ENVIRONMENTAL CHECKLIST - INITIAL STUDY

PROJECT INFORMATION

1.	Project Title:	Tesla 47700 Kato Road and 1055 Page Avenue Improvements Project (PLN2020-00157)
2.	Lead Agency Name and Address:	City of Fremont Community Development Department 39550 Liberty Street, 1st Floor Fremont, CA 94538
3.	Contact Person and Phone Number:	Clifford Nguyen, Deputy Planning Manager/Zoning Administrator City of Fremont Planning Division 39550 Liberty Street P.O. Box 5006 Fremont, CA 94537-5006 P: (510) 494-4454 F: (510) 494-4457 Email: cnguyen@fremont.gov
4.	Project Location:	47700 Kato Road and 1055 Page Avenue, Fremont, CA 94538 (APN 519-1010-130-1)
5.	Project Sponsor's Name and Address:	Tesla Contact: Ashley Villoria 47700 Kato Road Fremont, CA 94538
6.	General Plan Designation:	The Project site is located in a portion of the City of Fremont designated as Tech Industrial. This designation primarily applies to areas used for research and development, "clean and green" tech, and semi-conductor, computer hardware, software and related technological, administrative, sales and engineering facilities. As indicated in the General Plan, "these areas play an essential role in the Silicon Valley economy and provide a high volume of business-to-business sales tax for Fremont. Manufacturing is permitted, provided that characteristics such as noise, vibration, and odor do not generate significant impacts. Warehousing, wholesaling and distribution facilities also may locate within these areas. A moderate level of hazardous materials handling and storage may occur. Increases to the level of hazardous materials present within a facility or on a site may also occur under either the Zoning Administrator or Conditional Use Permit process. Some of the Tech Industrial areas are characterized by a campus-like environment of one- and two-story buildings on large parcels. Architectural and landscape standards have been applied in these areas to maintain high standards of visual quality. A permitted FAR of 0.35 applies, although FARs up to 0.45 are permitted for manufacturing and warehouse uses."

7. Zoning:

The Project site is correspondingly zoned Industrial-Technology (I-T). The I-T zone is intended to provide areas devoted to research and development activities, "clean and green" tech, and semi-conductor, computer hardware, software and related technological, administrative, sales and engineering facilities. Within the I-T district, certain Group A, B, and C hazardous materials uses, and manufacturing and/or the storage of particularly large sizes/quantities of hazardous materials are regulated to minimize potential for off-site impacts. Only certain non-sensitive assembly, business service and non-sensitive recreational uses may be permitted. The I-T district is characterized by superior architectural and landscaping treatment and site planning. Pursuant to Fremont Municipal Code (Zoning) section 18.50.030, the following building and site standards apply to the Project site:

- Lot area (minimum): 20,000 square feet
- Lot width (minimum): 70 feet
- Building height (maximum): 75 feet
- Floor area ratio (FAR – maximum): 0.35 - except 0.45 for general warehouse and manufacturing

Applications to increase building heights or FAR beyond the maximum are processed as a modification of zoning standards under FMC Chapter 18.250.

8. Description of Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

Tesla (the Applicant) proposes to implement certain tenant improvements at their existing facilities located at 47700 Kato Road and at 1055 Page Avenue in the City of Fremont. The facilities would be utilized for battery research and development (R&D) and manufacturing. Tenant improvements to 47700 Kato Road include the addition of a second floor within the existing building and a smaller third floor addition above the existing roofline, both within the zoning height limit and existing building footprint. Additional hazardous materials would be introduced to the site to accommodate the battery R&D and manufacturing processes. A new electrical equipment yard would be constructed between the two buildings on an existing landscaped area. See the following for a more detailed description of baseline conditions and proposed improvements.

9. Surrounding Land Uses and Setting: (Briefly describe the project's surroundings)

The Project site at 47700 Kato Road/1055 Page Avenue is an approximately 9.3-acre, fully developed property (APN # 519-1010-130-1) located in the City of Fremont, about midway between Warren Avenue and Dixon Landing Road (see Figure 1). In this location, Kato Road is a frontage road immediately adjacent to the I-880 freeway. The Project site is approximately 140 feet from the nearest travel lane on I-880. The Project site is surrounded on the three remaining sides by other developed industrial land uses. The nearest sensitive receivers (religious centers, daycare centers, learning center, etc.) are approximately 0.4 miles (2,112 feet) from the site. The site is currently occupied by two existing buildings – the 2-story, 126,312 square-foot Kato Building, and the 2-story, 72,285

square-foot Page Building at the rear of the property, which fronts onto the adjacent Page Avenue (see Figure 2).

10. Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement)

Discretionary Project approvals include:

- City of Fremont – Zoning Modification to allow for increased FAR and a parking reduction.
- City of Fremont – Conditional Use permit to allow the proposed storage, handling, and use of hazardous chemicals.
- City of Fremont – Discretionary Design Review for the third floor addition to 47700 Kato Road.

If the Project is approved, a number of subsequent administrative permits or approvals will be required, including but not limited to:

- City of Fremont – issuance of administrative building, mechanical, electric and plumbing permits
- City of Fremont – approval of a Hazardous Materials Management Plan (HMMP)
- Union Sanitary District – issuance of a new or modified Wastewater Discharge Permit (WDP)
- Bay Area Air Quality Management District (BAAQMD) – issuance of permits and/or exemptions for stationary source emissions from new manufacturing equipment

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?
Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

Letter notification of the Project was sent by the City to local tribes on March 4, 2020. No request for consultation was received at the time this document was prepared. Due to the nature of the Project (i.e., improvements to an existing building with minimal excavation required), it is not anticipated that tribes would identify a tribal cultural resource with the potential to be impacted by this Project. In addition, the site is not located in an area with known sensitive cultural resources.

Additional Project Description Information:

Baseline Conditions

In general, CEQA Guidelines Section 15125 indicates that the environmental setting (or baseline) as the physical environmental conditions as they exist at either the date of the Notice of Preparation of an EIR, or at the time the environmental analysis is commenced. Where existing conditions change of fluctuate over time, and where necessary to provide the most accurate assessment of the project's impacts, "a lead agency may define existing conditions by referencing historic conditions".

At the time this environmental review commenced, Tesla employees are currently working in both the Kato building and the Page building, but these activities have been, and continue to be in a state of transition. Tesla has obtained demolition permits from the City, and portions of the Project site are closed to access and under demolition activity, in preparation for construction and operation of the Project. The immediately current circumstances are a departure from the level of activity that ordinarily would occur. As a result, the immediately present circumstances do not provide a reasonable or realistic baseline from which to assess the Project's impacts.

Although Tesla has occupied the building and installed a small-scale battery manufacturing facility in the Kato building, the last full-scale operation and use of either the Kato building or the Page building was in 2017, when Solar City conducted R&D and manufacturing of solar panels at the site. At that time, Solar City employed up to 300 employees conducting research and development, as well as manufacturing operations. As used in this document, the baseline condition for the property is as it existed in 2017, as a fully operational manufacturing/R&D facility. This has been selected as the baseline for environmental analysis because it represents the most reasonably accurate scenario from which to evaluate the potential Project impacts.

Proposed Improvements

47700 Kato Building

The majority of improvements proposed pursuant to the Project involve interior changes to the existing Kato building. The Kato Building is a 2-story structure, 126,312 square-foot building with a first floor footprint of 96,976 square feet. Within this first floor area, the existing battery manufacturing and R&D facilities (known as TERA) occupy the western portion of the floor, offices and support functions (café, storage, shipping and receiving) ring the south and east portions of the floor, and utilities and mechanical support space rings the northern portion of the floor (see Figure 3). The center portion of the first floor is currently unoccupied. The second floor of the building has a smaller floor area of 50,821 square feet, primarily occupied by offices that ring the exterior edges of the building. An approximately 46,155 square-foot portion of second floor is open from the ground floor to the second floor roof.

To accommodate new battery manufacturing equipment and R&D space (known as ROADRUNNER), the Project proposes to construct an additional floor area of approximately 21,485 square feet at the second floor (covering a portion of the central space that is open to the second floor roof – see Figure 4) and to add an additional, smaller approximately 8,260 square-foot third floor above (see Figure 5). These improvements will increase the total floor space of the existing Kato building by approximately 29,745 square feet (to a total of 156,057 square feet), but will not change the footprint of the building or its exterior facades (see Figure 6). No grading or excavation is necessary for these improvements, and nearly all construction work will be conducted internally within the existing building. The Project will also add a number of rooftop mechanical equipment (e.g., air handlers, HVAC systems and fans) that support the new battery manufacturing operations. Once this internal floor space is constructed, Tesla will move in the new equipment that supports its expanded battery manufacturing and R&D operations.

1055 Page Building

The second existing building towards the rear on the site is the 72,285 square foot Page building, which has a first floor area of 58,568 square feet and a mechanical penthouse of 13,717 square feet. No major modifications to the structure of this building are proposed, but existing available space within the southerly and northwesterly portion of this building will be used to accommodate Tesla's additional ROADRUNNER-supporting manufacturing and R&D

operations, including a portion of cathode electrode manufacturing and the final process step in battery cell manufacturing (see Figure 7). Additional rooftop mechanical equipment will also be added to this building.

Minor Exterior Changes

The Project involves only a few, relatively minor exterior changes to the site.

Along the westerly portion of the Kato building within an area currently used as a courtyard between Kato and Page, a small electrical equipment yard will be constructed. The electrical equipment yard will occupy a small, approximately 2,700 square-foot site, fenced to screen pedestrian access. The equipment within the yard will be used to modulate electrical power to the building as needed to stabilize electrical surges and dips in the PG&E power source, so that the electrical equipment receives a constant, steady power supply.

Current access to the Project site is via two driveways along Page Avenue, and one driveway along Kato Road. A second driveway along Kato Road at the northwest corner of the Project site is an access-controlled entry with a gate, providing access for truck deliveries only. Trucks entering the site at this driveway will turn right and exit the site via the existing Page Avenue driveway.

Construction Schedule

Tesla expects that construction of the entire Project, including structural modifications to the Kato building, installation of all mechanical and manufacturing equipment, and assembly operations, can all be accomplished in approximately 3 months.

Operational Changes

Employees

Tesla plans to have approximately 100 employees working on a shift schedule (with two shifts per day), along with an additional approximately 70 employees working a standard workweek schedule (8am to 5pm, Monday to Friday) in support of Project, at any one time The facility is expected to operate 24 hours a day, 7 days a week. Manufacturing activities will take place continuously except for occasional maintenance windows. The more R&D-focused activities will primarily occur Monday through Friday, 8am to 5pm.

A total of 470 employees will be assigned to the Project site, as follows:

- 45 employees will work 8am to 5pm on weekdays, primarily in R&D-related functions
- 25 employees will work 8am to 5pm on weekdays, primarily in manufacturing-related functions
- The remaining 400 employees will work in shifts, such that there are 100 employees working at manufacturing and production operations at any given time, all day, every day. Shifts change at 6am and 6pm daily. The shifts operate such that 100 employees work day shifts in the first half of the week, 100 employees work night shifts for the first half of the week, 100 employees work day shifts during the second half of the week, and 100 employees work night shifts during the second half of the week.

Truck Operations

It is anticipated that the Project will generate up to 38 trucks delivering materials to the site and shipping manufactured batteries each day.

Manufacturing Operations – Hazardous Materials

As part of the manufacturing and R&D processes that Tesla is proposing to conduct at the facility, a number of different chemicals and materials will be stored, handled and used for product research and development. Some of these chemicals and materials are flammable, highly toxic, toxic and/or corrosive in nature, which are typical for battery manufacturing operations. Pursuant to the FMC (Section 18.50, Table 18.50.090), industrial uses such as alternative energy products and related components and services (e.g., batteries, energy storage and LEDs) must comply with specific regulations pertaining to hazardous materials, as contained in Section 18.190.220 and Chapter 8.35 of the FMC.

Section 18.190.220 of the FMC regulates hazardous materials (substances which are capable of posing a risk to health, safety or property) based on its chemical properties, on the quantity of the material at a site, how the material is stored, and how it is used. Hazardous materials are classified into three groups:

- Group A, representing those materials that pose a higher risk
- Group B, representing those that pose a more moderate risk, and
- Group C, those posing the least risk to health, safety, or property

Section 18.190.220 of the FMC also differentiates between different types of Hazardous Materials Facilities (Bulk Plants, Bulk Distribution, Large User Sites, Large Storage Plants, Medium User Sites, Medium Storage Plants, Small User Sites, Small Storage Plants and Very Small Storage or Use). Depending on the type of hazardous materials facility and the chemicals used, these facilities are generally permitted only upon granting of a conditional use permit.

The Project's operations require use of specific process materials that are categorized as Group A, B, or C per the FMC, and the amounts of certain material groups exceed the normally permitted limit for a property in the I-T zoning district.

Furthermore, pursuant to FMC Section 8.35.130, no new facility involving the handling of hazardous materials (such as the Project) can receive a Certificate of Occupancy until a hazardous materials permit has been issued by the City. Applications for such a permit are required to have a City-approved Hazardous Materials Management Plan (HMMP) that demonstrates the safe storage, transportation, use and handling of hazardous materials.

Standard Development Requirements

The City of Fremont has established standard development requirements to address resource protection (FMC Chapter 18.218). These requirements apply to air quality (construction-related emissions), biological resources (special-status species), and cultural resources (notification of affiliated California Native American Tribes and accidental discovery of cultural resources). The proposed project would comply with these standard development requirements, which are described in greater detail in the relevant topical area of the Initial Study

Project Approvals

The City of Fremont is the lead agency, with the authority for approving or denying the Project. Initial City approvals requested include:

Zoning Modification

The Project site is 405,543 square feet (approximately 9.3 acres), and currently has a total of 184,880 square feet of building space divided between the Kato building (126,312 square feet) and the Page building (72,285 square feet), for an existing Floor Area Ratio (FAR) of approximately 0.48. The Project would add approximately 29,745 square feet of building space, increasing the total building space on the site to 228,342 square feet, or an FAR of up to and no greater than 0.60. Fremont Municipal Code Section 18.50.030 provides that the maximum FAR allowed for general warehouse and manufacturing uses is 0.45. In 1996, the City approved an FAR increase for this site to a maximum of 0.48 to allow the construction of the 47700 Kato Road building and the Project would exceed this FAR limit. Pursuant to FMC Section 18.250, applications to increase FAR beyond the maximum allowed or previously approved increase are processed as a modification of zoning standards.

In addition, the project requires a parking reduction as the proposed design would not entirely meet the required number of parking spaces for an industrial use of this size. Industrial uses including R&D, assembly and manufacture of electronic components and similar uses are required to meet the minimum required parking spaces pursuant to the FMC. Parking reductions are processed as a modification of zoning standards pursuant to FMC Section 18.250.

Conditional Use Permit

The Project's operations require the use of specific process materials that are categorized as Group A, B, or C hazardous chemicals per FMC Section 18.190.220. The amounts of certain hazardous material groups exceed the permitted limit for a property in the I-T zoning district. Therefore, a Conditional Use Permit is required.

Discretionary Design Review Permit

The project would add a third floor above the 47700 Kato Road building. As this addition is part of a larger project application with permits subject to Planning Commission review, the Discretionary Design Review Permit is being referred to the Planning Commission for consideration at a public hearing per FMC 18.235.040.

Subsequent Approvals

If the Project is approved, a number of subsequent administrative permits or approvals will be required, including but not limited to:

- City of Fremont – issuance of administrative building, mechanical, electric and plumbing permits
- City of Fremont – approval of a Hazardous Materials Management Plan (HMMP)
- Union Sanitary District – issuance of a new or modified Wastewater Discharge Permit (WDP)
- Bay Area Air Quality Management District (BAAQMD) – issuance of permits and/or exemptions for stationary source emissions from new manufacturing equipment

CEQA DETERMINATION

Summary of CEQA Findings

An evaluation of the proposed Project is provided in the attached Initial Study Checklist, prepared pursuant to CEQA Guidelines Section 15063. In accordance with CEQA Guidelines Section 15164 and Sections 15070 et. seq., and as set forth in the analysis below, the Project qualifies for both an Addendum to a previously prepared Negative Declaration and a Mitigated Negative Declaration because the following findings can be made:

- Addendum: The analysis included in the attached Initial Study also demonstrates that an Addendum to a previously adopted Negative Declaration (the 1996 Negative Declaration for the HMT Technologies Project) applies. The conclusions reached in the 1996 Negative Declaration remain valid, and none of the conditions described in CEQA Section 15162 require a Subsequent Negative Declaration for the Project. The Project would not cause new significant impacts that were not previously identified in the 1996 Negative Declaration, would not result in a substantial increase in the severity of impacts previously identified in the 1996 Negative Declaration, and no new information has been put forward that shows that the Project would cause significant environmental impacts, given that the Project applicant (Tesla) has agreed to adopt mitigation measures that would substantially reduce one or more potentially significant effects on the environment.
- Mitigated Negative Declaration: In accordance with CEQA Guidelines Section 15070 et. seq., the analysis included in the attached Initial Study does identify certain potentially significant environmental effect (those related to hazardous materials and greenhouse gas emissions), but revisions in the Project plans made by, and agreed to be the applicant (Tesla) would avoid these effects, or mitigate the effects to a point where no significant effects would occur. There is no substantial evidence, in light of the whole record, that the Project as revised may have a significant effect on the environment.

