From: Kathy Angus <kathyangus@comcast.net>
Sent: Friday, April 24, 2020 3:13 PM
To: BOS Legislation, (BOS)
Cc: Gibson, Lisa (CPC); Ronen, Hillary; Beinart, Amy (BOS)
Subject: Email 1 of 2: Appeal of Revised Final Mitigated Negative Declaration for 3516 & 3526 Folsom Street
Attachments: Appeal of RFMND for 3516 & 3526 Folsom St..docx; 3516-26 Folsom Street_Revised FMND_032520 (1).pdf; SF Board of Supervisors M17-152.pdf

EMAIL ONE OF TWO
All attachments could not be included in one document

TO: Clerk of the Board of Supervisors,
Please accept this Appeal of the Revised Final Mitigated Negative Declaration for 3516 and 3526 Folsom Street, submitted on 3/25/2020
We have done our best to respond to serious defects in the RFMND under the constraints of COVID 19. It has been impossible to communicate effectively when collaborating with experts and a large group of neighbors under the Shelter in Place mandate.
Though I have sent several inquiries, I can't figure out how to submit the check (a copy is attached), but will do so when I receive instructions. Since it the Appeal is submitted by a long-standing neighborhood organization, it is always returned uncashed. I will put it in the mail to your office today.
Because of our current constraints, additional information will be submitted prior to the hearing.
Respectfully,
Kathy Angus, Co-Chair, Bernal Heights South Slope Organization
99 Banks Street, San Francisco, CA 94110
kathyangus@comcast.net
415-640-4568

--
Kathy Angus

Bernal Heights South Slope Organization
99 Banks Street, San Francisco, CA 94110
Kathy Angus, Co-Chair
kathyangus@comcast.net 415-640-4568

April 24, 2020

President Norman Yee
% Angela Calvillo, Clerk of the Board
San Francisco Board of Supervisors
1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, CA 94102

RE: Appeal of CEQA Revised Final Mitigated Negative Declaration
Planning Case No. 2013.1383ENV
BOS Motion No. M17-152
Building Permit Application Nos. 2013.12.16.4318 and 2013.12.16.4322
3516 and 3526 Folsom Street

SUBMITTED ON-LINE DUE TO COVID-19 PROTOCOLS

Dear President Yee and Honorable Members of the Board of Supervisors,

This letter is written on behalf of neighbors of the proposed project at 3516 and 3526 Folsom Street (BPA Nos. 2013.12.16.4318 & 2013.12.16.4322, the "Project"). The appellant, Bernal Heights South Slope Organization, opposes the above captioned project *inter alia*, on the grounds that the Project's Revised Final Mitigated Negative Declaration ("RFMND," Exhibit A) violates the California Environmental Quality Act ("CEQA").

Pursuant to San Francisco Administrative Code Section 31.16, Appellants hereby appeal the Revised Final Mitigated Negative Declaration published March 25, 2020 in response to the Board of Supervisors' Motion No. M17-152 dated 9/26/17. Prior to the 7/17/2017 appeal of the MND, the MND issued on 4/26/2017[1] was appealed to the Planning Commission on May 16, 2017, and the Amended MND was issued on June 8, appealed again, and heard by the Planning Commission on June 15. It was then appealed to the BOS on 7/17/2017, and heard by the BOS at a meeting on 9/12/2017, after which Motion #M17-152 was adopted on 9/26/2017. Evidence submitted in writing during and prior to the public comment period for the PMND and MND is included as part of this appeal. This endeavor has been supported by the SF Sierra Club, the Bernal Heights Democratic Club, the Bernal Heights Neighborhood Center, Bernal Heights neighborhood associations, and hundreds of San Francisco residents.

[1] Erroneously dated April 19, 2017

SUMMARY

If approved, this project will create hazards that can lead to a leak and subsequent explosion from a 26" PG&E gas transmission pipeline and result in injuries or deaths within the blast radius.

1. The City has rescinded or revoked three different prior Environmental determinations for deficiencies, yet those same oversights and errors are evident in the current RFMND.

2. No independent vibration analysis by a qualified professional was conducted, only the review of the vibration report submitted by the Project Sponsor, violating the Planning Department's "Agreement to Protocols to Insure Objectivity in Environmental Review Documents." Highly qualified geotechnical engineers and pipeline experts have submitted stamped reports on behalf of the Appellants that give evidence of a significantly more dangerous situation than that presented by the Project Sponsor.

3. In light of the inherent danger of excavation on or near this pipeline, inadequate attention has been given to the singular uniqueness of the project location on a 40% slope. There is no evidence the street will be allowed or accepted by the City or how that construction or lack of construction will impact the required mitigation measures.

4. The Emergency Response and Evacuation Plan fails to meet BOS motion's site-specific requirements and introduces additional risks to public safety.

5. No accountability or supervisory roles have been defined as requested in the motion, though there are extensive and sensitive mitigation measures required, including those where one small error can cause a major disaster.

BACKGROUND

Over the past few years, the Planning Department took the unprecedented step of twice rescinding the Categorical Exemptions prior to the Board's hearings on the appeals, and the Board of Supervisors moved for additional mitigation measures in their motion M17-152. While we appreciate the Board of Supervisors recognizing the need for rigorous mitigation measures and emergency plans to address the potential for a catastrophic pipeline accident by revoking the MND, the RFMND issued by the Environmental Review Officer March 25 is still inadequate and legally erroneous.

This is a highly unusual situation, with a private development proposed for a uniquely dangerous location immediately adjacent to a major PG&E 26" diameter natural gas transmission pipeline[2], which is not covered by asphalt, on an extremely steep slope of

[2] Storesund, Rune, 12/1/2016, Independent Project Review, Figures 1-3.

40.3%[3]. This major pipeline is located below a mapped landslide area[4], immediately below the primary access road for the construction[5], immediately adjacent to significant proposed new utility work (e.g., gas service, water supply, sewer) which will require removal of existing pipeline soil cover[6], and immediately adjacent to significant proposed bedrock excavation (depths on the order of 6 to 10 feet per the submitted architectural elevations), which is also immediately below a large parcel designated as a DPW Slope Protection parcel[7].

According to Rune Storesund, D.Eng., P.E., Geotechnical Engineer, Executive Director of UC Berkeley Center for Catastrophic Risk Management: "Construction-related stressing, as well as accidental 3rd party damage, has the potential to degrade the integrity of the PG&E natural gas transmission line, exposing the surrounding neighbors to increased risk of death and injury from the potential of construction-induced puncture or degradation of pipeline integrity."[8]

The feasibility of this project as a whole is questionable as described in this RFMND appeal and in the 7/17/2017 MND appeal.

The RFMND was published two and a half years after requested by the Board of Supervisors, two weeks into the COVID-19 stay-at-home orders. Because of this, and because of the highly technical nature of the project, appellants were severely limited in the amount of research, expert analysis, and community outreach our team could do in order to submit the appeal in 30 days. In addition to the specific items listed in this appeal, other issues may come to light after the appeal is filed. Neighbors involved in this project are sheltered at home, many without necessary technology to meet on-line or on-site to discuss the appeal.

