible sound intensities. Using this scale, changes in noise levels are perceived as follows: 3 dBA as barely perceptible, 5 dBA as readily perceptible, and 10 dBA as a doubling or halving of noise. Therefore, a 70-dB sound level will sound about twice as loud as a 60-dB sound level. People generally cannot detect differences of 1 to 2 dB in a complex acoustical environment.

On the logarithmic scale used to measure noise, a doubling of sound-generating activity (i.e., a doubling of the sound energy) causes a 3-dB increase in average sound produced by that source, not a doubling of the loudness of the sound (which requires a 10-dB

increase). For example, if traffic on a road is causing a 60-dB sound level at a nearby location, a doubling of the number of vehicles on this same road would cause the sound level at this same location to increase to 63 dB. Such an increase might not be discernible in a complex acoustical environment.

When addressing the effects of noise on people, it is necessary to consider the frequency response of the human ear, or those frequencies that people hear the best. Sound measuring instruments are therefore often designed to "weight" sounds based on the way people hear. The frequency weighting most often used to evaluate environmental noise is A weighting because it best reflects how humans perceive sound. Measurements from instruments using this system, and associated noise levels, are reported in "A weighted decibels," or dBA.

For any noise source, several factors affect the efficiency of sound transmission traveling from the source, which in turn affects the potential noise impact at off-site locations. Important factors include distance from the source, frequency of the sound, absorbency and roughness of the intervening ground (or water) surface, the presence or absence of obstructions and their absorbency or reflectivity, and the duration of the sound. Table 4.13-1 presents typical sound levels of some familiar noise sources and activities. (Caltrans, 2013).

Table 4.13-1 – Typical Sound Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Larger business office
Quiet urban daytime	50	Dishwasher in next room
Quiet urban nighttime	40	Theater, larger conference room (background)
Quiet suburban nighttime		
	30	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20	
		Broadcast/recording studio
	10	
	0	

Source: California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, p. 2-20, September 2013.

Although a measured A-weighted noise level will adequately indicate the level of environmental noise at any instant in time, community noise levels typically vary continuously. Several noise descriptors have been developed to characterize community noise by accounting for the total acoustical energy content of the noise over defined periods of time. The noise descriptors used in this evaluation that consider noise levels over time are the Equivalent Sound Level (Leq), the Community Noise Equivalent Level (CNEL), and the Day-Night Sound Level (Ldn). These metrics are described below.

The Leq is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. That is, an Leq is a single number representing the level of a constant sound containing the same amount of sound energy as the varying sound levels over a specific period. Thus, the Leq is the

"energy average" noise level for the measurement time interval. The Leq can be measured for any time period but is typically measured for one hour. It is the energy sum of all the events and background noise levels that occur during that time period.

The CNEL is the predominant noise descriptor in use in California for land use compatibility assessments and represents a time-weighted 24-hour average noise level based on hourly Leqs measured (or calculated) in A-weighted decibels. Time-weighted refers to the fact that the CNEL adds a 5-dBA penalty to noise occurring during evening hours from 7 PM to 10 PM, and a 10-dBA penalty to sounds occurring between the hours of 10 PM to 7 AM, to account for the increased sensitivity to noise events that occur during the late evening and nighttime periods.

The Ldn is similar to the CNEL but does not include the 5-dBA penalty to the evening hours between 7 PM and 10 PM. The Ldn is widely used in the US to compensate for the increased undesirability of noise during sleep periods.

Groundborne Vibration Fundamentals

Equipment that strikes the ground or uses vibration to compact soil produces vibrational waves, called groundborne vibration, that radiate along the surface of the earth and downward into the earth, potentially resulting in effects that range from annoyance to structural damage. As vibrations travel outward from the source, they excite the particles of rock and soil through which they pass and cause them to oscillate by a few ten-thousandths to a few thousandths of an inch. Differences in subsurface geologic conditions and distance from the source of vibration will result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes will decrease with increasing distance. The maximum rate or velocity of particle movement is the commonly accepted descriptor of the vibration “strength.” This is referred to as the peak particle velocity (ppv) and is typically measured in inches per second.

Vibration energy spreads out as it travels through the ground, causing the vibration level to diminish with distance away from the source. High frequency vibrations reduce much more rapidly than low frequencies, so that low frequencies tend to dominate the spectrum at distances from the source. Discontinuities in the soil strata can also cause diffractions or channeling effects that affect the propagation of vibration over long distances. When vibration encounters a building, a ground-to-foundation coupling loss will usually reduce the overall vibration level, however, under certain circumstances, the ground-to-foundation coupling may also amplify the vibration level due to structural resonances of the floors and walls.

Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who

are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants and vibration-sensitive land uses.

4.13.2.2 Regulatory Framework

State and Local

California Department of Transportation (Caltrans)

The California Department of Transportation (Caltrans) has published several documents characterizing assessment procedures and impact criteria related to traffic noise and groundborne vibration. Caltrans published the "*Technical Noise Supplement*" in 2013, which describes the measurement, modelling, and noise impact assessment procedures for evaluating noise from traffic. The document states the following, "Changes in noise levels are perceived as follows: 3 dBA as barely perceptible, 5 dBA as readily perceptible, and 10 dBA as a doubling or halving of noise."

Caltrans has also provided guidance on the evaluation and impact criteria related to groundborne vibration, as documented in the "*Transportation and Construction Vibration Guidance Manual*"[54]. The manual provides guidelines to assess the potential for annoyance and potential damage to structures, see Table 4.13-2.

54 California Department of Transportation (Caltrans). 2020. Transportation and Construction Vibration Manual. Available online at: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf

Table 4.13-2 Reaction of People and Damage to Buildings, PPV (in/sec)

Vibration Level Peak Particle Velocity PPV (in/sec)	Human Reaction	Effect on Buildings
0.006-0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08 in/sec	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10 in/sec	Level at which continuous vibration begins to annoy people	Virtually no risk of "architectural" (i.e., not structural) damage to normal buildings
0.20 in/sec	Vibrations annoying to people in buildings	Threshold at which there is a risk to "architectural" damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6 in/sec	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic but would cause "architectural" damage and possibly minor structural damage. At 0.5 PPV possible cosmetic structural damage to buildings built of reinforced concrete, steel or timber.

City of Pittsburg General Plan Update 2040 Draft

13-P-1.1: Areas within Pittsburg exposed to existing or projected exterior noise levels from mobile noise sources exceeding the performance standards in Table 13-1 shall be designated as noise-impacted areas.

Table 13-1: Maximum Allowable Noise Exposure from Mobile Noise Sources

Land Use or Project Type[1]	Outdoor Activity Areas[2,3]	Interior Spaces	
		Ldn/CNEL, dBA	Leq, dBA4
Residential	60	45	-
Motels/Hotels	65	45	-
Mixed-Use	65	45	
Hospitals, Nursing Homes	60	45	-
Theaters, Auditoriums	-	-	35
Churches	60	-	40
Office Buildings	65	-	45
Schools, Libraries, Museums	70	-	45
Playgrounds, Neighborhood Parks	70	-	-
Industrial	75	-	45
Golf Courses, Water Recreation	70	-	-

[1]Where a proposed use is not specifically listed, the use shall comply with the standards for the most similar use as determined by the City.

[2]Outdoor activity areas for residential development are considered to be the back yard patios or decks of single family units and the common areas where people generally congregate for multi-family developments. Where common outdoor activity areas for multi-family developments comply with the outdoor noise level standard, the standard will not be applied at patios or decks of individual units provided noise-reducing measures are incorporated (e.g., orientation of patio/deck, screening of patio with masonry or other noise-attenuating material). Outdoor activity areas for non-residential developments are the common areas where people generally congregate, including pedestrian plazas, seating areas, and outside lunch facilities; not all residential developments include outdoor activity areas.

[3]In areas where it is not possible to reduce exterior noise levels to achieve the outdoor activity area standard using a practical application of the best noise-reduction technology, an increase of up to 10 Ldn over the standard will be allowed provided that available exterior noise reduction measures have been implemented and interior noise levels are in compliance with this table.

[4]Determined for a typical worst-case hour during periods of use.

13-P-1.2: Require development projects, including new uses, to meet the noise standards established in Table 13-1.

13-P-1.3: Require that applicants for noise-sensitive development, such as schools, residences, and hospitals, in areas subject to noise generators producing noise levels greater than 65 dB CNEL, obtain the services of a professional acoustical engineer to provide a technical analysis of noise impacts and measures to reduce noise exposure to acceptable levels.

13-P-1.4: Ensure that new noise-sensitive uses in areas near roadways identified as producing noise levels greater than 65 dB CNEL (see Figure 13-1) incorporate noise reduction measures to ensure that interior noise levels do not exceed 45 dB CNEL.

City of Pittsburg Municipal Code

There are two sections of the Pittsburg Municipal Code (PMC) relevant to Project noise. Chapter 9.44 includes the City's noise ordinance, while Chapter 18.82 includes the City's performance standards. Chapter 9.44 does not contain any quantitative sound level limits. Instead, it includes a list of prohibitions, including the following:

- The discharge of exhaust of stationary internal combustion engines (e.g., generators) except through a muffler or other noise control device
- The operation of pile drivers, steam shovels, pneumatic hammers, derricks, and steam or electric hoists between the hours of 10:00 p.m. and 7:00 a.m. except in the case of emergency
- The operation of any noise-producing blower, power fan, or engine unless noise from the source is sufficiently controlled.

Paragraph 18.82.040 requires compliance with Chapter 9.44 and prohibits construction noise on sites adjoining residential properties that exceed 65 dBA measured at the property line, except between the hours of 8:00 a.m. and 5:00 p.m. The PMC does not have any other quantitative sound level limits.

4.13.2.3 Existing Conditions

To quantify the existing ambient sound environment for the purpose of assessing potential impacts from construction and operational noise, Ramboll conducted an ambient sound level continuous 48-hour survey at two locations shown on Figure 3-2 of the Noise Report in Appendix G between November 1 through November 3, 2023.

The measured sound levels were DNL 56 dBA at L-1 and DNL 54 dBA at L-2, both of which would be considered “normally acceptable” for residential areas, based on the compatibility guidelines of the City of Pittsburg and Contra Costa County. The primary source of sound was local road traffic, with birds, distant trains, and general neighborhood activity also contributing to the sound environment. The most active local road was West Leland Road.

4.13.3 Environmental Impact Discussion

For purposes of analyzing potential Noise impacts, it is necessary to separate the discussion of potential impacts of the PBGF and the PDH because they represent two distinct sources of sound generation. .

4.13.3.1 Thresholds of Significance

Construction

The City of Pittsburg Municipal Code prohibits construction noise in excess of 65 dBA at residential properties outside of the hours of 8:00 a.m. and 5:00 p.m. However, it does not provide sound levels limits for construction activities between the hours of 8:00 a.m. and 5:00 p.m. Federal Transit Authority (FTA) guidelines recommend a daytime criterion of an 8-hour L_{AEQ} of 80 dBA during the day, which this analysis adopts as a threshold for daytime construction noise.

Operations

The City of Pittsburg General Plan 2040 Draft includes land use compatibility guidelines for environmental noise. “Normally Acceptable” sound levels at single-family residences and parks are DNL 60 dBA and DNL 70 dBA, respectively, which this project adopts as thresholds. The City of Pittsburg Municipal code does not include any quantitative limits

relevant to operational noise. However, it does include qualitative requirements regarding noise control for generators and mechanical equipment.

4.13.3.2 Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

Ramboll conducted noise modelling of the various phases of construction activities to predict the potential noise at 9 locations to represent nearby residences (modelled sensitive receptors). Section 5 of Appendix G describes the methodology employed. Figure 5-1, Appendix G shows locations of the modelled residential receptors and Table 4.13-3 below shows that all the results for all phases of construction are below the applicable threshold of significance at each location of a modelled receptor. Any receptor located further from the Project Site than modelled receptors would have a lower noise contribution from construction activities. Therefore, construction of the Project will not result in noise significant impacts to any sensitive receptor. **(Less Than Significant)**

Table 4.13-3 Predicted Construction Noise (8 Hour L_{AEQ})

Receiver	Location	Sound Level by Phase					Significance Threshold	Threshold Exceedance during Any Phase?
		Site Preparation	Grading	Building Construction	Paving	Architectural Coating		
R1	Golf Club Rd Residence 1	62	61	60	57	52	80	**No**
R2	Golf Club Rd Residence 2	62	61	59	50	52	80	**No**
R3	Golf Club Ct Residence	62	62	61	53	54	80	**No**
R4	Shadow Ct Residence	59	59	57	54	51	80	**No**
R5	LDS Church	62	58	59	50	53	80	**No**
R6	John Henry Johnson Park	53	53	50	45	40	80	**No**
R7	Rancho Medanos Junior High	55	57	55	44	48	80	**No**
R8	Brookshire Ct Residence	57	57	55	46	46	80	**No**
R9	Orinda Ct Residence	54	54	52	46	36	80	**No**

Operation

The primary sources of operational noise from the Project include the rooftop chillers that provide cooling to data center equipment and the emergency generators. Secondary noise sources include rooftop air handling units, two 50MVA transformers at the substation, and traffic from employees and visitors.

To reduce noise from the chillers, the chillers will utilize both a low-sound fan option and compressor enclosures. The generators will only run during maintenance and testing and during emergencies.

Noise emissions from stationary mechanical and electrical equipment on site predicted to occur during operation of the proposed Project were estimated using the Datakustik Cadna/A noise model software. The model included stationary noise sources for noise from the rooftop chillers and secondary noise sources such as rooftop air handling units and the substation transformers.

All of the equipment excluding the generators, is assumed to run at 100% capacity 24/7, which represents a conservative worst-case scenario.

Operational traffic would consist of 20 to 30 employees and 12 to 15 visitors per day, including deliveries. For the purpose of this analysis, it is assumed that five visitors per day would be delivery trucks. Because the facility would operate 24/7, to be conservative the analysis assumes the same rate of vehicle traffic between day and night.

The results of the noise modeling at each receptor during normal operations and associated thresholds of significance are summarized in Table 4.13-4 below.

Table 4.13-4 Predicted Noise at Receptors from On-Site Equipment during Normal Operation

Receiver	Location	Project Noise (DNL)	Existing Ambient (DNL)	Project Noise + Ambient (DNL)	Significance Threshold (DNL)	Threshold Exceedance?
R1	Golf Club Rd Residence 1	57	56	59	60	**No**
R2	Golf Club Rd Residence 2	57	56	59	60	**No**
R3	Golf Club Ct Residence	56	56	59	60	**No**
R4	Shadow Ct Residence	55	56	58	60	**No**
R5	LDS Church	55	56	59	60	**No**

R6	John Henry Johnson Park	53	56	58	70	**No**
R7	Rancho Medanos Junior High	50	56	57	60	**No**
R8	Brookshire Ct Residence	51	54	56	60	**No**
R9	Orinda Ct Residence	52	54	56	60	**No**

As shown in Table 4.13-4, the predicted noise from the PDH does not exceed the significance threshold at any sensitive receptor and therefore the PDH will not result in significant noise impacts to any sensitive receptor. **(Less Than Significant Impact)**

The project generators would use acoustical enclosures rated to 75 dBA at 23 feet (7 m). The enclosures function as an acoustical enclosure to reduce noise radiated from the engine and includes an exhaust muffler so that the total contribution of noise radiating through the enclosure and out of the exhaust is no greater than 75 dBA measured at 23 feet from the generator. For reference, the highest resulting continuous sound level at a noise-sensitive receptor with all rooftop equipment running (e.g., chillers, rooftop units) and all 37 generators running during an emergency would be 57 dBA. This is an overly conservative estimate as the operation during an emergency is an extremely rare occurrence. During testing and maintenance of the PBGF, the Project Owner will only operate one generator at a time and only for up to 34 hours per generator annually. Therefore, during these activities, operation of the generators for testing and maintenance even with the rooftop equipment running at full load, the resulting noise levels would be lower than 57 dBA well below the City Noise standard of 60 dBA at any sensitive receptor

Therefore, the predicted noise from the PDH, even in combination with the operation of the PBGF, does not exceed the significance threshold at any sensitive receptor and therefore the Project will not result in significant noise impacts to any sensitive receptor. **(Less Than Significant Impact)**

4.13.3.3 Would the project generate excessive groundborne vibration or groundborne noise levels?

Construction Vibration

Groundborne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, detectable at moderate levels, and have the potential to result in building damage at the highest levels.

Vibration from construction equipment and activity was predicted for each piece of equipment to three receptors. Construction vibration to receptors more than 500 feet from the edge of the construction site (R4, R6, R7, R8, R9) were not considered. Groundborne vibration dissipates rapidly over distance and would be minimal at distances greater than 500 feet.

The results of construction vibration calculations for the main site at each receptor and associated thresholds of significance are summarized in the Table 5-4 in appendix G, which show that the vibration does not exceed the vibration significance thresholds.

The paving phase will also include the extension of Golf Club Road and the construction of an emergency access road one tying into West Leland Road northwest of the site. Paving activity will come as close as 50 feet to R1 and 90 feet to R4, resulting in vibration up to 0.07 in/sec PPV and 0.03 in/sec PPV, respectively. While the vibration at the R4 would not exceed any thresholds, vibration at R1 would result in the annoyance threshold being exceeded. However, paving activities within 50 feet of R1 would take place over 3 days at most. Given the temporary nature of the paving activity, this would not be a significant impact. In addition, the construction team would notify the residence when the paving activity is planned to occur.

Vibration impacts from construction would therefore not be significant. **(Less Than Significant Impact)**

4.13.3.4 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The project is not within the vicinity of a private airstrip or an airport land use plan. **(No Impact)**

4.13.4 Project Design Measures

No Project Design Measures are necessary. The noise reduction measures incorporated into the design of the project, will ensure compliance with the City of Pittsburg's requirements and not result in significant noise or vibration related impacts.

4.13.5 Government Agencies

The City of Pittsburg has regulatory authority over noise within its limits and will review and enforce noise-related requirements as part of its permit review and implementation process.

4.14 POPULATION AND HOUSING

4.14.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Population and Housing				
Would the project:				
1) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
2) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.14.2 Environmental Setting

4.14.2.1 Regulatory Framework

State

Housing-Element Law

State requirements mandating that housing be included as an element of each jurisdiction's general plan is known as housing-element law. The Regional Housing Need Allocation (RHNA) is the state-mandated process to identify the total number of housing units (by affordability level) that each jurisdiction must accommodate in its housing element. California housing-element law requires cities to: 1) zone adequate lands to accommodate its RHNA; 2) produce an inventory of sites that can accommodate its share of the RHNA; 3) identify governmental and non-governmental constraints to residential development; 4) develop strategies and a work plan to mitigate or eliminate those constraints; and 5) adopt a housing element and update it on a regular basis. The City of Pittsburg Housing Element was adopted in 2023.

Regional and Local

Plan Bay Area 2040

Plan Bay Area 2040 is a long-range transportation, land-use, and housing plan intended to support a growing economy, provide more housing and transportation choices, and

reduce transportation-related pollution and GHG emissions in the Bay Area.[55] Plan Bay Area 2040 promotes compact, mixed-use residential and commercial neighborhoods near transit, particularly within identified Priority Development Areas (PDAs).[56]

ABAG allocates regional housing needs to each city and county within the nine-county San Francisco Bay Area, based on statewide goals. ABAG also develops forecasts for population, households, and economic activity in the Bay Area. ABAG, MTC, and local jurisdiction planning staff created the Regional Forecast of Jobs, Population, and Housing, which is an integrated land use and transportation plan through the year 2040 (upon which Plan Bay Area 2040 is based).

4.14.2.2 Existing Conditions

The project is proposed in the City of Pittsburg in Contra Costa County. As discussed further below AVAIO estimates that local workers from the greater Bay Area are not likely to temporarily (during construction) or permanently (during operations) move closer to the project. Therefore the City of Pittsburg and neighboring cities comprise the primary study area for population and housing-related impacts.

Population Growth

The Association of Bay Area Governments (ABAG) is the metropolitan planning organization responsible for allocating the number of new housing units that jurisdictions are required to meet to support growing populations within the region. The California Department of Finance uses population and employment projections to determine the housing needs and anticipated population growth at the local and regional level.

As seen below in Table 4.14-1, the current (2019) estimated population in Contra Costa region is 1,155,879 people, a 22 percent increase from 2000. This equates to a 1.9 percent annual change for the region in population size. Within the same time frame, the City of Pittsburg experienced a 26 percent population increase from 2000 to 2019, where the population size increased from 56,820 to 71,422. This equates to three percent annual change in population size for the city. Based on the City of Pittsburg 6th Cycle Housing Plan Background Report, Pittsburg had the third highest percentage change in population when compared to the region.

In the City of Pittsburg, the number of households have increased at a slower rate than the population. Between 1980 and 2000, the number of households increased by 60 percent compared to 72 percent increase in population. Between 2000 and 2019, the

[55] Association of Bay Area Governments. Plan *Bay Area 2040 Final.* July 2017.
[56] Association of Bay Area Governments and Metropolitan Transportation Commission. "Project Mapper." http://projectmapper.planbayarea.org/.

number of households increased by 19 percent compared to 28 percent increase in population. The average household size has slightly increased from 2.97 in 1980 to 3.33 in 2019. When compared to the region, the City of Pittsburg averages a greater number of persons per household.

The City of Pittsburg experienced the greatest growth in households between 1980 and 2000, with a 60 percent change in population, and has since slowed. Compared to the region, Contra Costa experienced a 43 percent increase during the same time period. The following decade (2000 to 2019) slowed in growth of households for both the city and region, where the City of Pittsburg experienced a 20 percent increase in number of households between 2000 and 2019, and the region a 15 percent increase in households during this time.

Table 4.14-1 summarizes the population and household data for Pittsburg and Contra Costa County from 1980 through 2019.

Table 4.14-1: Population and Household Growth

	1980	*1990*	*2000*	*2010*	*2019*	*1980-2000 Change*	*2000-2019 Change*	*Avg. Annual Change*
Pittsburg								
Population	33,034	48,276	56,820	61,723	71,422	72%	26%	3.0%
Households	11,087	15,852	17,741	19,785	21,357	60%	20%	2.4%
Persons per household	2.97	3.02	3.17	3.20	3.33	7%	5%	0.3%
Contra Costa County								
Population	656,380	803,732	948,816	1,049,025	1,155,879	45%	22%	1.9%
Households	241,418	300,288	344,129	375,364	394,769	43%	15%	1.6%
Persons per household	2.69	2.64	2.72	2.77	2.87	1.1%	5.5%	0.2%

Source: Bay Area Census; U.S. Census QuickFacts; California DOF, Report E-5, 2019; Pittsburg General Plan Draft EIR.

Housing

As shown in Table 4.14-2, the number of housing units in Pittsburg has increased at rates lower than the population rate. In 2019, there were 23,126 housing units in the City, equating to a 26 percent increase in housing units between 2000 to 2019. Comparatively, the region experienced a smaller growth in housing units during the same period, totaling a 17 percent growth in housing units.

Table 4.14-2: Housing Units

	1990	*2000*	*2010*	*2019*	*1990-2000 Change*	*2000-2019 Change*	*Average Annual Change*
Pittsburg	16,857	18,300	21,060	23,126	9%	26%	1.2%
Contra Costa County	316,170	354,577	400,263	416,062	12%	17%	1.0%

Source: Bay Area Census; U.S. DOF, Report E-5; Pittsburg General Plan Draft EIR.

The majority of housing units in the City are single family detached buildings, which accounts for 70.0 percent of the housing units. The remaining housing types include single family attached (6.0 percent), multi-family (5.0 percent), multi-family apartments with five or more units (16.0 percent), and mobile homes (3.0 percent).

In Contra Costa County, the majority of housing units are single family detached, which accounts for 81.0 percent of housing units. The remaining housing types include single family attached (9.0 percent), multi-family (2.0 percent), multi-family apartments with five or more units (5.0 percent), and mobile homes (2.0 percent).

The housing type in Contra Costa County are similar to those found in the City, although the amount of single family housing makes up a greater share of the housing stock in the County than in the City. Additionally, the City has a larger share of multifamily housing compared to the County.

Labor Supply

Table 4.14-3 presents the California Employment Development Department 2020-2030 Occupational Employment Projections for the construction and computer design and related services occupations in the region.

Table 4.14-3
PROJECTED EMPLOYMENT GROWTH[57]

Oakland-Hayward-Berkeley Metropolitan Division	Year 2020	Year 2030	Percent Change
Construction Trades Workers	70,700	80,000	13.2
Computer Systems Design and Related Services	22,600	27,300	20.4

4.14.3 Environmental Impact Discussion

For purposes of analyzing potential population and housing impacts, it is not necessary or prudent to separate the potential impacts of the PBGF and the PDH. Therefore, the

[57] Employment Development Department, State of California (CA EDD). Labor Market Information Division, 2020-2030 Occupational Employment Projections, Oakland-Hayward-Berkeley Metropolitan Division

following analysis uses the term “Project” which encompasses both construction and operation of the PBGF, the PDH and all related ancillary facilities.

4.14.3.1 Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Construction

The project would not directly or indirectly induce substantial unplanned growth in City of Pittsburg. The project does not propose new housing, and it would not facilitate growth through the extension of roads, water supply pipelines, or other growth-inducing infrastructure. Therefore, there would be no indirect population growth.

The only construction activities for the PBGF would involve construction of the generation yard, which includes the construction of concrete slabs, stacking structures, fencing, installation of underground and above ground conduit and electrical cabling to interconnect to the PDH switchgear, and placement and securing of the generators. Construction of the generation yard is expected to take six months. Placement of the all the generators will be driven by leasing All of generators could be placed as early as immediately after construction of the generator yard or phased over time in groups as portions of the building are leased and ending when the building is fully leased.. Project construction workforce is estimated to be between 10 and 15 workers.

Construction activities for the PDH include minor demolition, grading, excavation, and construction and would take approximately 18 months. The construction workforce would average 100 workers per month and have an estimated peak of 150 per month.

As shown in Table 4.14-3, there is a sufficient local construction workforce, with an estimated 80,000 construction trades workers projected by 2030 in the project’s employment region that would accommodate the projected labor needs for construction of the project. The peak workforce of 150 workers per month for the PDH would account for 0.2 percent or less of the available projected construction trades workers in the project’s employment region. With a local workforce available to serve the project during the expected construction period, it is not expected that workers would come from outside of the Bay Area. If a few construction workers were to seek temporary lodging closer to the project site, there would be sufficient housing supply according to Table 14.3-2. Therefore, the project’s construction workforce would not directly or indirectly induce substantial population growth in the project area. The impact from project construction would be less than significant. **(Less Than Significant Impact)**

Operations

The PDH is expected to require a total of 20-30 employees, with approximately 10-15 visitors (including deliveries) visiting the PDH daily. The PBGF would not have any dedicated employees. Therefore, approval of the project would not increase jobs to a level that would exceed planned population growth in the City. The City's General Plan 2040 Draft is planning for growth in the project area. With access to a large labor supply in the Bay Area, operation workers are not likely to permanently relocate closer to the project site. However, if some workers were to permanently relocate closer to the project, it is unlikely that few workers would directly or indirectly induce a substantial population growth in the project area. The proposed project would not induce substantial population growth in the City or substantially alter the City's job/housing ratio. Therefore, the Project would result in a less than significant impact. **(Less than Significant Impact)**

4.14.3.2 Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The existing project site does not include residents or housing units and, therefore, the project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. **(No Impact)**

4.14.4 Project Design Measures

No project design measures are necessary to ensure that population and housing impacts are less than significant.