Each of the above provides a separate and independent basis for CEQA compliance.

Addendum to the 1996 Negative Declaration

Background

HMT Technology was an independent supplier of high-performance, thin film disks for hard disk drives. These drives were installed in personal computers, network servers and workstations. HMT Technologies started their disk manufacturing operations at their facility at 1220 Page Avenue in 1984. In 1989, the company purchased land across the street at 1055 Page and built a 72,300 square-foot office headquarters and manufacturing building (the 1055 Page building).

In 1996, HMT Technology proposed to construct a new 124,010 square-foot, two-story industrial building (now known as the 47700 Kato building), to be added to a 9.3-acre site on which the 1055 Page building already existed. That project (the 1996 Project) required an increase in the permitted floor-area-ratio (FAR) for the site. The combined floor area for both buildings was 196,310 square feet, and the proposed FAR represented an increase from a FAR of 0.35 to 0.48. The proposed use of these buildings pursuant to the 1996 Project was for industrial use that were permissible under the City's then existing Restricted Industrial (R-I) zoning district - specifically to house computer disk manufacturing facilities and associated R&D and office space. These operations required a highly specialized clean-room environment, and housed texturing, thin film application and testing, and the final steps in the disk manufacturing process.

1996 Negative Declaration

Pursuant to the requirements of CEQA, the City of Fremont reviewed the 1996 Project to determine the likelihood of a significant adverse environmental impact occurring as a result of project completion. The City prepared an Initial Study (Environmental Impact Assessment No. 96-119) leading to a Negative Declaration (the 1996 Negative Declaration). The 1996 Negative Declaration found that the 1996 Project was consistent with the General Plan and

conformed to the zoning for the site, and that all services and utilities were provided and available to the site. No significant vegetation, wildlife or natural resources were found to be displaced, destroyed or removed by the intended development. The 1996 Negative Declaration included provisions that required the applicant to comply with all City codes, regulations and policies. The applicant was required to continue to operate the 1996 Project facilities in a manner harmonious with the adjacent and nearby uses, and in keeping with the protection of the health, safety and welfare of the general public.

The 1996 Negative Declaration included a number of mitigation measures to be included in the project to avoid potentially significant impacts, as listed below:

1. Prior to the issuance of building permits for the proposed 124,010 square foot building, the applicant must receive approval and recordation of the lot combination, in order to create a single parcel, to construct the proposed building and lot lines to meet building code requirements, and to be consistent with land uses in the vicinity of the project.
2. Specific proposals for building construction will be reviewed by the Development Organization for suitable architectural design, landscaping, parking, and circulation, and for compatibility with the City of Fremont Municipal Code and adjacent properties.
3. The project will be required to be developed in a manner providing reasonable engineering assurance against secondary seismic effects of ground shaking and liquefaction, as well as against flooding of the site and buildings.
4. The grading and drainage design shall conform to the Best Management Practices of the Alameda County Urban Storm Water Runoff Program.
5. No earlier than thirty days prior to commencement of any site grading, disking, testing or clean-up required by project mitigation measures, a site investigation shall be completed by a qualified wildlife biologist to determine the presence of burrowing owls. If burrowing owls are present, all work shall cease until the wildlife biologist has recommended appropriate actions to be taken to protect the owls. The applicant shall be responsible for the implementation of the protective actions, including relocation, prior to the commencement of any site work. The site investigation shall be subject to the approval of the Development & Environmental Services Director.
6. The applicant will be required to record a deed restriction with the Alameda County Recorder's Office to guarantee adequate parking will be provided on the site. At such time as evidence is presented to the Director of Development & Environmental Services Department that a parking shortage exists as a result of increased employee ratio, or an increase in the number of employee vehicles, or as a result of overlapping of shifts, the Director shall require the applicant to institute measures to correct the parking deficiency. The corrective measures may include, but not be limited to, providing adequate time span between shifts to allow sufficient numbers of parking spaces to become available for the on-coming shift, or providing adequate parking elsewhere, pursuant to the Fremont Municipal Code.
7. The applicant shall provide a written guarantee that the increased FAR will not be used to create a more intensive use than the use specified by the approved Finding, particularly to assure that the proposed development is constructed using identified ratios of space use for office, warehouse, and storage, and that adequate parking is provided for the scale of the proposed use and that exterior physical space and access are provided onsite for future parking to meet a required ratio of one space per each 300 square feet of building. The guarantee will be in the form of a deed restriction for recordation by the County Recorder, subject to the review and approval of the City Attorney and the Development and Environmental Services Director. The recorded guarantee shall contain requirements for a review by the City of Fremont Development and Environmental Services Director of all future tenant improvements on the site including full descriptions of interior space allocation.
8. Noise levels shall conform to the Performance Standards for industrial areas according to standards of the Fremont Municipal Code, Article 19.

At a public hearing held on July 23, 1996, the Fremont City Council adopted the 1996 Negative Declaration (EIA-96-119), and subsequently approved the 1996 Project (F-96-22).

Since that time, both the 1055 Page building and the 47700 Kato building have subsequently been used for other manufacturing and R&D operations. Most recently, these building were occupied by Solar City and used for manufacturing of solar panels and related R&D operations. Starting in 2017, these buildings were acquired by Tesla and now house small-scale battery manufacturing equipment, R&D operations and office space. No additional environmental reviews were required of these subsequent uses of the buildings, as they were determined to be fully compliant with applicable zoning standards.

CEQA Guidelines Section 15164: Addendum to an EIR or Negative Declaration

CEQA Guidelines Section 15164 provide that an addendum to an adopted negative declaration may be prepared if, "only minor technical changes or additions are necessary, or if none of the conditions described in CEQA Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred." An addendum need not be circulated for public review, but can be included in, or attached to the adopted negative declaration. The decision-making body shall consider the addendum with the adopted negative declaration prior to making any decision on the project. A brief explanation of the decision not to prepare a subsequent EIR should be included in the addendum, the lead agencies findings, or elsewhere in the record. The explanation must be supported by substantial evidence.

CEQA Guidelines Section 15162: Subsequent EIRs and Negative Declarations

CEQA Guidelines Section 15162 provide that when a negative declaration has been adopted, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:

1) Substantial changes are proposed in the project which will require major revisions of the negative declaration due to the involvement of new significant environmental effects or a substantial increase in severity of previously identified significant effects

2) Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions of the negative declaration due to involvement of new significant environmental effects or a substantial increase in severity of previously identified significant effects; or

3) New information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the previous negative declaration was adopted, shows the following:

   (A) The project will have one or more significant effects not discussed in the previous negative declaration.
   (B) Significant effects previously examined will be substantially more severe than previously shown in a previous EIR.
   (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

   (D) Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponent declines to adopt the mitigation measure or alternative.

If changes to the project or its circumstances occur, or if new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required pursuant to the Section 15162. Otherwise, the lead agency shall determine whether to prepare a subsequent negative declaration, and addendum, or no further documentation.

CEQA Determination for the Project

The following provides the City's explanation for its decision to not prepare a subsequent EIR or negative declaration, and the attached Initial Study provides the substantial evidence to support this decision.

Changes to the Project

The Project does not represent a change to the 1996 Project as analyzed in the 1996 Negative Declaration that would be substantial or that would require major revisions of the prior MND.

- The Project site is the same approximately 9.3-acre site located at 47700 Kato Road/1055 Page Avenue, in the City of Fremont, that was fully developed pursuant to the 1996 Project (APN # 519-1010-130-1).
- The current Project's proposed tenant improvements at the Kato building involve construction of an additional floor area of 21,485 square feet at the second floor covering a portion of the central space that is open to the second floor roof, and an additional 8,260 square-foot third floor above. Although these improvements will increase the total floor space of the Kato building by 29,745 square feet, these improvements will not change the footprint of the building or its exterior facades, no grading or excavation is necessary for these improvements, and nearly all construction work will be conducted internally within the existing building.
- The Project will require removal of much of the existing rooftop mechanical equipment, to be replaced by new rooftop mechanical equipment (e.g., air handlers, HVAC systems and fans) that support the new battery manufacturing operations.
- Once these improvements are made, Tesla will move in new equipment to both the Kato and Page building to support its expanded battery manufacturing and R&D operations.
- Minor changes to on-site circulation will be made to better accommodate truck loading and deliveries, and a new electrical substation will be added to balance electrical supply from PG&E.

As indicated in the attached Initial Study, these changes to the project will not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects pertaining to construction-period effects (noise, dust and water quality), aesthetics, biological resources, cultural resources, energy, geology or soils, hydrology, land use, mineral resource, tribal resources, or wildland fires. The Project will be required to comply with all applicable regulations that apply to these topics.

Hazardous Materials*:* As part of the manufacturing and R&D processes that Tesla is now proposing to conduct at the facility, a number of different chemicals and materials will be stored, dispensed and used for product research and development. Some of these chemicals and materials are flammable, highly toxic, toxic and/or corrosive in nature, which are typical for battery manufacturing operations, and are different than those analyzed in the 1996 Negative Declaration for computer disk manufacturing. Certain of these material groups that will be used will exceed the limit for standard permitted uses in the I-T zoning district, and a Conditional Use Permit (CUP) is required. The minimum standards established by relevant state and federal regulations apply to the use and handling of the hazardous materials, and the Initial Study identifies Project-specific mitigation measures, including those proposed by Tesla, as well as additional reasonable and appropriate Project-specific mitigation measures based on the Fremont Fire Department's review of the Project. Although full and complete compliance with applicable regulations and mitigation measures cannot fully guarantee that upset and/or accident conditions involving the release of hazardous materials into the environment will not occur, these regulations do reduce the risks of such an accident and provide for the protection of health, life, the environment, resources and property to the extent reasonably foreseeable, and thus does not represent a new significant environmental effect or a substantial increase in severity of previously identified significant effect related to hazardous materials. The 1996 Negative Declaration did require implementation of best management practices for chemical materials use and storage, preparation of a Hazardous Materials Management Plan, and compliance with applicable regulations related to hazardous materials (as also now applies to the current Project). The additional mitigation measures now required of the Project are considerably different from those analyzed in the previous 1996 Negative Declaration in that they are much more rigorous and project-specific, but these mitigation measures would substantially reduce significant effects related to hazardous material use and risk of upset. The Project proponent (Tesla) has agreed to adopt these mitigation measure as part of their project's design and operation.

Exterior Noise*:* The Project involves replacement of existing rooftop mechanical equipment with new air handling equipment, dust collection systems and exhaust fans. Pursuant to the Fremont Municipal Code (FMC), the maximum

noise level at the property line generated by any user located within an industrial zoning district shall not exceed an 70 dBA Ldn, when adjacent users are also industrial or commercial, business, professional or office uses. The cumulative noise level generated by all of the new mechanical equipment on each of the building's rooftops, operating simultaneously, is preliminarily calculated to be 70 dBA Ldn, or less. Pursuant to FMC standards, the Project applicant must analyze and provide documentation of installed exterior mechanical or industrial equipment to ensure that the equipment does not exceed the applicable operational noise standard of 70-dBA at the nearest property line. If the installed equipment is found to exceed this standard, noise control measures must be provided to meet the City's requirements. Typical noise control measures include barriers, enclosures, silencers and acoustical louvers at vent openings. The Project applicant is required to submit a report verifying that noise levels generated by actual Project mechanical equipment will be no greater than applicable noise standards at receiving property line (potentially inclusive of noise barrier parapet walls and/or mechanical louvers), thereby complying with applicable City regulatory standards. With required compliance, the Project's exterior noise sources do not represent a new significant noise impact or a substantial increase in the severity of previously identified significant noise effects.

Equipment Emissions: The Project includes installation of new manufacturing equipment to be used to make batteries. The applicant (Tesla) has coordinated with BAAQMD to determine if any applicable Air District permitting requirements as new stationary sources of emissions apply to this new equipment. Preliminary assessments indicates that the proposed equipment likely generates emission levels that are low enough that stationary source permits will not be required for most or all of the equipment. However, if BAAQMD determines one or more permits are required, emissions standards will apply. With required compliance to these emission standards, the Project's equipment emissions do not represent a new significant environmental effect or a substantial increase in severity of previously identified significant air quality effects.

Changes to Circumstances

Traffic (Level of Service): Since 1996, traffic levels on local streets, City arterials and the freeway system serving the Project site have substantially increased. Standard practice exercised by the City of Fremont typically requires a level of service (LOS) analysis for projects generating 100 vehicle-trips or more during the weekday PM peak hours. This threshold is consistent with the threshold used by Alameda County Transportation Commission (ACTC) for determining whether a land use project requires preparation of a Traffic Impact Analysis (TIA) to evaluate potential impacts to regional roadways in the surrounding area. An assessment has been conducted for the Project to calculate the net new vehicle trips expected from the Project, based on details of operations for the baseline and proposed uses, and considering the changed traffic conditions. That traffic assessment (attached to and summarized in the Initial Study) concludes that the change in operations at the site, together with implementation of Tesla's TDM Plan, would result in a net reduction in overall daily and peak hour trips as compared to a 2017 baseline condition. Because the Project is estimated to generate less than 100 new PM peak hour trips, the LOS analysis was not required for this Project. The Project would not generate a significant amount of traffic or conflict with any applicable congestion management plans, and no mitigation is required. The Project's traffic does not represent a new significant environmental effect or a substantial increase in severity of previously identified significant traffic effects.

Air Quality (Criteria Pollutant Emissions): In May of 2017, the BAAQMD's updated their CEQA Guidelines, including recommended thresholds of significance for criteria pollution emissions. These currently applicable thresholds are an average daily emissions of 54 pounds per day or 10 tons per year of nitrogen oxides (NOx), reactive organic gases (ROG), and PM2.5, and 82 pounds per day or 15 tons per year of PM10. Both the daily and annual thresholds apply to the Project's operations. An analysis of Project-related \ criteria pollutant emissions was conducted for the current Project (attached to and summarized in the Initial Study). This analysis concludes that the Project's net increase in average daily emissions would only be 0.64 lbs/day of ROG, 0.06 lbs/day of NOx, 0.03 lbs/day of PM10, and 0.01 lbs/day of PM2.5. The Project's impact related to operational and construction-related criteria pollutant emissions would be less than significant, with no mitigation required. The Project's criteria pollutant emissions do not represent a new significant environmental effect or a substantial increase in severity of previously identified significant air quality effects.

New Information

GHG Emissions*:* In 1996, CEQA Guidelines did not include a CEQA threshold for greenhouse gas (GHG) emissions, and analysis of GHG emissions was not conducted. The 1996 Negative Declaration did consider the 1996 Project's overall energy use, and concluded that the proposed building design would incorporate energy-conservation measures as detailed by the Uniform Building Code in effect at the time. The site was served by PG&E, which provided a standard mix of requisite energy sources available for hook-up/activation to the 1996 Project. Current CEQA Guidelines now include a CEQA threshold for greenhouse gas (GHG) emissions, and analysis of the Project's GHG has been conducted. This analysis can be considered "new information" that was not included in the 1996 Negative Declaration. The attached Initial Study includes the following new information relevant to the Project:

- New construction associated with the Project is required to comply with all applicable standards of Title 24 of the California Code of Regulations, and all applicable CALGreen standards. These standards include energy-conserving design and construction mandates. Although construction and operation of the Project would incrementally increase energy consumption, it would comply with all applicable regulations and energy standards, and its use of energy would not be wasteful, inefficient or unnecessary.
- The currently applicable thresholds for GHG emissions are annual emission 1,100 MTCO2e, or 2.8 MTCO2e/year/service population (based on 2030 reduction targets).
- As shown in the Initial Study, emissions from the Project are estimated to be 7,055 MTCO2e/year, or 15.0 MTCO2e/year/service population, which exceeds currently applicable thresholds levels. A reduction of 5,739 CO2e, or a 68% reduction in CO2e emissions from energy use, is required to reduce GHG emissions to below threshold levels.