This appeal is primarily responding to the issues addressed in the motion sent to the Environmental Review Officer by the BOS outlining the deficiencies in the Revised Final Mitigated Negative Declaration (RFMND), though other issues remain inadequately mitigated as well. While the RFMND contains a more thorough description of the PG&E safety and vibration monitoring requirements, there are several items in the Board Resolution that have been omitted or inadequately addressed in relation to the Emergency Response and Evacuation Plan, Vibration Management Plan (VMP), and oversight of the implementation of the VMP. This appeal also incorporates all elements of the MND Appeal 7/17/2017 and documents subsequently filed prior to the hearing.

The following documents are attached:

1. A copy of the BOS Motion #M17-152

[3] Karp, Lawrence B., 9/12/2017, Unacceptable Extension, Folsom Street, Protracted in 1861, Structure on 40.3% Gradient Slope Upon Large Gas Line in Landslide Area, Bernal Heights, San Francisco, Environmental Impact Report Required, Section II and Attachment A.

[4] Ibid, Section VIII and Attachments F, G and H.

[5] Storesund, op. cit., Figures 4-5.

[6] Ibid, Figures 6-7.

[7] Karp, op.cit., Section XI and Attachment J.

[8] Storesund, op. cit., p. 1

2. A copy of the RFMND
3. The Application to Request a Board of Supervisors Appeal Fee Waiver
4. A check in the amount of $640 payable to the San Francisco Planning Department
5. Additional supporting documentation, including reports submitted for the 7/17/2017 appeal.

A copy of this letter of appeal will be concurrently submitted to the Environmental Review Officer.

PROJECT DESCRIPTION

On its face, the Project looks innocuous enough: the construction of two single-family homes and extension of Folsom Street and utilities to service them. However, the street extension requires extensive excavation over a 26" PG&E Gas Transmission Line on a radically steep slope. PG&E itself acknowledges this pipeline as "a critical piece of infrastructure" and cautions, "it is imperative that this construction project and all proposed construction work associated with it, not impair the integrity of the gas line." (Undated memo from PG&E Gas Transmission Pipeline Engineer Jon Freedman to "Whom it may concern" and submitted by Project Sponsor.)

The Project site is the only High Consequence Area[9] in San Francisco where a 26-inch PG&E Gas Transmission Pipeline is unprotected by asphalt for 125 feet -- buried in "variable topography" terrain. It runs up a sharply pitched hillside in a residential area before it re-enters paved street-cover on Bernal Heights Boulevard.[10]

UC Berkeley Professor Emeritus Robert Bea -- a pipeline safety expert with UC Berkeley's Center for Catastrophic Management, who testified in PG&E's San Bruno trial -- states the concern surrounding this particular Bernal Heights location of an aging transmission pipeline, "is identical to the list of concerns that summarized causation of the San Bruno Line 132 gas pipeline disaster." To wit, in 1989 the San Francisco Department of Public Works replied to an inquiry about this open space area, stating, "It was too dangerous to ever develop."

Additionally, the Project site's proposed street is located at a blind intersection that serves as the only viable access point for emergency vehicles to reach 28 homes in the neighborhood. The proposed dead-end street is too steep for emergency vehicles to climb, it is too narrow for them to turn around (possibly tipping over if their center of gravity is too high for the 40.3% slope), and its intersection will cause trucks to 'bottom out' and become stuck – blocking access to the neighborhood.

---

[9] According to the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration, "Pipeline safety regulations use the concept of "High Consequence Areas" (HCAs), to identify specific locales and areas where a release could have the most significant adverse consequences. Once identified, operators are required to devote additional focus, efforts, and analysis in HCAs to ensure the integrity of pipelines. "

[10] Pavement protects gas transmission pipelines from accidental rupture and is especially important in urban areas where accidental rupture would be catastrophic. The gas transmission line is unprotected by asphalt at the Project Site.

Yet again, the Planning Department and the Project Sponsor are side-stepping their responsibility to properly review the substantial public safety issues involved in this project. There is no hierarchy for supervision and accountability by the City. The VMP and Emergency Management Plans are woefully inadequate and disputed by experts. Several issues inherent in the project as a whole have not been addressed, and no independent site-specific independent review was rigorously conducted.

For this reason, we are asking for a complete and independent Environmental Impact Report (EIR) that is verified by qualified Geotech and Gas Pipeline experts, and for which the City accepts responsibility.

DEFICIENT MITIGATION PLAN

Deficient Vibration Management Plan does not mitigate risk of high-consequence accident.

The RFMND violates CEQA, inter alia, by failing to reduce the risk of a catastrophic PG&E gas transmission pipeline accident to a level that is "clearly insignificant" and thus continues to have a "significant effect."

Under CEQA Guidelines Section 15070, a mitigated negative declaration is only appropriate where *"There is a substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment."* (Emphasis added.)

> *[A]doption of a mitigated negative declaration is proper only where the conditions imposed on the project reduce its adverse environmental impacts to a level of insignificance. (§21064.5; Guidelines, § 15064, subd. (±)(2).) By statutory definition, a mitigated negative declaration is one in which (I) the proposed conditions "avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (§21064.5, emphasis added.)*
> Architectural Heritage Ass'n v. County of Monterey (2004) 122 Cal.App.4th 1095, 1118-19)

In this case, evidence exists to the contrary. There is substantial evidence of at least three critical defects in the previous MND, which caused the BOS to rescind it. These have not been corrected in the new RFMD and are addressed individually as outlined in Motion M17-152 and described below.

> *MOVED, that this Board of Supervisors directs the Planning Department to provide additional information and analysis regarding whether the proposed project construction would result in vibration impacts on PG&E Pipeline No. 109 that could create a risk to public safety; and, be it*
>
> *FURTHER MOVED, In conducting any such additional environmental analysis, the Planning Department shall enlist an independent qualified*

expert to use all appropriate methods to determine the location, depth and condition of Pipeline No. 109 in the project area and prepare a Vibration Management Plan for the project prior to the issuance of the revised environmental review document;

Excerpt from BOS Motion # M17-152

Pursuant to the above motion, the Planning Department enlisted David M. Buehler, P.E., Institute of Noise Control Engineering Board Certification, as an independent expert. He states that he reviewed the Vibration Management Plan prepared by Illingworth & Rodkin for technical accuracy and reviewed a summary document prepared by the City[11]. He did not independently prepare a plan, as specified by the motion.

Neither did Buehler or Illingworth & Rodkin consider or even reference site-specific factors that make this site unique. The following examples from Storesund and Karp are two such factors.

"For example," according to Rune Storesund, "the pipeline is situated on an incline with a 90-degree bend at the top of the hill. Most conventional pipelines are horizontal in utility trenches on much flatter ground. Ground vibrations will have a different extensional effect on an inclined pipe than a horizontal pipe. The only reliable method to ascertain the impact of these simplifications and generalizations is to calculate pipeline integrity model bias (comparison of predicted value vs actual value). No model bias value for this site was presented."[12]

In addition, Lawrence B. Karp, Architect, Civil and Geotechnical Engineer, points out that "tons of concrete for the street, and its foundations required by the steep slope, . . . will generate vibrations from exercising the street by [a minimum of] 12 daily [vehicle] trips according to the [Planning Department]." Further, he notes the failure to properly classify the potential environmental problem as significant by "not recognizing the real problem of low cycle fatigue of the pipeline's weld metal at the longitudinal weld lines from constant vibrations in service transmitted to L-109 by the intended sub grade supported concrete structure"[13] for the Folsom Street roadbed.