4.14.5 Government Agencies

The only agency with regulatory authority related to growth and housing is the City of Pittsburg. The project is consistent with the Pittsburg soon to be adopted requirements for land use development at the site.

4.15 PUBLIC SERVICES

4.15.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Public Services				
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1) Fire Protection?	☐	☐	☒	☐
2) Police Protection?	☐	☐	☒	☐
3) Schools	☐	☐	☒	☐
4) Parks	☐	☐	☒	☐
5) Other Public Facilities	☐	☐	☐	☒

4.15.2 Environmental Setting

4.15.2.1 Regulatory Framework

State

Government Code Section 66477

The Quimby Act (included within Government Code Section 66477) requires local governments to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees in lieu of parkland dedication to help mitigate the impacts from new residential developments. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two.

Government Code Section 65995 through 65998

California Government Code Section 65996 specifies that an acceptable method of offsetting a project's effect on the adequacy of school facilities is the payment of a school impact fee prior to the issuance of a building permit. Government Code Sections 65995

through 65998 set forth provisions for the payment of school impact fees by new development by “mitigating impacts on school facilities that occur (as a result of the planning, use, or development of real property” (Section 65996[a]). The legislation states that the payment of school impact fees “are hereby deemed to provide full and complete school facilities mitigation” under CEQA (Section 65996[b]).

Developers are required to pay a school impact fee to the school district to offset the increased demands on school facilities caused by the proposed residential development project. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code.

4.15.2.2 Existing Conditions

Fire Service

The Contra Costa County Fire Protection District (CCCFPD) provides fire protection services to the Project area. The CCCFPD boundaries encompass the central and northern portions of Contra Costa County (CCC), extending from the City of Antioch in the east to the eastern border of the City of Richmond in the west, and as far south as the northern border of the City of Moraga. The CCCFPD has a boundary area of approximately 257 square miles. The CCCFPD provides fire suppression (structural, vehicle, and vegetation fires) and prevention, Advanced Life Support (ALS) for medical emergencies, rescue, dispatch, initial hazardous materials response, fire inspection, plan review, and education. The CCCFPD has 25 fire stations and employees 288 professional firefighters across its service area.

The CCCFPD has three fire stations within the Pittsburg City limits (Stations 84, 85, and 87) and one station (Station 86) the Bay Point Area within the SOI. Each fire station is staffed with three personnel 24 hours a day.

Stations are generally staffed by one captain, one engineer, and one firefighter. The CCCFPD employs 11 Battalion chiefs, one Fire Chief, one Deputy Chief, four Assistant Fire Chiefs and one Fire Marshall. The CCCFPD maintains a minimum daily staffing of 82 personnel, and the total number of employees within the CCCFPD, including both sworn and non-sworn employees, is currently 333 individuals. In 2018, the CCCFPD received over 60,000 emergency and non-emergency calls for service. The CCCFPD’s current response time goal for emergency and non-emergency calls is five minutes for 90 percent of all calls received. According to CCCFPD, the average ambulance response time, as of 2018, was 4 minutes and 38 seconds. CCFPD Station 87 is less than a half mile from the Project Site and therefore response times will be significantly less than the average ambulance response time.

Police Service

The Pittsburg Police Department (PPD) is responsible for providing law enforcement services in the City, including patrol, crime prevention, parking and traffic control, community awareness, investigations, and temporary holding facilities. The PPD is located at 65 Civic Avenue. The Department is responsible for community policing, has a Special Weapons and Tactics Team, and conducts Emergency Preparedness training. Similar to other cities, the PPD relies on the Sheriff's Office for search and rescue services and long-term holding facilities, County Animal Control for animal services, and the City of Walnut Creek for bomb squad services. Additionally, PPD contracts with the Sheriff's Office for dispatch services.

Parks, Schools, and Libraries

The nearest public park to the project site is the John Henry Johnson Park located om West Leland Road and approximately 1/10th of a mile northwest of the Project Site boundary.

The nearest public school to the project site is the Rancho Medanos Junior High School is located within approximately 1/3 of a mile north of the project site.

The nearest library to the project site is the Vincent A. Davi Memorial Library and the Pittsburg Branch Library of the Contra Costa County Library system. Known as the Pittsburg Library, it is located at 80 Power Avenue, adjacent to the Civic Center. The library is located approximately 1.3 miles east of the site.

4.15.3 Environmental Impact Discussion

For purposes of analyzing potential Public Service-related impacts, it is not necessary or prudent to separate the potential impacts of the PBGF and the PDH. Therefore, the following analysis uses the term "Project" which encompasses both construction and operation of the PBGF, the PDH and all related ancillary facilities.

4.15.3.1 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services?

The project site is currently served by the CCCFPD. The proposed project may result in an incremental increase in the need for fire services associated with increased building area but would not require the construction of new facilities or stations.

The project would be constructed in conformance with current building and fire codes, and the CCCFPD would review project plans to ensure appropriate safety features are

incorporated to reduce fire hazards. The potential incremental increase in fire protection services would not require new or expanded fire protection facilities, the construction of which could cause significant environmental impact, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services. **(Less than Significant Impact)**

4.15.3.2 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services?

The project site is currently served by the PPD. The Project may result in an incremental increase in the need for police services associated with increased building area and employees but would not require the construction of new facilities or stations.

The PPD would review the final site design, including proposed landscaping, access, and lighting, to ensure that the project provides adequate safety and security measures. The potential incremental increase in police protection services would not require new or expanded police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for police protection services. **(Less than Significant Impact)**

4.15.3.3 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools?

The proposed project would not generate substantial population growth in the project area or result in the use of public facilities in the area by new residents. The Project proposes a data center facility, not a residential use, and would therefore not generate students. The Project, therefore, would not require new or expanded school facilities, the construction of which could cause environmental impacts. **(No Impact)**

4.15.3.4 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?

The proposed project would not generate substantial population growth in the project area or result in the use of public facilities in the area by new residents. Some employees at the project site may visit local parks; however, this use would not create the need for any new facilities or adversely impact the physical condition of existing facilities. **(Less than Significant Impact)**

4.15.3.5 Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities?

The proposed Project would not generate substantial population growth in the project area or result in the use of public facilities in the area by new residents. Some Project employees may visit nearby libraries; however, this would not create the need for any new facilities or adversely impact the physical condition of existing facilities. **(No Impact)**

4.15.4 Project Design Measures

No project design measures are necessary since the project does not adversely affect public services.

4.15.5 Government Agencies

The City of Pittsburg and its divisions have regulatory authority over public services within the project area and will ensure compliance with any of its requirements through its permit review process.

4.16 RECREATION

4.16.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Recreation				
1) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?	☐	☐	☒	☐
2) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

4.16.2 Environmental Setting

4.16.2.1 Regulatory Framework

State

Government Code Section 66477

The Quimby Act (included within Government Code Section 66477) requires local governments to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees in lieu of parkland dedication to help mitigate the impacts from new residential developments. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two.

Local

The City's Parks and Recreation Department manages the maintenance of the City's 30 park facilities. The Community Development Department is responsible for acquisition and development of park facilities. The primary source of funding for park maintenance comes from the Citywide Landscaping and Lighting Assessment District, developer impact fees, and the General Fund. The City currently maintains a neighborhood and community park standard of five acres per 1,000 residents.

The City's 28 parks consist of approximately 149.1 acres of developed park space. With an approximate population of approximately 72,541 persons, the City's parkland totals approximately 2.1 acres of City parkland per 1,000 residents (excluding trails and County facilities). As such, the City does not currently meet the park standard.

Community Parks

Community parks are developed primarily to meet the recreational needs of a large portion of the City. Community parks range in size according to purpose, and often feature one-of-a-kind community facilities or natural resources. For example, Riverview Park offers paths and amenities along the Delta waterfront, while Small World Park features small replicas of a fort, mission, railroad ride, lagoon, riverboat, and a full-scale carousel. Community parks, such as Buchanan Park, may also contain a greater variety of recreational facilities, such as swimming pools, community centers, public rest rooms, bocce ball and horseshoe areas, trails, athletic fields, and pond fishing.

Neighborhood Parks

Neighborhood parks primarily serve a small portion of the city, usually within one-half-mile radius of the park. Neighborhood parks are generally oriented toward the recreational needs of children and youth. For example, Marina Park provides playground equipment, as well as softball, baseball, and soccer fields. All of the City's neighborhood parks are located near collector streets in residential neighborhoods.

Special Use Parks and Trails

In addition to City parks, regional trails provide opportunities for hiking, biking, and jogging along open space corridors throughout the region. The Delta De Anza Regional Trail is a paved multiuse hiking, bicycling and equestrian trail currently spanning over 15 miles of the planned 25-mile length. When completed, the Delta De Anza Regional Trail would generally follow the East Bay Municipal Utility District's corridor and the Contra Costa Water District's canal. The trail also connects the cities of Concord, Bay Point, Pittsburg, Antioch, and Oakley and provides access to Contra Loma Regional Park (and Black Diamond Mines Regional Preserve) through Antioch Community Park. The Black Diamond Mines Regional Preserve offers tours of abandoned coal mining tunnels and many miles of hiking trails. The Delta De Anza Regional Trail and the Black Diamond Mines Regional Preserve are under the jurisdiction of the East Bay Regional Park District.

4.16.3 Environmental Impact Discussion

For purposes of analyzing potential recreation related impacts, it is not necessary or prudent to separate the potential impacts of the PBGF and the PDH. Therefore, the following analysis uses the term "Project" which encompasses both construction and operation of the PBGF, the PDH and all related ancillary facilities.

4.16.3.1 Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?

The proposed Project would not increase employment substantially. Some Project employees may use nearby parks and recreational facilities; however, this would not have an impact on these facilities such that adverse physical effects would result. **(Less than Significant Impact)**

4.16.3.2 Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed project would not include recreational facilities. Some Project employees may use nearby parks and recreational facilities; however, this would not require the construction or expansion of recreational facilities. **(Less than Significant Impact)**

4.16.4 Project Design Measures

No project design measures are necessary to ensure that recreation impacts are less than significant.

4.16.5 Government Agencies

The only agency with regulatory authority related to recreation is the City of Pittsburg. The project is consistent with the City of Pittsburg requirements for land use development at the site.

4.17 TRANSPORTATION

This section is based on the Transportation Impact Assessment prepared by Fehr & Peers dated February 2024 to analyze the project's potential impacts to traffic and contained in Appendix H.

4.17.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Transportation				
Would the project:				
1) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
2) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b) regarding vehicle miles travelled?	☐	☐	☒	☐
3) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
4) Result in inadequate emergency access?	☐	☐	☐	☒

4.17.2 Environmental Setting

4.17.2.1 Regulatory Framework

State and Local

In 2018, the California state legislature, in approving SB 743, directed the Office of Planning and Research to develop guidelines for assessing transportation impacts based on VMT. In response to SB 743, CEQA guidelines were significantly amended regarding the methods by which lead agencies are to evaluate a project's transportation impacts.

4.17.2.2 Existing Conditions

The Project is located at 2232 Gold Club Road in Pittsburg, California. The site is an abandoned golf course with no established roadways through the site. The project site is surrounded by existing residential, and open space uses. Currently vacant, the site was formerly occupied by the Delta View Golf Course. Pittsburg is in eastern Contra Costa County, adjacent to the cities of Bay Point, Antioch, and Concord located west, southeast, and southwest respectively.

Regional access to the site is provided by State Route 4, Bailey Road, and Railroad Avenue; West Leland Road and Range Road/Golf Club Road provide local access. The following roadways would provide access to the site and are most likely to experience direct traffic effects, if any, from the proposed project:

Bailey Road is designated as a Route of Regional Significance in CCTA's *East County Action Plan for Routes of Regional Significance.* It is designated as a major arterial with two travel lanes in each direction and left turning median lanes north of West Leland Road. South of West Leland Road the facility narrows to one lane in each direction. The posted speed limit is 30 mph in the study area. Bailey Road is a designated truck route and approximately three percent of daily traffic is trucks. The roadway carries roughly 2,100 vehicles in the peak hour of travel and 21,000 vehicles per day.

Railroad Avenue is designated as a Route of Regional Significance in CCTA's *East County Action Plan for Routes of Regional Significance.* It is a north-south major arterial with two travel lanes in each direction and left turning median lanes. The posted speed limit is 35 mph. Railroad Avenue is a designated truck route and approximately four percent of daily traffic is trucks. The roadway carries roughly 2,300 vehicles in the peak hour of travel and 23,000 vehicles per day.

State Route 4 (SR-4) is designated as a Route of Regional Significance in CCTA's *East County Action Plan for Routes of Regional Significance*. It is an east-west freeway that extends from Hercules in the west to Stockton and beyond in the east. The facility is an eight-lane freeway within the study area, with interchanges at Railroad Avenue and Bailey Road. Intersection ramp terminals are signalized and operated by the California Department of Transportation (Caltrans). State Route 4 currently serves approximately 159,000 daily vehicles with 11,400 vehicles using the facility during the peak hour (measured at the Railroad Avenue interchange). Approximately 4.6 percent of daily traffic on SR 4 is trucks.

West Leland Road is designated as a Route of Regional Significance in CCTA's *East County Action Plan for Routes of Regional Significance.* It is an east-west major arterial with two travel lanes in each direction and a center left turn lane. Sidewalks with no buffers and Class II bicycle lanes are provided on both sides of West Leland Road. The posted speed limit is generally 40 mph. However, Rancho Medanos Junior High School is located just north of the project site and the posted speed limit on West Leland Road east of the Golf Club Road/West Leland Road intersection is 25 mph when children are present. West Leland Road serves residential communities and commercial and industrial businesses located in the area. West Leland Road is a designated truck route and approximately two percent of daily traffic is trucks. The roadway carries roughly 1,800 vehicles in the peak hour of travel and 18,000 vehicles per day.

Golf Club Road/Range Road is a north-south local road with two travel lanes in each direction north of West Leland Road and one lane in each direction to the south. Golf Club Road transitions into Range Road north of West Leland. The posted speed limit is 25 mph

on Golf Club Road and 35 mph on Range Road. Rancho Medanos Junior High School is located east of Range Road (north of West Leland Road), and the posted speed limit is 25 mph when children are present. Sidewalks with no buffers are provided on both sides of the road and Class II bicycle lanes are provided along Range Road. Golf Club Road/Range Road primarily serves residential communities. Range Road north of West Leland Road carries approximately 4,000 vehicles per day and 400 vehicles in the peak hour of travel.

Pedestrian facilities in the study area include sidewalks, crosswalks, pedestrian signals, and multi-use trails. Five to eight-foot sidewalks are provided along both sides of West Leland Road and Golf Club Road. Crosswalks are provided at signalized intersections. Pedestrian push-button actuated signals are provided at signalized intersections in the study area.

Within the project's vicinity, there are currently Class II bicycle facilities along West Leland Road and Range Road. The City of Pittsburg's Active Transportation Plan (*Pittsburg Moves*, December 2020) calls for the installation of a Class I bicycle facility along the Contra Costa Canal in the study area. See Figure 3.1 of Appendix H.

Bay Area Rapid Transit (BART) provides fixed rail transit in eastern Contra Costa County. The Antioch-SFO/Millbrae line provides access to two stations located in Pittsburg. The Pittsburg/Bay Point station is approximately two miles west of the project site. The Pittsburg Center station is approximately one and one-half miles northeast of the project site.

Similar to other data centers sites, the PDH will be operational 24 hours, 7-days a week. On a typical weekday, approximately 20 to 30 employees and 12-15 visitors would be expected to visit the site based on use patterns at other similar facilities.

4.17.3 Environmental Impact Discussion

For purposes of analyzing potential transportation related impacts, it is not necessary or prudent to separate the potential impacts of the PBGF and the PDH. Therefore, the following analysis uses the term "Project" which encompasses both construction and operation of the PBGF, the PDH and all related ancillary facilities.

4.17.3.1 Thresholds of Significance

As discussed above, in response to SB 743, the Office of Planning and Research has updated the California Environmental Quality Act guidelines to include new transportation-related evaluation metrics, specifically VMT. In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package along with an updated Technical Advisory related to Evaluating Transportation Impacts in CEQA (December 2018). Full compliance with the guidelines is now required,

and vehicle-delay based level of service calculations cannot be used to evaluate the environmental impacts of projects on the transportation system.

The City of Pittsburg's *Draft Traffic Impact Analysis Guidelines* (May 2023) outline guidelines, thresholds, and criteria for the assessment of project VMT impacts. The methods and thresholds of the city follow the guidance and recommendations of OPR pertaining to the implementation of SB 743, as described below:

- Residential Projects should use the home-based VMT per capita metric to evaluate their project generated VMT. The project generated home-based VMT per resident constitutes a significant impact if it is higher than 85% of the home-based VMT per resident of the existing county-wide average.
- Employment-Generating Projects should use the home-work VMT per worker metric for their project generated VMT estimates. The project generated home-work WMT per worker constitutes a significant impact if it is higher than 85% of the home-work VMT per worker of the existing countywide average.

The City's guidelines define the following criteria that can be used to screen projects out of conducting project-level VMT analysis:

- CEQA exemption – Any project exempt from CEQA is not required to conduct a VMT analysis.
- Small projects – Small projects generate or attract fewer than 110 trips per day. Based on research for small project triggers, this may equate to non-residential projects of 10,000 square feet or less and single-family residential projects of 10 units or less, or otherwise generating less than 836 VMT per day.
- Small scale, local-serving retail – Local-serving retail projects are defined as projects of less than 50,000 square feet in size on the basis that they attract trips that would otherwise travel longer distances. Local-serving retail generally improves the convenience of shopping and other activities close to home and has the effect of reducing vehicle travel.
- Small and active transportation projects – Screened transportation projects are transit projects, bicycle and pedestrian projects, and roadway projects that do not result in an increase in vehicle capacity.
- Public services – Police stations, fire stations, public utilities, and parks do not generally generate VMT. Instead, these land uses are often built in response to development from other land uses (e.g., office and residential). Therefore, these land uses can be presumed to have less-than-significant impacts on VMT. However, this presumption would not apply if the project is sited in a location that would require employees or visitors to travel substantial distances and the project is not located within one half-mile of a major transit stop or does not meet the small project screening criterion.

- Projects located in transit priority areas (TPAs) – Projects located within a TPA can be presumed to have a less-than-significant impact absent substantial evidence to the contrary.
- Projects located in low VMT areas – Residential and employment-generating projects located within a low VMT-generating area can be presumed to have a less-than-significant impact absent substantial evidence to the contrary. A Low VMT area is defined as follows:
    - For residential projects: TAZs (Traffic Analysis Zones within the CCTA regional travel demand model) that have baseline home-based VMT per capita that is 85% or less of the existing countywide average.
    - For employment-generating projects: TAZs that have baseline home-work VMT per worker that is 85% or less of the existing countywide average.

Additional CEQA Thresholds

The following thresholds of significance were developed based on City of Pittsburg and East Contra Costa County Action Plan policies, as well as the CEQA Checklist criteria.

Would the project:

A. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including roadway, transit, bicycle, and pedestrian facilities?

Transit System – The project would create a significant impact related to transit service if the following criteria is met:

1. The project interferes with existing transit facilities or precludes the construction of planned transit facilities.

Bicycle System – The project would create a significant impact related to the bicycle system if any of the following criteria are met:

1. Disrupt existing bicycle facilities; or
2. Interfere with planned bicycle facilities; or
3. Create inconsistencies with adopted bicycle system plans, guidelines, policies, or standards.

Pedestrian System – The project would create a significant impact related to the pedestrian system if any of the following criteria are met:

1. Disrupt existing pedestrian facilities; or
2. Interfere with planned pedestrian facilities; or
3. Create inconsistencies with adopted pedestrian system plans, guidelines, policies, or standards.

B. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?[58]

C. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

D. Result in inadequate emergency access?

4.17.3.2 Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

A review of the detailed project site plan was conducted as part of the traffic memo to identify any issues related to access, internal circulation, pedestrian crossings, and truck circulation. Vehicles may access the site from Golf Club Road extension and only emergency vehicles could access the site from West Leland Road. For pedestrian traffic, the site will be accessible via the Golf Club Road extension along with city standard sidewalks along both sides of the roadway.

Bicyclists may only access the site through Golf Club Road extension. There are no existing or planned bicycle facilities along Golf Club Road. The project proposes no features that would be hazardous to bicycle travel and does not conflict with any bicycle facilities plans or programs.

The project proposes no features which conflict with existing or planned transit services. The project is not expected to result in increases in ridership on local or regional transit facilities that would exceed their capacity.

Transit, roadway, bicycle, and pedestrian facilities are not expected to change and therefore will not be impacted due to the project. For all these reasons, the project will not cause transportation-related impacts **(No Impact)**.

4.17.3.3 Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b) regarding vehicle miles travelled?

Construction Traffic

While CEQA does not require a VMT analysis to determine impacts, it does require a description of the potential construction traffic and a qualitative discussion. A description of the anticipated construction traffic and a qualitative discussion is provided below.

Project construction is anticipated to last 13 to 18 months and would occur in five phases. Phase 1 includes site preparation and clearing with approximately 18 worker trips occurring per day and 147 hauling trips per day (one-way trips). Phase 2 would begin

[58] This section of the CEQA Guidelines relates to the evaluation of vehicle miles of travel (VMT).

following completion of Phase 1 and include grading work, with 20 worker trips occurring per day and 105 hauling trips per day. Phase 3 would include building construction, with 198 worker trips occurring per day and 79 vendor trips per day. Phase 4 would include the paving work, with 15 worker trips occurring per day. Phase 5 would include architectural coating and finishes, with 40 worker trips occurring per day.

Construction worker trip lengths are projected to average 11.7 miles (one-way), with vendor trips averaging 8.4 miles and truck hauling trips averaging 20.0 miles.

All construction laydown and staging are anticipated to be completed within the project site. All construction vehicle access to the site, for both trucks and worker vehicles, would occur via Golf Club Road.

To minimize the potential adverse effects of construction traffic, the Project Owner has incorporated **PDM TRANS-1** into the design of the Project. With the implementation of the measures incorporated into **PDM TRANS-1**, the project will not result in significant transportation impacts during construction **(Less Than Significant Impact)**

Operation Traffic

Trip generation refers to the process of estimating the amount of vehicular traffic a project would add to the surrounding roadway system. Estimates are created for the daily condition and for the peak one-hour period during the morning and evening commute when traffic volumes on the adjacent streets are typically the highest. Project trip generation was estimated using rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition). The amount of traffic that would be generated by the employees and visitors expected to be present on the site was estimated using rates from the manual's Land Use Code 160, Data Center.

Using this data, trip generation estimates were developed for the proposed project and are presented in Table 4.17-1 The project is expected to generate approximately 344 weekday daily vehicle trips, including approximately 40 morning peak hour trips and approximately 33 evening peak hour trips.

Table 4.17-1: Trip Generation Summary

Land Use	ITE Code	Size[1]	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Data Center[2]	160	347.74	344	22	18	40	10	23	33

1. Quantity in 1,000 square feet
2. ITE land use category 160 – Data Center (Adj Streets, 7-9A, 4-6P):
   Daily: T = 0.99(X)
   AM Peak Hour: T = 0.13(X)-5.63; Enter = 55%; Exit = 45%
   PM Peak Hour: T = 0.11(X)-5.65; Enter = 30%; Exit = 70%

Source: *Trip Generation Manual* (11th Edition), ITE, 2017; Fehr & Peers, 2024.

Beyond the trip generation analysis, no level of service assessment has been conducted or warranted due to the findings above and a shift in CEQA analysis requirements to vehicle miles traveled (VMT) metrics that took place in July 2020.

Project generated VMT (daily home based VMT per worker) was calculated using the CCTA's regional travel demand model and compared to the relevant threshold (85 percent of the baseline countywide average). Using the current CCTA travel demand model, VMT calculations were prepared for the following scenarios:

- **Baseline No Project:** VMT was calculated using the year 2023.
- **Baseline Plus Project:** VMT was calculated using the year 2023 CCTA Model with the Project land use added into transportation analysis zone (TAZ) 30038.[59]

Cumulative (2040) No Project and Cumulative (2040) with Project scenarios were also evaluated. The CCTA model was used to assess weekday daily home-based work VMT per employee for each of the analysis scenarios. The CCTA model assigns all predicted trips within, across, or to or from the nine-county San Francisco Bay Area region onto the roadway network and the transit system by mode (single-driver and carpool vehicle, biking, walking, or transit) and transit carrier (bus, rail) for a particular scenario.

A complete description of the assumptions and methodology employed to evaluate potential VMT impacts is discussed in Section 7, Appendix H.

The project's daily home-based work VMT per worker of 13.47 in the baseline year, and 13.81 in the cumulative scenario, are greater than the 12.8 home-work VMT per worker threshold. To reduce the project VMT to 12.8 threshold, the Project Owner has incorporated **PDM TRANS-2** into the design of the Project. Implementation of the TDM measures outlined in **PDM TRANS-2** would ensure the Project does not result in significant transportation impacts and be consistent with CEQA Guidelines § 15064.3, subdivision (b) regarding vehicle miles travelled. **(Less Than Significant Impact)**

4.17.3.4 Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

A review of the detailed project site plan was conducted as part of the traffic memo to identify any issues related to access, internal circulation, pedestrian crossings, and truck circulation. Vehicles may access the site from Golf Club Road extension and only emergency vehicles could access the site from West Leland Road. For pedestrian traffic,

[59] The CCTA Model area is divided into geographic sub-areas called TAZs. TAZs are used in the CCTA Model to connect the land uses to the roadway network. Each TAZ includes land use information for that geographic sub-area within the model. The Project is located in TAZ 30648.

the site will be accessible via the Golf Club Road extension along with city standard sidewalks along both sides of the roadway.

Bicyclists may only access the site through Golf Club Road extension. There are no existing or planned bicycle facilities along Golf Club Road. The project proposes no features that would be hazardous to bicycle travel and does not conflict with any bicycle facilities plans or programs.

The project proposes no features which conflict with existing or planned transit services. The project is not expected to result in increases in ridership on local or regional transit facilities that would exceed their capacity. **(Less Than Significant Impact)**

4.17.3.5 Would the project result in inadequate emergency access?

Several factors determine whether a project has sufficient access for emergency vehicles, including the following:

- Number of access points (both public and emergency access only)
- Width of access points
- Width of internal roadways

The project's primary access point will be from an extension of Golf Club Road. A second emergency vehicle only connection to West Leland Road in the site's northwest corner would provide emergency vehicle access to the site. The internal roadway widths and intersection configurations/sizing have been designed in accordance with City and Contra Costa County Fire District requirements and design standards. As part of the project's final design and permitting process, the Project Owner will seek and obtain approval of the Contra Costa County Fire District. All internal roadways and intersections have been designed to be adequate width to meet Fire District standards and accommodate the design fire vehicle's turning radius. **(No impact)**

4.17.4 Project Design Measures

To ensure that potential adverse traffic related effects are minimized, the Project Owner has incorporated the following PDMs into the design of the Project

PDM TRANS-1: A Construction Traffic Management Plan shall be developed and implemented to minimize impacts to the transportation system. The Construction Traffic Management Plan shall detail the project's construction schedule, vehicle type time-of-day plans, route planning, advanced public notices of partial or full street closures or traffic diversion, and other strategies to reduce potential conflicts during construction. The plan shall include, but not be limited to, the following:

- Identification of the traffic controls and methods proposed during each phase of project construction. Provision of safe and adequate access for vehicles, transit, bicycles, and pedestrians. Traffic controls and methods employed during construction shall be in accordance with City of Pittsburg standards and the requirements of the Manual of Uniform Traffic Control Devices (FHWA, 2009 MUTCD with Revisions 1, 2 and 3, July 2022).
- Provision of notice to relevant emergency services, thereby avoiding interference with adopted emergency plans, emergency vehicle access, or emergency evacuation plans.
- Preservation of emergency vehicle access.
- Identification of approved truck routes in communication with City of Pittsburg.
- Location of staging areas and the location of construction worker parking.
- Identification of the means and locations of the separation (i.e., fencing) of construction areas and adjacent active uses.
- The provision of flaggers at all on-site locations where construction trucks and construction worker vehicles conflict with vehicle, bicycle, transit, or pedestrian traffic.
- Provision of a point of contact for residents to obtain construction information, have questions answered and convey complaints.