The Initial Study identifies Mitigation Measure GHG-1: GHG Emissions Reduction or Offset, which requires the Project applicant to submit annual reports to the City of Fremont Planning Manager describing reductions or offsets in energy use and/or GHG emissions to meet this required reduction. This mitigation measure is required of the Project, is new and is considerably different from any information presented in the previous 1996 Negative Declaration but would substantially reduce significant GHG emissions effects on the environment. The Project proponent (Tesla) has agreed to adopt these mitigation measure as part of the Project's design and operation.

CEQA Determination - Addendum

Pursuant to CEQA Guidelines Section 15164, the lead agency (the City of Fremont) may prepare an addendum to a previously adopted negative declaration if some changes or additions are necessary, but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred. Pursuant to these CEQA Guidelines referenced above, the explanations cited above to support a decision not to prepare a subsequent EIR, and the supportive substantial evidence as provided in the attached Initial Study, the environmental review for the Project can be satisfied through preparation of an Addendum to the 1996 Negative Declaration. The attached Initial Study demonstrates that the Project would not result in any new or more severe significant environmental effects beyond those identified in the prior 1996 Negative Declaration. There are new mitigation measures considerably different from those analyzed in the previous Negative Declaration that will reduce significant impacts, which the Project proponent (Tesla) has agreed to adopt as part of the Project's design and operation.

This document serves as an Addendum to the 1996 Negative Declaration for the HMT Technology Project (Project No. F-96-22 and DES 96-1622), and no further environmental review is required.

Mitigated Negative Declaration for the Tesla 47700 Kato Road and 1055 Page Avenue Improvements

As a separate and independent basis, the attached Initial Study provides a basis for the City to adopt a Mitigated Negative Declaration for the proposed Project, in accordance with CEQA Guidelines Section 15070, *et seq.* Consistent with CEQA's requirements for adoption of a Mitigated Negative Declaration, there is no substantial evidence, in light of this Initial Study and the record as a whole, that the Project, together with the mitigation measures recommended herein, may have a significant effect on the environment.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project as indicated by the checklist on the following pages. Where checked below, the topic with a potentially significant impact will be addressed with mitigation measures.

☐ Aesthetics	☐ Agriculture and Forest Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology / Soils	☒ Greenhouse Gas Emissions	☒ Hazards / Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

☐ None

On the basis of this initial evaluation:

☐ I find that the proposed project could not have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☒ I find that although the proposed project COULD have a significant effect on the environment, there WILL NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

AND/OR

☒ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are now imposed upon the proposed project, nothing further is required.

Clifford Nguyen	March 20, 2020
Signature	Date

Clifford Nguyen	Deputy Planning Manager/Zoning Administrator
Printed Name	Title

City of Fremont Planning Division

Agency

1.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

a) Have a substantial adverse effect on a scenic vista?

The Fremont General Plan considers the East Bay hills east/northeast of the site as scenic views for neighborhoods and commercial centers. The General Plan does not identify any other scenic resources in the vicinity of the Project site. Views to the hills are limited from and across the Project site as a result of existing development and the distance to the hills. While the proposed Project would include increased height on a portion of the Kato Road building, because of the lack of scenic vistas from or across the site, the impacts from the construction of the Project related to scenic vistas would be less than significant and no mitigation is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

According to the California Department of Transportation State Scenic Highway Program, the closest state scenic highway is Interstate 680, which is located almost 1 mile east of the Project site. Due to the intervening distance, development, and landscaping, the Project site is not prominent in views from this section of highway and would in any case be generally consistent with the character of the existing industrial area in which it is located. The segment of Interstate 880 in the vicinity of the Project is not a state scenic highway. Development of the proposed Project would not have a significant impact on views from a state scenic highway and no mitigation is required.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The Project site is in an urbanized area characterized by industrial development. The proposed Project would add additional height and rooftop equipment as well as improvements that would be mostly internal. While the proposed

improvements require approval of increased FAR on the site, the building is of similar bulk and scale as other buildings in the area. The City has identified the Project vicinity as appropriate for this industrial-type of use. Therefore, the Project's impact on visual character or quality would be less than significant and no mitigation is required. Additionally, proposed approvals, including a zoning modification to allow for additional FAR, will be reviewed by the City for consistency with applicable regulations as part of the entitlement approval process.

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

The proposed Project would add additional height and rooftop equipment as well as improvements that would be mostly internal and lighting would be substantially the same as that existing today. The Project is located in an urbanized area that is surrounded by existing sources of light including streetlights and vehicle headlights, and interior and exterior lighting and illuminated signage from industrial buildings in the vicinity. The light and glare created by the Project would be consistent with levels of light currently emitted at the site and by surrounding development. As such, the Project's impacts related to light or glare would be less than significant and no mitigation is required.

1.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest Resources				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) 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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) 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))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) 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?	☐	☐	☐	☒

a) 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?

According to the California Department of Conservation's 2016 Alameda County Farmland Map (ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/ala16.pdf), the site is designated as "Urban and Built-Up Land" and is not Prime Farmland, Unique Farmland or Farmland of Statewide Importance. Therefore, no impact would result and no mitigation is required.

b-e) Conflict with existing zoning for agricultural use or a Williamson Act contract? 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))? Result in the loss of forest land or conversion of forest land to non-forest use? 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?

The Project consists of improvements to an existing manufacturing/R&D facility. The Project site does not contain any farmland/agricultural resources or timberland/forest land, or related uses. The site is identified as "urban and built-up land" on the California Department of Conservation's 2016 Alameda County Farmland Map. There are no agriculturally zoned lands or existing Williamson Act contracts on or in the vicinity of the Project site. Therefore, no agricultural resource or forest resource impacts would result from the proposed Project and no mitigation is necessary.

1.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) 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?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

a) Conflict with or obstruct implementation of the applicable air quality plan?

Projects within Fremont are subject to the Bay Area Clean Air Plan, first adopted by the Bay Area Air Quality Management District (BAAQMD) (in association with the Metropolitan Transportation Commission and the Association of Bay Area Governments) in 1991 to meet state requirements and those of the Federal Clean Air Act. As required by state law, updates are developed approximately every three years. The plan is meant to demonstrate progress toward meeting the ozone standards, but also includes other elements related to particulate matter, toxic air contaminants, and greenhouse gases. The latest update to the plan, adopted in April 2017, is the Bay Area 2017 Clean Air Plan.

BAAQMD recommends analyzing a project's consistency with current air quality plan primary goals and control measures. The impact would be significant if the project would conflict with or obstruct attainment of the primary goals or implementation of the control measures.

The primary goals of the Bay Area 2017 Clean Air Plan are:

- Attain all state and national air quality standards
- Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants
- Reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050 (This standard is addressed in Section 8: Greenhouse Gas Emissions.)

The Project would be required to comply with all applicable rules and regulations related to emissions and health risk and would not result in a new substantial source of emissions or toxic air contaminants (see items b-d below) or otherwise conflict with the primary goals of the 2017 Clean Air Plan.

Many of the Clean Air Plan's control measures are targeted to area-wide improvements, large stationary source reductions, or large employers and these are not applicable to the proposed Project. However, the Project would be consistent with all rules and regulations related to construction activities and the proposed development would meet current standards of energy and water efficiency (Energy Control Measure EN1 and Water Control Measure WR2) and recycling and green waste requirements (Waste Management Control Measures WA3 and WA4) and does not

conflict with applicable control measures aimed at improving access/connectivity for bicycles and pedestrians (Transportation Control Measure TR9) or any other control measures.

The Project, therefore, would be consistent with the Clean Air Plan and have a less than significant impact in this regard with no mitigation required.

b) 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?

Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation and include ozone precursors (nitrogen oxides and reactive organic gases), carbon monoxide, and suspended particulate matter (PM_{10} and $PM_{2.5}$). The Bay Area is considered "non-attainment" for ozone and particulate matter.

Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions may contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact were considerable, then the project's impact on air quality would be considered significant.

Applicable Thresholds

BAAQMD's updated CEQA Guidelines including recommended thresholds of significance were adopted in May 2017. These thresholds are:

- average daily emissions of 54 pounds per day or 10 tons per year of nitrogen oxides (NO_x),
- average daily emissions of 54 pounds per day or 10 tons per year of reactive organic gases (ROG),
- average daily emissions of 54 pounds per day or 10 tons per year of $PM_{2.5}$, and
- average daily emission of 82 pounds per day or 15 tons per year of PM_{10}.

Air quality impacts fall into two categories: short-term impacts that would occur during construction of the Project and long-term impacts due to Project operation. Both the daily and annual thresholds apply to operation and only the average daily thresholds apply to construction.

Construction-Period Emissions

Construction activities may result in significant quantities of fugitive dust emissions, and emissions from off-road vehicles and construction equipment may also contribute to criteria pollutant emissions. California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate Project construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust (Table 1.3-1).

Table 1.3-1. Construction-Period Emissions

Scenario	ROG	NO_x	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Total construction emissions (tons)	0.096 tons	0.95 tons	0.05 tons	0.05 tons
Average daily emissions (pounds)[1]	2.1 lbs./day	21.0 lbs./day	1.2 lbs./day	1.1 lbs./day
Thresholds (pounds per day)	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	No	No	No	No

[1] Assumes 91 workdays (with the equipment use hours set to reflect double shifts)
Source: CalEEMod Results (Attachment 1.3)

As shown in Table 1.3-1, CalEEMod results indicate the Project's construction-period emissions would not exceed the significance thresholds.

BAAQMD recommends implementation of basic measures to reduce construction-related emissions and fugitive dust for all projects, regardless of the comparison to threshold levels to determine that impacts would remain less than significant. The City has adopted "Standard Development Requirements" under the Fremont Municipal Code Section 18.218.050, which include the BAAQMD CEQA Air Quality Guidelines best management practices to control dust during construction projects. The project would have to implement these practices during construction activities.

FMC Section 18.218.050 (a) Air Quality

(1) Construction Related Emissions. The following construction measures, as periodically amended by BAAQMD, are required for all proposed development projects to reduce construction-related fugitive dust and exhaust emissions:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered twice per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
5. All parking lots, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. A publicly visible sign with the telephone number and person to contact at the City of Fremont regarding dust complaints shall be posted. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Operational Emissions

Emissions of air pollutants associated with the Project were predicted using CalEEMod. This is the model recommended by BAAQMD. It predicts emissions associated with development projects including those related to operations occurring in the building as well maintenance of the site and vehicle trips generated by the Project. CalEEMod was run for the baseline operations (2017) as well as for the proposed Project and the net increase was identified as required to determine Project impacts under the CEQA. Full CalEEMod results are included in Attachment 1.3. Comparison to criteria air pollutant threshold levels are summarized in Table 1.3-2.

Table 1.3-2. Net Increase in Operational Emissions

Scenario	ROG	NO_x	PM_{10}	$PM_{2.5}$
Net Annual Emissions (*tons/year*)	0.12 tons	0.01 tons	0.01 tons	0.00 tons
Thresholds (tons /year)	10 tons	10 tons	15 tons	10 tons
Exceed Threshold?	No	No	No	No
Net Average Daily Emissions (*lbs/day*)[1]	0.64 lbs.	0.06 lbs.	0.03 lbs.	0.01 lbs.
Thresholds (pounds/day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	No	No	No	No

1 Assumes 365-day operation

Source: CalEEMod Results (Attachment 1.3)

As shown in Table 1.3-2, the Project's net increase in operational emissions would not exceed the significance thresholds. Therefore, the Project impact related to operational and construction pollutant emissions would be less than significant with no mitigation required.

c) Expose sensitive receptors to substantial pollutant concentrations?

For purposes of construction-period or operational assessment of exposure of sensitive receptors to emissions, BAAQMD recommends analysis within an area of effect of 1,000 feet. The nearest sensitive receivers (religious centers, daycare centers, learning center, etc.) are approximately 0.4 miles (2,112 feet) from the site. Therefore, the Project would not have a significant impact related to exposure of sensitive receptors and no mitigation would be required. (See section 1.9: Hazardous Materials for a discussion of use and accidental upset of hazardous materials.)

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

During construction, diesel-powered vehicles and equipment would create odors that some may find objectionable; however, these odors would be temporary and not likely to be noticeable much beyond the Project site's boundaries.

As noted above, the Project is not located proximate to sensitive receptors. The Project is located in an industrial area and operations would not generate and substantial odors or other emissions. Supporting this conclusion, the applicant has been coordinating with BAAQMD to determine any applicable permitting requirements, which may be required if BAAQMD determines any of the proposed equipment qualifies as a stationary source. Preliminary assessment is that the proposed equipment has likely been demonstrated to have low enough emissions that stationary source permits will not be required for all or most of the equipment. However, if BAAQMD determines one or more permits are required, emissions standards will apply. A summary of emissions from equipment to be removed and added is included in Attachment 1.3. There are no other emissions (including odors) that could adversely affect a substantial number of people. The impact related to other emissions would be less than significant and no mitigation would be required.

1.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources				
Would the project:				
a) 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 the U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) 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?	☐	☐	☐	☒
d) 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 native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

a) 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 the U.S. Fish and Wildlife Service?

The Project site is fully developed and characterized by an urban setting and is entirely surrounded by like development. The site and its vicinity have no substantial habitat value and the Project would not have a substantial adverse effect, either directly or through habitat modifications, on special status species. No mitigation is necessary.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

The Project site is fully developed and characterized by an urban setting and is entirely surrounded by like development. The Project site and vicinity do not contain riparian (creek) habitat or other sensitive natural communities. The Project would have no impact on contain riparian (creek) habitat or other sensitive natural communities and no mitigation is necessary.

c) 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?

The Project site is fully developed and characterized by an urban setting and is entirely surrounded by like development. The Project site and vicinity do not contain wetland areas. The Project would have no impact on wetlands and no mitigation is necessary.

d) 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 native wildlife nursery sites?

The Project site is fully developed and characterized by an urban setting and is entirely surrounded by like development. As such, the Project site does not have the capability to function as a substantial wildlife corridor or wildlife nursery site. While no trees have been proposed for removal as part of the Project, should any disturbance of trees be necessary the project would be subject to FMC Section 18.218.010. This section sates that all development projects that have the potential to adversely disturb or impact a) special-status species; b) cultural resources; and c) air quality due to construction activities such as grading, demolition, and tree removal, shall implement the adopted standard development requirements to address resource protection provided in FMC Section 18.218.050. This includes, FMC Section 18.218.050 (b), copied below, which addresses biological resources. As a standard project requirement, the proposed project shall implement FMC Section 18.218.050(b).

FMC Section 18.218.050 (b) Biology, Special-Status Species.

(2) Nesting birds. New development projects with the potential to impact nesting birds through tree or shrub removal shall implement the following measures prior to removal of any trees/shrubs, grading, or ground disturbing activities:

a. Avoidance. Proposed projects shall avoid construction activities during the bird nesting season (February 1 through August 31).

b. Pre-construction surveys. If construction activities are scheduled during the nesting season, a qualified biologist shall conduct a preconstruction survey to identify any potential nesting activity. The biologist shall determine the number and timeframe (prior to construction) of surveys to be conducted.

c. Protective buffer zone(s). If the survey indicates the presence of nesting birds, protective buffer zones shall be established around the nests. The size of the buffer zone shall be recommended by the biologist in consultation with the CDFW depending on the species of nesting bird and level of potential disturbance.

d. Initiation of construction activities. The buffer zones shall remain in place until the young have fledged and are foraging independently. A qualified biologist shall monitor the nests closely until it is determined the nests are no longer active, at which time construction activities may commence within the buffer area.

(3) Roosting Bats. New development with potential to impact special-status or roosting bat species through demolition of existing structures or removal of trees on site shall conduct the following measures prior to demolition:

a. Preconstruction Surveys. A qualified biologist shall conduct a preconstruction survey during seasonal periods of bat activity (mid-February through mid-October) to determine suitability of structure(s) or trees as bat roost habitat.

b. Protective Buffer Zone(s). If active bat roosts are found on site, a suitable buffer from construction shall be established per the biologist. The biologist shall determine the species of bats present and the type of roost.

c. Mitigation and Exclusion. If the bats are identified as common species, and the roost is not being used as a maternity roost or hibernation site, the bats may be evicted using methods developed by a qualified biologist. If special-status bat species are found present, or if the roost is determined to be a maternity roost or hibernation site for any species, then the qualified biologist shall develop a bat mitigation and exclusion plan to compensate for lost roost. The site shall not be disturbed until CDFW approves the mitigation plan.