With respect to the project's Vibration Management Plan, the geotechnical and pipeline expertise of Rune Storesund and Lawrence Karp is particularly relevant. They have signed and stamped their work per B&P Code §6735. By contrast, Paul R. Donovan, the author of the Vibration Management Plan, and David M. Buehler, the reviewer of the Plan, are acoustical engineers and have not stamped their work. Although Dr. Donovan has a broad background in acoustics, his particular areas of expertise include tire noise, sound intensity methods, aeroacoustics and wind tunnel testing, and structure-borne sound analysis.[14]

According to R.M. Thornely-Taylor of Rupert Taylor Ltd. Noise and Vibration Consultants, "Vibration is often grouped with noise and regarded as a kindred topic. . . . By comparison,

---

[11] Buehler, David, P.E. INCE Bd. Cert., October 17, 2019, Review of Vibration Management Plan Prepared for 3516-3526 Folsom Residential Construction.

[12] Rune Storesund, 6/5/2017, Independent Project Review

[13] Karp, op.cit., Section III

[14] From the website of Illingworth & Rodkin, Inc.: https://iandrinc.com/

though, noise is simple. It always occurs in air, and except in special circumstances . . . the characteristic impedance of air is more or less always the same.

"Vibration, by contrast, occurs in media ranging from rock or solid concrete, through water and soil to lightweight panels. It can propagate as a compression wave, a shear wave, a variety of surface waves, bending waves, torsional waves, either separately or together. It can propagate in two different media at the same time . . . Transmission of vibration, and reception at the point of interest is beset with complexities and uncertainties.

"To minimize the uncertainties, much more detailed prediction and modelling methods are required than is the case with airborne noise, and complex assessment methods are required."[15]

This difference in perspective between a geotechnical vs. acoustical engineer may explain the omission from the Vibration Management Plan analysis of the above two pipeline factors identified by Storesund and Karp.

Significant inaccuracies with material effect on decision-making

- The Folsom Street slope gradient is 40.3%, not 28% or 33%. [16] A street so steep requires structural piers, which means the closest pier would extend into the 24" clearance zone. Clearly, drilling for piers in such close proximity to the pipeline will not be allowed.

- Inaccurate RFMND Table 5[17] -- minimum distance between the perimeters of the building foundation and the pipeline should be 11 feet at most, not 13. According to the Vibration Management Plan, the pipeline is located approximately 13 feet from the nearest outside perimeter of the residential structures to be built. [18] This is incorrect. According to the cross-section drawings for 3516 and 3526 Folsom Street, the nearest outside perimeters are 11'4-¼" and 11'9-½", respectively. Allowing for additional excavation to accommodate forms for the foundations along the front perimeter of the buildings, work in this area will be within the 10-foot zone that requires a PG&E Inspector to be on Standby.

- Inaccurate RFMND Table 5[19] reference to minimum distance for trenching near the pipeline.

- Inaccurate RFMND Table 5[20] -- minimum distance for small bulldozer should be 2 feet, not 1 foot. According to PG&E letter dated 3/30/2017, "Any grading or digging within 2 feet of a gas pipeline must be dug by hand." Tolerance Zones are areas around underground utilities and pipelines where excavation with mechanized equipment is prohibited by state law. In California, the Tolerance Zone is 24 inches. [CA Government

---

[15] Thornely-Taylor, R.M., "Ground Vibration Prediction and Assessment," http://ruperttaylor.com/Ground%20Vibration%20Prediction%20and%20Assessment.pdf

[16] Karp, op. cit., Section II and Attachment A.

[17] RFMND, Table 5: PPV Estimates and Damage Potential of Project Construction Equipment.

[18] Illingworth and Rodkin, Inc., Construction Vibration Evaluation for 3516 and 3526 Folsom Street, March 24, 2017.

[19] Ibid.

[20] Ibid.

Code 4216, 4216.1 through 4216.4 and 4216.18] The Vibration Management Plan (VMP) states: "As the existing soil is removed, the small bulldozer (or the Takeuchi TB175 configured with a blade and no excavator) could be operating at a distance of 1 foot from the gas line." There is no explanation as to why this exception would be allowed.

- Incompatible elevations. The configuration and elevations of the street, including the layout of utility crossovers cannot coexist.

> *Based on the most recent elevations provided in the revised site survey dated 12/19/2017, according to Steven Viani, one of the two consulting pipeline engineers from EDT, "the topo survey conducted on 6/20/13 (3500 Topo), with a drawing date of 12/19/17, . . . shows . . . the pipe is very close to the bottom of the improvements/roadway cut. According to the topo drawing, the pipe elevation for Lot 13, (3516 Folsom) is 291.91 (say 292 feet). The pipe elevation at Lot 15 (vacant) is 275.36 feet, 47.42 feet away. This means the gas line rises at a rate of 0.35 feet per foot of run. At the center of Lot 14 (3526 Folsom), approximately midway between the pipe elevations, the calculated pipe elevation is 284.65 feet.*
>
> *"The pipe elevation for Lot 13 (3516 Folsom) shows it to be 291.91 feet, say 292. ft. From Site road section 3516, the garage slab elevation is 295 feet. When measured and accounting for the road improvements, the distance to the top of the pipe to the top of improvements is 5 feet. Even with a layer of base, the area of disturbance is above the 2-foot zone around the pipe.*
>
> *"The pipe elevation for Lot 14 (3526 Folsom) is calculated to be 284.65 feet. From Site road section 3526, the garage slab elevation is 287 feet. When measured and accounting for the slope and road improvements, which are about 2.5 feet lower, or 284.50, the distance to the top of the pipe to the top of improvements is 0.15 feet into the pipe. The 26-inch gas line will need to be relocated.*
>
> *"This needs to be field verified, potholed on Lot 14, and it will affect the sewer line to 3526 as well."*

- Incorrect table of wheel weight limits in undated memo from Jon E. Freedman, PG&E Gas Transmission Engineer, is for gas transmission pipeline 132, not 109

- Incorrect evacuation zone radius. Too small. (See the section of this letter that addresses the Emergency Response and Evacuation Plan.)

<u>Significant omissions from Vibration Management Plan</u>

- Lack of engineered plans for the street extension.

• Integrity of the pipeline elbow at Bernal Heights Boulevard is still in question. Although PG&E removed the large tree that was above the pipeline between the project site and the pipeline elbow beneath Bernal Heights Blvd., the effect of the tree's roots on the pipeline has not been directly examined. According to PG&E's own studies, 90% of trees within 5 feet of a pipeline affect the pipeline coating.

• Layout and elevations for utilities crossing the pipeline have not been included or are not resolved, but should be part of mitigation regulations in the RFMND.