PDM TRANS-2: The project shall implement a Transportation Demand Management (TDM) program sufficient to demonstrate that vehicle miles travelled (VMT) associated with the project would be reduced to 12.8 or less per employee. The TDM program shall include the following measure which has been determined to be feasible methods for achieving the required VMT reduction:

B. *Implement Mandatory 4-40 Work Schedule*: The project should implement a mandatory 4 days a week 10 hours a day work schedule for all employees. Implementation of this measure would reduce the number of trips made to the site on a daily and weekly basis by employees.

In addition to Measure A above the TDM program shall include, but is not limited to one, or more of the following measures, which have been determined to be feasible methods for achieving the required VMT reduction.

C. *Implement Commute Trip Reduction Marketing*: The project should provide information sharing and marketing to promote and educate employees about their travel choices to the employment location beyond driving such as carpooling, riding transit, walking, and biking.

D. *Provide New Hire Packets on Transportation Options*: The project should provide standardized materials, including information on transit routes and schedules, bike pathways, available commuter facilities, and any other available commuter programs, during the orientation process for new hires.

E. *Provide Ridesharing Program*: The project should implement a ridesharing program. Ridesharing encourages carpooled vehicle trips and reduces single-occupancy vehicle trips. The building tenant should offer priority parking for rideshare participants and offer flexible work schedules to ride share participants, if feasible. The tenant should also provide subsidies for shared trips provided by a transportation network company (TNC).

F. *Implement Subsidized or Discounted Transit Program – Work Trips Only*: The project should implement a subsidized or discounted transit program. A pre-tax commuter benefit can reduce the out-of-pocket cost for choosing transit, which improves the competitiveness of transit against driving, increasing the total number of transit trips and decreasing vehicle trips. Note that employee benefits for the building tenant may be subject to union contract negotiations.

G. *Provide End-of-Trip Bicycle Facilities*: The project should install and maintain end-of-trip facilities. End-of-trip bicycle facilities can include amenities like secure, monitored bike parking, showers, personal lockers, and basic bicycle maintenance equipment. In addition, the project shall monitor the use of short-term and long-term bicycle parking and provide additional bicycle parking, if necessary. Adequate bicycle facilities encourage commuting by bicycle instead of vehicle.

Prior to the issuance of an occupancy permit, the TDM program shall be submitted and approved by the City of Pittsburg and shall be monitored annually to gauge its effectiveness in meeting the required VMT reduction. The TDM program shall establish an appropriate estimate of initial vehicle trips generated by the occupant of the proposed project and shall include the conducting of driveway traffic counts annually to measure peak-hour entering and exiting vehicle volumes. The volumes shall be compared to trip thresholds established in the TDM program to determine whether the required reduction in vehicle trips is being met. The results of annual vehicle counts shall be reported in writing to the City of Pittsburg.

If TDM program monitoring results show that the trip reduction targets are not being met, the TDM program shall be updated to identify replacement and/or additional feasible TDM measures to be implemented. The updated TDM program shall be subject to the same approvals and monitoring requirements listed above.

4.17.5 Government Agencies

The City of Pittsburg has regulatory authority over the transportation infrastructure that could be affected by the project and will ensure compliance with any requirements including emergency access requirements by the fire department during its permit review and implementation process.

4.18 UTILITIES AND SERVICE SYSTEMS

4.18.1 CEQA Checklist

ENVIRONMENTAL ISSUES	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Utilities and Service Systems				
Would the project:				
1) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
2) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
3) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
4) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
5) Be noncompliant with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

4.18.2 Environmental Setting

4.18.2.1 Regulatory Framework

Federal

Clean Water Act (CWA) / National Pollutant Discharge Elimination System (NPDES) Permits

The CWA is the cornerstone of water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant

discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water."

The CWA regulates discharges from "non-point source" and traditional "point source" facilities, such as municipal sewage plants and industrial facilities. Section 402 of the Act creates the NPDES regulatory program which makes it illegal to discharge pollutants from a point source to the waters of the United States without a permit. Point sources must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). NPDES permits cover industrial and municipal discharges, discharges from storm sewer systems in larger cities, storm water associated with numerous kinds of industrial activity, runoff from construction sites disturbing more than one acre, mining operations, and animal feedlots and aquaculture facilities above certain thresholds.

Permit requirements for treatment are expressed as end-of-pipe conditions. This set of numbers reflects levels of three key parameters: (1) biochemical oxygen demand (BOD), (2) total suspended solids (TSS), and (3) pH acid/base balance. These levels can be achieved by well-operated sewage plants employing "secondary" treatment. Primary treatment involves screening and settling, while secondary treatment uses biological treatment in the form of "activated sludge."

All so-called "indirect" dischargers are not required to obtain NPDES permits. An indirect discharger is one that sends its wastewater into a city sewer system, so it eventually goes to a sewage treatment plant. Although not regulated under NPDES, "indirect" discharges are covered by another CWA program called pretreatment. "Indirect" dischargers send their wastewater into a city sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering surface water.

Clean Water Act (CWA)

The Clean Water Act (CWA) regulates the water quality of all discharges into waters of the United States including wetlands, perennial and intermittent stream channels. Section 401, Title 33, Section 1341 of the CWA sets forth water quality certification requirements for "any applicant applying for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters."

The California SWRCB and RWQCBs enforce State of California statutes that are equivalent to or more stringent than the Federal statutes. RWQCBs are responsible for establishing water quality standards and objectives that protect the beneficial uses of various waters. The cities of Clayton, Concord, El Cerrito, Hercules, Lafayette, Martinez, Orinda, Pinole, Pittsburg, Pleasant Hill, Richmond, San Pablo, San Ramon, and Walnut Creek, the towns of Danville and Moraga, Contra Costa County, and the Contra Costa

County Flood Control and Water Conservation District (the Contra Costa Permittees) have joined together to form the Contra Costa Clean Water Program. The Contra Costa Permittees are currently subject to National Pollutant Discharge Elimination System (NPDES) Permit No. CAS612008, issued by Order No. R2-2009-0074 on October 14, 2009, which pertains to stormwater runoff discharge from storm drains and watercourses within their jurisdictions.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. After several amendments, the current Act governs the management of solid and hazardous waste and underground storage tanks (USTs). RCRA was an amendment to the Solid Waste Disposal Act of 1965. RCRA has been amended several times, most significantly by the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA is a combination of the first solid waste statutes and all subsequent amendments. RCRA authorizes the Environmental Protection Agency (EPA) to regulate waste management activities. RCRA authorizes states to develop and enforce their own waste management programs, in lieu of the Federal program, if a state's waste management program is substantially equivalent to, consistent with, and no less stringent than the Federal program.

State

California Department of Health Services

The Department of Health Services, Division of Drinking Water and Environmental Management, oversees the Drinking Water Program. The Drinking Water Program regulates public water systems and certifies drinking water treatment and distribution operators. It provides support for small water systems and for improving their technical, managerial, and financial capacity. It provides subsidized funding for water system improvements under the State Revolving Fund (SRF) and Proposition 50 programs. The Drinking Water Program also oversees water recycling projects, permits water treatment devices, supports and promotes water system security, and oversees the Drinking Water Treatment and Research Fund for methyl tertiary butyl ether (MTBE) and other oxygenates.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (Regional Water Boards), collectively known as the California Water Boards (Water Boards), are dedicated to a single vision: abundant clean water for human uses and environmental protection to sustain California's future. Under the federal Clean Water Act (CWA) and the state's pioneering Porter-Cologne Water Quality Control Act, the State and Regional Water Boards have regulatory responsibility for protecting the water quality of nearly 1.6 million acres of lakes, 1.3 million acres of bays and estuaries,

211,000 miles of rivers and streams, and about 1,100 miles of exquisite California coastline.

Consumer Confidence Report Requirements

CCR Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the SWRCB. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminant levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

Urban Water Management Planning Act

The Urban Water Management Planning Act has as its objectives the management of urban water demands and the efficient use of urban water. Under its provisions, every urban water supplier is required to prepare and adopt a UWMP. An “urban water supplier” is a public or private water supplier that provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. The UWMP must identify and quantify the existing and planned sources of water available to the supplier, quantify the projected water use for a period of 20 years, and describe the supplier’s water demand management measures. The urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The California Department of Water Resources must receive a copy of an adopted UWMP.

California Water Code

California’s primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California’s responsibilities under the Federal Clean Water Act. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also

provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

The Water Code Section 13260 requires all dischargers of waste that may affect water quality in waters of the state to prepare and provide a water quality discharge report to the RWQCB. Section 13260a-c is as follows:

(a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:

(1) person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.

(2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region.

(3) A person operating, or proposing to construct, an injection well.

(b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.

(c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

A Water Supply Assessment (WSA) is required pursuant to State Water Code Section 10910 if the project meets certain requirements outlined in Section 10912. A WSA is required for:

- A residential development of more than 500 units;
- A hotel or motel having more than 500 rooms;
- A commercial office building employing 1,000 people or having more than 250,000 sq. feet of floor space;
- An industrial, manufacturing or industrial park planned to house more than 1,000 employees or having more than 650,000 sq. feet of floor space;
- A mixed use project that contains one or more of the criteria above; or
- Any project that has a water demand equal to or greater than the amount of water required by a 500 dwelling unit development.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State is required to adopt policies, plans, and objectives that will protect the State's waters for the use by and enjoyment of Californians. In California, the SWRCB has the authority and responsibility for establishing policy related to the State's water quality. Regional authority is delegated by the SWRCB to a RWQCB. The Porter-Cologne Act authorizes the SWRCB and RWQCB to issue NPDES permits.

Under the RWQCB NPDES permit system, all existing and future municipal and industrial discharges to surface water within the city would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility's discharge.

Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary

The watershed of the Bay-Delta Estuary provides drinking water to two-thirds of the State's population and water for a multitude of other urban uses, and it supplies some of the State's most productive agricultural areas, both inside and outside of the Estuary. The Bay-Delta Estuary itself is one of the largest ecosystems for fish and wildlife habitat and production in the United States.

The Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and actions. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term "water quality standards," as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

State Water Resource Control Board Storm Water Strategy

The Storm Water Strategy is founded on the results of the Storm Water Strategic Initiative, which served to direct the SWRCB's role in storm water resources management. The Storm Water Strategy developed guiding principles to serve as the foundation of the storm water program; identified issues that support or inhibit the program from aligning with the guiding principles; and proposed and prioritized projects that the Water Boards could implement to address those issues. The SWRCB staff created a strategy-based document called the Strategy to Optimize Management of Storm Water (STORMS). STORMS includes a program vision, missions, goals, objectives, projects, timelines, and consideration of the most effective integration of project outcomes into the SWRCB's Storm Water Program.

California Integrated Waste Management Act (AB 939 and SB 1322)

The California Integrated Waste Management Act of 1989 (AB 939 and SB 1322) requires every city and county in the state to prepare a Source Reduction and Recycling Element to its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory state waste diversion goals of 25% by 1995 and 50% by 2000. The purpose of AB 939 and SB 1322 is to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible." The term "integrated waste management" refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. The Act has established a waste management hierarchy, as follows: Source Reduction; Recycling; Composting; Transformation; and Disposal.

SB 1374 (Construction and Demolition Waste Materials Diversion)

Senate Bill 1374 (SB 1374), Construction and Demolition Waste Materials Diversion Requirements, requires that jurisdictions summarize their progress realized in diverting construction and demolition waste from the waste stream in their annual AB 939 reports. SB 1374 required the CIWMB to adopt a model construction and demolition ordinance for voluntary implementation by local jurisdictions.

California Green Building Standards Code (CALGreen)

CALGreen requires the diversion of at least 50 percent of the construction waste generated during most new construction projects (CALGreen Sections 4.408 and 5.408) and some additions and alterations to nonresidential building projects.

CALGreen became mandatory on January 1, 2011. The 2012 Supplement became effective on July 1, 2012, the 2013 CALGreen became effective on January 1, 2014, and the 2016 CALGreen became effective on January 1, 2017.

As of January 1, 2017, in all jurisdictions including those without a construction and debris ordinance requiring the diversion of 65 percent of construction waste, the owners/builder of construction projects within the covered occupancies are required to divert 65 percent

of the construction waste materials generated during the project. Additionally, CALGreen allows a disposal reduction option that can be met when the project's disposal rate is less than 2.0 pounds per square foot for non-residential and high rise residential, or less than 3.4 pounds per square foot for low-rise residential.

Local

City of Pittsburg Urban Water Management Plan (2020)

The purpose of the 2020 UWMP is to ensure efficient use of urban water supplies in the City and promote conservation. The UWMP discusses the availability of water under normal, single dry year, and multiple dry year conditions, projected water use and reclamation and water conservation activities. The UWMP complies with the Urban Water Management Planning Act (California Water Code Section 10610 et seq.).

Contra Costa Water District Urban Water Management Plan

The Contra Costa Water District Urban Water Management Plan (CCWD UWMP) 2020 Update presents information on the District's supply and demand forecasts, conservation programs, water shortage contingency planning, water transfers, and recycled water opportunities to the year 2045. The UWMP also includes a description of the CCWD UWMP adoption, public coordination, and planning coordination activities. The CCWD UWMP summarizes the status of CCWD's water demand management measures (also known as best management practices or BMPs) and includes the new requirements of the Water Conservation Bill of 2009 (SB X7-7), which was passed in 2009 and requires an evaluation of baseline per capita water use and identification of interim and 2020 per capita water use targets to achieve a 20 percent per capita water use reduction by 2020. Completion of a UWMP is required in order for a water supplier to be eligible for DWR administered state grants and loans and drought assistance. It is also a source of information for water supply assessments (SB 610) and Written Verifications of Water Supply (SB 221). The CCWD UWMP meets all requirements of the California Urban Water Management Planning Act.

Bay Area Stormwater Management Agencies Association - Start at the Source: Design Guidance Manual for Stormwater Quality Protection

This document is intended for use in the planning and design phases of residential, commercial, institutional, and industrial development and redevelopment. It recognizes that one of the best opportunities to reduce the generation of urban runoff or "nonpoint source pollution" from development is through planning and design. This document provides Best Management Practices including principles and techniques for basic siting and design considerations, construction phase strategies, and post construction property management practices.

Contra Costa Clean Water Program Stormwater C.3 Guidebook

The 8th Edition of the Contra Costa Clean Water Program Stormwater C.3 Guidebook (2017) helps to ensure that applicable projects comply with the C.3 requirements in the California Regional Water Quality Control Boards' Municipal Regional Permit. The Guidebook provides detailed information about how to prepare a Stormwater Control Plan. In addition, there are two Guidebook Addendums, "Contra Costa Clean Water Program Technical Criteria for Non-LID Facilities" and "Preparing a Stormwater Control Plan for a Small Land Development Project". Provision C.3 compliance must be demonstrated at the time of application for a development project, including rezoning, tentative map, parcel map, conditional use permit, variance, site development review, design review, development agreement, or building permit. All Regulated Projects require a Stormwater Control Plan showing the location and footprint of proposed impervious surfaces and of proposed stormwater facilities, and a description of how runoff will flow from impervious surfaces to the facilities.

City of Pittsburg Clean Water Program

As a member of the Contra Costa Clean Water Program, the City is governed by the City's NPDES permit. The NPDES permit limits and controls the types and amounts of pollutants entering our waterways to keep them safe and clean. The City's program includes:

- Public Outreach and Education
- Oversight of New Developments
- Illicit Discharge Inspection and Response
- Trash Load Reduction
- Heavy metals and Legacy Pollutant Controls
- Street Sweeping
- Storm Drainage Cleaning and Maintenance
- Creek Clean Up and Protection.

4.18.2.2 Existing Conditions

Water Service

Potable Water

The City's potable water supply is comprised of two sources, both of which are treated at the Water Treatment Plant (WTP). These sources include surface water deliveries supplied by the Contra Costa Water District (CCWD), which makes up the vast majority of the City's supply, as well as groundwater supplies provided from two groundwater

wells. The City purchases untreated water from CCWD, treats it in a City-owned treatment plant, and delivers it to customers through the City's distribution pipes. In addition to the water it buys from CCWD, the City is able to pump water from two local wells (Bodega well and Rossmoor well).

The site is served by an existing 6-inch water main on Golf Club Road which is not adequately sized to serve the proposed development. Rather than upsize the existing main in Golf Club Road and interrupt existing residents and the church in the vicinity, the 12-inch water main located within APN 095-150-032 is proposed to be extended directly to the project site for service. Laterals will provide water service for fire and potable water needs at the building.

Recycled Water

Delta Diablo (formerly Delta Diablo Sanitation District) provides wastewater collection and treatment for the Cities of Pittsburg and Antioch, as well as the unincorporated community of Bay Point. The wastewater treatment plant (WWTP) has an average dry weather flow permitted capacity of 19.5 million gallons per day (MGD) and a recycled water facility (RWF) provides over 9,600 AFY of recycled water for industrial and landscape irrigation uses within the recycled water service area.

The City continues to support developing irrigation and industrial recycled water uses where there is available supply and the use is economically feasible. Delta Diablo began recycled water deliveries within the City's service area in the 1990s and the City has continued to add service connections since that time.

There is a municipal 30-inch existing water main on the project site that feeds a private 1 million gallon storage tank located at the site. The existing storage tank includes an air gap and has back-up connection to domestic water to provide reliable service. A recycled water lateral will be extended from the tank to provide irrigation service and cooling.

Wastewater

Sewer services in the Project area are provided by the City and Delta Diablo. The City maintains and owns the local sewage collection system that serves the City's municipal users and the City's wastewater is conveyed to Delta Diablo facilities for treatment. Delta Diablo's service area encompasses Pittsburg, Bay Point, and Antioch.

The City's collection system consists of approximately 174 miles of sewer lines ranging in diameter from 6 to 36 inches, and one sewage lift station. The oldest portions of Pittsburg's sewage collection system were constructed in the early part of this century to serve what is now Downtown.

The Delta Diablo WWTP has an average daily wastewater flow of 12.8 mgd (2022) and the capacity to treat approximately 19.5 mgd. The WWTP has a 2.2 mgd flow equalization

basin, a 12.8 mg emergency retention basin, and a 1.0 mg emergency storage basin. Bay Point's sewer system consists of 43 miles of gravity sewer.

Table 4.18-1 presents historical average flow data from 2007 to 2009 and flow projections through buildout. Future loads were developed based on these projected flows, as well as historical concentrations and peaking factors.

Table 4.18-1: Past and Projected Influent Flows from Treatment Plant

Condition	Influent Flow (MGD)						
	2007-2009	Peaking Factors	2020	2030	2040	2050	Buildout
Average Dry Weather	13.2	0.97	17.1	19.3	21.5	23.7	25.3
Average Annual	13.6	1.00	17.6	19.9	22.1	24.4	26.0
Maximum Month	147	1.09	19.0	21.5	23.9	26.4	28.1
Maximum Day	18.6	1.53	24.1	27.2	30.3	33.4	35.6
Peak Wet Weather	32.5	2.46	35.6	28.7	41.8	44.9	47.1

Source: Delta Diablo Resources Recovery Facility 2022 Master Plan (Table 1-1).

The Delta Diablo has adopted a district Master Plan that includes phased treatment plant expansion to ultimately provide 24.0 mgd (average dry weather flow) capacity in order to accommodate anticipated General Plan buildout for the communities of Pittsburg, Antioch, and unincorporated Bay Point. Delta Diablo updated their Master Plan in 2022.

There is an 8-inch water main on the project site, which received flows from the 8-inch main on Golf Club Road and flows to the north, leaving the project site and continuing north. The project will extend the water main south within Golf Club Road and provide service to the project. A service lateral will connect from the proposed data center structure to sewer main within Golf Club Road. Because of existing grading constraints, a portion of the proposed sewer main extension at the north will be offset from Golf Club Road in an easement to provide for cover and allow gravity service to be maintained, and at south end of Golf Club Road the sewer main will run directly under Golf Club Road.

Storm Drainage

The City's existing drainage system is comprised primarily of channelized creeks fed by surface runoff and underground storm drains. The City maintains the system within incorporated areas.

Storm drains throughout the city are used to collect rainwater and divert it, untreated, into the Delta. The City's storm drains do not connect to the sewer system, and all stormwater

that flows into a storm drain system flows directly into the Delta. As discussed previously, The SFBRWQCB requires all municipalities within Contra Costa County (and the County itself) to develop restrictive surface water control standards for new development projects as part of the municipal regional NPDES Permit. Known as “Provision C.3,” new development or redevelopment projects that disturb one or more acres of land area must contain and treat stormwater runoff from the site.

In the existing condition, stormwater discharges the site at two locations, one storm drain lateral located at the north end of the site, and secondly by overland flow from the low point of the site to the parcel to the east. The existing lateral located at the north end of the site will be reused. Given the extension of Golf Club Road, overland discharge from the site cannot be maintained and will be improved with a culvert undercrossing the proposed roadway to transmit flows to the east and match existing hydrology.

Solid Waste

Pittsburg is served by Mt. Diablo Resource Recovery (MDRR - Pittsburg) formally known as Pittsburg Disposal Service, for solid waste pick-up and disposal services. Republic Services (formally Allied Industries) provides disposal services for some areas in Bay Point.

The Environmental Services Department, in conjunction with MDRR - Pittsburg, coordinates the curbside recycling, and green waste programs. MDRR - Pittsburg provides a container for garbage, recycling and green waste separately.

Keller Canyon Landfill disposes of industrial non-recyclable waste from Pittsburg. The Keller Canyon Landfill has a maximum permitted throughput of 3,500.00 tons per day, and a maximum permitted capacity of 75,018,280 cubic yards with a remaining capacity of 63,408,410 cubic yards.

Keller Canyon Landfill is a Class II facility designed to accept mixed municipal, Construction/demolition, agricultural, sludge (Bio-Solids), and other designated industrial solid waste. Although the total acreage of the site is 1,399 acres, the allotted disposal footprint is 244 acres to allow for a boundary between the facility and surrounding developments. The estimated cease of operation date for this facility is 2050.

Located at 1300 Loveridge Road, the Mt. Diablo Resource Recovery Park accepts and recycles all types of material. The facility also accepts regular household waste, wood, green waste, and construction debris.

The RCTS contains Mt. Diablo Recycling the area’s largest state-of-the-art recycling processing center, with a goal of keeping all recyclable items, including paper, metals, cardboard, yard waste, urban wood waste, construction materials and used oil, out of the landfill so as much material as possible can be recycled and reused. The facility also includes the region’s largest construction and demolition recycling operation, resulting in

thousands of tons of material being kept out of the landfill. The facility serves residential and commercial collection services to the cities of Concord, Pittsburg, Oakley, Rio Vista and unincorporated areas throughout Contra Costa and Solano Counties.

Electricity

PG&E is the electric service provider within the City of Pittsburg. The Project proposes a new PG&E Switching Station and a new Project Substation as described in Section 2.3.3 and 2.3.4.

4.18.3 Environmental Impact Discussion

For purposes of analyzing potential utility related impacts, it is not necessary or prudent to separate the potential impacts of the PBGF and the PDH. Therefore, the following analysis uses the term "Project" which encompasses both construction and operation of the PBGF, the PDH and all related ancillary facilities.

4.18.3.1 Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects

The Project would not require new or expansion of water, wastewater or stormwater drainage facilities. The primary delivery of recycled water for the project would be made through an existing pipeline and storage tank located on the property, which had historically been used for golf course irrigation. Wastewater will be interconnected to an existing pipeline without the need for new or replaced trunk lines. Stormwater drainage improvements will be on-site and discharged in the same locations as existing site conditions. While the facility would require a new electrical interconnection to the adjacent PG&E regional system, the interconnection facilities are described in this SPPE application. As demonstrated in each subsection in this Section 4, these facilities do not result in significant impact. (**Less Than Significant Impact)**

4.18.3.2 Would the project have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Water

Current and Projected Water Demands and Supplies

During prolonged years of drought, City-wide water use patterns are expected to change. Typically, outdoor water use will initially increase as irrigation is used to offset decreased rainfall. These potential water use increases can be offset, in part, by increasing water conservation measures.

The UWMP's water supply assessment considered the following sources of supply:

- Surface Water: The City receives surface water deliveries from CCWD in the form of diversions from the Contra Costa Canal. Historically CCWD has been capable of meeting 100 percent of the City's supply needs. CCWD's 2020 UWMP indicates this could reach as low as 85 percent during the final year of a five-year drought.
- Groundwater: The City currently operates two groundwater wells, which extract and deliver groundwater to be blended and treated at the WWTP. The available supply for these wells is assumed as equal to the historical average pumping.
- Recycled Water: It is assumed the Delta Diablo recycled water supply will be an uninterruptable water source and the water supply and demand assessment assumes no reduction in supply availability.

The demand projections for the various hydrologic water years are summarized in Tables 4.18-2 and 4.18-3, which include the total projected water demands through 2045, estimates for total estimated water supply based on the hydrologic water years, and document the estimated total supply and demand during normal water years.

Table 4.18-2: Normal Year Supply and Demand Comparison (AFY)

	2025	2030	2035	2040	2045
Supply totals	12,691	13,690	14,620	15,484	16,405
Demand totals	11,342	12,341	13,271	14,135	15,056
Difference	**1,349**	**1,349**	**1,349**	**1,349**	**1,349**

Source: City of Pittsburg 2020 Urban Water Management Plan (2021)

Table 4.18-3: Single Dry Year Supply and Demand Comparison (AFY)

	2025	2030	2035	2040	2045
Supply totals	12,691	13,690	14,620	15,484	16,405
Demand totals	11,342	12,341	13,271	14,135	15,056
Difference	**1,349**	**1,349**	**1,349**	**1,349**	**1,349**

Source: City of Pittsburg 2020 Urban Water Management Plan (2021)

As described in Section 2.3.10.1 the Project would use approximately 1.75 acre feet of water over the 18 month construction period. As described in Section 2.3.10.2 the Project would use approximately 0.22 AFY of potable water and approximately 65.47 AFY of recycled water during operations. AVAIO has filed applications with the City of Pittsburg and Delta Diablo to facilitate potable water service and Delta Diablo for the re-use of the recycled water infrastructure for delivery of recycled water for the Project. The City has

explained that it has sufficient capacity to serve the Project. AVAIO has requested a letter from the City demonstrating its ability to serve the Project potable water and from Delta Diablo in relation to recycled water and when received they will be provided under separate cover. It should be noted that the Project does not need a Water Supply Assessment pursuant California Water Code Section 10910 because it does not meet any of the requirements outlined in California Water Code Section 10912.