Because the above requirements apply to the proposed project, per FMC Section 18.218.05 (b), the Project would have no impact on fish or wildlife movement or nursery sites and no mitigation is necessary.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Project site is fully developed and characterized by an urban setting and is entirely surrounded by like development. There are some trees on the project site but none is proposed for removal with this Project. Should removal of a tree be necessary, it would be subject to the City's tree preservation ordinance (FMC 18.215). This ordinance regulates the removal and replacement of all trees subject to the ordinance. As such, the project as proposed would not conflict with any local policies or ordinances protecting biological resources.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The Project is located in an urban setting and there are no conservation plans that include the Project site. The Project would have no impact related to conservation plans and no mitigation is necessary.

1.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

The Project site is fully developed and the proposed improvements are largely constrained to modification of an existing building (constructed in mid-2000s) and the installation of equipment and operations within it. The Project would result in minimal disturbance to native soils at the site as a result of the installation of ground mounted equipment. As such, the Project does not have the potential to affect historic resources. The Project would have no impact on historic resources and no mitigation is necessary.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

The Project site is fully developed and the proposed improvements are largely constrained to modification of an existing building (constructed in mid-2000s) and the installation of equipment and operations within it. The Project would not disturb native soils at the site. Fremont Municipal Code Chapter 18.218 Standard Development Requirements contains standard rules related to construction activities and the protection of cultural resources. These rules include notification of local tribes and procedures for the accidental discovery of human remains or cultural artifacts. With required adherence to FMC section 218.050 (c)(2) as outlined below, potential impacts to archaeological, paleontological resources, and potential disturbance to human remains would be reduced to less than significant.

FMC Section 18.218.050 (c) Cultural Resources.

(2) Accidental Discovery of Cultural Resources. The following requirements shall be met to address the potential for accidental discovery of cultural resources during ground disturbing excavation:

(A) The project proponent shall include a note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources.

(B) The project proponent shall retain a professional archaeologist to provide a preconstruction briefing to supervisory personnel of any excavation contractor to alert them to the possibility of exposing buried cultural resources, including significant prehistoric archaeological resources. The briefing shall discuss any cultural resources, including archaeological objects, that could be exposed, the need to stop

excavation at the discovery, and the procedures to follow regarding discovery protection and notification of the project proponent and archaeological team.

(C) In the event that any human remains or historical, archaeological or paleontological resources are discovered during ground disturbing excavation, the provisions of CEQA Guidelines Sections 15064.5(e) and (f), and of subsection (c)(2)(D) of this section, requiring cessation of work, notification, and immediate evaluation shall be followed.

(D) If resources are discovered during ground disturbing activities that may be classified as historical, unique archaeological, or tribal cultural resources, ground disturbing activities shall cease immediately, and the planning manager shall be notified. The resources will be evaluated by a qualified archaeologist and, in the planning manager's discretion, a tribal cultural monitor. If the resources are determined to be historical, unique archaeological, or tribal cultural resources, then a plan for avoiding the resources shall be prepared. If avoidance is infeasible, then all significant cultural materials recovered shall be, as necessary and at the discretion of the consulting archaeologist, subject to scientific analysis, professional museum curation, and documentation according to current professional standards. Any plan for avoidance or mitigation shall be subject to the approval of the planning manager.

(E) As used herein, "historical resource" means a historical resource as defined by CEQA Guidelines Section 15064.5(a); "unique archaeological resource" means unique archaeological resource as defined by Cal. Pub. Res. Code § 21083.2(g); and "tribal cultural resource" means tribal cultural resource as defined by Cal. Pub. Res. Code § 21074. Collectively, these terms describe "significant cultural materials."

c) Disturb any human remains, including those interred outside of formal cemeteries?

The Project site is fully developed and the proposed improvements are largely constrained to modification of an existing building (constructed in mid-2000s) and the installation of equipment and operations within it. The Project would not disturb native soils at the site. As such, the Project does not have the potential to affect human remains. With required adherence to FMC section 218.050 (c)(2) as outlined above, potential disturbance to human remains would be reduced to less than significant.

1.6 ENERGY

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

a) Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, or during project construction or operation, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency

This portion of the Initial Study Checklist is supported by Project-specific information provided by Tesla, including the following:

- Kato Electrical Capacity/Load Estimates – "Waterfall" analysis (Attachment 1.6-A)
- Letter from Mr. Emmanuel Veneracion of PG&E, to Mr. Amir Berahmand, PE, Sr. Electrical Design Engineer at Tesla, dated February 28, 2020 (Attachment 1.6-B)
- Solar City, PG&E Electrical Company Accounting Service Reports for the years 2017 and 2018 (Attachment 1.6-C)

Electrical Power Facilities

Operation of the Project would result in an increase in electrical energy demand. Much of the equipment used in the battery manufacturing process is electrically powered, and this new equipment will increase the electrical loads at the site. Electrical power to both the 47700 Kato building and the adjacent 1055 Page building is provided by PG&E via an existing dedicated substation, served by a single meter. The current instantaneous electrical load for existing uses at both buildings is estimated to be approximately 4.5 megawatts (MW), inclusive of existing battery manufacturing facilities (known as Tera), compressors, current R&D operations at both buildings, and auxiliary power needs. The total estimated instantaneous power demand at buildout of the Project is estimated to be approximately 10.5 MW (see Table 1, Attachment 1.6-A). Almost all of this increased electrical power is needed to serve the electrical demands of the new battery manufacturing operations (known as Roadrunner) within the Kato building, plus a smaller test operation within the Page building (see Exhibit 1 Attachment 1.6-A).

Although the PG&E substation that serves the site is shown to have in excess of 14 MW of nameplate capacity, Tesla has coordinated with PG&E to ensure there is adequate electrical power to meet the Project's power load demands. In their letter of February 28, 2020, PG&E has confirmed that the existing electric service is adequate to serve the additional 6 MW load at the facility, and that no other work will be needed on their electric facilities to meet the Project's additional demand load (see Exhibit 2 Attachment 1.6-A).

The Project does include construction of a small electrical substation immediately adjacent to the Kato building. This substation does not increase overall power load to the building, but will be used to even-out surges and dips in electrical power to maintain consistent power loads to the new machinery. There are no individual environmental

effects associated with construction of this small Project-specific substation that are not otherwise addressed elsewhere in the Initial Study Checklist.

Consumption of Electrical Energy

Based on prior year electrical billing records, electrical energy consumption at the Project site was approximately 20,000 MW hours per year (MWh/yr) in 2017 (see Attachment 1.6-C). Much of this electricity was used to power the existing manufacturing operations, as well as other R&D functions within both the Kato and Page buildings.

Under the proposed Project, operational electrical consumption is projected to increase to nearly 92,800 MWh/yr, or an increase of approximately 72,800 MWhr/yr. The existing electrical demands of the Tera battery manufacturing operations and R&D functions within both buildings will continue. The increased electrical consumption is attributable to the electrical energy demands of the new technology battery manufacturing equipment (Roadrunner). This equipment is assumed to operate 24 hours per day, for 365 days per week (see Table 1, Attachment 1.6-A).

Although this increase in electrical energy consumption needed to conduct the research, development and manufacturing of batteries is substantial, the CEQA Checklist question is whether this electrical energy use is a wasteful, inefficient or unnecessary consumption of energy resources. In the most general sense, the manufacturing of batteries is both efficient and important, and fully consistent with State and local energy efficiency goals. One of the intended uses for these batteries is the storage of intermittently generated solar and wind energy, so that this energy can be used when it is needed, not just when it is generated. This helps to reinforce the use of renewable energy supplies as viable alternatives to fossil fuels for space heating, lighting and other electrical demands. Another intended use of these batteries is to power electric vehicles that do not burn fossil fuels that contribute to air pollution and GHG emissions. Battery technology is already an efficient and necessary use of energy, and two of the primary objectives of the Project are making more effective and efficient batteries, and improving upon the efficiency of battery manufacturing technology.

Regulatory Requirements, and State and Local Plans for Renewable Energy and Energy Efficiency

Battery technology is an integral component of state and local plans for renewable energy and energy efficiency. For example:

- Title 24 of the California Code of Regulations, Part 6 outlines the energy code for the state. These standards are set by the California Energy Commission (CEC), the agency responsible for state energy policy and planning, and went into effect on January 1, 2020. These latest updates made to Title 24 are designed to increase energy efficiency, and improve air quality both indoors and outdoors. These updated standards include a requirement for homebuilders to install solar photovoltaic systems on all new homes, making California the first state in the nation to have a solar mandate, and these standards also encourage demand responsive technologies, including battery storage.
- Senate Bill 498 (Chapter 628, Statutes of 2017) directs the California Air Resources Board (CARB) to review its programs that affect the adoption of zero-emission vehicles (ZEVs), and directs CARB to make policy recommendations for increasing the use of ZEVs. California's Mobile Source Strategy, State Implementation Plan and 2017 Scoping Plan for Climate Change identify measures needed to "put California on track to attain the national ambient air quality standards, reduce air pollution-related health impacts, and meet State climate goals. These plans underscore the fact that penetration of zero-emission vehicles (ZEV) technology, throughout the transportation sector, is critical. Production of ZEVs and plug-in hybrid electric vehicles relies heavily on advancements in battery and fuel cell technologies."

New construction associated with the Project is required to comply with all applicable standards of Title 24 of the California Code of Regulations, and all applicable CALGreen standards. These standards include energy-conserving design and construction mandates. Although construction and operation of the Project would incrementally increase energy consumption, it would comply with all applicable regulations and energy standards, and its use of energy would not be wasteful, inefficient or unnecessary. Impacts related to energy resources would be less than significant.

1.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils				
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) 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 California Geological Survey Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

a), c) and d): Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving the rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure including liquefaction, or landslides? Is the project located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? Is the project located on expansive soil?

The Hayward fault is located to the east of the Project site, and the nearest, westerly edge of this fault's mapped Alquist-Priolo Fault Zone is approximately 0.85 miles from the site. Fault rupture is not be expected to be a potential hazard at the Project site, as it is outside the mapped Alquist-Priolo Fault Zone.

Seismic shaking (or ground shaking) is a general term referring to all aspects of motion of the earth's surface resulting from an earthquake, and is normally the major cause of damage in seismic events. The extent of ground shaking is controlled by the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions. Although the Hayward fault is the closest fault, any of the regional faults are capable of producing significant ground shaking in the Project site. Groundshaking maps prepared by the Association of Bay Area Governments (ABAG) project that during the maximum credible earthquake on the Hayward fault, violent to very violent shaking may occur in the Project vicinity.

Liquefaction is the rapid transformation of saturated, loose, fine-grained sediment to a fluid-like state because of earthquake ground shaking. In the process, the soil undergoes transient loss of strength, which commonly causes ground displacement or ground failure to occur. Since saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is located at greater depths. Damage caused by liquefaction and lateral spreading is generally most severe when liquefaction occurs within 15 to 20 feet of the ground surface. The California Department of Conservation's Geologic Survey maps the Project site as being in an area susceptible to liquefaction hazards.[1]

The strong ground motions that occur during earthquakes are capable of inducing landslides, generally where unstable slope conditions already exist. The primary factors influencing the stability of a slope are the nature of the underlying soil or bedrock and the geometry of the slope. The Project site is level and is not located in a mapped landside hazard zone. Landslides, slope failure and unstable slopes are not a potential hazard at the site. .

Regulatory Requirements

State and local regulations that pertain to the Project related to geology and soils include:

- City of Fremont General Plan Safety Element (Seismic and Geologic Hazards)
- City of Fremont Municipal Code (Building Safety)
- California Building Code

Other existing federal and state programs, including National Earthquake Hazards Reduction Program, the Alquist-Priolo Earthquake Fault Zoning Act, the Seismic Hazards Mapping Act and the California Building Code, impose regulatory requirements regarding geotechnical and soils investigations, provide limitations on the locations of structures for human habitation, impose requirements for hazard notices to potential users, and establish structural standards and requirements for buildings and grading projects. City General Plan policies require geotechnical investigations for areas with high seismic hazards, specifically including liquefaction hazard areas.

[1] California Department of Conservation, California Geologic Survey, accessed 3/5/20 at: https://maps.conservation.ca.gov/cgs/#dataviewer

In accordance with California Building Code Standards and Fremont Municipal Code standards, a design-level investigation shall be prepared for the Project to address the potential for seismic hazards to occur, and identify abatement measures to reduce the potential for such an event to acceptable levels. The recommendations of the approved design-level geotechnical report shall be incorporated into the Project plans. With implementation of these regulatory requirements, potential geologic hazards related to fault rupture, strong seismic ground shaking, seismic-related ground failure including liquefaction, landslides, and expansive soils would be reduced to less than significant.

b) Will the project result in substantial soil erosion or the loss of topsoil?

The Project does not involve demolition of existing structures or substantial grading of the site, and there is very little potential for the Project to cause substantial erosion or the loss of topsoil. For minor areas of the site where grading is proposed to occur (at the substation pad), an erosion control plan is required to be submitted for grading and/or building permits. This regulatory requirement ensures that the Project would not result in substantial soil erosion during grading and construction activities.

e) Will 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 will be served by municipal wastewater facilities, and no septic tanks or alternative wastewater disposal systems are proposed or required. .

f) Will the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Project does not involve any excavation or grading activity that may directly or indirectly, destroy a unique paleontological resource. There are no unique geologic features at the site.

1.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Greenhouse Gas Emissions				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

BAAQMD has determined that greenhouse gas (GHG) emissions represent cumulative impacts. Operation of the proposed Project would be additional sources of GHG emissions, primarily through consumption of fuel for transportation and energy on an ongoing basis.

Appliable Thresholds

The threshold of significance for operational GHGs is:

- 1,100 metric tons carbon dioxide equivalent (MTCO2e) per year, or
- an efficiency threshold of 4.6 MTCO2e per year per service population ("SP" defined as residents and employees). The efficiency threshold will be used for this analysis, addressing targeted reduction in GHG emissions through 2020

Note that BAAQMD has not yet updated their thresholds to address target reductions past 2020. Prior to adoption of updated thresholds by BAAQMD, this analysis also uses an additional "Substantial Progress" efficiency metric:

- an efficiency threshold of 2.8 MTCO2e per year per SP, based on the GHG reduction goals of Executive Order B-30-15, which represents a 40% reduction of emissions by 2030.

Project Emissions

GHG emissions associated with construction were estimated to be 121 MTCO2e for the total construction period, substantially lower than the annual threshold of 1,100 MTCO2e/year. The GHG emissions would result from on-site operation of construction equipment, vendor, and hauling truck trips, and worker trips, and would be less than significant with no mitigation required.

CalEEMod was used to estimate daily emissions associated with Project operation. Full CalEEMod results are included in Attachment 1.3 and summarized in Table 1.8-1 on the following page.

As shown in Table 1.8-1, prior to mitigation, emissions are 7,055 MTCO2e/year and 15.0 MTCO2e/year/SP, which are above thresholds levels. Table 1.8-1 includes a line for mitigated emissions levels that would meet threshold levels. This line shows a reduction of 5,739 CO2e, which equates to a 68% reduction in the CO2e from energy. Mitigation Measure GHG-1 below details measures to meet the required reductions.