• No analysis of the potential impact of vibrations from equipment, such as a bulldozer, if it were to fall over on the steep hillside, whether or not it is in use. Such an incident occurred only two blocks away on the unpaved section of Banks Street between Chapman Street and Powhattan Avenue during the construction of infrastructure improvements under 1989 Proposition B. (No one was injured, but the bulldozer did smash a neighbor's car.)

• No analysis of the process for moving soil excavated from the east side of the pipeline to the conveyor belt on the west side of the pipeline, which would include vibration impacts and how to monitor the weight limitations of soil loads crossing the unprotected pipeline.

• No analysis of post-construction in-service vibrations from, and load limitations of, vehicles that will cross over the pipeline whether or not they are properly using the driveways. As a narrow dead-end street with a familiar name, it is to be expected that there will be vehicular incursions into the unprotected space above the pipeline, especially by commercial vehicles with wide turning radii.

• No post-construction process in place to monitor activity directly above the pipeline which lies unprotected between the proposed sidewalk and street (i.e., within the 10-ft. zone PG&E requires to be monitored during construction).

No supervision or accountability for the project is included in the RFMND.

> "*FURTHER MOVED, That the Vibration Management Plan shall specify what types of construction equipment be used at the project and any limitations on the use or storage of such equipment in the project vicinity, the specific roles of the Planning Department, Department of Building Inspection PG&E and any other necessary party in monitoring and enforcing the recommendations of the Vibration Monitoring Plan, and any appropriate protocols that must be employed during project construction…"*
>
> *Excerpt from BOS Motion # M17-152*

The supervision and accountability by City Agencies have not been addressed in the RFMND. The roles of The Department of Building Inspection, PUC, Board of Supervisors, DPW, Fire Department, and Department of Emergency Management are not specified. Liability in the event of an error or lapse in supervision could cause catastrophic results, but thus far there is no indication where the buck stops on this project. PG&E has a woeful reputation for safety precautions, requiring even more vigorous oversight by the City. The role of the PUC is completely omitted, supervision and accountability by DPW

and Planning are not addressed, and nowhere is liability in case of an accident or error defined.

Emergency Response and Evacuation Plan contains incorrect information, which increases the risk of death and injury

> "...That a site-specific Emergency Response and Evacuation Plan be prepared to ensure adequate access for emergency response and the ability for a safe and timely evacuation..."
>
> *Excerpt from BOS Motion # M17-152*

The proposed Emergency Response and Evacuation Plan violates CEQA by not mitigating significant public safety impacts but also adding to them. It reveals a lack of understanding regarding the dangers posed by a gas accident in this area.

The plan is not site-specific - in violation of the BOS Motion. The evacuation route consists of arrows - drawn by the Project Sponsor - on a downloaded Google map to be posted around the neighborhood. **The arrows show incorrect evacuation routes** that contradict protocols of the Pipeline Association for Public Awareness's (PAPA) *Pipeline Emergency Response Guidelines*. These protocols specifically pertain to how gas leaks behave in hilly areas and windy conditions.

According to PAPA guidelines, during a major gas leak on a hill, it is critical not to evacuate downhill - gas migrates and collects downhill; and, not to evacuate downwind - gas travels with the wind. None of this is taken into account by this plan. Arrows point in erroneous directions while safe gathering areas are incorrectly located downhill and downwind from the project area. (Chart of Pipeline Association for Public Awareness's "Leak, Hazard, and Emergency Response" attached, hereto.)

This plan offers **no outreach communication plan to residents within the evacuation zone specific to gas leaks**. PAPA's *Pipeline Emergency Response Guidelines* point out gas leak accidents list definite actions that need to occur immediately after a leak is detected: do not turn on a car ignition; do not shut off your gas stoves; do not switch on lights or hang up phones, etc. - all critical information for safe emergency evacuation. No such communications are proposed by this plan.

The plan includes a dangerously long 3-hour PG&E response time to a suspected leak. PG&E itself approved this delay, which highlights its well-publicized unreliable approach to public safety. According to a 2/20/19 SF Chronicle article, *"PG&E's Response Time To Past Gas Fires Too Slow, Investigators Say"* - a follow-up on the two-hour delayed response to the Richmond District gas explosion last year - PG&E's problematic response times to gas pipeline accidents have been investigated by both the National Transportation Safety Board (NTSB) and the California Public Utilities Commission.

Three hours is a wholly inadequate response time regarding a 26" gas transmission line in a High Consequence Area. Federal investigations of pipeline accidents cite delayed action by the pipeline operator as a common problem of pipeline accidents. According to The Pipeline and Hazardous Materials Safety Administration, *Guidelines for Communicating*

Emergency Response Information for Natural Gas and Hazardous Liquids Pipelines, **"The timely ability to identify a pipeline emergency is the most important step in the incident management process."**

The plan's 300-foot radius of evacuation area map is incorrect. If drawn correctly more residents would be in the evacuation zone - as well as more park visitors. The recommended minimum evacuation distance is 547' for a gas pipeline with a 100 psig for a 24" diameter pipeline, according to PAPA's, *"Recommended Minimum Evacuation for Natural Gas Pipe Line Leaks and Ruptures."*

PG&E Pipeline No. 109 is bigger - 26" in diameter - and its psig is anywhere from 150 psig (according to PG&E today) to 375 psig (according to NTSB, the psig in effect at the time of the San Bruno blast). (PAPA's *"Recommended Minimum Evacuation for Natural Gas Pipe Line Leaks and Ruptures" attached, hereto.)*

The PAPA evacuation chart underscores the importance of site-specific considerations with this footnote: *"The model does not take into account wind or other factors that may greatly influence specific conditions."* An evacuation radius circle also does not take into account the flow of gas in a hilly area. Gas will travel downhill - so the evacuation area should be drawn to accommodate both wind and hillside factors.

Bernal Park visitors are left out of evacuation plans - although a substantial part of the evacuation area is in the park, including three heavily used trails. There are no defined safe areas for park visitors. (See attached Evacuation zone diagram.)

There is no plan to identify elderly residents or residents with mobility issues if an evacuation were to occur. Bernal Heights has a number of senior residents in this area, some with severe mobility issues. This plan overlooks an easily available FEMA *Community Preparedness Handbook* recommendation: people with disabilities register with the local emergency management department so they won't get overlooked in case of an evacuation.

It is hard to imagine why the Fire Department would sign off on such a poor plan. The plan lacks expert input. It is riddled with errors. There was no involvement of the SF Department of Emergency Management (DEM) - even though this is the agency with significant public safety interest in high-risk activities impacting the community. According to the Project Sponsor, he did not consult the DEM.

It is a concern that the Planning Department and the Project Sponsor have relied on the sign-off of this plan by a fire department official who has been singled out in a court hearing and news report for his inadequate and cursory investigation of a fire.

Mike Patt, the fire official who approved the Emergency Response and Evacuation Plan, was criticized in court documents for his insufficient investigation of a large Mission Street fire in 2015 that resulted in a death and multiple injuries, including a firefighter. According to a May 17, 2018 KTVU News report, in a post-fire inspection, Mr. Patt spent only a half hour inspecting the scene. He did not investigate reports of blocked fire exits, did not determine if a fire alarm had gone off, and simply took a name and phone number off the alarm.