Therefore the Project would have a sufficient water supply and would result in less than significant water supply related impacts. **(Less Than Significant Impact)**.

4.18.3.3 Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The Delta Diablo WWTP has the capacity to treat approximately 19.5 mgd with a 2.2 mgd flow equalization basin, a 12.8 mg emergency retention basin, and a 1.0 mg emergency storage basin. As described in Section 2.3.10.2 the predicted wastewater flow from the Project would be approximately 10,447 gpd or approximately 0.05 percent of the current Delta Diablo WWTP capacity. Therefore the Project will not result in a significant wastewater related impact. **(Less Than Significant Impact).**

4.18.3.4 Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

On a tons-per-day basis, the Kiefer Canyon Landfill is permitted to accept up to 3,500 tons per day. On a day to day basis, it can be assumed that waste generation is minimal and associated with the on-site office. Based on data from CalRecycle, a generic manufacturing/warehouse facility would generate approximately 1.42 pounds of solid waste per 100 square feet of building area per day.[60] Using this rate, the PBGF would generate approximately 4,938 pounds of waste per day. This is a very conservative estimate and represents approximately 0.07 percent of Kiefer Canyon Landfill's daily throughput. In addition, the City of Pittsburg continues to exceed its waste diversion goal of 50 percent, which would result in an even smaller contribution. The Kiefer Canyon Landfill has remaining capacity of 63,408,410 cubic yards and is expected to continue to operate until at least 2050.

[60] CalRecycle. "Estimated Solid Waste Generation Rates". https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates

Because the project can be served by a landfill with capacity and would not result in a significant increase in solid waste or recyclable materials, the project's impacts related to solid waste would be less than significant. **(Less than Significant Impact)**

4.18.3.5 Would the project be noncompliant with federal, state, and local management and reduction statutes and regulations related to solid waste?

The construction and operation of the project would comply with federal, state, and local regulations related to diversion of materials from disposal and appropriate disposal of solid waste. **(Less than Significant Impact)**

4.18.4 Project Design Measures

No mitigation measures are necessary because the project will not cause adverse effects on existing utilities and service systems.

4.18.5 Government Agencies

The City of Pittsburg has regulatory authority over the utilities and service systems analyzed in this section and will impose requirements as necessary as part of its permit review and implementation process.

4.19 WILDFIRE

4.19.1 CEQA Checklist

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Wildfire				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
1) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
2) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
3) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
4) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

4.19.2 Environmental Setting

The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones.[61]

4.19.3 Environmental Impact Discussion

The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, the project would not result in wildfire impacts. **(No Impact)**

[61] Sources: 1) Figure 3.16-1 and page 3.16-1 Pittsburg General Plan 2040 Draft EIR

SECTION 5.0 ALTERNATIVES

5.1 EVALUATION CRITERIA

The primary goal of the PDH is to be a state-of-the-art data center that provides greater than 99.999 percent reliability (fine nines of reliability). The PDH has been designed to reliably meet the increased demand of digital economy, its customers and its continued growth. The PDH's purpose is to provide its customers with mission critical space to support their servers, including space conditioning and a steady stream of high-quality power supply. Interruptions of power could lead to server damage or corruption of the data and software stored on the servers by AVAIO's clients. The PDH will be supplied electricity by Pittsburg Power Company (PCC) through a Switching Station owned and operated by Pacific Gas & Electric (PG&E) constructed on the PDH site.

To ensure no interruption of electricity service to the servers housed in the PDH building, the servers will be connected to uninterruptible power supply (UPS) systems that store energy and provide near-instantaneous protection from input power interruptions. However, to provide electricity during a prolonged electricity interruption, the UPS systems will require a flexible and reliable backup power generation source to continue supplying steady power to the servers and other equipment. The PBGF provides that backup power generation source.

The PDH's Project Objectives are as follows:

- Develop a state-of-the-art data center large enough to meet projected growth;
- Develop the PDH on land that will be zoned for data center use at a location acceptable to the City of Pittsburg;
- Incorporate the most reliable and flexible form of backup electric generating technology into the PBGF considering the following evaluation criteria.
    - **Reliability**. The selected backup electric generation technology must be extremely reliable in the case of an emergency loss of electricity from the utility.
        - The PBGF must provide an extremely reliable form of energy production in order for the PDH to achieve an overall reliability of equal to or greater than 99.999 percent reliability.
        - The PBGF must provide reliability to the greatest extent feasible during natural disasters including earthquakes.
        - The selected backup electric generation technology must have a proven built-in resilience so if any of the backup unit fails due to external or internal failure, the system will have redundancy to continue to operate without interruption.

        - The PDH must have on-site means to sustain power for 24-hours minimum in failure mode, inclusive of utility outage.
    - **Commercial Availability and Feasibility**. The selected backup electric generation technology must currently be in use and proven as an accepted industry standard for technology sufficient to receive commercial guarantees in a form and amount acceptable to financing entities. It must be operational within a reasonable timeframe where permits and approvals are required.
    - **Technical Feasibility**. The selected backup electric generation technology must utilize systems that are compatible with one another.

As part of the preliminary planning and design of the PDH and the PBGF, AVAIO considered alternatives to the proposed backup generators and use of a smaller capacity system. For completeness purposes, a discussion of the No Project Alternative is also included.

5.2 REDUCED CAPACITY SYSTEM

AVAIO considered a backup generating system with less emergency generators but like the No Project Alternative discussed below, any generating capacity less than the total demand of the data center at maximum occupancy would not allow AVAIO to provide the critical electricity that would be needed during an emergency. It is important to note that in addition to the electricity that is directly consumed by the servers themselves, the largest load of the data center is related to cooling the rooms where the servers are located. In order for the servers to reliably function, they must be kept within temperature tolerance ranges. The industry standard is to design and operate a building that can meet those ranges even during a loss of electricity provided by the existing electrical service provider. Therefore, in order for AVAIO to provide the reliability required by its clients it was necessary to provide a backup generating system that could meet the maximum load of the PDH during full occupancy and include redundancy as described in Section 2.2.3. A reduced capacity system would not fulfill the basic project objectives of the PBGF.

5.3 BACKUP ELECTRIC GENERATION TECHNOLOGY ALTERNATIVES

AVAIO considered using potentially available alternative technologies: gas-fired turbines; flywheels; gas-fired reciprocating internal combustion engines, batteries; fuel cells; and alternative fuels. As discussed below, none of the technologies considered could meet the overall Project Objectives because they were commercially or technically infeasible and/or would not meet the necessary standard of reliability during an emergency.

5.3.1 Flywheels

Flywheel energy storage systems use electric energy input which is stored in the form of kinetic energy. Kinetic energy can be described as “energy of motion,” in this case the motion of a spinning mass, called a rotor. The rotor spins in a nearly frictionless enclosure. When short-term backup power is required because utility power fluctuates or is lost, the inertia allows the rotor to continue spinning and the resulting kinetic energy is converted to electricity.

AVAIO has concluded that flywheel technology would not be a viable option and could not meet the Project Objectives for the following reasons:

- Flywheel technology does not perform within the required reliability levels of AVAIO and is prone to system failure.
- Flywheel technology requires an extensive amount of maintenance to keep each energy storage system functioning.
- Flywheel systems cannot provide sufficient time duration (e.g 24 hours or more) as a backup generation as the fly wheel motion can typically only sustain 10-30sec outages at a time.

5.3.2 Gas-Fired Turbines

AVAIO considered using natural gas-fired turbines instead of diesel generators to supply backup power for the PDH. This technology option was rejected because it would not meet the project objectives. Natural gas turbines have the advantage of better emission of NOx and CO than diesel. However, as an emergency backup choice, it has the following deficiencies:

1) The gas infrastructure is more likely to experience fuel curtailments during natural disasters and other emergency loss of utility power than liquid fuel sources.
2) Onsite storage or delivery of natural gas to address the curtailment issues during an emergency is impossible to support long duration of backup (24 hours or longer time) due to the volume required.
3) The natural gas turbine is better suited for continuous operation instead of standby mode, which makes maintenance challenging.
4) The natural gas turbine needs minimum loads (30%), so additional load banks are required on site resulting in more use of fuel than is necessary and wasting of electricity through the load bank.
5) Typical turbine engines have larger system sizes (4MW-50MW), while the smaller ones such as micro-turbines of 2.5MW will use twice the physical footprint and cost twice as much as the proposed generation technology.

Therefore, natural gas turbines are not considered reliable enough to meet the extremely high reliability requirements of a mission critical data center like the PDH. A fixed fuel source such as a natural gas pipeline introduces another potential point of failure or load curtailment. Taking into account the natural gas outages from maintenance and repair by the utility, interruption due to construction accidents within the system, long-term damage and interruption during an earthquake, or outages caused by problems within the greater distribution system are higher probability occurrences than being able to obtain diesel fuel for longer than 24 hour outages. Therefore, this alternative was rejected as not being able to meet the Project Objectives.

5.3.3 Gas-Fired Reciprocating Engines

AVAIO considered using natural gas-fired reciprocating engines instead of diesel generators to supply emergency backup power for the PDH. This technology option was rejected because it would not meet the Project Objectives. While natural gas engines could achieve start up times sufficient to work with the UPS systems design and there are 2.5MW/3.1MW engines available, they lack sufficient resilience to accept large block transfer of load associated with restart sequences when transferring from utility grid to backup generation. Therefore, natural gas reciprocating engines are not considered technically feasible or reliable enough to meet the industry standard or needs of the PDH. As discussed above, storage of sufficient natural gas on site to maintain emergency backup electricity demands of the PDH during an outage would not be tenable given the volume of natural gas that would be required.

5.3.4 Battery Storage

AVAIO considered using batteries alone as a source of emergency backup power. The primary reason batteries alone were rejected was the limited duration of battery power. Batteries can provide power quickly, which is the reason AVAIO has incorporated them into the overall backup electrical system design through the use of the UPS. As described in Section 2.2.4.2, batteries in the UPS System would be initiated at the first sign of electricity interruption. However, the current state of battery technology does not allow for very long durations of discharge at building loads as high as planned for the PDH. Maximum discharging time is about 5 hours when doubled up from one ISO container to two, which needs more physical space. In addition, Lithium-ion batteries have more restrictive California fire code regulations. Renewable non-Lithium-ion batteries such as ZnMnO2 are not commercially feasible for data centers yet. Once the standalone batteries are completely discharged, the only way they can be recharged without onsite generation is if the utility electrical system is back up and running. Since it is not possible to predict the duration of an electricity outage, batteries are not a viable option for emergency electrical power. Therefore, because battery storage cannot provide the

duration that may be necessary during an emergency, this technology option was rejected as technically and commercially infeasible and unable to allow the PDH to meet its Project Objectives.

The proposed diesel generators provide 24 hours of backup electricity without the need for refueling. In order to provide for the same 24-hour capacity, approximately 10 ISO containers representing approximately 10 times the amount of real estate would be required. The site will not accommodate the amount of batteries necessary.

5.3.5 Fuel Cells – Backup Replacement

AVAIO is very familiar with fuel cell technology as its principals have decades of experience in the power and energy sectors. Fuel cells can provide both primary and off grid power. The fuel cells utilized by Bloom Energy and others are Solid Oxide Fuel Cells (SOFC) that operate in high temperature of 750 Deg C, and they need to stay hot to provide power. As a choice of backup, fuel cells need to run continuously in dual modes, as a primary source, or a standby mode when the grid is off (islanding mode). The fuel cells have additional ultra-capacitors to cope with the 10-20 second load transfer time to match up with diesel generation technology.

The fuel cell has the following technical issues that negatively affect its ability to be utilized as an emergency backup generation option.

1) It needs to run continuously to provide base load electricity to stay hot. This is why large data centers (Equinix, Apple, Yahoo) use Bloom Energy as primary source and maintain their existing emergency diesel generation fleet as backup.
2) Fuel cells require approximately three (3) times more space than the emergency generators proposed for the PBGF and stacking is challenging and difficult and expensive to design to applicable codes.
3) Fuel cells rely on natural gas as feed stock, so the issues with natural gas infrastructure and onsite storage described above also limit reliability.

There are fuel cell technologies (Proton Exchange Membrane) that utilize liquid hydrogen as a fuel. This type of fuel cell is mostly used for mobile sources and can start cold quicker similar to a combustion engine. AVAIO understands that there are pilot programs to scale this type of fuel cell to larger sizes. However, the issues that affect the Project Objectives of this technology include:

1) The technology is not yet commercially available at sizes necessary for a large data center.
2) The footprint is projected to be about twice the size of the proposed emergency generators.
3) Onsite storage of 24 hours of liquid hydrogen will take significant additional space not available at the site.

4) The potential for on-site and offsite impacts of a large release of liquid hydrogen which would be stored at pressure (6000 PSI) at the project site would be likely unacceptable within the City of Pittsburg and liquid hydrogen is not as readily available as renewable or CARB diesel when needed during an emergency.

5.3.6 Fuel Cells – Primary Generation/Grid Backup

AVAIO has evaluated generating primary electricity with fuel cells on-site and relying on the electricity grid for emergency backup electricity. One example of primary power is that [Equinix has partnered with Bloom Energy over the last 5 years to deploy over 45 MW of fuel cell technology at various sites around the country using fuel cells as base load. There are other sites, such as Home Depot where Bloom Energy fuel cells provide primary electricity. However, we are unaware of any data center fuel cell application where fuel cells provide the full electricity needs for the data center without the bulk of the primary power being delivered by a utility.

There are two primary reasons that this solution cannot achieve the Project Objectives. The first is that it is unlikely that PPC would procure and reserve the amount of electricity necessary to power the PDH in perpetuity as a backup source on a moment's notice. The magnitude of electricity for such an event after full buildout of the PDH would render such an option infeasible.

As currently designed, the PBGF will provide an N+1 protection scheme for the PDH. In other words, the primary electricity will be provided by the extremely reliable PG&E electric system and if that system fails, the diesel-fired emergency generators would provide the electricity that the PDH requires. Utilizing fuel cells as the primary generation and relying on the grid as backup in the event or fuel cell failure would also provide an N+1 protection scheme. However, this alternative would provide lower reliability during an earthquake - the design natural disaster for California projects. During an earthquake, it is possible that the natural gas system cannot deliver the fuel to the fuel cells at the same time that the PG&E electrical system is experiencing an outage. In that case, in order to provide the same reliability as the proposed design, emergency backup generators would still be necessary (N+2) to provide electricity to the PDH during the design natural disaster case. Therefore, in order to have the same reliability, the same number and size of emergency backup generators would be required.

Therefore, the use of fuel cells as primary generation would not replace the proposed emergency backup generators in order to meet the Project Objectives.

SECTION 6.0 AGENCY AND CONTACT INFORMATION

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SECTION 7.0 NOTIFICATION LIST

Appendix I provides a list of site addresses including owner's addresses if different from the site address with a 1000 feet radius of the site including a map of the radius provided by City of Pittsburg.

SECTION 8.0 LIST OF PREPARERS

DayZen LLC
Scott A. Galati, President

WSP
Stephanie Whitmore, Vice President, Environmental Planning
Alana Flaherty, Senior Consultant, Environmental Planning

Ramboll US Consulting, Inc.
Emily Weissinger, Senior Managing Consultant

ECORP Consulting, Inc.
Jeremy Adams, California Cultural Resources Manager

Fehr & Peers
Bill Burton, PE, RSP, Principal

Kimley-Horn and Associates
Ryan Bernal, PE

Phase X Engineering
Dan Boresch, PE, Chief Engineer

Redtail Consulting
Anna Buising, Owner/Principal

Vollmar Natural Lands Consulting
Eric Smith, Senior Ecologist

SECTION 9.0 ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ABAG	Association of Bay Area Governments
AFY	Acre-feet per year
AIA	Airport Influence Area
ACM	Asbestos containing material
amsl	above mean sea level
ATCM	Air Toxics Control Measure
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
BASMAA	Bay Area Stormwater Management Agencies Association
bgs	below ground surface
BMPs	Best Management Practices
Btu	British thermal units
CAA	Clean Air Act
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
Cal/OSHA	California Division of Occupational Safety and Health
CARB	California Air Resources Board
CAAQS	California Ambient Air Quality Standards
CBC	California Building Standards Code
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CGS	California Geologic Survey
CH_4	Methane
CHRIS	California Historical Resources Information System
CMP	Congestion Management Program

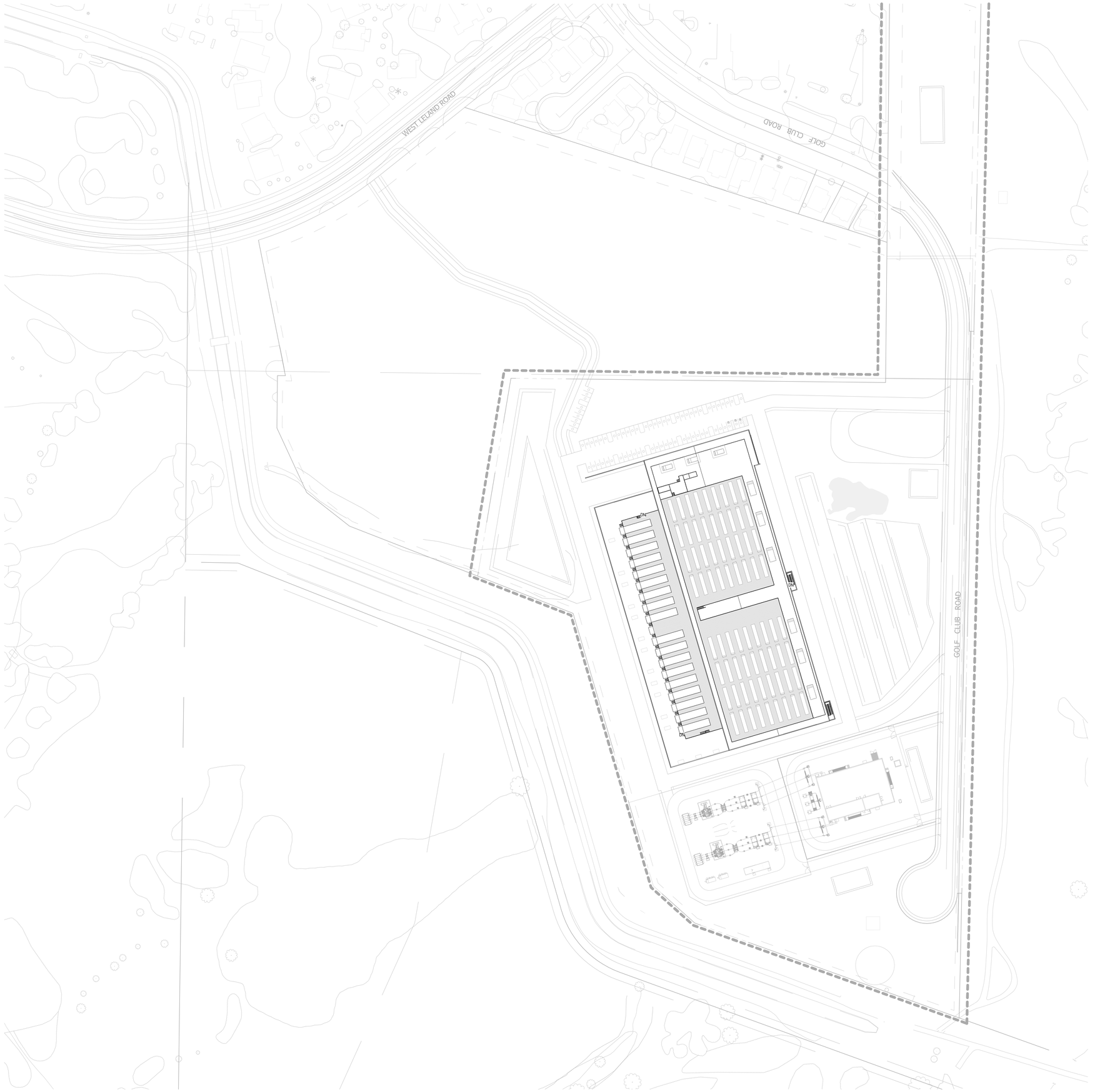
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalents
CNEL	Community Noise Equivalent Level
CUPA	Certified Unified Program Agency
dBA	A-weighted decibels
DNL	Day-Night Average Sound Level
DPF	Diesel particulate filters
DPM	Diesel particulate matter
DTSC	Department of Toxic Substances Control
EJ	Environmental justice
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
FAR	Floor area ratio
FEMA	Federal Emergency Management Agency
FIRMs	Flood Insurance Rate Maps
g/bhp-hr	grams/brake horse-power hour
GHGs	Greenhouse gas emissions
GPM	Gallons per minute
GWh	Gigawatt hours
H_2S	Hydrogen sulfide
HAPs	Hazardous Air Pollutants
HFCs	Hydrofluorocarbons
HRA	Health risk assessment
HREC	Historical recognized environmental conditions
L_{max}	Maximum A-weighted noise level
LID	Low Impact Development
LOS	Level of service
MBTA	Migratory Bird Treaty Act
MEIR	Maximum exposed individual residential receptor
MEIS	Maximum exposed individual sensitive receptor

MEIW	Maximum exposed individual worker receptor
MGD	million gallons per day
$MMTCO_2e$	Million metric tons of carbon dioxide equivalents
mpg	Miles per gallon
MRP	Municipal Regional Permit
msl	mean sea level
MTC	Metropolitan Transportation Commission
MVA	megavolt amps
MW	Megawatts
N_2O	Nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NED	National Elevation Dataset
NFIP	National Flood Insurance Program
NO_2	Nitrogen dioxide
NOD	Notice of Determination
NO_x	Nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NWIC	Northwest Information Center
O_3	Ozone
OEHHA	California Office of Environmental Health Hazard Assessment
OPR	Governor's Office of Planning and Research
Pb	Lead
PCBs	Polychlorinated biphenyls
PG&E	Pacific Gas and Electric
PBGF	Pittsburg Backup Generating Facility
PDC	Pittsburg Data Hub
$PM_{2.5}$	Sub 2.5-micron particulate matter
PM_{10}	Sub 10-micron particulate matter
PMI	Point of maximum impact

POC	Precursor organic compounds
ppm	parts per million
PUE	Power Usage Effectiveness
PV	Photovoltaics
RECs	Recognized environmental conditions
REL	Reference Exposure Level
ROG	Reactive organic
RPS	Renewable Portfolio Standard
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SFBAAB	San Francisco Bay Area Basin
SFHA	Special Flood Hazard Areas
SHMA	Seismic Hazards Mapping Act
SF_6	Sulfur hexafluoride
SMARA	Surface Mining and Reclamation Act
SMP	Site Management Plan
SO_x	Sulfur oxides
SO_2	Sulfur dioxide
SPPE	Small Power Plant Exemption
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	Toxic air contaminants
TCRs	Tribal Cultural Resources
TDM	Transportation Demand Management
TMDLs	Total maximum daily loads
USFWS	United States Fish and Wildlife Service
UTM	Universal Transverse Mercator
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
VOC	Volatile organic compounds
WSA	Water Supply Assessment

APPENDIX A

Project Drawings and Figures



1 CAMPUS SITE PLAN
1/64" = 1'-0"

N

OWNER

AVAIO DIGITAL

CONTRACTOR

ARCHITECT

SNHA
A WOOLPERT COMPANY
130 East Randolph
Suite 3100
Chicago, IL 60601
312.633.2900

CIVIL

Kimley»Horn

STRUCTURAL

MEP, FP, FA, TCOM

kW Mission Critical Engineering
Member of WSP

SEC, CTRL, AV

PROGRESS SET
NOT FOR CONSTRUCTION

No.	Description	Date
A	SPPE Design Package	12/15/2023

AVAIO PITTSBURG

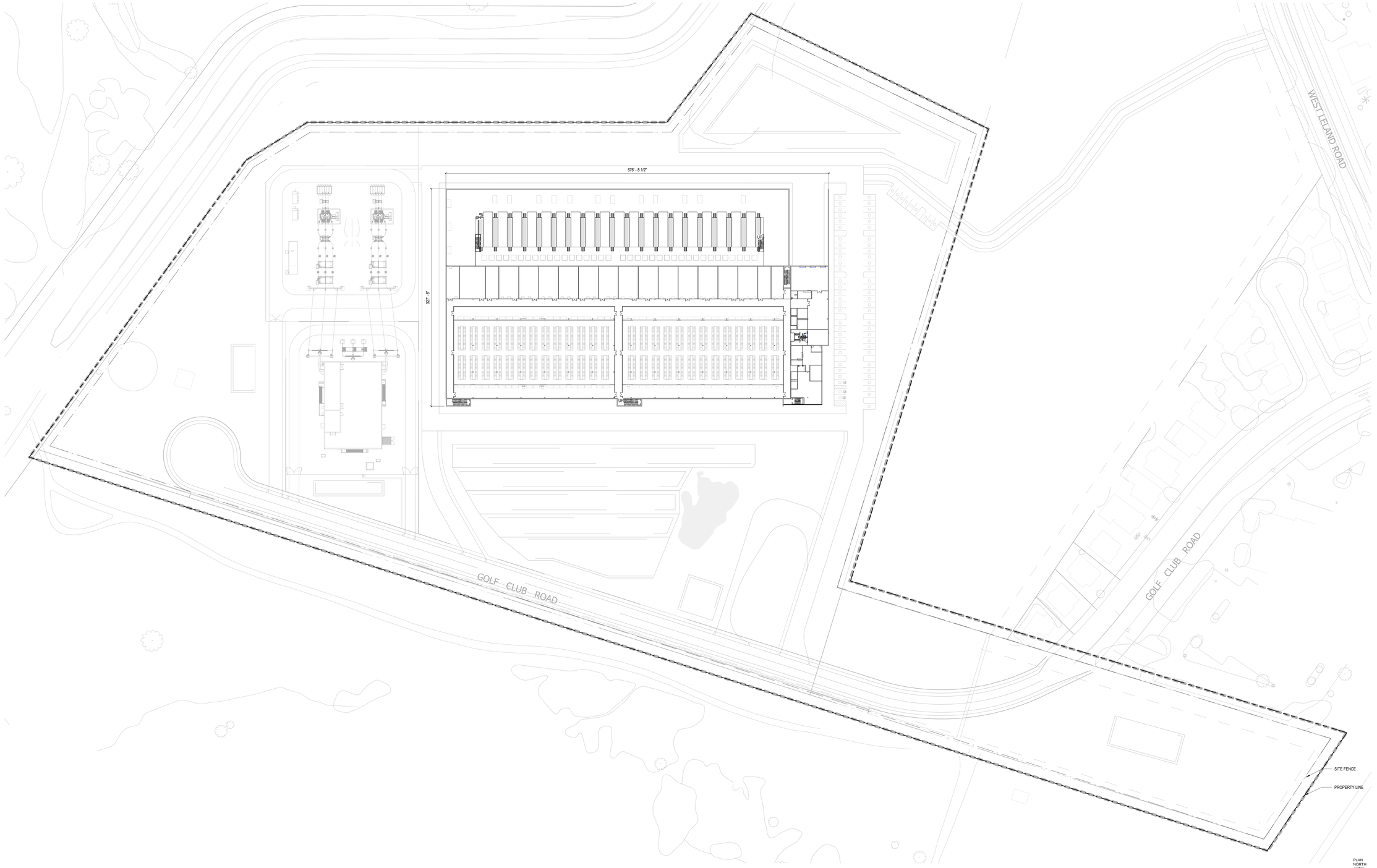
2232 Golf Club Rd,
Pittsburg, CA 94565

SPPE Design Package

CAMPUS SITE PLAN

A050

SCALE: Scale as Noted



1 BUILDING SITE PLAN
1" = 50'-0"

OWNER

AVAIO DIGITAL

CONTRACTOR

ARCHITECT

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130 East Randolph
Suite 3100
Chicago, IL 60601
312.633.2900