Mitigation Measure

GHG-1: GHG Emissions Reduction or Offset. The Project applicant shall submit annual reports to the City of Fremont Planning Manager describing reductions or offsets in energy use and/or GHG emissions to meet

required reductions. Project GHG emissions are projected to be 7,055 MTCO2e, which result largely from carbon emissions related to energy usage. The total site energy usage is projected to be 92,800 MWh/yr. The site operator can meet required reductions through one of the following or a mix of the following methods:

1) Offset GHG emissions by 5,739 CO2e through purchasing of carbon offsets.
2) Reduce or offset energy usage by 58,458 MWh/yr per year, which could be achieved through one or more of the following methods:
    a. Demonstrated lower energy use than projected
    b. On-site energy production (such as solar)
    c. Purchasing of carbon-free energy
    d. Purchasing of carbon-free Renewable Energy Credits as offsets
3) An updated GHG emissions analysis to update required reductions (to allow for changed future conditions or circumstances)

Table 1.8-1. Annual Project GHG Emissions – MTCO2e and Per Capita

Description	Result
Project Emissions, Unmitigated	7,055 MTCO2e/year
Project Service Population	470 SP (employees)
Project Emissions, Unmitigated (per Service Population)	15.0 MTCO2e/year/SP
Project Service Population Significance Threshold (based on 2020 reduction targets)	*4.6* MTCO2e/year/SP
Project Service Population Significance Threshold (based on 2030 reduction targets)	*2.8* MTCO2e/year/SP
Exceed Thresholds?	Yes
Project Emissions, Mitigated	1,316 MTCO2e/year
Project Emissions, Mitigated (per Service Population)	2.8 MTCO2e/year/SP
Exceed Thresholds?	No

Source: CalEEMod Results (Attachment 1.3)

The intent of Mitigation Measure GHG-1 is to allow for flexible implementation of required mitigation based on the ability to reduce electricity usage and availability of cleaner power, RECs, and/or carbon offsets. And to allow for the possibility that conditions or circumstances will change in the future such that the operator would prefer to resubmit a GHG emissions analysis to demonstrate changed reduction requirements.

As shown in Table 1.8-1 above, mitigated GHG emissions would be below both the 2020 and 2030 efficiency thresholds and therefore, the impact of the Project related to increased GHG emissions would be less than significant with mitigation.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, codifies the State of California's GHG emissions target by directing CARB to reduce the State's global warming emissions to 1990 levels by 2020. AB 32 was signed and passed into law by Governor Schwarzenegger on September 27, 2006. Since that time, CARB, California Energy Commission (CEC), the California Public Utilities Commission (CPUC), and the Building Standards Commission have all been developing regulations that will help meet the goals of AB 32 and Executive Order S-3-05.

A Scoping Plan for AB 32 was adopted by CARB in December 2008. It contains the State of California's main strategies to reduce GHGs from business-as-usual (BAU) emissions projected in 2020 back down to 1990 levels. BAU is the projected emissions in 2020, including increases in emissions caused by growth, without any GHG reduction measures. The Scoping Plan has a range of GHG reduction actions, including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. It required CARB and other state agencies to develop and adopt regulations and other initiatives reducing GHGs by 2012.

As directed by AB 32, CARB has also approved a statewide GHG emissions limit. On December 6, 2007, CARB staff resolved an amount of 427 million metric tons (MMT) of CO2e as the total statewide GHG 1990 emissions level and 2020 emissions limit. The limit is a cumulative statewide limit, not a sector- or facility-specific limit. CARB updated the future 2020 BAU annual emissions forecast, in light of the economic downturn, to 545 MMT of CO2e. Two GHG emissions reduction measures currently enacted that were not previously included in the 2008 Scoping Plan baseline inventory were included, further reducing the baseline inventory to 507 MMT of CO2e. Thus, an estimated reduction of 80 MMT of CO2e is necessary to reduce statewide emissions to meet the AB 32 target by 2020.

SB 32 was passed in 2016, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB is currently working on a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The proposed Scoping Plan Update was published on January 20, 2017 as directed by SB 32 companion legislation AB 197. The mid-term 2030 target is considered critical by CARB on the path to obtaining an even deeper GHG emissions target of 80 percent below 1990 levels by 2050, as directed in Executive Order S-3-05. The Scoping Plan outlines the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and obtain the statewide goals.

The proposed Project would not conflict or otherwise interfere with the statewide GHG reduction measures identified in CARB's Scoping Plan. For example, proposed buildings would be constructed in conformance with CALGreen and the Title 24 Building Code, which requires high efficiency water fixtures and water-efficient irrigation systems.

In 2012, the City adopted the Fremont Climate Action Plan (CAP), to address major sources of GHG emissions to meet the emission reduction goal of 25 percent below Fremont's 2005 conditions by 2020. To meet this goal, the City adopted community-wide measures to reduce emissions in the sectors of land use and mobility, energy, solid waste, water, adopted and municipal services. Measures adopted include compliance with the 2016 California Green Building Code (CALGreen). By adhering to the requirements of the adopted Green Building Code and requirements for waste diversion, the proposed Project would be consistent with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions and the impact of the Project related to GHG emissions reduction plans and policies would be less than significant with no mitigation required.

1.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hazards and Hazardous Materials				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) 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, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) 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, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

During Construction

Construction of the Project would involve the routine management of some hazardous materials that could pose a significant threat to human health or the environment if not properly managed or accidently released. This may include the use of fuels, lubricants and other hazardous materials associated with heavy construction equipment. However, in consideration of the relatively minor extent of proposed construction, there is a low likelihood for any significant quantities of hazardous materials being necessary at the site during that construction period.

During Operations

As part of the manufacturing and R&D processes that Tesla is proposing to conduct at the facility, a number of different chemicals and materials will be stored, dispensed and used for product research and development. Some of these chemicals and materials are flammable, highly toxic, toxic and/or corrosive in nature, which are typical for battery manufacturing operations.

Section 18.190.220 of the FMC regulates hazardous materials (substances which are capable of posing a risk to health, safety or property) based on its chemical properties, on the quantity of the material at a site, how the material is stored, and how it is used. Hazardous materials are classified into three groups:

- Group A, representing those materials that pose a higher risk
- Group B, representing those that pose a more moderate risk, and
- Group C, those posing the least risk to health, safety, or property

Depending on the type of hazardous materials facility and the chemicals used, these facilities are generally permitted only upon granting of a conditional use permit. A list of major flammable, toxic and/or highly toxic chemicals/materials that will be used at the Kato and Page buildings are presented in Table 1.9-1 on the following page.

As indicated, the Project's operations require use of specific process materials that are categorized as Group A and B per the FMC and the amounts of certain of these material groups that will be used will exceed the limit for a standard permitted use in the I-T zoning district, and a Conditional Use Permit (CUP) will be required.

Regulatory Requirements

During Construction

The California Department of Industrial Relations, Division of Occupational Safety and Health, enforces State worker health and safety regulations related to construction activities. Regulations include exposure limits, protective clothing, and training requirements to prevent exposure to hazardous materials. Division of Occupational Safety and Health also enforces occupational health and safety regulations specific to lead and asbestos investigations and abatement, which equal or exceed federal counterparts

Pursuant to California Health and Safety Code, Division 20, Chapter 6.95, construction contractors would be required to prepare and implement a Hazardous Materials Business Plan (HMBP) that describes the location, type, quantity, and health risks of hazardous materials which are handled, used, stored, or disposed. The HMBP must also include an emergency response plan with procedures to be implemented in the event of a reportable release or threatened release of a hazardous material. The use of hazardous materials during construction would be less than significant with compliance with applicable regulatory requirements.

During Operations

The U.S. Environmental Protection Agency (EPA) is the agency responsible for enforcing federal laws and regulations governing hazardous materials that affect public health or the environment. The major federal laws and regulations enforced by the EPA include the Resource Conservation and Recovery Act, the Toxic Substances Control Act, the Comprehensive Environmental Response, and the Compensation and Liability Act.

In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (Cal/EPA). Under the authority of Cal/EPA, the Department of Toxic Substances Control (DTSC) and the San Francisco Bay Regional Water Quality Control Board (RWQCB) are responsible for overseeing the cleanup of contaminated soil and groundwater sites. RWQCB regulations applicable to hazardous materials are contained in Title 27 of the California Code of Regulations (CCR). Additional state regulations applicable to hazardous materials are contained in CCR Title 22. CCR Title 26 is a compilation of those sections or titles of the CCR that are applicable to hazardous materials.

Table 1.9-1: Chemicals/Materials list for the Project

Material	IBC/IFC Classification	City of Fremont Municipal Code Group
Kato Building:		
Electrolyte solution	Flammable IB or IC, and Toxic4 Mixture	B
Dimethyl Carbonate (DMC)	Flammable IB Liquid	B
Alcohol (Reagent)	Flammable IB Liquid	B
Acetone	Flammable IB Liquid	B
Electrolyte waste	Flammable IB or IC, and Toxic4 Mixture	B4
Aluminum Cobalt Lithium Nickel Oxide	Highly Toxic, Non-Combustible Powder	A
Lithium Nickel Manganese Cobalt Oxide	Highly Toxic, Non-Combustible Powder	A
Page Building		
Sodium Aluminate Solution (7.3%)	Highly Toxic and Corrosive Liquid	A
Sodium Hydroxide (50%)	Corrosive	B
Sodium Hydroxide (30%)	Corrosive	B
Ammonia Solution (30%)	Toxic Liquid (solution)	B
Nickel Cobalt Sulfate Solution	Toxic Liquid	B
Sulfuric Acid (98%)	Corrosive and Water Reactive 2 Liquid	B
Ammonium Hydroxide	Toxic and Corrosive Liquid	B
Ammonium Sulfate	Corrosive Liquid	B
Ammonia Solution (1.5%)	Toxic Liquid (solution)	B
Lithium Hydroxide Solution	Toxic and Corrosive Liquid	B
Sulfuric Acid (80%)	Corrosive	B
Manganese Salt Solution	Corrosive Liquid	B
Acetone	Flammable IB Liquid	B
Isopropyl Alcohol	Class IB Flammable Liquid	B
Hydrochloric Acid	Toxic and Corrosive Liquid	B
Alcohol	Flammable IB Liquid	B
Aluminum Cobalt Lithium Nickel Oxide	Highly Toxic Powder	A
Titanium Butoxide	Corrosive, Class IIIA Combustible Liquid	
Lithium Nickel Manganese Cobalt Oxide	Highly Toxic Powder	A
Sodium Aluminate	Highly Toxic and Corrosive Powder	A
Ammonium Fluoride		
Cobalt Sulfate	Toxic Powder	B
Lithium Hydroxide Monohydrate	Toxic and Corrosive Powder	B
Manganese Sulfate	Corrosive and Combustible Dust	B
Nickel Sulfate	Toxic Powder	B
Precursor (NCA-Oxide or NCMOxide)	Toxic Powder	B

Source: Tesla, *Offsite Consequence Analysis for Kato Improvements and Page Improvements Projects*, March 6, 2020

The routine management of hazardous materials in California is administered under the Unified Program. The Cal/EPA has granted responsibilities to the Fremont Fire Department, Fire Prevention Department for implementation and enforcement of hazardous material regulations under the Unified Program as a Certified Unified Program Agency (CUPA). The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the following hazardous materials programs:

- Hazardous Materials Business Plan Program
- California Accidental Release Prevention Program
- Underground Storage Tank (UST) Program
- Aboveground Storage Tank (AST) Program
- Hazardous Waste Generator Program, and
- Hazardous Waste Tiered-Permitting Program

The City of Fremont's hazardous material responsibilities and requirements are codified in the Fremont Municipal Code, Chapter 8.35 (Hazardous Materials Management) and Chapter 15.35 (Fremont Fire Code). The most common CUPA programs are described briefly below.

Hazardous Materials Business Plan Program

Any facility storing aggregate quantities of any hazardous materials equal to or greater than 55 gallons of liquids, 500 pounds of solids, or 200 cubic feet of gases is required to report their chemical inventories to the Fire Department by preparing a Hazardous Materials Business Plan (HMBP). The HMBP must include measures for safe storage, transportation, use, and handling of hazardous materials. The HMBP must also include a contingency plan that describes the facility's response procedures in the event of a hazardous materials release. This informs the community on chemical use, storage, handling, and disposal practices. It is also intended to provide essential information to fire fighters, health officials, planners, elected officials, workers, and their representatives so that they can plan for and respond to potential exposures to hazardous materials.

Aboveground Storage Tank Program

The Aboveground Petroleum Storage Act requires facilities in California storing petroleum products in aboveground tanks greater than or equal to 55 gallons and having an aggregate aboveground storage capacity greater than or equal to 1,320 gallons to prepare and implement a Spill Prevention, Countermeasure, and Control Plan (SPCCP). The SPCCC must address prevention, preparation, and response measures to prevent oil discharges into navigable water and adjoining shorelines. Facilities with aggregate aboveground storage capacity of 1,320 gallons or more of petroleum are required to operate under a Hazardous Materials Permit and submit a tank facility statement annually to the Fire Department.

Hazardous Waste Generator Program

Once a hazardous material has been used or processed, what remains may be considered a hazardous waste. Facilities that generate more than 100 kilograms of hazardous waste per month, or more than one kilogram of acutely hazardous waste, must be registered with EPA's Resource Conservation and Recovery Act program and are subject to extensive regulations regarding storage and disposal.

Based on these regulatory requirements and pursuant to the Fremont Municipal Code (FMC, section 18.50, Table 18.50.090), industrial uses such as alternative energy products and related components and services such as batteries, energy storage and LEDs (including the Project) must comply with specific regulations pertaining to hazardous materials, as contained in Section 18.190.220, Chapter 8.35, and Chapter 15.35 of the FMC. Furthermore, pursuant to FMC Section 8.35.130, no new facility involving the handling of hazardous materials (such as the Project) can receive a Certificate of Occupancy until a hazardous materials permit has been issued by the City. Applications for such a permit are required to have a City-approved Hazardous Materials Management Plan (HMMP) that demonstrates the

safe storage, transportation, use and handling of hazardous materials. With implementation of all applicable regulatory requirements as summarized above and the mitigations proposed herein, the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

The following information used in this Initial Study Checklist has been derived from an Offsite Consequence Analysis prepared by Tesla (see Attachment 1.9), performed for several hazardous scenarios involving flammable, toxic and highly toxic liquids and generated vapor/gas at the Project site. Guidelines from the 2009 U.S. EPA Risk Management Program (RMP) Guidance for Offsite Consequence Analysis were used to identify worst-case scenarios and more likely alternative scenarios. Process data was obtained from preliminary process designs for the Project, chemical properties were obtained from respective safety data sheets, and estimated impacts for different scenarios were determined per U.S. EPA RMP guideline. The following methodology was used for this analysis:

- determining which flammable and/or toxic/highly toxic substances should be included in the analysis
- determining representative scenarios that lead to loss of containment for selected substances (including worst-case scenarios and alternative-case scenarios for selected cases, based on worst-case scenario analysis results)
- collecting information on substance states (such as liquid/gas/pressurized or atmospheric pressure)
- determining potential active and passive mitigations that can mitigate/contain scenarios
- determining potential released quantity for representative scenarios/case
- determining potential evaporation rate and/or potential contributing quantity for flammable substance related scenarios
- identifying whether the substance behaves as a dense or neutrally buoyant gas or vapor
- determining the topography/surface roughness of the site, and
- determining the distance to the endpoint for identified scenarios

Based on the analysis of all worst-case and alternative representative scenarios, the scenario of most concern from a toxicity aspect involves electrolyte spills from a single isotainer, leading to generation of toxic gas and resulting in a toxic cloud dispersion in an approximate 0.30-mile radial area (or endpoint) from the source. For flammability aspects, the scenario of most concern also involves electrolyte spills from a single isotainer leading to flammable components of the solution to contribute for an explosion that would affect an approximately 0.20-mile radial area from the source. All other scenarios considered would be limited within these worst-case impact radii. The EPA RMP procedures used in this analysis overestimate the distance to endpoints in most cases. The model does not take into account the barriers created by buildings, walls and other obstructions which could (in most cases) limit the impacts of these potential scenarios. Worst-case release scenarios also represent the failure modes that would result in the worst possible off-site consequences, however unlikely, and do not represent more likely smaller releases that could potentially result in smaller impacts.

The effects of all potential scenarios considered in this analysis were limited to within City of Fremont's industrial zone. Sensitive population sites (such as religious centers, sports academy, day care centers, art studio, learning center etc.) are within the industrial zone, but no closer than 0.4 miles from the Project site. Table 1.9.2 presents the addresses of sensitive receptors in the areas, and their radial distance from the site.