The news report cites court records describing Mr. Patt's inspection as "inadequate." His superficial investigation was criticized as by the Enforcement Supervisor for the Contractors' State Licensing Board, the agency that issues fire alarm licenses to inspectors.

This plan was approved despite its serious deficiencies. It calls into question why. The danger of gas pipeline accidents during construction is not unknown to the Fire Department. The Richmond District gas explosion last year, which destroyed neighboring buildings and the Hong Kong Lounge II, was caused by a construction worker puncturing a 4" gas line during excavation work.

At a hearing called by Supervisor Ronen in December, 2017 re: the cause of the gas pipeline explosion on Mission Street in Bernal Heights in December, 2017, SF Fire Captain Rex Hale made a point of saying gas leaks are not uncommon with construction." (SF Examiner, "SF Supervisors Criticize PG&E Response to Bernal Heights Gas Explosion" 12/8/2017).

The list of deficiencies of this plan violates the motion passed by the BOS. It fails to provide "a site-specific" Emergency Response and Evacuation Plan and does not "ensure adequate access for emergency response and the ability for a safe and timely evacuation..." It creates more public safety issues than it solves.

The unmitigated public safety impacts of this project are magnified with this RFMND. This Emergency Response and Evacuation Plan displays a disturbing ignorance of gas leak safety protocols and site-specific conditions. It suggests a reluctance on the part of the Planning Department and the Project Sponsor to take the BOS motion seriously.

<u>For these reasons and the range of significant impacts raised in this plan, we ask the Board to require a complete Environmental Impact Report.</u>

CONCLUSION

Each of the MNDs submitted on this project have been incomplete and inaccurate. Rigorous analysis and oversight are seriously deficient and erroneous. As stated above, the Final Revised Mitigated Declaration fails to consider the substantial evidence demonstrating significant, and potentially catastrophic, unmitigated environmental impacts regulated by CEQA.

To insure the public's safety is fully protected from the risks of this project, we strongly urge that a more rigorous evaluation of the entire project be conducted through a full Environment Impact Report.

Respectfully submitted by,

Kathleen Angus, Co-chair
On behalf of the Bernal Heights South Slope Organization

Cc: Lisa Gibson, Environmental Officer

Refer to documents for
BOS 9/12/2017 Hearing - Appeal of Mitigated Negative Declaration - Proposed Project at 3516 and 3526 Folsom Street:
https://sfgov.legistar.com/LegislationDetail.aspx?ID=3112108&GUID=92A77E18-D666-4014-949C-84CCA25A088F

Attachments:

1. A copy of the BOS Motion #M17-152
2. A copy of the RFMND dated 3/25/2020
3. The Application to Request a Board of Supervisors Appeal Fee Waiver
4. A copy of a check in the amount of $640 payable to the San Francisco Planning Department (no direction given on how to submit the check, which will likely be sent back uncashed.)
5. PAPA Leak Hazard and Emergency Response
6. PAPA Recommended Minimum Evacuation Distances for Natural Gas Pipeline Leaks and Ruptures
7. Evacuation Zone Comparison Map

To insure the public's safety is fully protected from the risks of this project, we strongly urge that a more rigorous evaluation of the entire project be conducted through a full Environment Impact Report.

Respectfully submitted by,

Kathleen Angus, Co-chair
On behalf of the Bernal Heights South Slope Organization

Cc: Lisa Gibson, Environmental Officer

Refer to documents for
BOS 9/12/2017 Hearing - Appeal of Mitigated Negative Declaration - Proposed Project at 3516 and 3526 Folsom Street:
https://sfgov.legistar.com/LegislationDetail.aspx?ID=3112108&GUID=92A77E18-D666-4014-949C-84CCA25A088F

Attachments:

1. A copy of the BOS Motion #M17-152
2. A copy of the RFMND dated 3/25/2020
3. The Application to Request a Board of Supervisors Appeal Fee Waiver
4. A copy of a check in the amount of $640 payable to the San Francisco Planning Department (no direction given on how to submit the check, which will likely be sent back uncashed.)
5. PAPA Leak Hazard and Emergency Response
6. PAPA Recommended Minimum Evacuation Distances for Natural Gas Pipeline Leaks and Ruptures
7. Evacuation Zone Comparison Map

[Adopting Findings Reversing the Final Mitigated Negative Declaration - 3516 and 3526 Folsom Street]

Motion adopting findings reversing the approval by the Planning Commission of a final mitigated negative declaration under the California Environmental Quality Act for a proposed project at 3516 and 3526 Folsom Street.

WHEREAS, The Planning Commission approved a final mitigated negative declaration under the California Environmental Quality Act ("CEQA"), the CEQA Guidelines, and Administrative Code, Chapter 31 for a proposed project located at 3516 and 3526 Folsom Street ("Project"); and

WHEREAS, The proposed Project involves the construction of two single-family residences on two vacant lots along the west side of the unimproved portion of Folsom Street, the construction of the connecting segment of Folsom Street to provide vehicle and pedestrian access to the Project site, and the construction of a stairway between Folsom Street and Bernal Heights Boulevard; and

WHEREAS, Each single-family home would be 27 feet tall, two stories over-garage with two off-street vehicle parking spaces accessed from a twelve-foot-wide garage door; and

WHEREAS, The Planning Department published a Preliminary Mitigated Negative Declaration ("PMND") for the proposed Project on April 26, 2017; and

WHEREAS, On May 16, 2017, Kathy Angus, for the Bernal Heights South Slope Organization filed an appeal of the Planning Department's decision to issue the PMND; and

WHEREAS, On June 15, 2017, the Planning Commission held a publically-noticed hearing on the PMND, denied the appeal, and finalized the PMND ("FMND") by Motion No. 19945; and

WHEREAS, On June 15, 2017, the Planning Commission declined to take discretionary review of the proposed project, and approved the Project as proposed; and

WHEREAS, On July 17, 2017, Ryan Patterson of Zacks, Freeman and Patterson, on behalf of Bernal Heights South Slope Organization, Bernal Safe & Livable, Neighbors Against the Upper Folsom Street Extension, Gail Newman and Ann Lockett ("Appellants") filed a letter appealing the FMND; and

WHEREAS, The Planning Department's Environmental Review Officer, by memorandum to the Clerk of the Board dated July 24, 2017, determined that the appeal was timely; and

WHEREAS, On September 12, 2017, this Board held a duly noticed public hearing to consider the appeal of the FMND filed by Appellants and, following the public hearing, conditionally reversed the Planning Commission's approval of the FMND subject to the adoption of written findings in support of such determination, and requested additional information and analysis be provided; and

WHEREAS, In reviewing the appeal of the FMND, this Board reviewed and considered the FMND, the appeal letter and supporting documents, the responses to concerns document that the Planning Department prepared, the other written records before the Board of Supervisors and all of the public testimony made in support of and opposed to the FMND appeal; and

WHEREAS, The Board finds that the letters and public comment presented in support of and against the appeal, including comment letters presented to the Board on September 11 and 12, 2017, raise important questions regarding how project construction activities could create vibration impacts on PG&E Pipeline No. 109; and