CIVIL

Kimley»Horn

STRUCTURAL

MEP, FP, FA, TCOM

kW Mission Critical Engineering
Member of WSP

SEC, CTRL, AV

PROGRESS SET
NOT FOR CONSTRUCTION

No.	Description	Date
A	SPPE Design Package	12/15/2023

AVAIO PITTSBURG

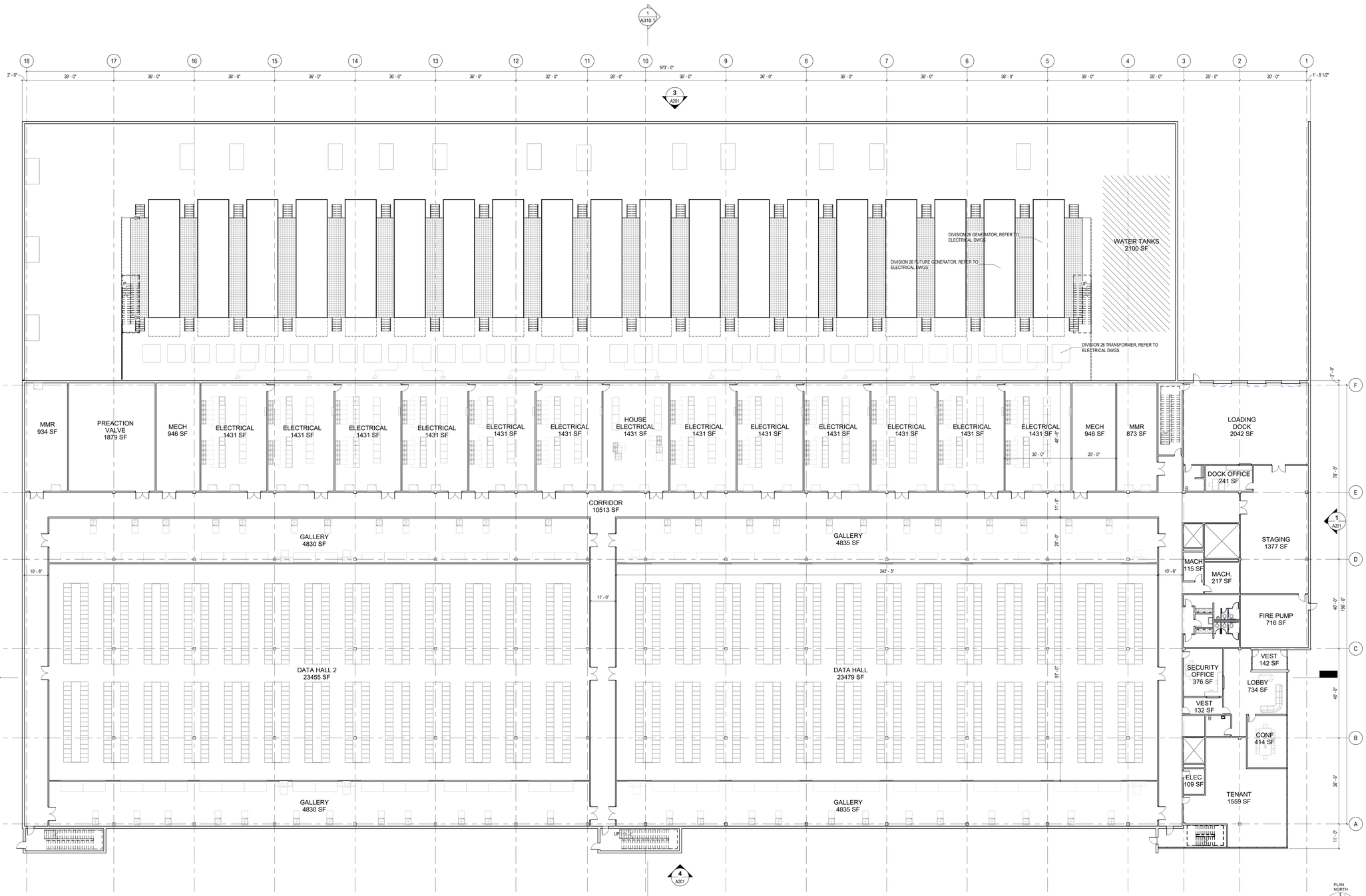
2232 Golf Club Rd,
Pittsburg, CA 94565

SPPE Design Package

BUILDING SITE PLAN

A051

SCALE: Scale as Noted



1 OVERALL FLOOR PLAN LEVEL 01
1/16" = 1'-0"

OWNER

AVAIO DIGITAL

CONTRACTOR

ARCHITECT

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130 East Randolph
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Chicago, IL 60601
312.633.2900

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Kimley»Horn

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PROGRESS SET
NOT FOR CONSTRUCTION

No.	Description	Date
A	SPPE Design Package	12/15/2023

AVAIO PITTSBURG

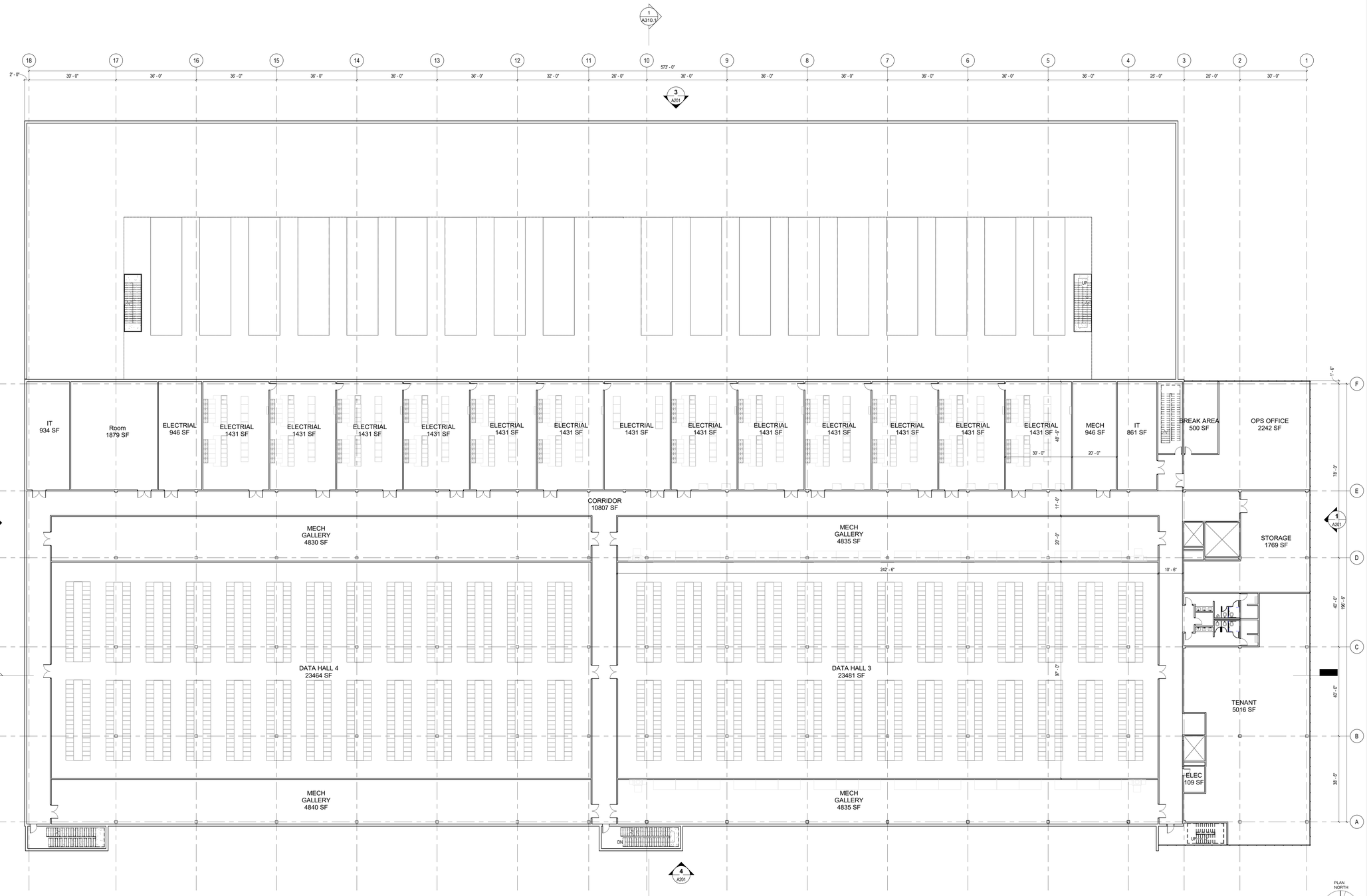
2232 Golf Club Rd,
Pittsburg, CA 94565

SPPE Design Package

OVERALL FOOR PLAN
LEVEL 01

A110.1

SCALE: Scale as Noted



1 OVERALL FLOOR PLAN LEVEL 02
1/16" = 1'-0"

OWNER

AVAIO DIGITAL

CONTRACTOR

ARCHITECT

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CIVIL

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PROGRESS SET
NOT FOR CONSTRUCTION

No.	Description	Date
A	SPPE Design Package	12/15/2023

AVAIO PITTSBURG

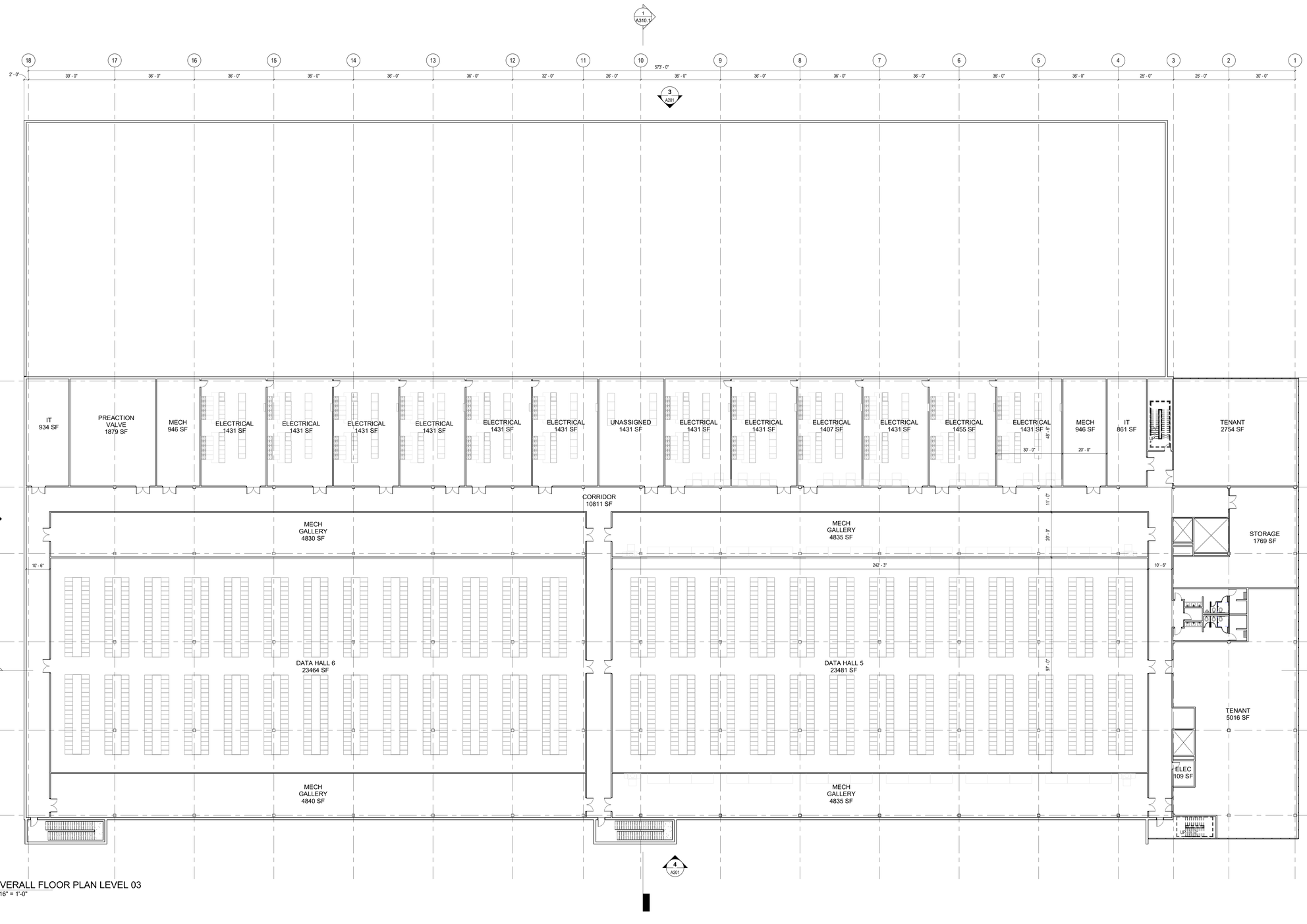
2232 Golf Club Rd,
Pittsburg, CA 94565

SPPE Design Package

OVERALL FLOOR PLAN
LEVEL 02

A110.2

SCALE: Scale as Noted



1 OVERALL FLOOR PLAN LEVEL 03
1/16" = 1'-0"

OWNER

AVAIO DIGITAL

CONTRACTOR

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PROGRESS SET
NOT FOR CONSTRUCTION

No.	Description	Date
A	SPPE Design Package	12/15/2023

AVAIO PITTSBURG

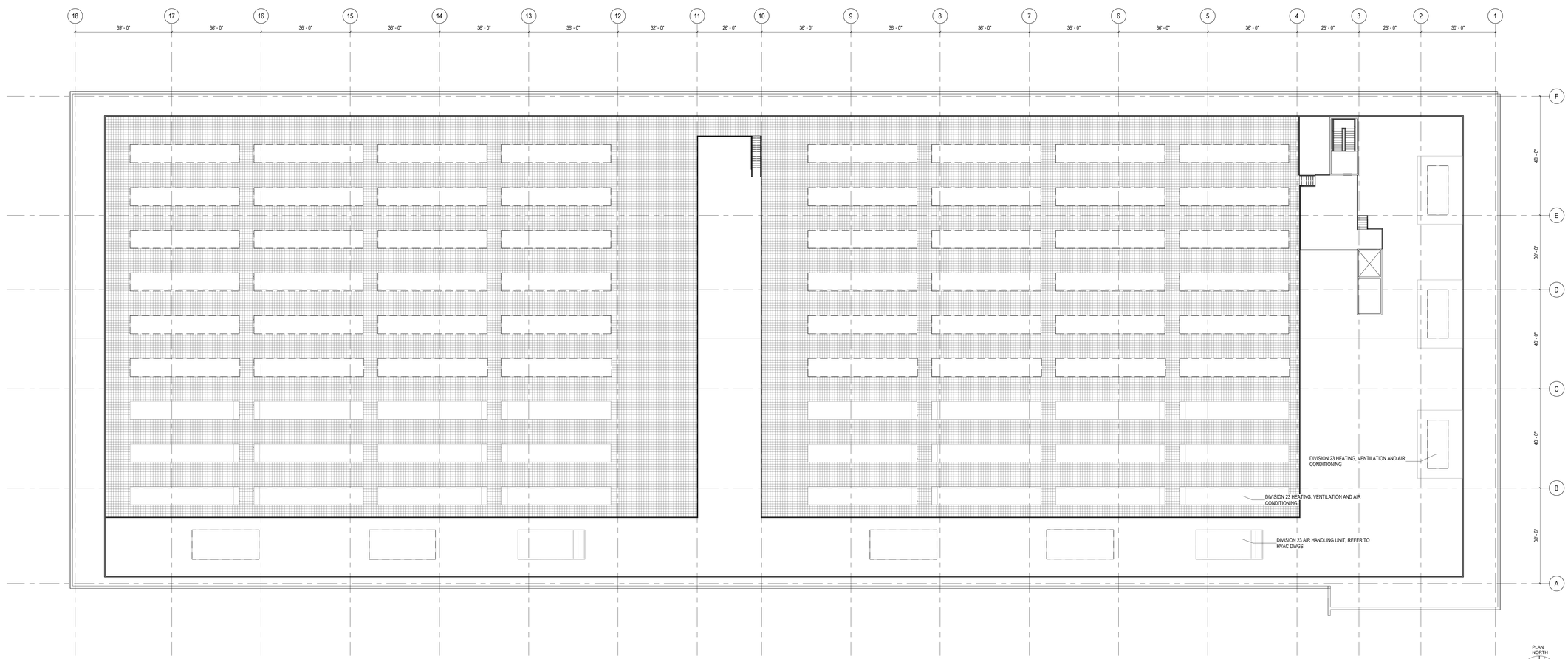
2232 Golf Club Rd,
Pittsburg, CA 94565

SPPE Design Package

OVERALL FLOOR PLAN
LEVEL 03

A110.3

SCALE: Scale as Noted



1 OVERALL ROOF PLAN
1/16" = 1'-0"

OWNER

AVAIO DIGITAL

CONTRACTOR

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PROGRESS SET
NOT FOR CONSTRUCTION

No.	Description	Date
A	SPPE Design Package	12/15/2023

AVAIO PITTSBURG

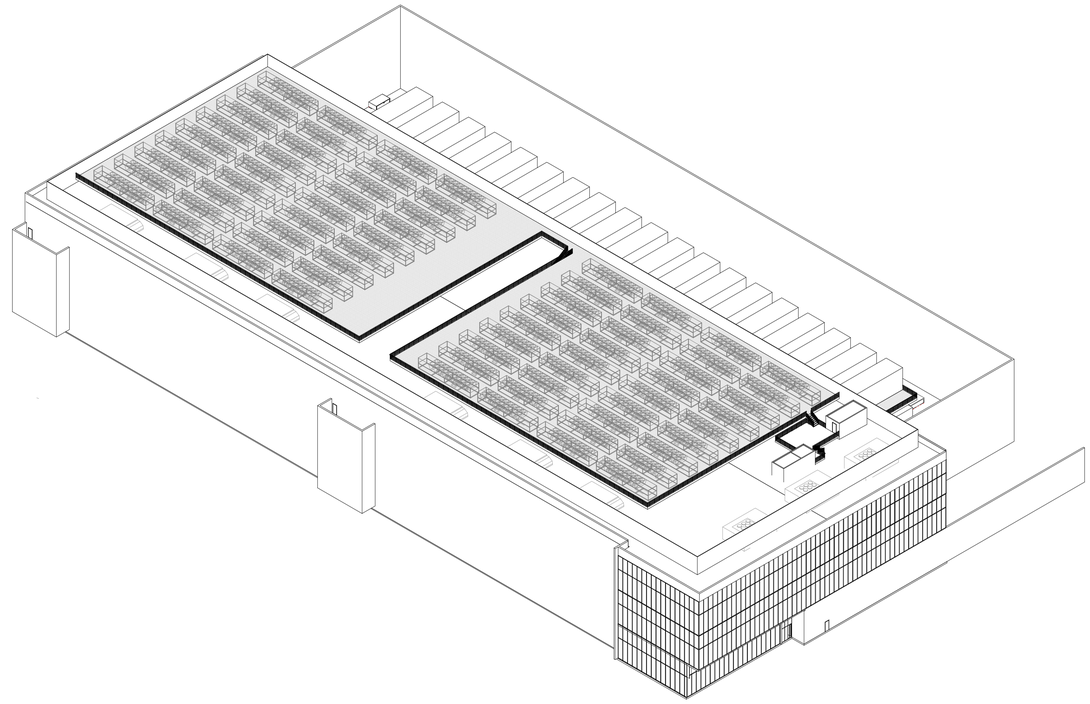
2232 Golf Club Rd,
Pittsburg, CA 94565

SPPE Design Package

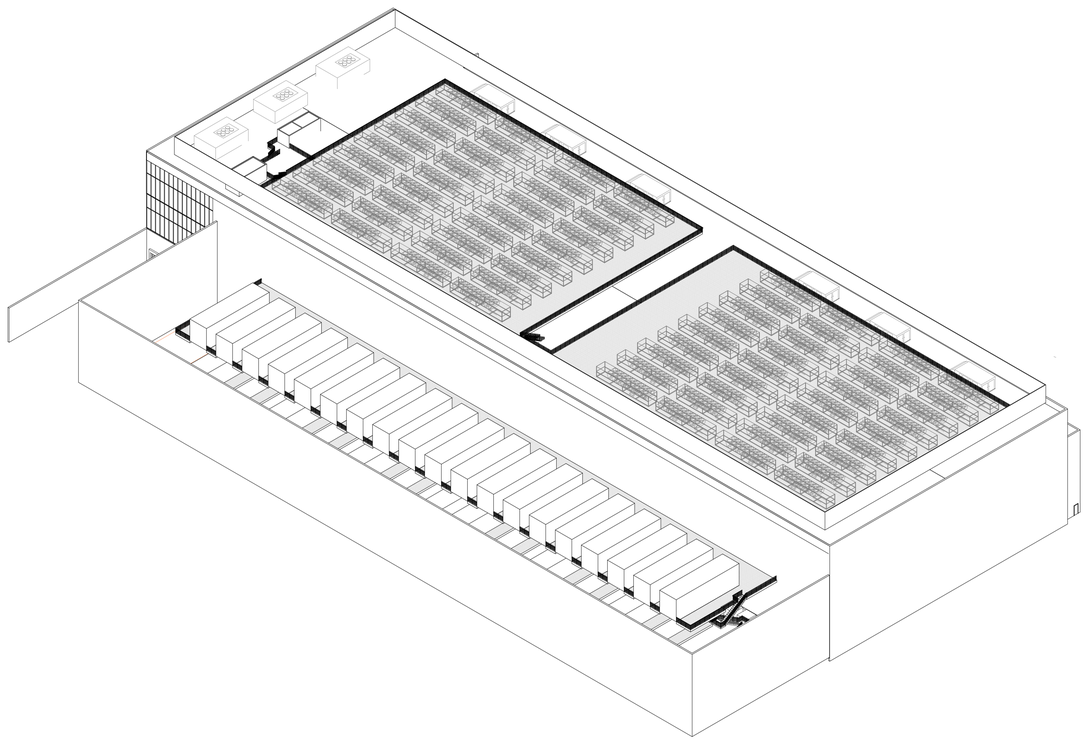
OVERALL ROOF PLAN

A110.4

SCALE: Scale as Noted



1 SOUTHEAST 3D



2 NORTHWEST 3D

OWNER

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Member of WSP

SEC, CTRL, AV

PROGRESS SET
NOT FOR CONSTRUCTION

No.	Description	Date
A	SPPE Design Package	12/15/2023

AVAIO PITTSBURG

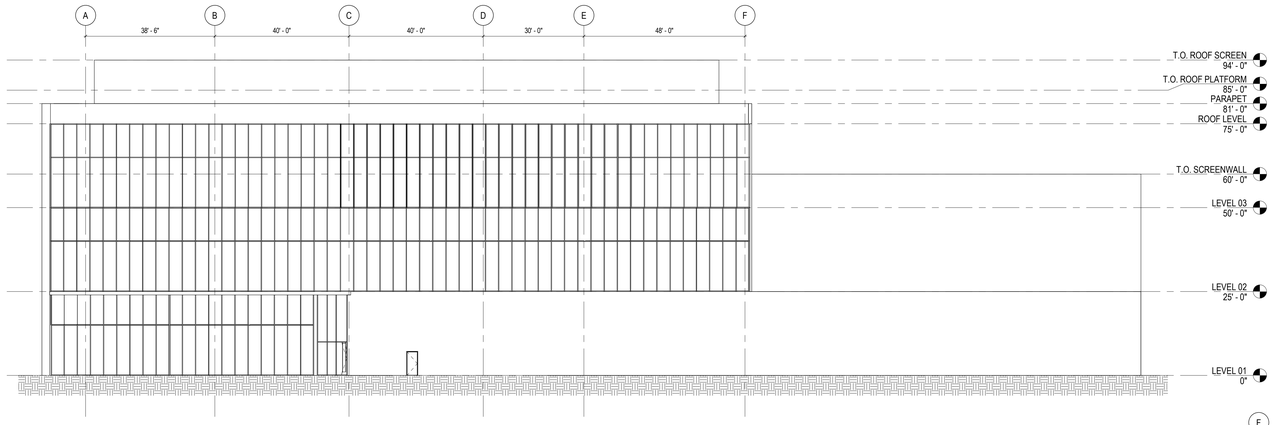
2232 Golf Club Rd,
Pittsburg, CA 94565

SPPE Design Package

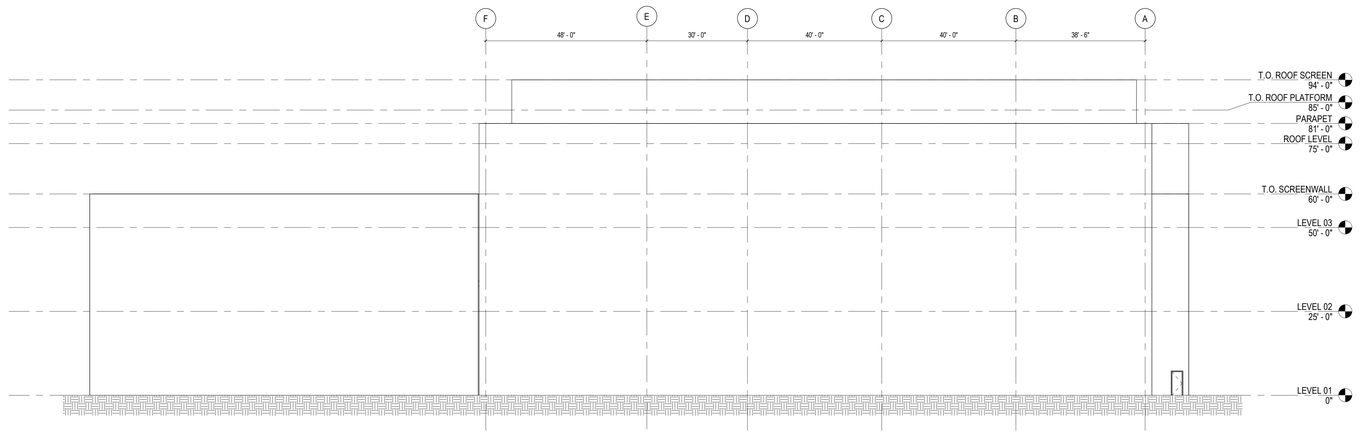
ELEVATIONS 3D

A200

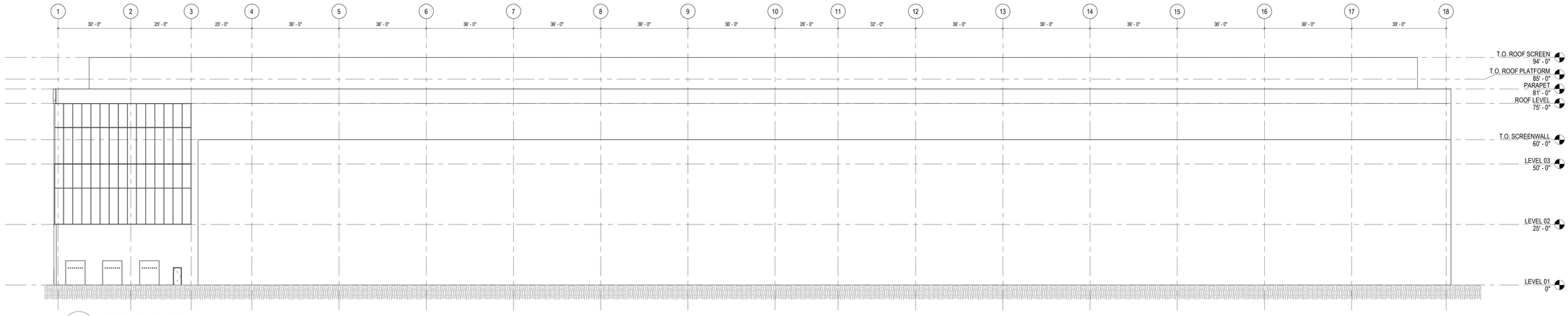
SCALE: Scale as Noted



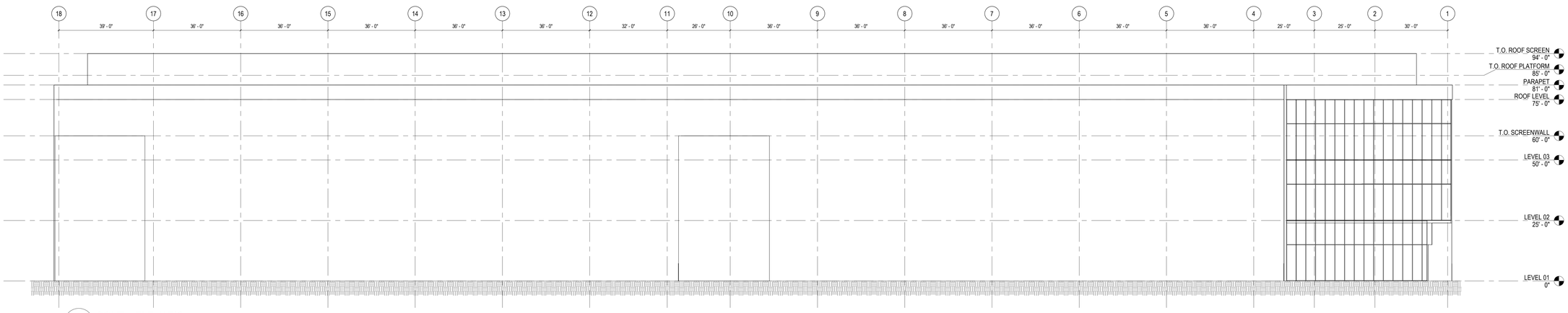
1 EAST ELEVATION
1/16" = 1'-0"