Table 1.9-2: Sensitive Receptors within 1 Mile

Address	Use	Approximate Distance from Site	
200 Hammond Avenue	Convergence House of Prayers	0.46 mile	Outside potential maximum impact zone
47960 Westinghouse Drive	Northwestern Polytechnic University	0.47 mile	
47734 Westinghouse Drive	Northwestern Polytechnic University	0.59 mile	
47906 Warm Springs Blvd	Best SAT Review	0.59 mile	
47832 Warm Springs Blvd	Sunshine Kids Care Center	0.63 mile	
47816 Warm Springs Blvd	CalColor Academy	0.64 mile	
47998 Warm Springs Blvd	Fremont Table Tennis Academy	0.65 mile	
47812 Warm Springs Blvd	Kumon Math and Reading Center of Fremont	0.65 mile	
47655 Warm Springs Blvd	Northwestern Polytechnic University-South Building	0.67 mile	

Source: Tesla, *Offsite Consequence Analysis for Kato Improvements and Page Improvements Projects*, March 6, 2020

As estimated, the above listed sensitive receptors should be outside of any potential impact due to potential worst-case and considered alternative-case hazardous scenarios. To prevent any such incident and to limit their impact, Tesla has incorporated the following mitigating measures into the Project's design and operations plan:

For outdoor electrolyte off-loading areas:

- secondary containment and means of leak detection, and interlocks to stop the transfer operations
- excess flow trips to automatically stop the flow of electrolyte during transfer operations
- electrical components within the electrolyte offloading area will be classified for hazardous area use (Class I, Div I or II)
- special no-spill connectors for offloading operations
- level indicators for isotainers

For indoor electrolyte off-loading areas at both sites (Kato and Page):

- secondary containment and means of leak detection
- excess flow trips to automatically stop electrolyte transfer operations
- building fire protection (fire suppression and detection system)
- hazard monitoring and/or alarm systems (in addition to fire requirements)

Regulatory Requirements

Under the California Accidental Release Prevention (CAL-ARP) Program, facilities that handle more than a threshold quantity of a regulated hazardous substance, such as federally listed extremely hazardous toxic and flammable substances, and state listed acutely hazardous materials, must prepare a Risk Management Plan (RMP). The RMP must analyze the potential for an accidental release. Although not formally captured by the CAL-ARP program, this type of standardized RMP analysis is included Tesla's Offsite Consequence Analysis for Kato Improvements and Page Improvements Projects, March 6, 2020 – see Attachment 9), and further provides measures to be implemented to reduce the potential for an accident or accidental release. Facilities that are required to prepare this type of RMPanalysis must obtain and keep current a Hazardous Materials Facility Permit, as issued by the Fremont Fire Prevention Division.

FMC Chapters 8.35 and 15.35 includes the City's primary regulations for the protection of health, life, the environment, resources, and property through control of the management, handling, use, storage and disposal of hazardous materials. The City is also the local Unified Program agency for hazardous materials regulations, ensuring compliance with all state-mandated regulation of underground storage tanks and hazardous materials. Any person, firm or corporation that handles any regulated hazardous materials (pursuant to Section 8.35.070) must obtain and keep current a Hazardous Materials Facility permit, and the storage, use and handling of such hazardous materials shall be in conformance with the approved Hazardous Materials Management Plan. Pursuant to FMC section 8.35.100, satisfactory provisions must be made for appropriate containment, neutralization and removal of spills or leakage of hazardous materials that may occur during storage, handling, transportation or use, including necessary safety equipment for personnel. The City determines what provisions are "satisfactory", and what safety equipment is "necessary." No person, firm or corporation shall receive a Certificate of Occupancy for any facility involving the handling of hazardous materials until a permit or approval has been issued.

All facilities intended for the handling of hazardous materials shall be designed and constructed with a monitoring system capable of detecting when the material stored in the primary containment has entered the secondary containment. Daily visual inspection of the primary containment is a typical method; however, other means of monitoring may be required as part of installing a hazardous materials facility. Whenever monitoring devices are provided, they shall, where applicable, be connected to attention-getting visual and audible alarms, tested at regular intervals and adequately maintained. Primary and secondary levels of containment are required for all facilities intended for the storage, use or handling of hazardous materials. Other safety and preventative measures required include:

- All piping, valves and fittings shall be designed for maximum working pressures and structural stresses to which they may be subjected. If subject to external corrosion, piping shall be cathodically protected in conformance with the requirements of the California Fire and allied Codes. All piping shall be provided with secondary containment.
- Means of spill and overflow protection may be required for any primary container.
- Materials that, when combined, may result in a hazardous condition or may cause a fire or explosion, or the production of a flammable, toxic, or poisonous gas, or the deterioration of a primary or secondary container, shall be separated in both the primary and secondary containment so as to avoid potential intermixing.
- Drainage of precipitation from within a facility containing hazardous materials shall be controlled in a manner approved by the City so as to prevent hazardous materials from being discharged to the sanitary sewer or to navigable waterways without the appropriate permits.
- The City may require design submittals to bear the signature and stamp of an engineer, or other professional, registered with the state of California.

Every permittee must provide testing, certification, maintenance schedules, monitoring and inspections in compliance with an approved Hazardous Materials Management Plan, and shall maintain records adequate to demonstrate compliance. All facilities must be appropriately secured to prevent unauthorized access, and kept secure when unattended.

Each applicant for a permit must submit a written plan via California's Electronic Reporting System (CERS), for approval by the city, known as a Hazardous Materials Management Plan (HMMP), which shall demonstrate the safe storage, transportation, use and handling of hazardous materials. The HMMP must include information pertaining to the facility description, a site map and additional site information, a facility storage map, and a Hazardous Materials Inventory Statement. The HMMP must also include a detailed description of the handling of hazardous materials to demonstrate that such handling shall be conducted in a manner to prevent the accidental release of such material and is appropriately secondarily contained. Methods utilized to ensure separation and protection of hazardous materials from factors that may cause a fire or explosion, or the production of a flammable, toxic, or poisonous gas, or the deterioration of the primary or secondary containment, must be provided. The HMMP shall contain a description of the location, type, manufacturer specifications and suitability of monitoring methods to be used in

each facility with hazardous materials, a description of the security precautions that will be utilized to prevent the unknowing or unauthorized entry of persons or animals into the storage facilities, a plan to provide warning markings on containers, storage areas, storage structures, surrounding fences, gates, and access ways, a schedule and procedures for inspecting each facility and its related monitoring, safety, and emergency equipment, security devices, operating and structural equipment, an inspection check sheet or log for recording of the date and time of inspections, and an employee training program. The HMMP must also describe emergency equipment availability, testing, and maintenance to assure that it is adequate and appropriate for potential emergencies involving the hazardous materials, and contain a contingency plan which describes the procedures which facility personnel must take in response to fires, seismic events, explosions, or any unauthorized discharge of a hazardous material.

To ensure the safe and secure handling of hazardous materials, as well as the protection and safety of emergency response personnel, additional specific regulations apply to (among other materials) extremely toxic gases, explosives and ammonia.

The City of Fremont may require reasonable, site-specific conditions beyond any other applicable codes, when the City deems those conditions are warranted. The City's discretion and reasonable judgment are used when applying such conditions, along with technical standards which, in its professional judgment, are appropriate. In all cases, minimum standards established by relevant state and federal regulations apply.

Mitigation Measures

In addition to the general precautions mentioned above and the mitigation measures presented in Tesla's Offsite Consequence Analysis for Kato Improvements and Page Improvements Projects, Revision 3, dated February 29, 2020 (specifically pages 20, 26 and 40), additional reasonable and appropriate Project-specific mitigation measures, based on the Fremont Fire Department's review of the Project, include the following:

Mitigation Measure HAZ-1: All outdoor storage and processing area(s) of electrolyte (Elyte) and related constituents shall be equipped with excess flow controls, appropriate interlocks and emergency shutdown devices.

Mitigation Measure HAZ-2: All outdoor storage and processing areas of Elyte and related constituents shall be in secondarily contained areas and provided with outdoor weather protection in accordance with Fremont's amendment to California Fire Code Section 6004.3.3. This includes the installation of an automatic sprinkler system, or an equivalent fire extinguishing system, in accordance with California Fire Code Section 5004.5. Should site conditions warrant (e.g. access, circulation, equipment status) or an unauthorized release occur in the Elyte storage or delivery system, the weather protection provided shall be further developed and tied directly to treatment systems. Treatment systems shall be capable of treating the maximum release from the isocontainer(s), totes or tanks to less than 20% of the lower flammable limit and less than one-half the level immediately dangerous to life or health (IDLH) at the point of discharge into the atmosphere.

Mitigation Measure HAZ-3: Atmospheric flammable and toxic gas monitoring shall be provided for all storage and processing areas of Elyte and related constituents. Systems may be similar to those proposed for indoor storage and use areas and shall be configured to shut down the bulk Elyte source and delivery system. The monitoring locations shall be strategically located to detect the corresponding flammable or toxic materials present on the site. Monitoring locations shall be approved by the Fire Marshal.

Mitigation Measure HAZ-4: Seismic anchoring shall be provided for all isocontainers, totes, tanks or similar bulk chemical storage arrangements. Seismic sensors that will automatically shut off the source upon detection of seismic activity shall be installed on the Isotainer or similar bulk systems.

Mitigation Measure HAZ-5: The installation of multiple isocontainers shall require plans and specifications which address co-location and shall include provisions for physical or fire-rated separations. These provisions shall include the installation of the three (3) isocontainers depicted in the 47700 Kato Road Electrolyte Delivery System Proposed Plan submitted to staff on January 29, 2020

Pursuant to FMC Section 8.35.380, a hazardous materials facility permit shall not be approved until the City is satisfied that the facility adequately conforms to all provisions of FMC Chapter 8.35, FMC Chapter 15.35 and relevant state and federal codes and regulations. Although full and complete compliance with applicable regulations cannot fully guarantee that upset and/or accident conditions involving the release of hazardous materials into the environment will not occur, these regulations do reduce the risks of such an accident and provide for the protection of health, life, the environment, resources and property to the extent reasonably foreseeable.

c) Will 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?

Although the Project would involve handling hazardous and acutely hazardous materials and substances, the Project would not result in the emissions of significant amounts of hazardous emissions, and there are no schools within one-quarter mile of the Project site.

d) Is the project located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

A recent search of the State Water Resource Control Board (SWRCB) GeoTracker website and the DTSC EnviroStor website reveal no listing of the Project site. Based on this review of the environmental database search, the Project site is not listed on any of the following Cortese List databases:

- Not listed as a Federal Superfund (National Priority List) site
- Not listed as a State deed-restricted site
- Not listed as a solid waste disposal site as identified by SWRCB
- Not listed as a site with an "Active" Cease and Desist Order or Cleanup and Abatement Order from the SWRCB
- Not listed as having any environmental records for the property on the SWRCB GeoTracker website,2 and
- Not listed as having any environmental records for the property on the DTSC EnviroStor website3

Based on this information, the Project site is not a hazardous materials site as listed on the "Cortese List" pursuant to Government Code Section 65962.5, and no known site contamination would create a significant hazard to the public or the environment.

e) 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, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The project site is not located within two miles of any public airport, or in the vicinity of a private airstrip. The San Jose International Airport, located 6.6 miles away, is the closest airport to the Project site. As such, there are no

[2] GeoTracker website accessed 3/6/20 at:
https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=47700+Kato+Road%2C+Fremont
[3] Envirostor website access 3/6/20 at:
https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=47700+Kato+road%2C+Fremont

associated airport land use plans applicable to the site, and the Project would not result in a safety hazard for people working at the site. No impacts would occur.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Project is required to comply with the California Fire Code's access and water supply requirements including, but not limited to, the provision of at least two access points suitable for use by fire apparatus. The Project includes more than two access points. Additionally, the City of Fremont actively maintains a Disaster Management Operations Plan, and the Project will be periodically reviewed (i.e. Inspected) by the Fire Department to ensure that emergency response is not constrained. Compliance with these City standards ensures that the Project's impacts related to emergency response and evacuation planning are less than significant.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

As indicated in the Wildfire section of this Initial Study Checklist, the Project site is not located in a Very High Fire Hazard Severity Zone as designated by CalFire,[4] nor is it within the City of Fremont's designated Wildland Urban Interface. The Project exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires would be less than significant.

[4] CalFire, Very High Fire Hazard Severity Zone map, access 3/6/20 at: https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/

1.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hydrology and Water Quality				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) 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:				
i) Result in substantial on- or offsite erosion or siltation;	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) 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	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

a) and e): Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, or conflict with or obstruct implementation of a water quality control plan ?

Construction activities associated with the Project could adversely affect water quality through the potential discharge of construction materials and wastes to the stormwater collection system. The delivery, handling, and storage of construction materials and wastes, as well as use of construction equipment, could also introduce the risk of stormwater contamination.

The Project site is currently covered with 351,300 square feet of impervious surfaces (rooftops, driveways and parking lots, etc.). The Project would remove approximately 9,800 square feet of existing rooftop, but replace with the same rooftop area. The Project would also involve replacing 4,500 square feet of impervious surface driveway area, and

would add 1,575 square feet of net new impervious space (small on-site electrical substation). In total, the Project will result in a net increase of only 1,575 square feet of impervious surface at the site, but would involve a total new or replaced impervious surface area of 15,875 square feet.

Regulatory Requirements

Construction Stormwater Runoff

Because Project construction would not include construction or demolition activity that would result in a land disturbance of equal to or greater than one acre, the Project is not required to file for coverage under the Statewide National Pollutant Discharge Elimination System (NPDES) General Construction Permit, or require preparation or implementation of a Stormwater Pollution Prevention Plan (SWPPP). Instead, per City requirements, the Project applicant has included a Clean Bay Blueprint worksheet (https://fremont.gov/CleanBayBluePrint), and has prepared a list of construction phase stormwater BMPs to be implemented during construction, including an erosion/sediment control plan for land disturbing activities at the driveway and substation location. BMPs to be implemented during construction include:

- construction, operation and maintenance of erosion and sediment controls
- earthmoving activities will be conducted only during dry weather
- sediment controls or filtration will be used to remove sediment if dewatering is required
- all storm drain inlets in the vicinity of site will be protected, using sediment controls such as berms, fiber rolls, filters or caps
- sediment will be trapped on-site using sediment basins or traps, earthen dikes or berms, or other similar measures
- site runoff will be diverted around exposed areas
- construction access will be limited to identified routes and designated access points
- cleaning and fueling of maintenance vehicles will only be conducted in a designated area where wash water is contained and treated
- construction material waste will be stored, handled and disposed of to prevent contact with stormwater
- the contractor shall train and provide instructions to all employees/subcontractors regarding construction-period BMPs
- no discharge of potential pollutants (including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments) will discharge directly to storm drains or watercourses

Operational Stormwater Quality

The Municipal Regional National Pollutant Discharge Elimination System Stormwater Permit (also known as the MRP), as issued by the San Francisco Regional Water Quality Control Board, mandates stormwater pollution prevention activities. The MRP requires municipalities in the Bay Area, including the City of Fremont, to place conditions on development projects to incorporate site design measures, source controls and treatment measures to address the quality of stormwater runoff. Since the total amount of impervious surface created/replaced is greater than 10,000 square feet, but is less than 50 percent of the pre-Project impervious surface, City stormwater treatment requirements for operational stormwater apply only to the impervious surface created and/or replaced. As an NPDES C.3 "regulated project", the Project includes preliminary Stormwater Control Plan (SCP), inclusive of the mandatory site design measure to direct runoff from the replaced roof onto vegetated areas or to a low-impact-development (LID) treatment measure via disconnected downspouts. The preliminary SCP also commits to implementing stormwater source controls during operation of the Project, including but not limited to the following:

- marking public and private storm drain inlets with the "No Dumping, Drains to Bay" medallions
- plumbing interior floor drains to sanitary sewer
- retaining existing landscaping as practicable, minimizing the use of pesticides and quick-release fertilizers, and using efficient irrigation systems designed to minimize runoff

- all outdoor equipment will be covered or designed to avoid pollutant contact with stormwater runoff, will be located on paved and contained areas, and no process equipment areas will discharge to the storm drain system

The preliminary SCP is subject to acceptance by the City prior to planning entitlement, and must be signed off, returned to the applicant, and maintained with project planning records. A final SCP submittal and review process will also occur post-entitlement. With implementation of all City requirements pursuant to construction-period erosion control, and NPDES C.3 permit requirements for runoff treatment and source controls, impacts of the Project on stormwater quality will be reduced to a less than significant level.

b) and e) 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, or conflict with or obstruct implementation of a sustainable groundwater management plan?