WHEREAS, In light of this new information, the Board has requested that the Planning Department undertake further analysis with respect to the specific issue of the potential vibration impacts of project construction on PG&E Pipeline 109; and

WHEREAS, This Board considered these issues, heard testimony, and shared concerns that further information and analysis was required regarding whether the proposed project would cause construction impacts to PG&E Pipeline No. 109; and

WHEREAS, The written record and oral testimony in support of and opposed to the appeal and deliberation of the oral and written testimony at the public hearing before the Board of Supervisors by all parties and the public in support of and opposed to the appeal of the FMND is in the Clerk of the Board of Supervisors File No. 170851 and is incorporated in this motion as though set forth in its entirety; now, therefore, be it

MOVED, That this Board of Supervisors directs the Planning Department to provide additional information and analysis regarding whether the proposed project construction would result in vibration impacts on PG&E Pipeline No. 109 that could create a risk to public safety; and, be it

FURTHER MOVED, In conducting any such additional environmental analysis, the Planning Department shall enlist an independent qualified expert to use all appropriate methods to determine the location, depth and condition of Pipeline No. 109 in the project area and prepare a Vibration Management Plan for the project prior to the issuance of the revised environmental review document; and, be it

FURTHER MOVED, That the Vibration Management Plan shall specify what types of construction equipment may be used at the project and any limitations on the use or storage of such equipment in the project vicinity, the specific roles of the Planning Department, Department of Building Inspection, PG&E and any other necessary party in monitoring and enforcing the recommendations of the Vibration Monitoring Plan, and any appropriate safety

protocols that must be employed during project construction, including communications between the contractors and PG&E, to reduce the risk of damage to the pipeline; and, be it

FURTHER MOVED, That a site-specific Emergency Response and Evacuation Plan be prepared to ensure adequate access for emergency response and the ability for a safe and timely evacuation; and, be it

FURTHER MOVED, That the Vibration Management Plan shall be reviewed and approved by the Planning Department and PG&E, and the Emergency Response and Evacuation Plan shall be reviewed and approved by the Fire Department, Planning Department, and PG&E, prior to issuance of the revised environmental review document; and, be it

FURTHER MOVED, That the Planning Department shall incorporate any recommendations of the approved Vibration Management Plan into the mitigation included in the revised environmental review document; and, be it

FURTHER MOVED, As to all other issues, the Board finds the FMND conforms to the requirements of CEQA and is adequate, accurate, and objective, the record does not include substantial evidence to support a fair argument that the project may have a significant effect on the environment, and no further analysis is required.

n:\land\as2017\0400241\01220352.docx

City and County of San Francisco
Tails
Motion: M17-152

City Hall
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102-4689

File Number: 171022 **Date Passed:** September 26, 2017

Motion adopting findings reversing the approval by the Planning Commission of a final mitigated negative declaration under the California Environmental Quality Act for a proposed project at 3516 and 3526 Folsom Street.

September 26, 2017 Board of Supervisors - AMENDED, AN AMENDMENT OF THE WHOLE BEARING SAME TITLE

Ayes: 10 - Breed, Cohen, Farrell, Fewer, Kim, Peskin, Ronen, Sheehy, Tang and Yee
Excused: 1 - Safai

September 26, 2017 Board of Supervisors - APPROVED AS AMENDED

Ayes: 10 - Breed, Cohen, Farrell, Fewer, Kim, Peskin, Ronen, Sheehy, Tang and Yee
Excused: 1 - Safai

File No. 171022

I hereby certify that the foregoing Motion was APPROVED AS AMENDED on 9/26/2017 by the Board of Supervisors of the City and County of San Francisco.

Angela Calvillo
Clerk of the Board

SAN FRANCISCO
PLANNING DEPARTMENT

Revised Final Mitigated Negative Declaration

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

Date of Issuance:	March 25, 2020 (Amendments to the June 15, 2017 Final Mitigated Negative Declaration/Initial Study are shown as deletions in ~~strikethrough~~ and additions in double underline)
Project Title:	3516 and 3526 Folsom Street
Zoning:	RH-1 (Residential—House, One Family) Use District 40-X Height and Bulk District Bernal Heights Special Use District
Block/Lot:	5626/013 and 5626/014
Lot Size:	1,750 square feet (each lot)
Project Sponsor:	Fabien Lannoye, Bluorange Designs 415-626-8868 Fabien@bluorange.com
Staff Contact:	Josh Pollak – (415) 575-8766 Josh.pollak@sfgov.org

INTRODUCTION

This Revised Final Mitigated Negative Declaration (Revised FMND), including the attached Initial Study, is prepared in response to a motion adopted by the Board of Supervisors (Board) reversing the Planning Commission's June 15, 2017 approval of an FMND for the proposed project at 3516 and 3526 Folsom Street. The motion (No. M17-152, Legislative File Number 171022), adopted by the Board on September 12, 2017, directs that the Planning Department undertake further analysis with respect to the specific issue of the potential vibration impacts of project construction on Pacific Gas & Electric (PG&E) Pipeline 109. The Board's motion contains specific findings regarding the analysis to be undertaken by the Planning Department and revisions required to the FMND. The Planning Department has conducted the required analysis and revised the FMND accordingly. Amendments to the June 15, 2017 Final Mitigated Negative Declaration are shown as deletions in ~~strikethrough~~ and additions in double underline, for ease of reference.

The project description remains the same as in the June 15, 2017 FMND, other than the addition of an Emergency Response and Evacuation Plan, as directed by the Board, and minor changes to the proposed project. These minor updates to the proposed project include removing a parking space in each home and a corresponding increase in habitable area, and other corrections and additions to the Revised FMND. These updates were made to provide corrections and to capture the changes to the project itself, as noted in the document.

Pursuant to Guidelines of the State Secretary for Resources, Section 15073.5 (Recirculation of a Negative Declaration Prior to Adoption), because the new information that has been added to this Revised FMND is limited to project revisions that are not new avoidable significant effects, and

additions to mitigation measure M-NO-3, which is equal to or more effective than the mitigation measure proposed in the June 15, 2017 FMND, no recirculation of the Revised FMND is required.

The Board's motion requires the department to provide specific additional environmental analysis in the FMND, and states that "[a]s to all other issues, the Board finds the FMND conforms to the requirements of CEQA and is adequate, accurate and objective." The motion also states, with respect to the appeal, that "the record does not include substantial evidence to support a fair argument that the project may have a significant effect on the environment, and no further analysis is required."

Pursuant to Section 31.16(d)(5)(A) of the San Francisco Administrative Code, in the event an organization or individual wishes to appeal the Revised MND, such appeal shall be made directly to the Board of Supervisors within 30 days of publication of this document. Further, any such appeals shall be limited to the portions of this Revised MND that are additions to, or deletions from, the version previously certified on June 15, 2017.