2 WEST ELEVATION
1/16" = 1'-0"



3 NORTH ELEVATION
1/16" = 1'-0"



4 SOUTH ELEVATION
1/16" = 1'-0"

OWNER

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SEC, CTRL, AV

PROGRESS SET
NOT FOR CONSTRUCTION

No.	Description	Date
A	SPPE Design Package	12/15/2023

AVAIO PITTSBURG

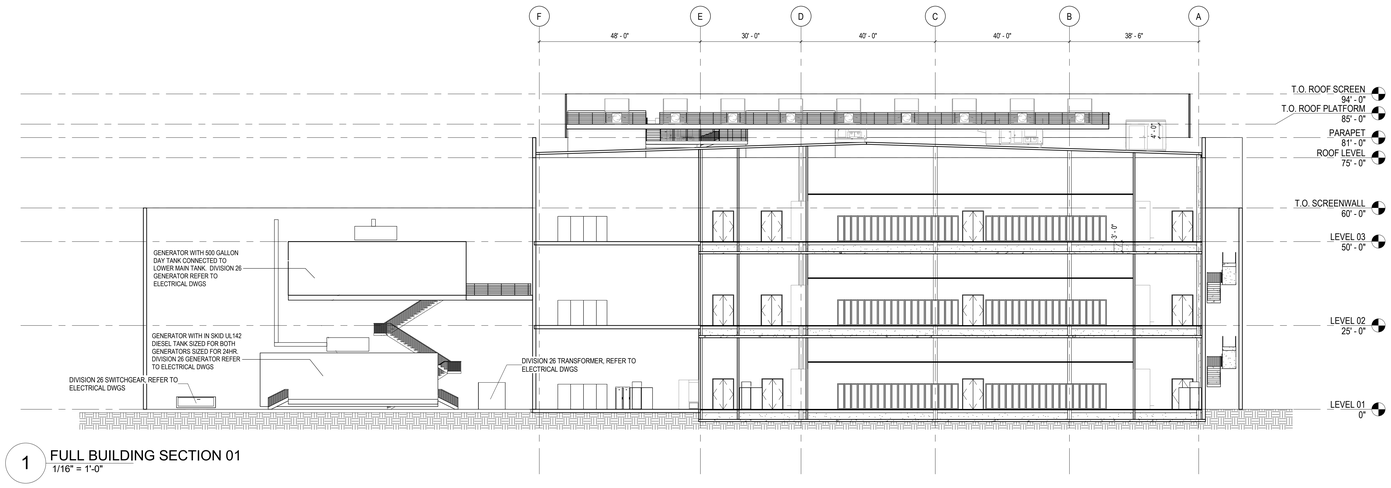
2232 Golf Club Rd,
Pittsburg, CA 94565

SPPE Design Package

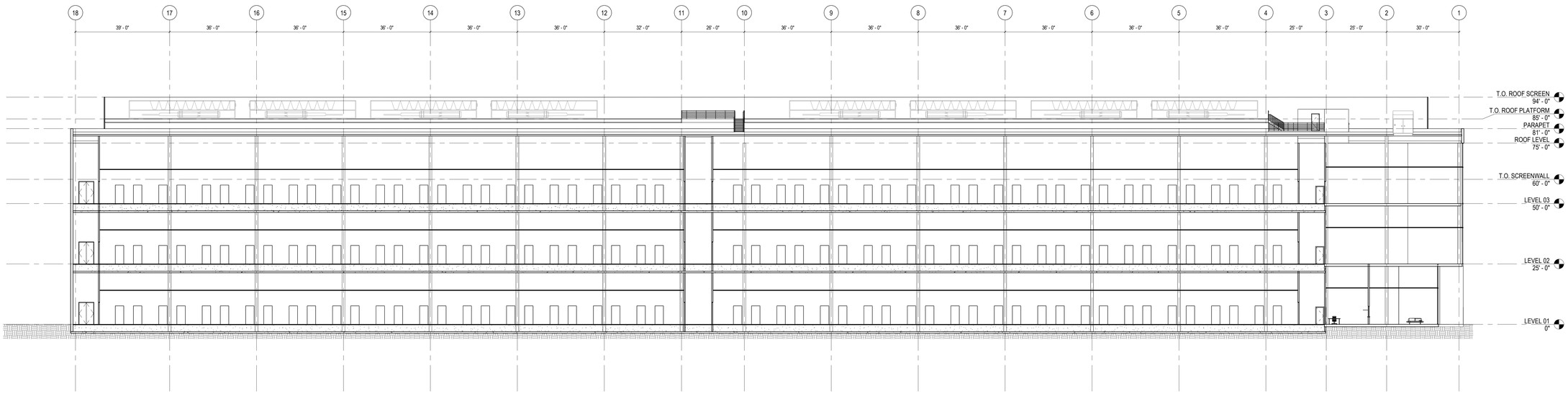
ELEVATIONS

A201

SCALE: Scale as Noted



1 FULL BUILDING SECTION 01
1/16" = 1'-0"



2 FULL BUILDING SECTION 02
1/16" = 1'-0"

OWNER

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SEC, CTRL, AV

PROGRESS SET
NOT FOR CONSTRUCTION

No.	Description	Date
A	SPPE Design Package	12/15/2023

AVAIO PITTSBURG

2232 Golf Club Rd,
Pittsburg, CA 94565

SPPE Design Package

FULL BUILDING SECTIONS

A310.1

SCALE: Scale as Noted

ON-SITE IMPROVEMENT PLANS

FOR

DELTA VIEW GOLF COURSE
PITTSBURG, CA 94565

PROJECT TEAM

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CIVIL ENGINEER
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SAN MATEO, CA 94403
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E4 DRY UTILITY CONSULTANT
NICOLE CAPLAN
E4 UTILITY DESIGN
324 AVE. DE LA ESTRELLA, SUITE B
SAN CLEMENTE, CA 92672
(949) 353-5134
NICOLE@E4DESIGN.COM

MEP
GARR DI SALVO, PE, LEED AP
kW MISSION CRITICAL ENGINEERING
250 WEST 34TH ST, 4TH FLOOR
NEW YORK, NY 100119
(646) 734-2605

BENCHMARK NOTE

NAVD 88 BASED ON OBSERVATIONS TO NGS MONUMENT HONKER BAY (PID-AA3823)

BASIS OF BEARINGS NOTE

THE BASIS OF BEARINGS IS NAD83 CALIFORNIA COORDINATE SYSTEM ZONE 3, ESTABLISHED FROM OBSERVATIONS AND CALIBRATING TO FOUND NGS MONUMENTS (PID AA3823, PID JS1865 AND PID DE8493), THE DISTANCES SHOWN HEREON ARE GROUND MEASUREMENTS.

LEGAL DESCRIPTION PER TITLE REPORT

TRACT ONE:

PARCEL A AS SHOWN ON PARCEL MAP MS 677-05 FILED JUNE 10, 2005, IN BOOK 193 OF PARCEL MAPS, PAGE 39, CONTRA COSTA, COUNTY RECORDS. APN: 095-150-032

TRACT TWO:

PARCEL ONE:
BEGINNING AT THE SOUTHWEST CORNER OF THE 13.92 ACRE PARCEL OF LAND DESCRIBED AND DESIGNATED PARCEL VI IN THE DEED FROM C.A. HOOPER & CO. TO PACIFIC GAS AND ELECTRIC COMPANY, DATED DECEMBER 27, 1951 AND RECORDED IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY OF CONTRA COSTA IN BOOK 1872 OF OFFICIAL RECORDS AT PAGE 189 AN RUNNING THENCE NORTH 0° 10' EAST, ALONG THE WESTERLY BOUNDARY LINE OF SAID 13.92 ACRE PARCEL OF LAND (MISSING DISTANCE CALL ON TITLE REPORT); THENCE SOUTH 73° 11 1/2' EAST, ALONG THE NORTHERLY BOUNDARY LINE OF SAID 13.92 ACRE PARCEL OF LAND, 182.03 FEET; THENCE SOUTH 0° 19 1/2' WEST 718.40 FEET TO A POINT IN THE SOUTHERLY BOUNDARY LINE OF SAID 13.92 ACRE PARCEL OF LAND; THENCE SOUTH 89° 50' WEST, ALONG THE LAST MENTIONED BOUNDARY LINE, 172.41 FEET, MORE OR LESS, TO THE POINT OF BEGINNING; BEING A PORTION OF RANCHO LAS MEDANOS.

PARCEL TWO:
A RIGHT OF WAY FOR A ROAD FOR INGRESS TO AND EGRESS FROM PARCEL ONE WITHIN THE STRIP OF LAND DESCRIBED AS FOLLOWS, TO WIT:

A STRIP OF LAND OF THE UNIFORM WIDTH OF 60 FEET EXTENDING FROM THE EASTERLY BOUNDARY LINE OF SAID 13.92 ACRE PARCEL OF LAND WESTERLY TO THE EASTERLY BOUNDARY LINE OF PARCEL ONE HEREIN BEFORE DESCRIBED, AND LYING EQUALLY ON EACH SIDE OF THE LINE WHICH BEGINS AT A POINT IN THE EASTERLY BOUNDARY LINE OF SAID 13.92 ACRE PARCEL OF LAND FROM WHICH THE SOUTHEAST CORNER OF SAID 13.92 ACRE PARCEL OF LAND BEARS SOUTH 0° 19 1/2' WEST 263.0 FEET DISTANT AND RUNS THENCE SOUTH 89° 50' WEST, PARALLEL WITH THE SOUTHERLY BOUNDARY LINE OF SAID 13.92 ACRE PARCEL OF LAND, 800 FEET, MORE OR LESS, TO THE EASTERLY BOUNDARY LINE.

APN: 095-160-001

TRACT THREE:
LOTS 1, 2 AND 3, AND THE SOUTHEAST 1/4 (ONE-FOURTH) OF THE NORTHWEST 1/4 (ONE-FOURTH) OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 1 EAST, MOUNT DIABLO BASE AND MERIDIAN.

EXCEPTING THEREFROM:
1. THAT PARCEL OF LAND CONTAINING 11.42 ACRES, MORE OR LESS, DESCRIBED IN THE DEED FROM JOHN FAHY, ET U, TO UNITED STATES OF AMERICA, DATED APRIL 26, 1938 AND RECORDED MAY 12, 1938 IN VOLUME 448 OF OFFICIAL RECORDS, AT PAGE 388, AS FOLLOWS:

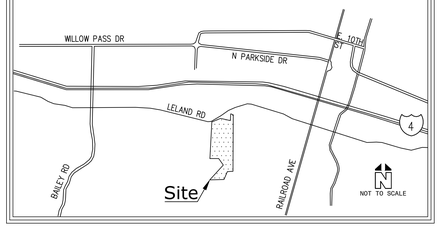
"BEGINNING ON THE EAST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 19, DISTANT THEREON NORTH 0° 16' EAT 975.7 FEET FROM GRANT CORNER NUMBER 5 OF THE RANCHO LOS MEDANOS AT THE CENTER OF SAID SECTION 19; THENCE FROM SAID POINT OF BEGINNING SOUTH 0° 16' WEST 63.3 FEET, ALONG SAID EAST LINE; THENCE NORTH 71° 11' WEST 1526.9 FEET; THENCE ON A CURVE TO THE RIGHT (TANGENT TO THE PRECEDING COURSE) WITH A RADIUS OF 180 FEET, A DISTANCE OF 169.2 FEET; THENCE NORTH 17° 19' WEST 462.4 FEET; THENCE ON A CURVE TO THE LEFT (TANGENT TO THE PRECEDING COURSE) WITH A RADIUS OF 60 FEET, A DISTANCE OF 54.8 FEET; THENCE NORTH 69° 36' WEST 486.3 FEET; THENCE SOUTH 89° 52' WEST 100.00 FEET; THENCE MORE OR LESS, TO THE MOUNT MERIDIAN, WHICH IS THE WEST LINE OF THE NORTHWEST 1/4 OF SAID SECTION 19; THENCE NORTH 0° 08' WEST 365.8 FEET, MORE OR LESS, ALONG SAID MERIDIAN TO GRANT CORNER NUMBER 7 OF THE RANCHO LOS MEDANOS, WHICH IS THE NORTHWEST CORNER OF SAID SECTION 19; THENCE NORTH 89° 44' EAST 101.0 FEET, ALONG SAID LINE; THENCE SOUTH 0° 16' EAST 100.0 FEET; THENCE SOUTH 25° 44' EAST 135.6 FEET; THENCE SOUTH 52° 47' EAST 103.7 FEET; THENCE SOUTH 69° 36' EAST 457.8 FEET; THENCE SOUTH 17° 19' EAST 542.3 FEET; THENCE SOUTH 49° 04' EAST 106.2 FEET; THENCE SOUTH 71° 11' EAST 600.0 FEET; THENCE SOUTH 78° 02' EAST 503.6 FEET; THENCE SOUTH 66° 55' EAST 268.8 FEET; MORE OR LESS, TO THE EAST LIEN OF SAID NORTHWEST QUARTER OF SECTION 19; THENCE SOUTH 0° 16' WEST 126.6 FEET, MORE OR LESS, ALONG SAID LINE TO THE POINT OF BEGINNING.

ALSO EXCEPTING THEREFROM:
THAT PORTION THEREOF DESCRIBED IN THE DEED TO PACIFIC GAS AND ELECTRIC COMPANY RECORDED SEPTEMBER 19, 1952, BOOK 1994, PAGE 129

ALSO EXCEPTING THEREFROM:
THAT PORTION THEREOF DESCRIBED IN THE DEED TO THE CITY OF PITTSBURG RECORDED DECEMBER 8, 1960, BOOK 3759, OFFICIAL RECORDS, PAGE 1

ALSO EXCEPTING THEREFROM:
THAT PORTION THEREOF LYING SOUTHERLY OF THE NORTHEASTERLY BOUNDARY LINE OF THE CONTRA COSTA CANAL.
APN: 095-160-002

VICINITY MAP
PITTSBURG,
CALIFORNIA



SITE INFORMATION

SITE ADDRESS:	2232 GOLF CLUB ROAD, PITTSBURG, CA
EXISTING ZONING:	OS OPEN SPACE
PROPOSED ZONING:	ECI EMPLOYMENT CENTER INDUSTRIAL
EXISTING LAND USE:	FORMER GOLF COURSE, OPEN SPACE
PROPOSED LAND USE:	DATA CENTER
TOTAL LOTS:	4 LOTS
PARKING SPACES:	70 (SHARED PARKING AVAILABLE)

SHEET INDEX

ABBREVIATIONS

AB	– AGGREGATE BASE
AC	– ASPHALT
APN	– ASSESSOR PARCEL NUMBER
BC	– BACK OF CURB
BLDG	– BUILDING
BW	– BACK OF WALK
CB	– CATCH BASIN
CF	– CURB FACE
C/L	– CENTERLINE
CONC.	– CONCRETE
CONST.	– CONSTRUCT, CONSTRUCTION
DI	– DRAIN INLET
DW	– DOMESTIC WATER
E	– EAST
EVA	– EMERGENCY VEHICLE ACCESS
FAR	– FLOOR AREA RATIO
FF	– FINISHED FLOOR
FG	– FINISHED GRADE
FL	– FLOW LINE
FS	– FINISHED SURFACE
FW	– FIRE WATER
GB	– GRADE BREAK
HP	– HIGH POINT
INV	– INVERT
IRR	– IRRIGATION WATER
LP	– LOW POINT
MH	– MANHOLE
N	– NORTH
PCC	– PORTLAND CEMENT CONCRETE
P/L	– PROPERTY LINE
PUE	– PUBLIC UTILITY EASEMENT
PIV	– POST INDICATOR VALVE
PVC	– POLYVINYL CHLORIDE
R	– RADIUS
RD	– ROOF DRAIN
RW	– RECLAIMED WATER
R/W	– RIGHT-OF-WAY
S	– SEWER OR SOUTH
SD	– STORM DRAIN
SF	– SQUARE FEET
STA	– STATION
SS	– SANITARY SEWER
TC	– TOP OF CURB
W	– WATER OR WEST
XXX.XX	– PROPOSED ELEVATION
(XXX.XX)	– EXISTING ELEVATION

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PROGRESS SET
NOT FOR CONSTRUCTION

No.	Description	Date
A	SSPE Design Package	12/15/2023

AVAIO PITTSBURG

2232 Golf Club Rd,
Pittsburg, CA 94565

SPPE Design Package

COVER SHEET

C1.0

SCALE: Scale as Noted

LEGEND

- PROPERTY LINE
- CENTER LINE
- EASEMENT LINE
- EXISTING TREE

TITLE REPORT EXCEPTIONS

4 AN EASEMENT AFFECTING THAT PORTION OF SAID LAND AND FOR THE PURPOSES STATED HEREIN AND INCIDENTAL PURPOSES AS PROVIDED IN THE FOLLOWING INSTRUMENT: DEED. GRANTED TO: FEDERAL ENGINEERING COMPANY. FOR: A SINGLE LINE OF POLES FOR TELEGRAPH OR TELEPHONE LINES AND INCIDENTAL PURPOSES. RECORDED: DECEMBER 26, 1930 IN BOOK 257 OF OFFICIAL RECORDS, PAGE 216. AFFECTS: A PORTION OF THE PREMISES, AND AS MODIFIED BY AN INSTRUMENT, RECORDED AUGUST 24, 1939 IN BOOK 519 OF OFFICIAL RECORDS, PAGE 79. AND AS MODIFIED BY AN INSTRUMENT, RECORDED AUGUST 24, 1939 IN BOOK 519 OF OFFICIAL RECORDS, PAGE 79.

5 COVENANTS, CONDITIONS AND RESTRICTIONS WHICH DO NOT CONTAIN EXPRESS PROVISION FOR FORFEITURE OR REVERSION OF TITLE IN THE EVENT OF VIOLATION, BUT OMITTING ANY COVENANTS OR RESTRICTION IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN UNLESS AND ONLY TO THE EXTENT THAT SAID COVENANT (A) IS EXEMPT UNDER TITLE 42, SECTION 3607 OF THE UNITED STATES CODE OR (B) RELATES TO HANDICAP BUT DOES NOT DISCRIMINATE AGAINST HANDICAPPED PERSONS, AS PROVIDED IN AN INSTRUMENT.

ENTITLED: QUITCLAIM DEED. EXECUTED BY: UNITED STATES OF AMERICA. RECORDED: DECEMBER 8, 1960 IN BOOK 3759 OF OFFICIAL RECORDS, PAGE 1. SAID COVENANTS, CONDITIONS AND RESTRICTIONS DO CONTAIN EXPRESS PROVISIONS FOR FORFEITURE OR REVERSION OF TITLE IN THE EVENT OF VIOLATION. AGREEMENT EXTENDING TERMS, CONDITIONS AND RESTRICTIONS OF DEED, RECORDED APRIL 28, 1975, BOOK 7485, PAGE 918, OFFICIAL RECORDS. AGREEMENT EXTENDING TERMS, CONDITIONS AND RESTRICTIONS OF DEED, RECORDED FEBRUARY 11, 1986, BOOK 12739, PAGE 247, OFFICIAL RECORDS.

6 AN EASEMENT AFFECTING THAT PORTION OF SAID LAND AND FOR THE PURPOSES STATED HEREIN AND INCIDENTAL PURPOSES AS PROVIDED IN THE FOLLOWING INSTRUMENT: DEED. GRANTED TO: HERBERT B. ELWORTHY, ET AL. FOR: ROAD PURPOSES. RECORDED: MAY 9, 1960 IN BOOK 3615 OF OFFICIAL RECORDS, PAGE 546. AFFECTS: A PORTION OF THE PREMISES.

7 AN EASEMENT AFFECTING THAT PORTION OF SAID LAND AND FOR THE PURPOSES STATED HEREIN AND INCIDENTAL PURPOSES AS PROVIDED IN THE FOLLOWING INSTRUMENT : DEED. GRANTED TO: CITY OF PITTSBURG. FOR: ROAD PURPOSES. RECORDED: DECEMBER 8, 1960 IN BOOK 3759 OF OFFICIAL RECORDS, PAGE 1. AFFECTS : A PORTION OF THE PREMISES.

13 AN EASEMENT AFFECTING THAT PORTION OF SAID LAND AND FOR THE PURPOSES STATED HEREIN AND INCIDENTAL PURPOSES AS PROVIDED IN THE FOLLOWING: INSTRUMENT : DEED. GRANTED TO: FEDERAL ENGINEERING COMPANY. FOR: A SINGLE LINE OF POLES FOR TELEGRAPH OR TELEPHONE LINES AND INCIDENTAL PURPOSES RECORDED: DECEMBER 26, 1930 IN BOOK 257 OF OFFICIAL RECORDS, PAGE 216. AFFECTS: A PORTION OF THE PREMISES

19 AN EASEMENT AFFECTING THAT PORTION OF SAID LAND AND FOR THE PURPOSES STATED HEREIN AND INCIDENTAL PURPOSES AS PROVIDED IN THE FOLLOWING: INSTRUMENT: INDENTURE. GRANTED TO: CITY OF PITTSBURG, A MUNICIPAL CORPORATION AND STANDARD PACIFIC GAS LINE INCORPORATED, A CORPORATION. FOR: SINGLE LINE OF POLES AND RIGHT OF WAY. DATED: JULY 6, 1953. RECORDED: IN BOOK 2261 OF OFFICIAL RECORDS, PAGE 564 UNDER RECORDER'S SERIAL NUMBER 4926. AFFECTS: PARCEL 5.

26 COVENANTS, CONDITIONS AND RESTRICTIONS WHICH DO NOT CONTAIN EXPRESS PROVISION FOR FORFEITURE OR REVERSION OF TITLE IN THE EVENT OF VIOLATION, BUT OMITTING ANY COVENANTS OR RESTRICTION IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN UNLESS AND ONLY TO THE EXTENT THAT SAID COVENANT (A) IS EXEMPT UNDER TITLE 42, SECTION 3607 OF THE UNITED STATES CODE OR (B) RELATES TO HANDICAP BUT DOES NOT DISCRIMINATE AGAINST HANDICAPPED PERSONS, AS PROVIDED IN AN INSTRUMENT.
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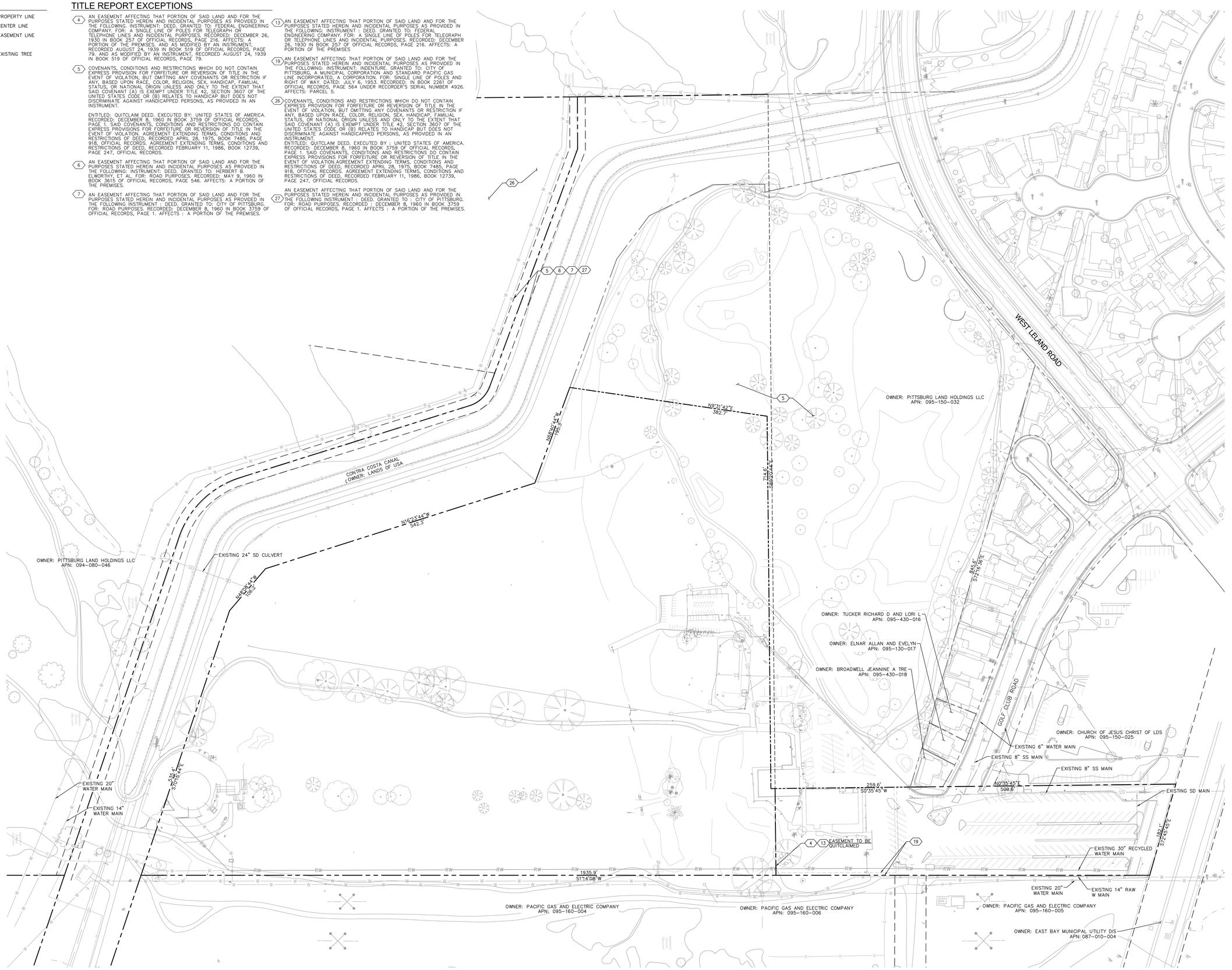
27 AN EASEMENT AFFECTING THAT PORTION OF SAID LAND AND FOR THE PURPOSES STATED HEREIN AND INCIDENTAL PURPOSES AS PROVIDED IN THE FOLLOWING INSTRUMENT : DEED. GRANTED TO : CITY OF PITTSBURG. FOR: ROAD PURPOSES. RECORDED : DECEMBER 8, 1960 IN BOOK 3759 OF OFFICIAL RECORDS, PAGE 1. AFFECTS : A PORTION OF THE PREMISES.