The Project does not involve excavation that would affect groundwater. Dewatering activities are not anticipated to be necessary, but if subsequently determined to be required, any dewatering activities associated with the proposed Project must comply with requirements established by the San Francisco Bay Regional Water Quality Control Board to ensure that such activities would not result in substantial changes in groundwater flow or quality. Following construction, the Project would not substantially change impervious surface area and would not have a substantial impact on groundwater recharge. Therefore, the proposed Project would have a less than significant impact on groundwater.

c) 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 on- or offsite erosion or siltation; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; 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 site is relatively flat and largely covered with impervious surfaces, and would remain so under the Project. The Project would not substantially alter drainage patterns or increase the flow of runoff from the site. The impact of the Project on the rate or amount of surface water runoff and capacity of the existing stormwater drainage system would be less than significant.

d) In flood hazard, tsunami, or seiche zones, would the project risk the release of pollutants due to project inundation?

Based on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs),[5] no portion of the Project site is located within 100-year flood hazard boundaries, a Special Flood Hazard Area (100-year floodplain) or other Areas of Flood Hazard (e.g., the 500-year [or 2%] flood zone. A portion of the Kato Road right-of-way immediately southwest of the Project site is included in the regulatory floodway Special Flood Hazard Area associated with the Agua Fria Creek (at a flood elevation of 12 to 13 feet). The existing floor elevations of the Kato and Page

[5] https://msc.fema.gov/portal/search?AddressQuery=47700%20Kato%20Road%2C%20Fremont%2C%20ca#searchresultsanchor, accessed on 3/2/20

buildings are at elevations of 32 to 33 feet, approximately 20 feet higher in elevation that the base flood elevation of Aqua Fria Creek.

Areas that are highly susceptible to tsunami inundation tend to be low-lying coastal areas such as tidal flats, marshlands and former Bay margins that have been artificially filled. Because of its location at the southern end of the San Francisco Bay and the shallowness of the Bay along the Fremont waterfront, the Project site is not located within a tsunami inundation area. Seiches are not considered a hazard in the San Francisco Bay. The Project site is not protected by a levee. Sea level rise of 16 inches by 2050, and 55 inches by 2100, has been predicted by the San Francisco Bay Conservation and Development Commission (BCDC). Even without implementation of shoreline protection measures such as levees, the increase in sea level associated with the predicted 2100 rise would not result in flooding of the Project site.

1.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning				
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) 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?	☐	☐	☒	☐

a) Physically divide an established community?

The Project involves improvements to an existing manufacturing/R&D facility, and these improvements would not physically divide an established community. There is no impact and no mitigation is necessary.

b) 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?

An environmental impact could occur when a project conflicts with a policy or regulation intended to avoid or reduce an environmental impact. The following discussion does not replace or preclude consistency discussions as part of project approval considerations, which take into account more than potential impacts to the environment.

The Project involves improvement of an existing manufacturing/R&D facility on a site with appropriate zoning and General Plan designation (and related policies and regulations) for this type of use. The applicant is proposing approval of the Project under a Zoning Modification to allow for the proposed FAR and a Conditional Use Permit to allow for use of hazardous chemicals under the proposed operations. Both such approvals are allowable under the existing General Plan designation and zoning and would not innately be considered conflicts. The potential for the Project to result in environmental impacts has been individually considered in all topic areas of this document, and no residually significant impacts would occur. Therefore, the Project would have a less than significant impact with regard to conflicts with land use plans, and no mitigation is necessary.

1.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) 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?	☐	☐	☐	☒

a-b) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? 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?

According to the United State Geological Society mineral resources maps (https://mrdata.usgs.gov/), there are no known mineral resources of importance to the state or region on the site or within the surrounding area. Therefore, no impact to such resources would result and no mitigation is necessary.

1.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. Noise				
Would the project result in:				
a) Generation of a substantial temporary 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 in other applicable local, state, or federal standards?	☐	☐	☒	☐
b) Generation of a substantial 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 in other applicable local, state, or federal standards?				
c) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
d) 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?	☐	☐	☐	☒

Information in this section of the Initial Study Checklist is supported by Project-specific information provided by Tesla, including the following:

- Roof plan for the 47700 Kato building and 1055 Page building, indicating the placement of new mechanical equipment (Attachment 1.13-A)
- Cut sheets providing reference power ratings and/or dBA for each piece of new mechanical equipment (Attachment 1.13-B)

Units of Measurements

This memo uses several units of measurement related to sound:

- Lw - Sound power (Lw) is the sound energy released by a sound source
- Hertz - The frequency of sound represents the pitch, and is measured in Hertz
- dB - A decibel (dB) is a unit of measurement that indicates the relative amplitude of a sound
- dBA - The most common method for characterizing sound is the A-weighted sound level, or dBA. The dBA scale gives greater weight to the frequencies of sound to which the human ear is most sensitive
- dBA Ldn – Because sensitivity to noise increases during the evening and at night, a 24-hour descriptor has been developed that incorporates "artificial noise penalties" added to quiet-time noise events. dBA Ldn essentially add a 10 dB penalty to nighttime noise

- Decibel Addition: Since decibels are a logarithmic expression of sound, they cannot simply be added. For instance, 40 dB + 40 dB is not 80 dB, it is 43 dB. Decibels can be added as follows: Ls = 10*Log(10L1/10 + 10L2/10+10L3/10+….)

a) Would the Project generate a substantial temporary 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 in other applicable local, state, or federal standards?

Temporary noise impacts resulting from construction generally depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise-sensitive receptors. Table 1.13-1 displays the maximum noise levels (Lmax) for typical types of construction equipment likely to be used at the Project site, measured at 50 feet from the source.

Table 1.13-1: Typical Construction Equipment Maximum Noise Levels, Lmax

Type of Equipment	Specification Maximum Sound Levels for Analysis (dBA at 50 feet)	Type of Equipment	Specification Maximum Sound Levels for Analysis (dBA at 50 feet)
Pickup Truck	55	Concrete Mixer Truck	85
Pumps	77	Cranes	85
Air Compressors	80	Jackhammers	85
Backhoe	80	Man Lift	85
Front-End Loaders	80	Paver	85
Portable Generators	82	Pneumatic Tools	85
Dump Truck	84	Rollers	85
Tractors	84	Concrete/Industrial Saws	90

Source: FHWA, 2006

Significant construction noise impacts primarily occur when construction activities occur during noise-sensitive times of the day (early morning, evening, and nighttime hours), where construction occurs in areas immediately adjoining noise-sensitive land uses, and when construction occurs over an extended period (e.g., longer than one year). The Project site is located in an industrial portion of the City and immediately adjacent to the I-880 freeway, where ambient noise is already heightened and where there are no proximate noise-sensitive receivers. The nearest noise sensitive receivers (religious centers, daycare centers, learning center, etc.) are approximately one-half mile from the site, and construction will occur within a short timeframe (within approximately 3 months). Based on these Project-specific factors, temporary construction noise impacts resulting from use of the types of construction equipment listed above would not be significant.

Regulatory Requirements

Pursuant to Fremont Municipal Code (FMC) section 18.50.040, performance standards have been established to ensure that adjoining properties are provided protection against adverse conditions (including noise) that may be created by uses operating within the City's industrial zoning districts. These standards specifically exclude sound generated by temporary construction activities. Rather, the FMC section 18.218.040 establishes universal development standards, applicable to all new development and redevelopment projects, and FMC section 18.218.050(d) provides standard development requirements related to construction noise. To reduce the potential for noise impacts during construction, the following requirements shall be implemented:

- Construction equipment shall be well maintained and used judiciously to be as quiet as practical
- All internal combustion engine-driven equipment shall be equipped with mufflers, which are in good condition and appropriate for the equipment
- The contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists
- Loading, staging areas, stationary noise generating equipment, etc., shall be located as far as feasible from sensitive receptors
- The contractor shall comply with Air Resource Board idling prohibitions of unnecessary idling of internal combustion engines
- Signs shall be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a contact number for the project sponsor in the event of noise complaints. The applicant shall designate an on-site complaint and enforcement manager to track and respond to noise complaints, and
- Construction, excavating, grading, and filling activities (including the loading and unloading of materials, truck movements, and warming of equipment motors) shall be limited as provided in Section 18.160.010

Per FMC section 18.160.010, construction activity for projects not located within 500 feet of residences, lodging facilities, nursing homes or inpatient hospitals (e.g., the Project) shall be limited to the weekday hours of 6:00 a.m. to 10:00 p.m., and weekend or holiday hours of 8:00 a.m. to 8:00 p.m. The City Manager's designee has the authority to modify these construction hours if (among other factors), modified construction hours are, "reasonably foreseeable to result in an equal or superior level of comfortable enjoyment of life and property by the community."

Tesla does intend to conduct construction activity to build the Project in an expedited manner, including scheduled work for multiple shifts per day, up to 24-hour construction days. To achieve these construction hours, Tesla will be required to obtain a modification to the provisions of FMC Section 18.160.010, as provided for in the Code.

b) Would the Project generate a substantial 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 in other applicable local, state, or federal standards?

Existing ambient noise at the Project site is dominated by traffic noise along I-880. According to 2013 data presented in the City of Fremont's Warm Springs Community Plan Draft EIR, the I-880 freeway generates traffic noise levels of approximately 82.5 dBA Ldn at 100 feet, 70 dBA Ldn at 685 feet, and 65 dBA Ldn at 1,476 feet. The 47700 Kato building site fronts along I-880, with its closest building edge at 220 feet from the freeway centerline, and the back edge of the building at approximately 600 feet from the I-880 centerline, thus being subject to existing ambient noise conditions of between 70 and 76 dBA Ldn.

In general, an increase of 3 dB in ambient noise is considered just noticeable, a change of 5 dB in ambient noise is clearly noticeable, and a change of 10 dB in noise is perceived as a doubling of the noise level. However, since decibels are a logarithmic function, they cannot simply be added. Decibels are instead added as follows: Ls = 10Log (10L1/10 + 10L2/10+10L3/10+….). Therefore, for Project operational noise to be noticeable (i.e., a 3 dBA increase), it would need to generate noise equivalent to 76 dBA Ldn (76 dBA + 76 dBA = 79 dBA – or a 3 dBA increase) near the Kato building's frontage on Kato Road, and equivalent to 70 dB Ldn to be noticed near the Page building (70 dB + 70 dB = 73 dB – or a 3 dB increase).

<u>Rooftop Mechanical Noise</u>

The Project also involves removal of much of the existing rooftop mechanical equipment (all the scrubbers and a few exhaust systems) and replacing that equipment with new air handling equipment, dust collection systems and exhaust fans.

Kato Building

Not taking into account any noise reduction due to shielding from the rooftop or a noise barrier, the cumulative noise level generated by all of the new mechanical equipment on the rooftop of the Kato building, operating simultaneously, has been calculated. This cumulative noise level of the Project is preliminarily estimated to be approximately 63.6 dBA at the point along the near property line to the northwest that receives the greatest increase in mechanical noise (see Attachment 1.13, Table 2A for calculations). At 63.6 dBA, generated 24 hours a day, the resulting Ldn (with the nighttime noise penalty) would be 70 dBA Ldn at this location. This location is already subject to ambient traffic noise from I-880 of approximately 76 dBA Ldn, and the addition rooftop mechanical noise of 70 dBA Ldn would only add approximately 1 dBA Ldn to existing ambient noise conditions. This rooftop mechanical noise would not be perceptible during periods of heavy traffic on I-880, but may be noticeable during light traffic periods at night.

Page Building

Similarly not taking into account any noise reduction due to shielding from the rooftop or a noise barrier, the cumulative noise level generated by all of the new mechanical equipment on the rooftop of the Page building, operating simultaneously, has been calculated. This cumulative noise level of the Project is preliminarily estimated to be approximately 60.3 dBA at the point along the near property line to the east that receives the greatest increase in mechanical noise (see Attachment 1.13, Table 2B for calculations). At 60.3 dBA, generated 24 hours a day, the resulting Ldn (with the nighttime noise penalty) would be 66.7 dBA Ldn at this location. This location is already subject to ambient traffic noise from I-880 (although shielded by the existing page building). The additional rooftop mechanical noise of 70.3 dBA Ldn would likely not be perceptible during periods of heavy traffic on I-880, but may be noticeable during light traffic periods at night.

Ground Mounted Mechanical Noise

Both the Kato and Page buildings have existing exterior mechanical equipment enclosures on the north and east sides of the buildings respectively. These enclosures currently contain equipment such as air compressors and cooling towers. These enclosures were purpose built to screen the ground mounted mechanical equipment from view and reduce noise impacts. Existing mechanical equipment was analyzed for conformity with the City's noise limits that were in place when they were originally installed. Any new equipment installed within these enclosures would be subject to the current City noise limits for industrial uses and would be reviewed at the time of building permit submittal for conformance.

Traffic Noise

Project traffic data was reviewed to consider the relative change in noise levels expected with the operation of the Project. Vehicular traffic generated by the Project would not increase traffic noise levels substantially because the Project's traffic makes up a very small percentage of the total traffic along area roadways (which includes the I-880 freeway frontage). Vehicular traffic noise levels are not expected to increase measurably above existing levels as a result of the Project (increase would be less than 1 dBA Ldn).

Other Noise Sources

The Project will include operational-based noise sources typical of an industrial use located in an industrial setting, such as parking lot noise (not new) and landscape maintenance (not new), that typically generate noise levels of approximately 60 dBA to 70 dBA Lmax at 50 feet. These noise levels do not materially affect existing ambient conditions.

Regulatory Requirements

Applicable Threshold

Pursuant to Fremont Municipal Code (FMC) section 18.50.040(a)(1), the maximum noise level at the property line generated by any user located within an industrial zoning district shall not exceed:

- an 70 dBA Ldn, when adjacent users are also industrial or commercial, business, professional or office uses.

Kato Building

As indicated above, and conservatively not accounting for any potential noise reduction due to shielding from the rooftop or a parapet walls, the cumulative noise level generated by all of the new mechanical equipment on the rooftop, operating simultaneously, would be approximately 70 dBA Ldn at the nearest point along property line that receives the greatest increase in mechanical noise. Using this conservative (over-estimated) method, rooftop mechanical noise would meet, but not exceed the FMC standard. In reality, the existing rooftop and intervening mechanical equipment will provide noise attenuation for further-distant mechanical equipment that would lower this conservatively estimated value.

Page Building

As indicated above, and conservatively not accounting for any potential noise reduction due to shielding from the rooftop or a noise barrier, the cumulative noise level generated by all of the new mechanical equipment on the rooftop, operating simultaneously, would be approximately 66.7 dBA Ldn at the nearest point along property line that receives the greatest increase in mechanical noise. Using this conservative (over-estimated) method, rooftop mechanical noise would not exceed the FMC standard of 70 dBA Ldn. In reality, the existing rooftop and intervening mechanical equipment will provide noise attenuation for further-distant mechanical equipment that would lower this conservatively estimated value.

Pursuant to FMC standards, the Project applicant must analyze and provide documentation of installed exterior mechanical or industrial equipment to ensure that the equipment does not exceed the applicable operational noise standard of 70-dBA at the nearest property line. If the installed equipment is found to exceed this standard, noise control measures must be provided to meet the City's requirements. Typical noise control measures include barriers, enclosures, silencers and acoustical louvers at vent openings. The Project applicant shall submit a report verifying that noise levels generated by actual Project mechanical equipment will be no greater than applicable noise standards at receiving property line (potentially inclusive of noise barrier parapet walls and/or mechanical louvers), thereby complying with applicable City regulatory standards.

b) Generation of excessive groundborne vibration or groundborne noise levels?

The Project's construction efforts do not include any pile driving or other extreme noise and vibration-generating activities that would produce excessive groundborne vibration or groundborne noise levels. The columns supporting the new second floor are to be stabilized to the existing concrete floor using steel rods and rebar dowels, and anchored to the floor using a steel baseplate.

During operations, many of the new battery manufacturing equipment are themselves sensitive to vibrations, and no vibrations of such magnitude that could be felt off-site would be generated.

c) For a project located within the vicinity of a private airstrip or an airport's 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 site is approximately 6.6 miles for the San Jose International Airport, 17 miles from the Hayward Executive Airport, 23 miles from Oakland International Airport, and 26 miles from San Francisco International Airport. The Project site in not within an Airport Influence Area of any of these surrounding airports, and implementation of the Project would not expose people working in the Project area to excessive airport or aircraft noise levels.

1.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Population and Housing				
Would the project:				
a) 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)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a) 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)?