PROJECT DESCRIPTION

The project site is located on the block bounded by Bernal Heights Boulevard to the north, Gates Street to the west, Powhattan Avenue to the south and Folsom Street to the east. The project site is located along the west side of an approximately 145-foot-long unimproved segment of Folsom Street, north of Chapman Street, that ends at the Bernal Heights Community Garden. This unimproved right-of-way is known as a "paper street." Undeveloped land along this unimproved segment of Folsom Street has been subdivided into six lots, three on each side of Folsom Street. PG&E Natural Gas Transmission Pipeline 109 (PG&E Pipeline 109) runs along Folsom Street adjacent to the project site. The project site is at a slope of approximately ~~28~~33%.

The proposed project involves the construction of two single-family residences on two of the vacant lots along the west side of the unimproved portion of Folsom Street, the construction of the connecting segment of Folsom Street to provide vehicle and pedestrian access to the project site, and the construction of a stairway between Folsom Street and Bernal Heights Boulevard. The Folsom Street extension and stairway would be subject to approval by San Francisco Public Works (Public Works). Each single-family home would be 27 feet tall, two stories over-garage with ~~two~~ one off-street vehicle parking spaces accessed from a twelve-foot-wide garage door.

The 3516 Folsom Street building would be approximately 2,551 ~~2,230~~ square feet of gross living space in size with a side yard along its north property line. The 3526 Folsom Street building would be approximately 2,384 ~~2,210~~ square feet of gross living space in size with a side yard along its south property line. The proposed buildings would include roof decks and a full fire protection sprinkler system. The proposed buildings would be supported by a shallow building foundation using a mat slab with spread footings.

The proposed Folsom Street extension improvements would include an approximately 20-foot-wide road with an approximately 10-foot-wide sidewalk on the west side of the street, adjacent to the proposed residences. The proposed sidewalk would be stepped, would incorporate landscaping that would perform storm water retention, and would provide public access to Bernal Heights Boulevard/Bernal Heights Park. The stairway would run to the northwest of Folsom Street, within Public Works property, and at least 15 feet downhill from an existing stand of hummingbird sage, a locally sensitive plant species, along Bernal Heights Boulevard. The proposed project would not

create direct vehicular access to Bernal Heights Boulevard as the Folsom Street extension would terminate south of the Bernal Heights Community Garden. Construction of the street extension would require the removal of the existing vegetation within the public right-of-way on the "paper street." An existing driveway utilized by both the 3574 Folsom Street and 3577 Folsom Street buildings would also be removed; however, the extension would provide access to the two existing residences.

The proposed project would include the installation of new street trees (subject to approval from PG&E) and street lighting on the west side of the street. No on-street parking would be provided along the Folsom Street extension. In addition to providing utilities for the proposed residences, the project sponsor would install utilities for the four vacant lots located on the "paper street" segment of Folsom Street (one on the west side and three on the east side). No residences are proposed at this time on those lots; the proposed connections would be provided to minimize disruption in the case of future development. Construction would continue for approximately 12 months and would require excavation of up to approximately 10 feet below the existing ground surface.

The proposed project also includes an Emergency Response and Evacuation Plan to ensure adequate access for emergency response and the ability for a safe and timely evacuation of the project vicinity in the event of an emergency. The plan includes steps to be taken pre-construction as well as during any excavation near PG&E Natural Gas Pipeline 109.

FINDING

This project could not have a significant effect on the environment. This finding is based upon the criteria of the Guidelines of the State Secretary for Resources, Sections 15064 (Determining Significant Effect), 15065 (Mandatory Findings of Significance), and 15070 (Decision to prepare a Negative Declaration), and the following reasons as documented in the Initial Evaluation (Initial Study) for the project, which is attached. Mitigation measures are included in this project to avoid potentially significant effects. See pages ~~118-120~~ 124-130.

In the independent judgment of the Planning Department, there is no substantial evidence that the project could have a significant effect on the environment.

3/25/2020
Date

Lisa Gibson
Environmental Review Officer

INITIAL STUDY TABLE OF CONTENTS

3516-3526 Folsom Street

SECTION **PAGE**

LIST OF FIGURES PAGE

LIST OF TABLES PAGE

ACRONYMS AND ABBREVIATIONS

BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
bgs	below grade surface
CalEEMod	California Emissions Estimator Model
Caltrans	Californian Department of Transportation
CEQA	California Environmental Quality Act
CO	carbon monoxide
CO_2e	carbon dioxide equivalents
CRHR	California Register of Historical Resources
dB	Decibel
dBA	decibel (A-weighted)
DBI	Department of Building Inspection
DEHP	bis (2-ethylhexyl) phthalate
DPH	Department of Public Health
DPM	diesel particulate matter
ERO	Environmental Review Officer
ESA	Environmental Site Assessment
GHG	greenhouse gas
gsf	gross square feet
HRE	Historic Resources Evaluation
HVAC	heating, ventilation and air conditioning
in/sec	inches per second
L_{eq}	equivalent continuous sound level
Muni	San Francisco Municipal Railway
Mw	moment magnitude
NO_x	oxides of nitrogen
NO_2	nitrogen dioxide
PAR	Preliminary Archeological Review
PCBs	polychlorinated biphenyls
PM	particulate matter
$PM_{2.5}$	PM composed of particulates that are 10 microns in diameter or less
PM_{10}	PM composed of particulates that are 2.5 microns in diameter or less
ppm	parts per million
PPV	peak particle velocity
RWQCB	Bay Area Regional Water Quality Control Board
SB	Senate Bill
sq. ft.	square feet
SFCTA	San Francisco County Transportation Authority
SFFD	San Francisco Fire Department
SFMTA	San Francisco Municipal Transportation Agency
SFO	San Francisco International Airport
SFPD	San Francisco Police Department

SFPL	San Francisco Public Library
SFPUC	San Francisco Public Utilities Commission
SFPW	San Francisco Public Works
SFUSD	San Francisco Unified School District
SO_2	sulfur dioxide
TDM	Transportation Demand Management
VMT	vehicle miles traveled
WSA	Water Supply Assessment

This page intentionally left blank.

Initial Study
3516-3626 Folsom Street Project
Planning Department Case No. 2013.1383ENV

The proposed 3516-3526 Folsom Street Project (project) would result in the development of two residential units on two 1,750 square-foot parcels (Assessor's Block 5626, Lots 013 and 014) located at 3516-3526 Folsom Street, the improvement of a "paper street" section of Folsom Street, and a new stairway between the project site and Bernal Heights Boulevard in the Bernal Heights neighborhood in the City of San Francisco (City). The two buildings would ~~each~~ be approximately ~~2,230~~ 2,551 and 2,384 gross square feet (gsf) in size, and each would include a ~~two~~ one-car garage. The proposed buildings would not exceed 30 feet in height. A complete description of the proposed project, a detailed description of the proposed project's regional and local context, planning process and background, as well as a discussion of requested project approvals is included below.