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PROGRESS SET
NOT FOR CONSTRUCTION

No.	Description	Date
A	SSPE Design Package	12/15/2023

AVAIO PITTSBURG

2232 Golf Club Rd,
Pittsburg, CA 94565

SPPE Design Package

EXISTING CONDITIONS

C1.1

SCALE: Scale as Noted

LEGEND

- CENTER LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- DEDICATION LINE
- APPROXIMATE CIVIL LIMIT OF WORK LINE
- CONCRETE PAVEMENT
- PROPOSED LANDSCAPE/PLANTER AREA
- ASPHALT PAVEMENT
- (X) TITLE REPORT EXCEPTION, SEE EXISTING CONDITIONS PLAN C 1.1

SITE DATA (CONTINUED)

PROJECT DESCRIPTION:	REDEVELOPMENT OF FORMER MUNICIPAL GOLF COURSE FOR DATA CENTER DEVELOPMENT WITH SUBSTATION AND SUPPORTING INFRASTRUCTURE
ADDRESS:	TO BE DETERMINED.
APN:	095-160-001, 095-160-002, AND 195-150-032
EXISTING ZONING: PROPOSED ZONING:	OS OPEN SPACE ECI EMPLOYMENT CENTER INDUSTRIAL
ADJACENT ZONING DISTRICTS:	N: PD PLANNED DEVELOPMENT S: OS OPEN SPACE E: OS OPEN SPACE
EXISTING LAND USE: PROPOSED LAND USE:	FORMER GOLF COURSE, OPEN SPACE DATA CENTER
ADJACENT LAND USE:	PARK, LOW DENSITY RESIDENTIAL (1-7 UN/AC), AND UTILITY/ROW
FLOOD ZONE:	ZONE X - AREAS DETERMINED TO BE OUTSIDE THE 0.02% ANNUAL CHANCE FLOODPLAIN.

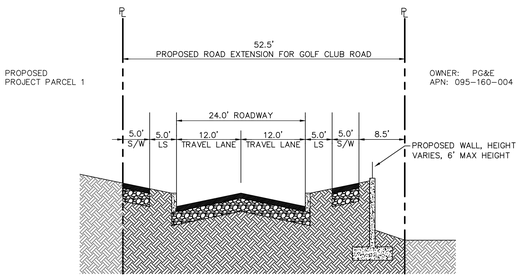
TOTAL DISTURBED AREA:	971,960 S.F.	(22.31 AC)	
TOTAL LOT AREA (NET):	960,310 S.F.	(22.05 AC)	
LOT COVERAGE			
TOTAL SITE AREA:	960,310 S.F.	(22.05 AC)	100%
BUILDING AREA:	116,200 S.F.	(2.67 AC)	12.1%
IMPERVIOUS AREA:	498,054 S.F.	(11.43 AC)	51.9%
LANDSCAPE AREA:	462,256 S.F.	(10.61 AC)	48.1%
FAR:	0.47 (347,740 SF/745,771 SF)		

PARKING SUMMARY:

BUILDING: 347,740 S.F. TOTAL
70 STALLS REQUIRED
- ADA PARKING FOR 51-75 PARKING STALLS = 3 ADA PARKING STALLS REQUIRED, PER 2022 CBC.
- EV PARKING FOR 51-75 PARKING STALLS = 13 EV CAPABLE SPACES AND 3 EVSE SPACES REQUIRED PER 2022 CALGREEN
- 1 EVSE STALL MUST BE VAN ACCESSIBLE.
- 1 EV CAPABLE STALL MUST BE ACCESSIBLE.

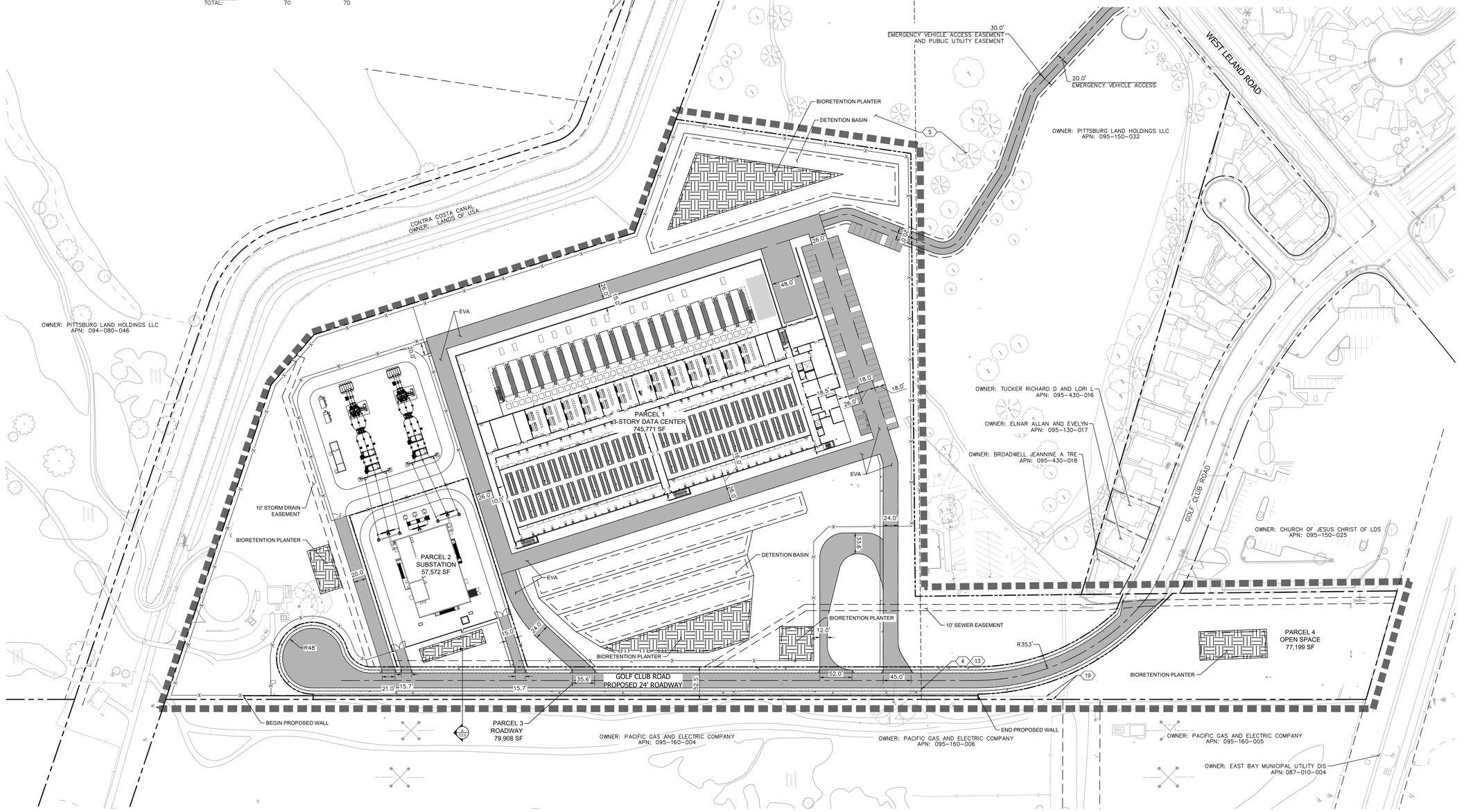
TOTAL NUMBER OF PARKING SPACES PROVIDED = 70

PARKING TABLE:	REQUIRED	PROVIDED
STANDARD	54	54
EV CHARGING	13	13
ACCESSIBLE	3	3
TOTAL:	70	70



SECTION A: GOLF CLUB ROAD EXTENSION

NOT TO SCALE



No.	Description	Date
A	SSPE Design Package	12/15/2023

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SPPE Design Package

PRELIMINARY SITE PLAN

C2.0

SCALE: Scale as Noted

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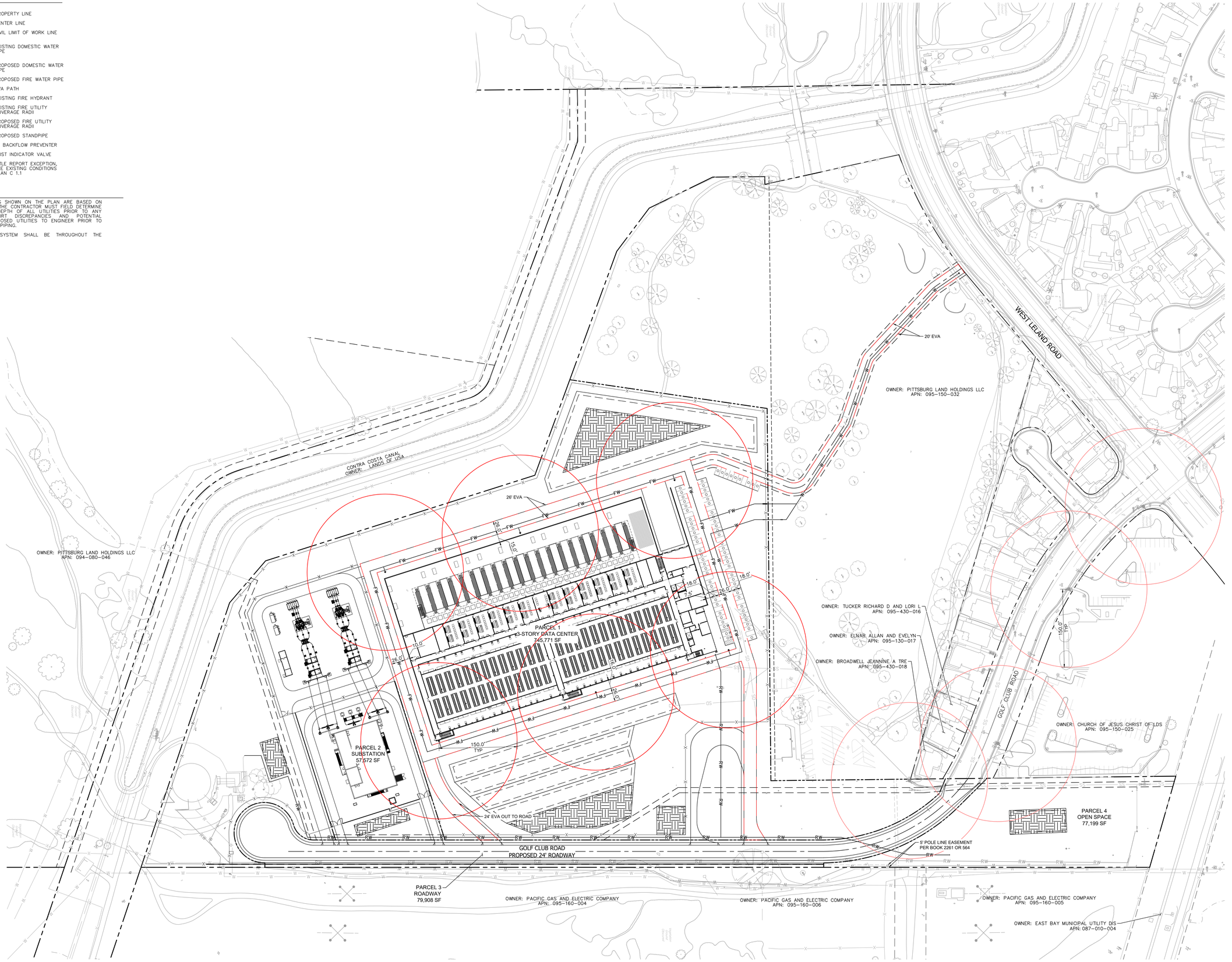
PROGRESS SET
NOT FOR CONSTRUCTION

LEGEND

- PROPERTY LINE
- CENTER LINE
- CIVIL LIMIT OF WORK LINE
- EXISTING DOMESTIC WATER PIPE
- PROPOSED DOMESTIC WATER PIPE
- PROPOSED FIRE WATER PIPE
- EVA PATH
- EXISTING FIRE HYDRANT
- EXISTING FIRE UTILITY COVERAGE RADII
- PROPOSED FIRE UTILITY COVERAGE RADII
- PROPOSED STANDPIPE
- 8" BACKFLOW PREVENTER
- POST INDICATOR VALVE
- TITLE REPORT EXCEPTION, SEE EXISTING CONDITIONS PLAN C 1.1

NOTES

1. THE EXISTING UTILITIES SHOWN ON THE PLAN ARE BASED ON AVAILABLE RECORDS. THE CONTRACTOR MUST FIELD DETERMINE THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION. REPORT DISCREPANCIES AND POTENTIAL CONFLICTS WITH PROPOSED UTILITIES TO ENGINEER PRIOR TO INSTALLATION OF ANY PIPING.
2. A FIRE SPRINKLER SYSTEM SHALL BE THROUGHOUT THE BUILDING.



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No.	Description	Date
A	SSPE Design Package	12/15/2023

AVAIO PITTSBURG

2232 Golf Club Rd,
Pittsburg, CA 94565

SPPE Design Package

PRELIMINARY FIRE PROTECTION PLAN

C3.0

SCALE: Scale as Noted

LEGEND

	PROPERTY LINE
W	EXISTING WATER LINE
FW	PROPOSED FIRE WATER LINE (SIZE PER PLAN)
	PROPOSED FIRE HYDRANT
	EXISTING FIRE HYDRANT
X	TITLE REPORT EXCEPTION, SEE EXISTING CONDITIONS PLAN C 1.1

EXISTING UTILITY NOTE

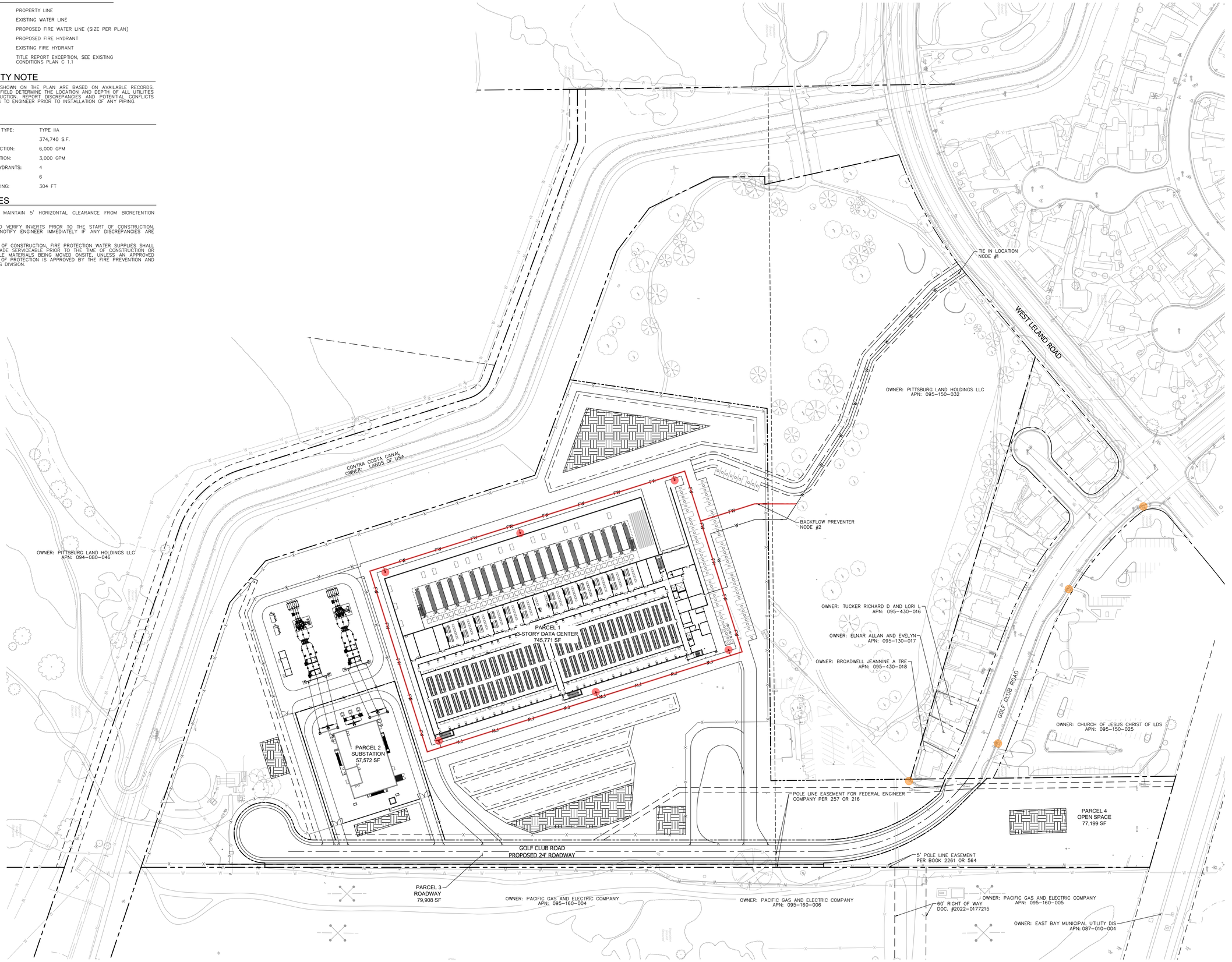
THE EXISTING UTILITIES SHOWN ON THE PLAN ARE BASED ON AVAILABLE RECORDS. THE CONTRACTOR MUST FIELD DETERMINE THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION. REPORT DISCREPANCIES AND POTENTIAL CONFLICTS WITH PROPOSED UTILITIES TO ENGINEER PRIOR TO INSTALLATION OF ANY PIPING.

SITE DATA

BUILDING CONSTRUCTION TYPE:	TYPE IIA
BUILDING AREA:	374,740 S.F.
FIRE FLOW BEFORE REDUCTION:	6,000 GPM
FIRE FLOW AFTER REDUCTION:	3,000 GPM
REQUIRED NUMBER OF HYDRANTS:	4
HYDRANTS PROVIDED:	6
AVERAGE HYDRANT SPACING:	304 FT

GENERAL NOTES

1. DOMESTIC WATER TO MAINTAIN 5' HORIZONTAL CLEARANCE FROM BIORETENTION AREAS.
2. CONTRACTOR TO FIELD VERIFY INVERTS PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.
3. PRIOR TO THE START OF CONSTRUCTION, FIRE PROTECTION WATER SUPPLIES SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO THE TIME OF CONSTRUCTION OR PRIOR TO COMBUSTIBLE MATERIALS BEING MOVED ONSITE, UNLESS AN APPROVED ALTERNATIVE METHOD OF PROTECTION IS APPROVED BY THE FIRE PREVENTION AND HAZARDOUS MATERIALS DIVISION.



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No.	Description	Date
A	SSPE Design Package	12/15/2023

AVAIO PITTSBURG

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SPPE Design Package

PRELIMINARY FIRE WATER SUPPLY ASSESSMENT PLAN

C3.1

SCALE: Scale as Noted

LEGEND

- CENTERLINE
- PROPERTY LINE
- RIGHT–OF–WAY LINE
- DEDICATION LINE
- APPROXIMATE CIVIL LIMIT OF WORK LINE
- SD — PROPOSED STORM DRAIN PIPE
- SD — EXISTING STORM DRAIN PIPE
- GB — GRADE BREAK LINE
- R — RIDGE LINE
- FLOW LINE
- 0" CURB FACE
- 90.50 TC / 90.00 FS — PROPOSED SPOT ELEVATION
- (89.50 TC) / (89.00 FS) — EXISTING SPOT ELEVATION
- 2.00% — PROPOSED FLOW (DIRECTION AND SLOPE)
- 100 — PROPOSED CONTOUR
- 100 — EXISTING CONTOUR

PHASE 1 ESTIMATED EARTHWORK QUANTITIES

CUT: 90,500 CY

FILL: 61,000 CY

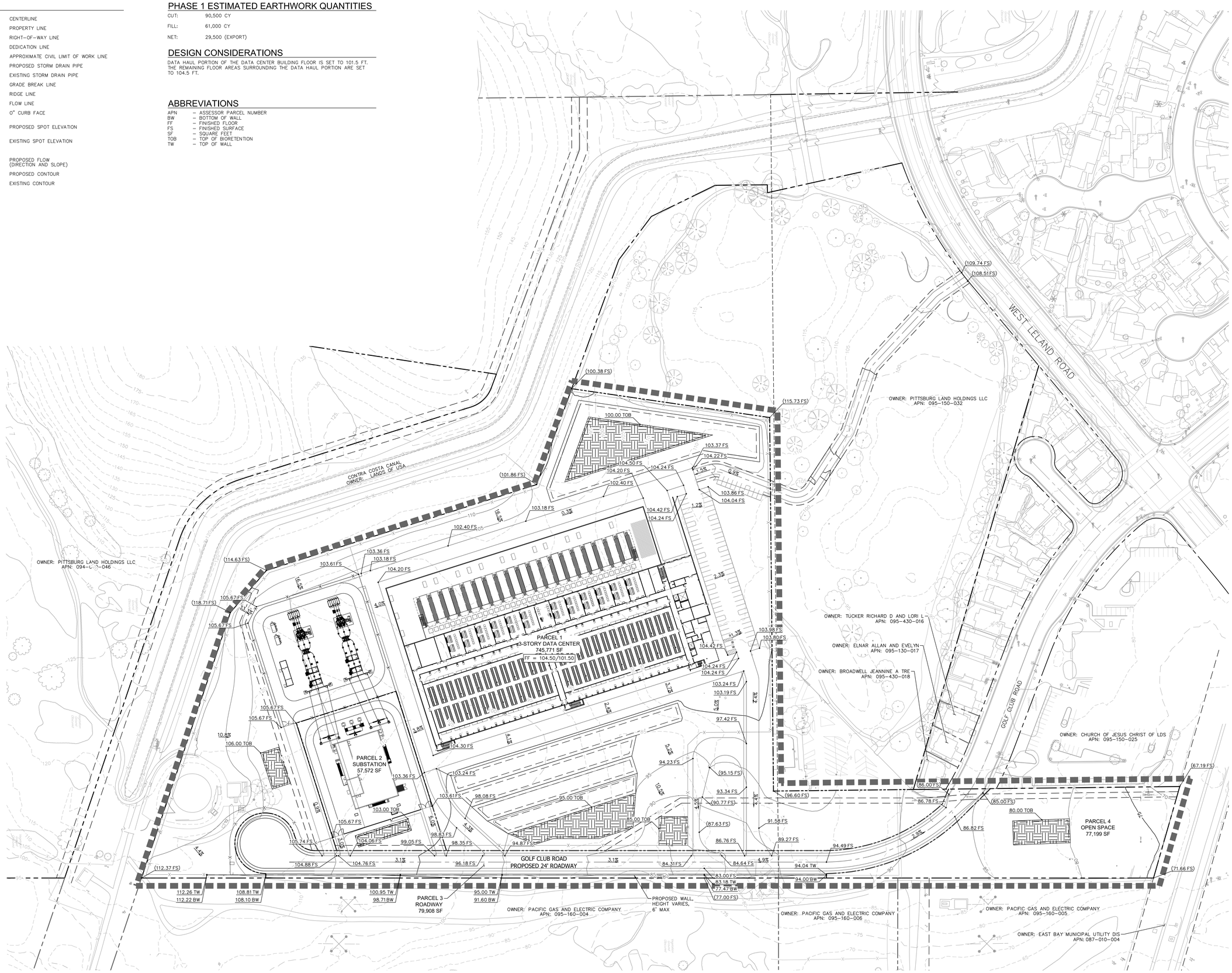
NET: 29,500 (EXPORT)

DESIGN CONSIDERATIONS

DATA HAUL PORTION OF THE DATA CENTER BUILDING FLOOR IS SET TO 101.5 FT. THE REMAINING FLOOR AREAS SURROUNDING THE DATA HAUL PORTION ARE SET TO 104.5 FT.