The Project involves improvements to an existing manufacturing/R&D facility that would increase square footage and support an additional 170 employees. This increased worker population could indirectly increase residential population if new workers chose to relocate to Fremont. The City of Fremont General Plan Housing element identifies policies to balance job and housing growth to achieve a sustainable jobs-to-housing ratio of 1.3, given a projected increase in the number of jobs in Fremont by 33% between 2010 and 2040. The existing and continued use of the site (manufacturing/R&D) is consistent with the type of use identified in the General Plan and the increased worker population would be a portion of that anticipated under the General Plan and therefore not unplanned. The impact of the Project with respect to unplanned population growth would be less than significant and no mitigation is necessary.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The Project involves improvements to an existing manufacturing/R&D facility and does not involve displacement of people or housing. The Project would have no impact with respect to displacement of people and housing and no mitigation is necessary.

1.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services				
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or 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:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or 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:

Fire protection?

The Fremont Fire Department currently provides fire protection to the Project site, and would continue to provide fire protection services in the future. The nearest fire stations are Station 5 located at 55 Hackamore Lane (1.9 driving miles, or about 6 minutes from the Project site) and Station 11 at 47200 Lakeview Boulevard (2.3 driving miles from the Project site, on the opposite side of I-880). The proposed Project has been reviewed in coordination with the Fremont Fire Department, and no new or physically altered stations or facilities have been determined to be required. Therefore, impacts would be less than significant and no mitigation is required.

Police protection?

The Fremont Police Department currently provides police protection to the Project site, and would continue to provide these services in the future. The Project would increase the workforce population by 170 employees, which could result in a minor associated increase in the demand for police protection services. Because the Project involves improvements to an existing facility, nearby services and patrols are already available and the demand for services from the Project would be typical of demand from surrounding uses. The proposed Project has been reviewed and no required new or physically altered stations or facilities have been identified. Therefore, impacts would be less than significant and no mitigation is required.

Schools?

The Project involves improvements to an existing manufacturing/R&D facility, which would result in increased workforce of 170 employees. Workforce population does not directly increase demand for schools and, as discussed in Section 1. 14: Population & Housing, would not have a substantial effect on unplanned residential population increases. While the Project could result in some small indirect increase in demand of school services, the Project would not have the potential to contribute to substantially reduced performance ratios or the need for new facilities. The impact of the Project related to schools would be less than significant and no mitigation is necessary.

Parks?

The Project involves improvements to an existing manufacturing/R&D facility, which would result in increased workforce of 170 employees. As discussed in Section 1. 16: Recreation, while the Project could result in some small increase in use of recreational facilities including parks, workforce population does not generally heavily use public park facilities and the minimal increased usage of parks from the additional 170-workforce population would not have the potential to substantially contribute to reduced performance ratios or the need for new parks. The impact of the Project related to parks would be less than significant and no mitigation is necessary.

Other public facilities?

The Project would increase the workforce population by 170 employees, which could result in a minor associated increase in the demand for other public facilities, but the increased demand would be minor and would not to require new or expanded facilities. The impact of the Project related to other public facilities would be less than significant and no mitigation is necessary.

Additionally, as with all development Project in the City of Fremont, the Project would be required to pay Development Impact Fees, which are intended to fund and sustain improvements that are needed as a result of new development. Under this program, the required Capital Facility Fee helps pay for services in such categories as City Administration facilities, City Services Maintenance Center and Corporation Yard, and Libraries.

1.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Recreation				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

a-b) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

The Project involves improvements to an existing manufacturing/R&D facility. Workforce population does not generally heavily utilize public recreational facilities, as reflected by exclusion of this type of development from Fremont park dedication and park facilities fees requirements. While the Project could result in some small increase in use of recreational facilities, increased usage of public recreational facilities from the additional 170-workforce population would not be substantial and would not have the potential to contribute to substantial deterioration of existing recreational facilities or the need to construct or expand existing facilities. The impact of the Project related to recreation would be less than significant and no mitigation is necessary.

1.17 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Transportation				
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☐	☒
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
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?	☐	☐	☐	☒

A Transportation Impact Analysis (TIA) was prepared for the Project by Kimley-Horn transportation consultants. The analysis in this section is based on that assessment, which is included as Attachment 1.17-A. The proposed Transportation Demand Management Plan is included as Attachment 1.17-B.

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Sidewalks exist along the Project roadway frontages. Kato Road is identified as a recommended route along a shared roadway on the Fremont Bikeway Map and provides connection to the bikeway system a. No changes in the on-site or off-site transit, roadway, bicycle, and pedestrian circulation system are proposed. Per the TDM Plan, the facility includes indoor and outdoor bicycle parking, which will be increased, and fix-it stations to support bicyclists. The Project would not conflict with any plans, policies or programs supporting alternative transportation, and would not obstruct or otherwise impact any transit stops or bicycle lanes. No impact would result and no mitigation is required.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

VMT

With the passage of SB 743, vehicle miles traveled (VMT) has become an important indicator for determining if a Project will result in a "significant transportation impact". While jurisdictions (lead agencies) have until July 1, 2020 to adopt thresholds of significance and fully implement the requirements of SB 743, VMT analysis was conducted for this Project for informational purposes and per CEQA requirements. The City of Fremont has not adopted VMT thresholds yet.

Section 15064.3 of the revised CEQA Guidelines was adopted by OPR on December 28, 2018, and states that VMT is the appropriate measure of transportation impacts. Sections 15064.3(c) and 15007 also states that the provisions of this section shall apply prospectively, i.e. new requirements in CEQA Guidelines amendments will apply to steps in the CEQA process not yet undertaken by the date when agencies must comply with the amendments. Section 15064.3(c) further states that VMT analyses must be implemented statewide by July 1, 2020.

Although not required, a VMT analysis consistent with CEQA Guidelines Section 15064.3 requirements is provided in this section for informational purposes only. The analysis reviews the Project pursuant to the screening criteria and suggested significance thresholds in OPR's Technical Advisory. As noted in the advisory, the suggested screening criteria and significance thresholds are not binding, and lead agencies have the discretion to set or apply their own thresholds of significance. OPR's Technical Advisory provides screening criteria for land use projects, transportation projects, and land use plans. For land use projects (such as the proposed Project), the Technical Advisory and Section 15065.3 subdivision (b)(1) states that "generally, projects within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor should be presumed to have a less-than-significant impact on VMT." The presumption of a less than significant impact would not apply, however, if project-specific or location-specific information indicates that the project will still generate significant levels of VMT.

Additionally, for a land use project, OPR states that a less than significant impact would also result if a project decreases [total] VMT in the project area compared to existing conditions.

The TIA analyzed VMT for the Project using current employee address data provided by the applicant. The baseline VMT per employee was calculated as 47.08. With implementation of the TDM Program as proposed, the VMT per employee would be 35.10. This reflects a reduction in VMT per employee of 11.98 and a reduction in total VMT of 4,647 with implementation of the Project. While an official threshold has not yet been adopted by City of Fremont, based upon OPR's interim guidance, because the Project would reduce total VMT, the impact would be considered less than significant with respect to VMT.

However, since a VMT threshold has not yet been adopted, the Project was analyzed with respect to Level-of-Service (LOS) standards, as discussed below.

LOS

Standard practice exercised by the City of Fremont typically requires an LOS analysis for projects generating 100 vehicle-trips or more during the weekday PM peak hours. This threshold is consistent with the threshold used by Alameda County Transportation Commission (ACTC) for determining whether a land use project requires preparation of a TIA to evaluate potential impacts to regional roadways in the surrounding area.

The TIA calculated the net new vehicle trips expected from the Project based on details of operations for the baseline and proposed uses, as summarized in Table 1.17-1.

Table 1.17-1. Summary of Project Trip Generation

Land Use	Employees	Daily Trips	AM Peak			PM Peak		
			In	Out	Total	In	Out	Total
Baseline Manufacturing/R&D	300	906	100	39	139	28	109	137
Proposed Manufacturing/R&D	470	864	96	34	130	42	75	117
Net Trips (New minus Existing)		-42	-4	-5	-9	14	-34	-20

Note: Trip generation was calculated based on a mix of employees with jobs fitting Manufacturing or R&D type uses and implementation of the proposed TDM Plan. See Attachment 1.17-Afor detailed information on trip generation calculations.
Source: Kimley-Horn (Attachment 1.17-A)

With the change in operations and implementation of the proposed TDM Plan, the proposed Project would reduce overall daily and peak hour Project trips. Because the Project is estimated to generate less than 100 new PM peak hour trips, an LOS analysis was not required for this Project, per City of Fremont and Alameda County Congestion Management Program (CMP) guidelines. The Project would not generate a significant amount of traffic or conflict with any applicable congestion management plans, and no mitigation is required.

The Project would be subject to the City of Fremont's traffic impact fee, which would be directed towards funding various intersection and roadway improvements identified in the General Plan and would contribute to the City's efforts to improve the circulation system.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No changes in the building footprints or driveways or isles are proposed and the existing site access and circulation provides vehicular access consistent with City safety standards. No impact would result and no mitigation is required.

d) Result in inadequate emergency access?

No changes in the building footprints are proposed and the existing emergency vehicle access would remain, which provides emergency access throughout the entire Project site and to all sides of the buildings. The Fremont Fire Department has reviewed the proposed improvements and found no conflicts with required emergency access requirements. No impact would result and no mitigation is required.

1.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?	☐ Yes		☒ No *	
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) 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)?	☐	☐	☐	☒
b) 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?	☐	☐	☐	☒

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-b) 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)? 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?

The Project site is fully developed and the proposed improvements are largely constrained to modification of an existing building and the equipment and operations within it and would not disturb native soils at the site or change the general type of use on the site. As such, the Project does have the potential to affect tribal cultural resources. The Project would have no impact on tribal cultural resources and no mitigation is necessary.

* Letter notification of the Project was sent to local tribes on March 4, 2020, as included in Attachment 1.18. No request for consultation was received at the time this document was prepared, though it was still within the 30-day time period the tribes have to respond to request consultation. Due to the nature of the Project (i.e., improvements to an existing building with no excavation required), it is not anticipated that tribes would identify a tribal cultural resource with the potential to be impacted by this Project.

1.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems				
Would the project:				
a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☒	☐
d) 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?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

a-c) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects? Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?

Water Supply and Wastewater

The proposed change in operations afforded by the proposed Project improvements would require the same or less water and generate the same or less wastewater than under baseline conditions. The Project would have no impact on water or wastewater supply, capacity, and facilities, and no mitigation is necessary.

Storm Drainage

As discussed in Section 1.10 Hydrology and Water Quality, the Project will include the construction of new onsite stormwater facilities to handle and treat onsite stormwater run-off. The Project includes a preliminary Stormwater Control Plan, which is subject to acceptance by the City prior to planning entitlement. Because these facilities would

be constructed in accordance with applicable requirements, the construction of these facilities will not result in a significant environmental impact. Construction of new stormwater drainage facilities outside of the Project site would not be required. Therefore, impacts related to the expansion of facilities would be less than significant and no mitigation is required.

Electric Power

The Project includes construction of a small electrical substation immediately adjacent to the Kato building. This substation does not increase overall power load to the building, but will be used to even-out surges and dips in electrical power to maintain consistent power loads to the new machinery. There are no individual environmental effects associated with construction of this small Project-specific substation that are not otherwise addressed elsewhere in this document.

As discussed under Section 1.6 Energy, the applicant has coordinated with PG&E to ensure there is adequate electrical power to meet the Project's power load demands. In their letter of February 28, 2020, PG&E has confirmed that the existing electric service is adequate to serve the Project, and that no other work will be needed on their electric facilities to meet the Project's additional demand load. The Project impact with respect to electric power would be less than significant and no mitigation is required.

Natural Gas and Telecommunications

The proposed change in operations afforded by the proposed Project improvements would require substantially the same natural gas and telecommunications service as under baseline conditions. The Project impact with respect to natural gas and telecommunications would be less than significant and no mitigation is required.

d-e) 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? Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The Project would be served by the City's franchised waste hauler, Republic Services, in compliance with the applicable standards governing solid wastes and recyclables, and would comply with all applicable waste reduction goals and regulations. The Project would have a less than significant impact with respect to solid waste and no mitigation is required.

1.20 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Wildfire				
Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones?				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:		☐ Yes		☒ No
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) 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?	☐	☐	☐	☒
c) Require the installation 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?	☐	☐	☐	☒
d) 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?	☐	☐	☐	☒

a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: Substantially impair an adopted emergency response plan or emergency evacuation plan? Due to slop, 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? Require the installation 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? 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?

The Project site is within the developed urban area of Fremont, which is not within a state responsibility area and has not been identified as part of a very high fire hazard severity zone (https://osfm.fire.ca.gov/media/6455/fhszl_map1.jpg), nor is it within the City of Fremont's designated Wildland Urban Interface. The Project would have no impact related to wildfire and no mitigation is required.

1.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI: Mandatory Findings of Significance				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

As indicated in the Biology and Cultural Resources sections of this Initial Study Checklist, the Project site is fully developed and characterized by an urban setting, and is entirely surrounded by similar industrial development. The Project's proposed improvements are largely constrained to modification of an existing building and the equipment and operations within it, and would not disturb native soils at the site or change the general type of use on the site. As such, the Project does not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

The Project would not result in a cumulatively considerable net increase of criteria pollutants, would be consistent with the 2010 Clean Air Plan, and would not have a cumulatively considerable impact associated with inconsistency with regional air quality planning or a cumulative net increase in non-attainment pollutants. The Project would not result in an air quality violation or contribute substantially to an existing or projected air quality violation, nor would it make a significant contribution to the exposure of sensitive receptors to substantial air pollutants.

The Project would be consistent with the City of Fremont's Climate Action Plan, and would help reduce overall growth in VMT generation in the City by increasing use of alternative modes of travel.

Because of the urban, built-up nature of the Project site and its surrounding area, there is no potential for any cumulatively considerable impacts related to agriculture, biological resources, historic resources, hydrology, land use, or minerals.

The Project and all other future development projects will be required to comply with CBC standards, NPDES C.3 provisions and standard erosion control measures. Therefore, the Project and other future cumulative development would not result in cumulatively considerable impacts associated with geology, soils, seismicity or water quality.

The Project does involve the use of hazardous materials, and there is the potential for other future development projects in the industrial area to involve the use, handling and disposal of hazardous materials. The Project, as well as all other cumulative industrial development is required to comply with all applicable hazardous materials handling and storage requirements to minimize associated cumulative risks, and protect risk to public health and safety.

The Project and other cumulative development in the City will incrementally increase demands for fire protection, police protection, schools, libraries, parks, trails and other recreational facilities. All cumulative development will be required to provide development fees to finance capital improvements to these facilities, and to maintain acceptable service ratios and performance standards.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

As indicated in the Hazardous Materials sections of this Initial Study Checklist, the Project site is not a hazardous materials site as listed on the "Cortese List" pursuant to Government Code Section 65962.5, and no known site contamination would create a significant hazard to the public or the environment.

Based on an analysis of all worst-case and alternative scenarios, the Project does have the potential to result in a scenario of most concern from a toxicity aspect involving electrolyte spills from the isotainer. Under such a worst-case scenario, this could lead to the generation of toxic gas, resulting in a toxic cloud dispersion in an approximate 0.30-mile radial area (or endpoint) from the source. For flammability aspects, the scenario of most concern also involves electrolyte spills from the isotainer leading to flammable components of the solution, contributing to an explosion that would affect an approximately 0.20-mile radial area from the source. These worst-case release scenarios represent the failure modes that would result in the worst possible off-site consequences, however unlikely. Off-site sensitive receptors (such as schools, religious centers, sports academy, day care centers, art studio, learning center, etc.) are no closer than one-half mile from the Project site, and thus outside of the potential endpoint impact area due to these potential worst-case scenarios, but portions of the City of Fremont's industrial area are within these potential endpoint impact areas.

To prevent any such incident and to limit the potential consequences of such an impact, the City of Fremont Fire Prevention Division has reviewed the applicant's Offsite Consequence Analysis including all safety measures as propose din that document, has imposed all regulatory requirements of the California Accidental Release Prevention (CAL-ARP) Program, and has identified additional reasonable and appropriate Project-specific mitigation measures to be applied as conditions of Project approval. As noted in the Initial Study Checklist section, full compliance with all

applicable regulations cannot fully guarantee that upset and/or accident conditions involving the release of hazardous materials into the environment will not occur, but these regulations do reduce the risks of such an accident and provide for the protection of health, life, the environment, resources and property to the extent reasonably foreseeable.

Authority for the Environmental Checklist: Public Resources Code Sections 21083, 21083.5

Reference: Government Code Sections 65088.4
Public Resources Code Sections 21080, 21083.5, 21095; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.