ABBREVIATIONS

APN – ASSESSOR PARCEL NUMBER
BW – BOTTOM OF WALL
FF – FINISHED FLOOR
FS – FINISHED SURFACE
SF – SQUARE FEET
TOB – TOP OF BIORETENTION
TW – TOP OF WALL



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PRELIMINARY PLANS, NOT FOR CONSTRUCTION

No.	Description	Date
A	SSPE Design Package	12/15/2023

AVAIO PITTSBURG

2232 Golf Club Rd,
Pittsburg, CA 94565

SPPE Design Package

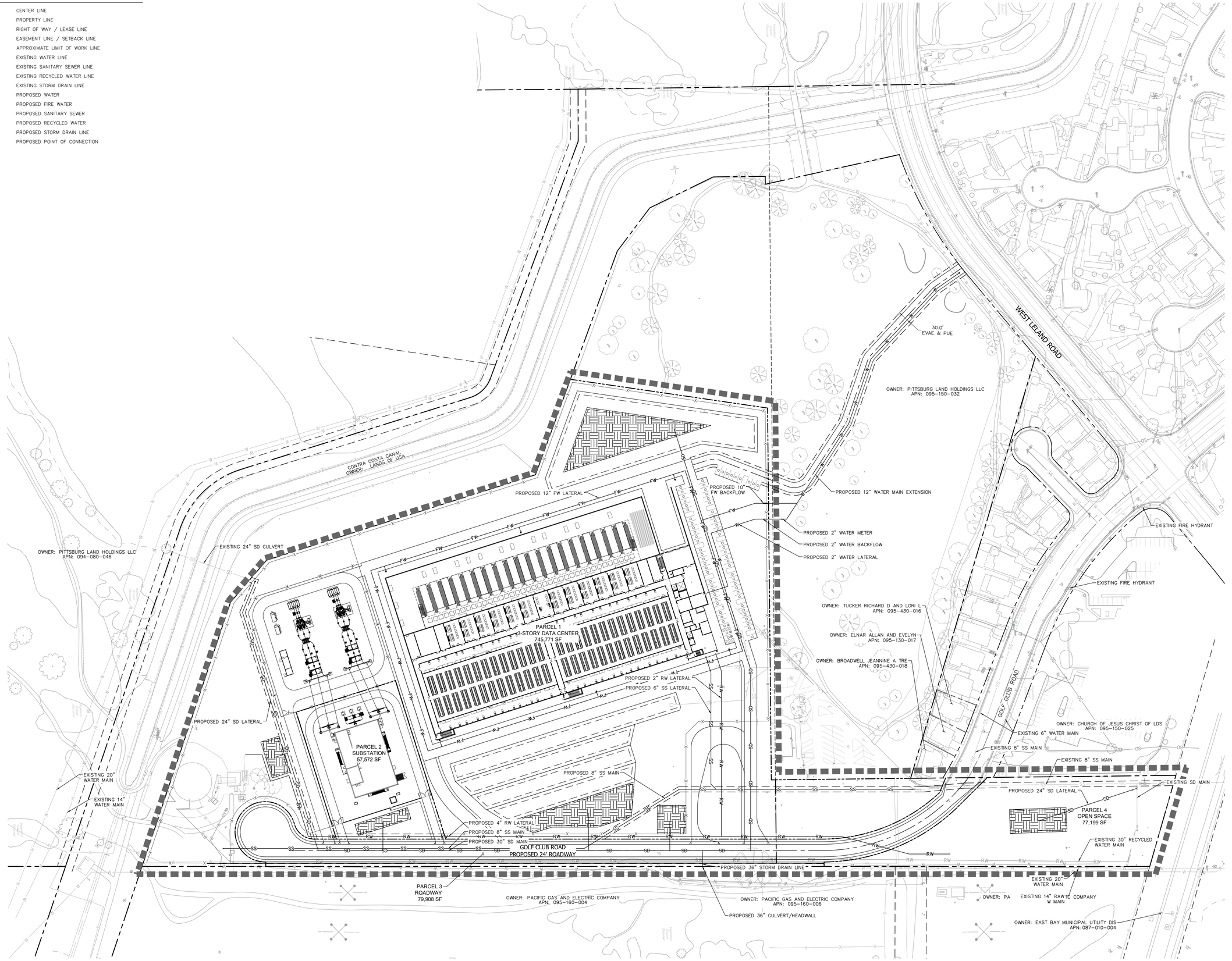
PRELIMINARY GRADING PLAN

C4.0

SCALE: Scale as Noted

LEGEND

- CENTER LINE
- PROPERTY LINE
- RIGHT OF WAY / LEASE LINE
- EASEMENT LINE / SETBACK LINE
- APPROXIMATE LIMIT OF WORK LINE
- W — EXISTING WATER LINE
- SS — EXISTING SANITARY SEWER LINE
- RW — EXISTING RECYCLED WATER LINE
- SD — EXISTING STORM DRAIN LINE
- W — PROPOSED WATER
- FW — PROPOSED FIRE WATER
- SS — PROPOSED SANITARY SEWER
- RW — PROPOSED RECYCLED WATER
- SD — PROPOSED STORM DRAIN LINE
- PROPOSED POINT OF CONNECTION



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PROGRESS SET
NOT FOR CONSTRUCTION

No.	Description	Date
A	SSPE Design Package	12/15/2023

AVAIO PITTSBURG

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SPPE Design Package

PRELIMINARY
COMPOSITE UTILITY
PLAN

C5.0

SCALE: Scale as Noted

LEGEND

- CENTER LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE / LEASE LINE
- EASEMENT LINE / SETBACK LINE
- SD — EXISTING STORM DRAIN LINE
- SD — PROPOSED STORM DRAIN LINE
- GB — GRADE BREAK LINE
- R — RIDGE LINE
- DENOTES DRAINAGE AREA (DA) BOUNDARY
- DENOTES DRAINAGE MANAGEMENT AREA (DMA) BOUNDARY
- BIORETENTION AREA
- PROPOSED SURFACE FLOW DIRECTION
- PROPOSED STORM DRAIN PIPE FLOW DIRECTION

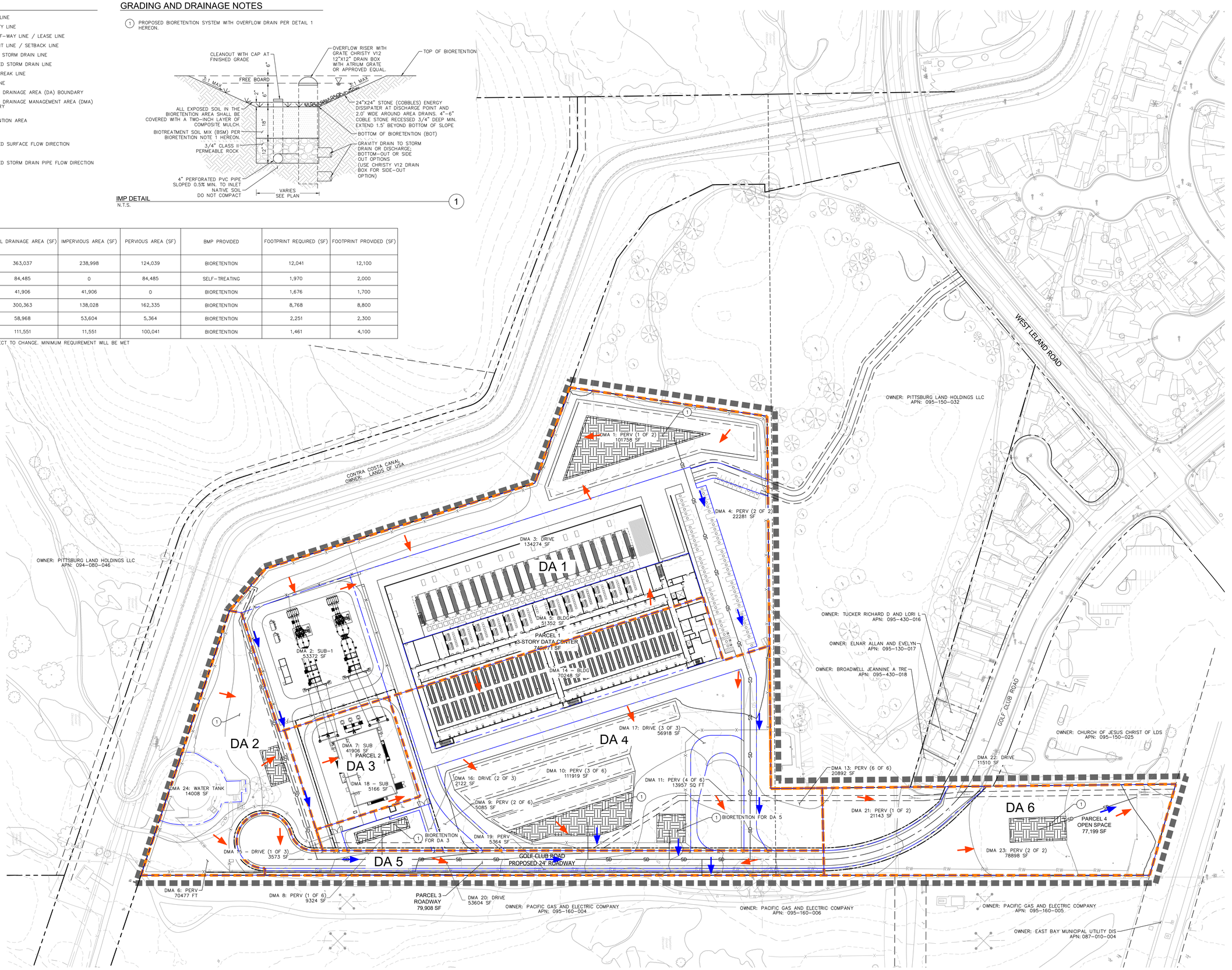
GRADING AND DRAINAGE NOTES

1. PROPOSED BIORETENTION SYSTEM WITH OVERFLOW DRAIN PER DETAIL 1 HEREON.

IMP DETAIL 1
N.T.S.

DA #	BMP ID#	TOTAL DRAINAGE AREA (SF)	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	BMP PROVIDED	FOOTPRINT REQUIRED (SF)	FOOTPRINT PROVIDED (SF)
1		363,037	238,998	124,039	BIORETENTION	12,041	12,100
2		84,485	0	84,485	SELF-TREATING	1,970	2,000
3		41,906	41,906	0	BIORETENTION	1,676	1,700
4		300,363	138,028	162,335	BIORETENTION	8,768	8,800
5		58,968	53,604	5,364	BIORETENTION	2,251	2,300
6		111,551	11,551	100,041	BIORETENTION	1,461	4,100

NOTE: BIORETENTION AREAS SHOWN SUBJECT TO CHANGE. MINIMUM REQUIREMENT WILL BE MET



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No.	Description	Date
A	SSPE Design Package	12/15/2023

AVAIO PITTSBURG

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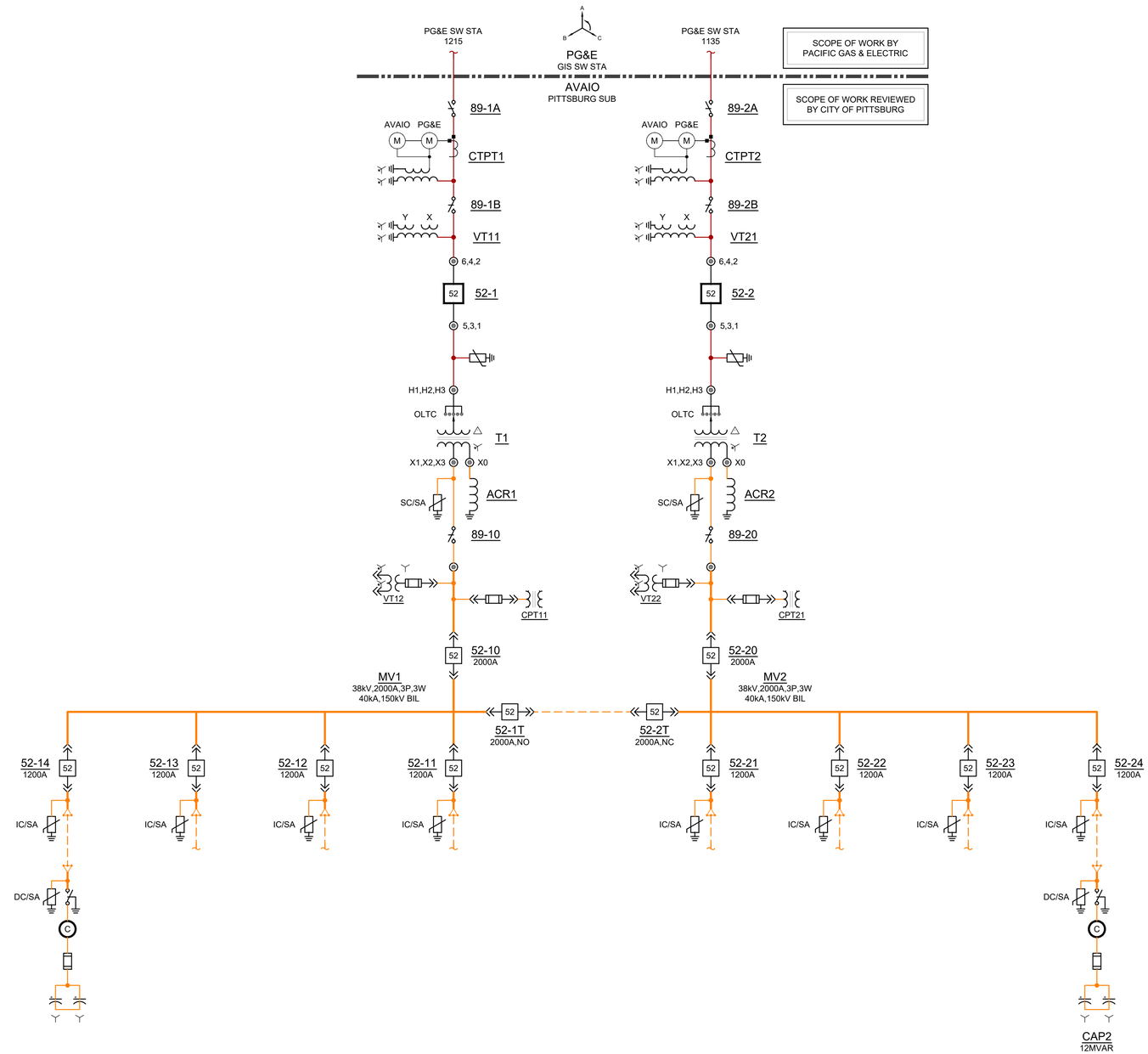
PRELIMINARY STORM WATER MANAGEMENT PLAN

C6.0

SCALE: Scale as Noted



GENERAL NOTES

1. ALL BREAKERS AND SWITCHES ARE CLOSED DURING NORMAL OPERATION UON
2. UTILITY IS NOT TO BE PARALLELED THROUGH CUSTOMER SWITCHGEAR.

SYMBOLS

- BUS
- FEEDER
- FEEDER UNDERGROUND
- CONTINUATION
- PT WIRING
- 3 PHASE CT WIRING
- SCOPE OF WORK BOUNDARY
- 230kVAC
- 34.5kVAC
- PHASE ROTATION
- 2-WINDING POWER TRANSFORMER 66/88/110MVA, 65°C, KNAN/KNAF/KNAF, 230kV-34.5kV, 7.5%Z
- MOV SURGE ARRESTER @ 230kV: 192kV, 152kV MCOV, SC/SA @ 38kV: 36kV, 29kV MCOV
- HIGH VOLTAGE CIRCUIT BREAKER 245kV, 1200A, 40kA, SF6
- VERTICAL BREAK SWITCH GANG OPERATED 1200A, 245kV, QUICK BREAK WHIPS 2000A, 38kV, ARC HORNS
- INTERLOCKED GROUNDING SWITCH
- 3-WINDING POTENTIAL TRANSFORMER (FURNISHED BY PG&E) 138kV-115/69V, 1200/2000:1, 0.3WXYZ,ZZ
- 3-WINDING POTENTIAL TRANSFORMER 138kV-115/69V, 1200/2000:1:1, 0.3WXYZ,ZZ
- AIR CORE REACTOR, Z=66.4Ω, 300A, 10 SECOND
- 2-WINDING CONTROL POWER TRANSFORMER 50kVA, AA, 34.5kV-240/120V
- OLTC = +/-10%, 33-POSITION, 16 FCAN & FCBN
- AIR INSULATED BUSHING
- CAPACITOR SWITCH
- MEDIUM VOLTAGE DRAWOUT CIRCUIT BREAKER 38kV, 16kA
- MEDIUM VOLTAGE DRAWOUT FUSE, (2)5E
- MV DRAWOUT FUSED POTENTIAL TRANSFORMER (3)1E FUSES DUAL WINDING 20.125kV-115V (175:1) & 20.125kV-67V (300:1)
- FUSE
- CAPACITOR BANK, 6MVAR
- TEST SWITCH
- CURRENT TRANSFORMER, 400:5A SR
- METER
- WYE UNGROUNDED, GROUNDED, IMPEDANCE GROUNDED
- DELTA
- EARTH & FRAME GROUND
- LIVE FRONT TERMINATION

ABBREVIATIONS

2P	2-POLE
3P	3-POLE
AC	ALTERNATING CURRENT
ACR	AIR CORE REACTOR
DC	DISTRIBUTION CLASS
IC	INTERMEDIATE CLASS
MCOV	MAXIMUM CONTINUOUS OPERATING VOLTAGE
MV	MEDIUM VOLTAGE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OLTC	ON LOAD TAP CHANGER
SA	SURGE ARRESTER
SC	STATION CLASS
SR	SINGLE RATIO
UON	UNLESS OTHERWISE NOTED
Z	IMPEDANCE

REVISION HISTORY		
△	DESCRIPTION	DATE
a	CEC SUBMITTAL	11.03.23

STAMP

ENGINEERING SERVICES

PHASE X engineering

151 NORTH SUNRISE AVE, SUITE 1016
ROSEVILLE, CA 95661 | Tel: (916) 297-1127

CLIENT

AVAIO CAPITAL

PROJECT

PITTSBURG DATA CENTER

GOLF CLUB ROAD
PITTSBURG, CA 94565

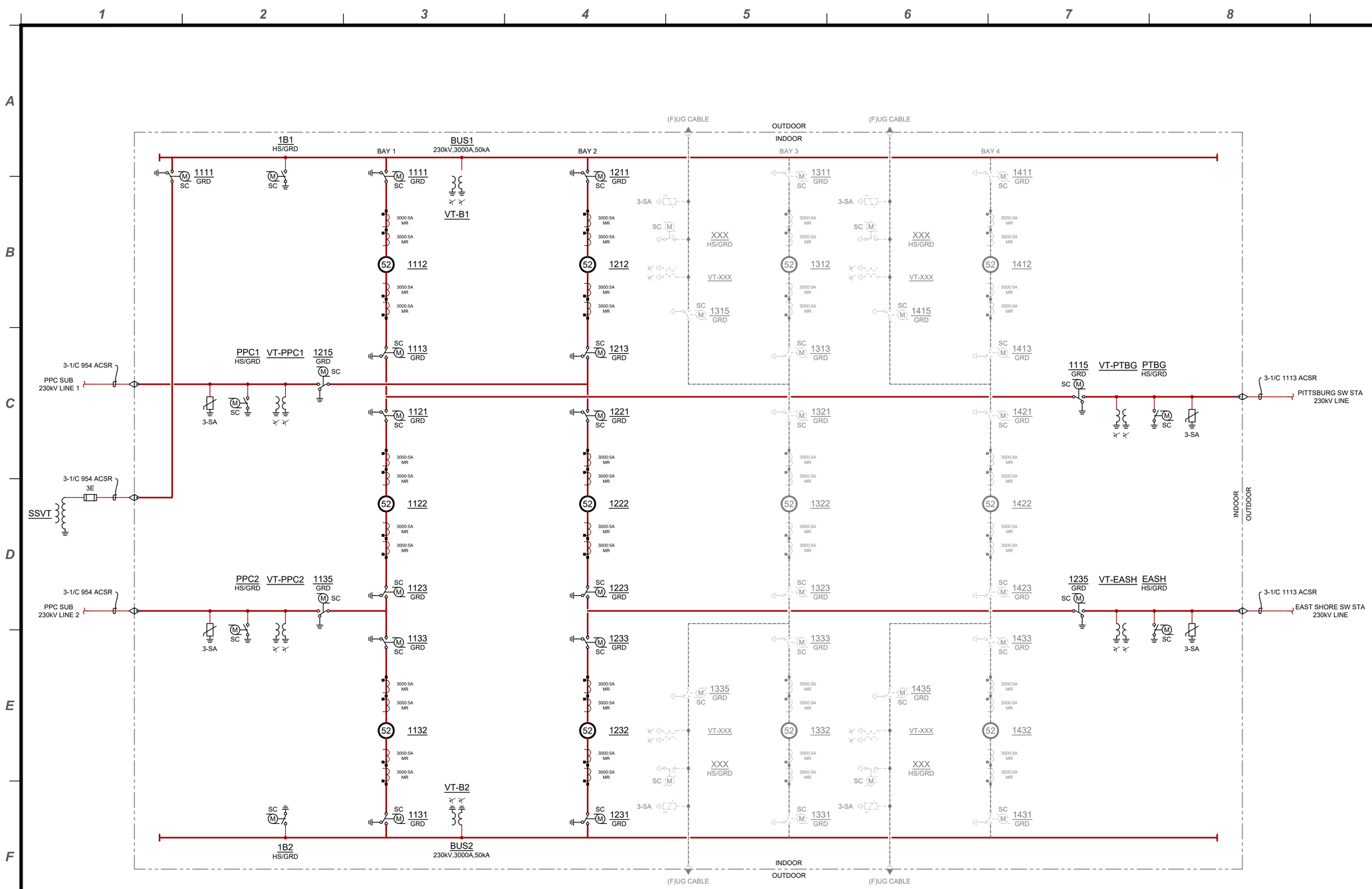
SHEET TITLE

PPC SUBSTATION SWITCHING DIAGRAM

SHEET NUMBER

E1.10

PROJECT No ----



GENERAL NOTES

1. ALL BREAKERS AND SWITCHES ARE CLOSED DURING NORMAL OPERATION UON.

SYMBOLS

- BUS — 230kVAC
- FEEDER — 208VAC
- FEEDER UNDERGROUND
- CONTINUATION
- PT WIRING
- FUTURE FEEDER
- FUTURE EQUIPMENT
- CIRCUIT BREAKER 115kV, 3000A, 50kA, SF6
- CURRENT TRANSFORMER
- 2-WINDING POTENTIAL TRANSFORMER 133kV-110/66V, 1200/2000:1
- SERVICE STATION VOLTAGE TRANSFORMER 50kVA,133kV-208Y120V
- SURGE ARRESTER MCOV TBD
- FUSE
- HIGH SPEED GROUND SWITCH
- 3 POSITION DISCONNECT/GROUND SWITCH
- MOTOR OPERATOR
- GIS TO AIR INSULATED CONNECTION
- GIS TO CABLE CONNECTION
- WYE GROUNDED
- DELTA
- EARTH & FRAME GROUND

ABBREVIATIONS

A	AMPERES
AC	ALTERNATING CURRENT
HS	HIGH SPEED
GRD	GROUND
GIS	GAS INSULATED SWITCHGEAR
kA	KILO AMPS
kV	KILOVOLTS
MR	MULTI RATIO
SA	SURGE ARRESTER
SC	SCADA CONTROLLED
UG	UNDERGROUND CABLE
UON	UNLESS OTHERWISE NOTED
VT	VOLTAGE TRANSFORMER

REVISION HISTORY		
△	DESCRIPTION	DATE
a	CEC SUBMITTAL	11.03.23

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ENGINEERING SERVICES

PHASE X engineering
151 NORTH SUNRISE AVE, SUITE 1016
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CLIENT: AVAIO CAPITAL

PROJECT: **PITTSBURG DATA CENTER**
GOLF CLUB ROAD
PITTSBURG, CA 94565

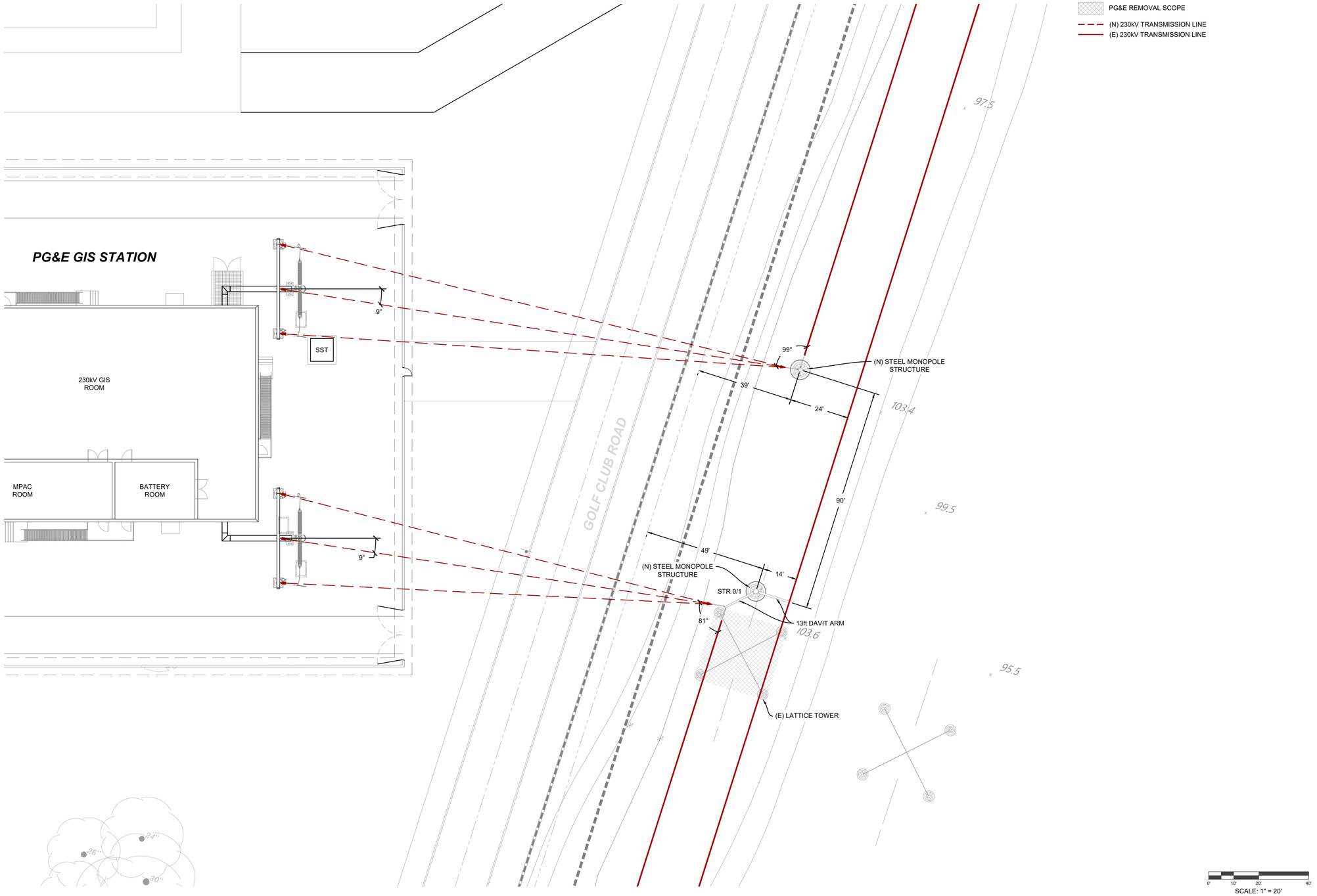
SHEET TITLE: **PG&E GIS STATION SWITCHING DIAGRAM**

SHEET NUMBER: **E1.20**

PROJECT No ----

SYMBOLS LEGEND

- PG&E REMOVAL SCOPE
- (N) 230kV TRANSMISSION LINE
- (E) 230kV TRANSMISSION LINE



REVISION HISTORY			STAMP	ENGINEERING SERVICES	CLIENT	PROJECT	SHEET TITLE	SHEET NUMBER
△	DESCRIPTION	DATE		PHASE X engineering 151 NORTH SUNRISE AVE, SUITE 1016 ROSEVILLE, CA 95661 | Tel: (916) 297-1127 THIS DRAWING WAS PREPARED BY PHASE X ENGINEERING, INC. IN ACCORDANCE WITH THE PROFESSIONAL ENGINEERS ACT OF THE STATE OF CALIFORNIA FOR A SPECIFIC PROJECT TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM PHASE X AND IT'S CLIENT IS GRANTED.	AVAIO CAPITAL	***PITTSBURG DATA CENTER*** ***GOLF CLUB ROAD*** ***PITTSBURG, CA 94565***	**TRANSMISSION EXHIBIT**	**TX-101**
a	*CEC SUBMITTAL*	*11.03.23*						
	CEC SUBMITTAL	*12.14.23*						PROJECT No ----