INTRODUCTION

This Initial Study is prepared in response to a motion adopted by the Board of Supervisors (Board) reversing the Planning Commission's June 15, 2017 approval of a Final Mitigated Negative Declaration (FMND) for the proposed project at 3516 and 3526 Folsom Street. The motion (No. M17-152, Legislative File Number 171022), adopted by the Board on September 12, 2017, directs that the Planning Department undertake further analysis with respect to the specific issue of the potential vibration impacts of project construction on Pacific Gas & Electric (PG&E) Pipeline 109. The Board's motion contains specific findings regarding the analysis to be undertaken by the Planning Department and revisions required to the FMND. The Planning Department has conducted the required analysis and revised the FMND accordingly. Amendments to the June 15, 2017, Final Mitigated Negative Declaration are shown in this Initial Study, which is attached to the Revised FMND, as deletions in strikethrough and additions in double underline, for ease of reference. The Initial Study and Revised FMND are hereinafter collectively referred to as the "Revised FMND." The project description remains the same as in the June 15, 2017 FMND, other than the addition of an Emergency Response and Evacuation Plan, as directed by the Board, and other minor changes, which include removing a parking space in each home and a corresponding increase in habitable area.

Preliminary Mitigated Negative Declaration Issuance and Appeal

The Planning Department published a Preliminary MND (PMND) for the proposed project on April 26, 2017. On May 16, 2017, Kathy Angus, on behalf of the Bernal Heights South Slope Organization, appealed the PMND to the Planning Commission. On June 15, 2017, the Planning Commission denied the appeal and finalized the PMND as the FMND by Motion No. 19945. The Environmental Review Officer signed the FMND on July 11, 2017.

Final Mitigated Negative Declaration Issuance and Appeal

On July 17, 2017, Zacks, Freeman and Patterson, on behalf of the Bernal Heights South Slope Organization, Bernal Safe & Livable, Neighbors Against the Upper Folsom Street Extension, Gail Newman, and Ann Lockett, appealed the FMND to the Board. At its meeting on September 12, 2017, the Board conditionally reversed the Planning Commission's approval of the FMND subject to the adoption of written findings in support of such determination, and requested additional information and analysis be provided.

Board Findings on Reversed FMND

On September 26, 2017, the Board adopted Motion No. M17-152 (Legislative File Number 171022), adopting findings reversing the FMND. The motion specifies the following regarding the environmental review of the proposed project:

- "…That this Board of Supervisors directs the Planning Department to provide additional information and analysis regarding whether the proposed project construction would result in vibration impacts on PG&E Pipeline No. 109 that could create a risk to public safety;
- "…In conducting any such additional environmental analysis, the Planning Department shall enlist an independent qualified expert to use all appropriate methods to determine the location, depth and condition of Pipeline No. 109 in the project area and prepare a Vibration Management Plan for the project prior to the issuance of the revised environmental review document;

- "…That the Vibration Management Plan shall specify what types of construction equipment may be used at the project and any limitations on the use or storage of such equipment in the project vicinity, the specific roles of the Planning Department, Department of Building Inspection, PG&E and any other necessary party in monitoring and enforcing the recommendations of the Vibration Monitoring Plan, and any appropriate safety protocols that must be employed during project construction, including communications between the contractors and PG&E, to reduce the risk of damage to the pipeline;
- "…That a site-specific Emergency Response and Evacuation Plan be prepared to ensure adequate access for emergency response and the ability for a safe and timely evacuation;
- "…That the Vibration Management Plan shall be reviewed and approved by the Planning Department and PG&E, and the Emergency Response and Evacuation Plan shall be reviewed and approved by the Fire Department, Planning Department, and PG&E, prior to issuance of the revised environmental review document;
- "…That the Planning Department shall incorporate any recommendations of the approved Vibration Management Plan into the mitigation included in the revised environmental review document;
- "…As to all other issues, the Board finds the FMND conforms to the requirements of CEQA and is adequate, accurate, and objective, the record does not include substantial evidence to support a fair argument that the project may have a significant effect on the environment, and no further analysis is required."

The following is an explanation of how and where in the Revised FMND and/or the project record the Planning Department has responded to each of the Board's findings cited above.

- *"…That this Board of Supervisors directs the Planning Department to provide additional information and analysis regarding whether the proposed project construction would result in vibration impacts on PG&E Pipeline No. 109 that could create a risk to public safety..."*

This revised FMND includes a Vibration Monitoring and Management Plan[1] and additional information regarding whether the project would result in vibration impacts to the pipeline. All recommendations from the Vibration Monitoring and Management Plan have been incorporated into Mitigation Measure M-NO-3, Vibration Monitoring. In addition, an independent review of the Vibration Monitoring and Management Plan was prepared,[2] the results of which are discussed below under the Noise and Vibration section.

- *"…In conducting any such additional environmental analysis, the Planning Department shall enlist an independent qualified expert to use all appropriate methods to determine the location, depth and condition of Pipeline No. 109 in the project area and prepare a Vibration Management Plan for the project prior to the issuance of the revised environmental review document..."*

The Planning Department directed the project sponsor to collect additional information about the location, depth, and condition of the pipeline, which was done in consultation with PG&E staff.[3] This information is part of the project's record and was used to prepare a Vibration Monitoring and Management Plan for the proposed project. As stated above in the prior bullet point, an independent qualified expert reviewed the Vibration Monitoring and Management Plan in addition to on-site review of the location, depth, and conditions of the pipeline.[4]

- *"…That the Vibration Management Plan shall specify what types of construction equipment may be used at the project and any limitations on the use or storage of such equipment in the project vicinity, the specific roles of the Planning Department, Department of Building Inspection, PG&E and any*

[1] Unless otherwise noted, project-specific studies prepared for the project are available for public review as part of case file no. 2013.1383ENV on the San Francisco Property Information Map, which can be accessed at https://sfplanninggis.org/PIM/. Individual files can be viewed by clicking on the Planning Applications link, clicking the "More Details" link under the project's environmental case number (2013.1383ENV) and then clicking on the "Related Documents" link.

[2] Buehler, David, P.E. INCE Bd. Cert., October 17, 2019, Review of Vibration Management Plan Prepared for 3516-3526 Folsom Residential Construction.

[3] See "Location, Depth and Condition of Pipeline No. 109" in the project case file.

[4] Buehler, David, P.E. INCE Bd. Cert., October 17, 2019, Review of Vibration Management Plan Prepared for 3516-3526 Folsom Residential Construction.

other necessary party in monitoring and enforcing the recommendations of the Vibration Monitoring Plan, and any appropriate safety protocols that must be employed during project construction, including communications between the contractors and PG&E, to reduce the risk of damage to the pipeline…"

The Vibration Monitoring and Management Plan[5] specifies the vibration levels of construction equipment that would be used at the project site and sets a maximum level of construction vibration. If construction vibration from equipment used exceeds 2.0 in/sec, all construction work would stop. The plan also describes how the equipment will be stored at the site, and states the specific roles of the Planning Department, Department of Building Inspection, and PG&E, and includes monitoring and enforcement recommendations, as well as appropriate safety protocols that must be employed during project construction.

- *"…That a site-specific Emergency Response and Evacuation Plan be prepared to ensure adequate access for emergency response and the ability for a safe and timely evacuation…"*

The Planning Department directed preparation of a site-specific Emergency Response and Evacuation Plan, which is included as part of the Project Description, below.

- *"…That the Vibration Management Plan shall be reviewed and approved by the Planning Department and PG&E, and the Emergency Response and Evacuation Plan shall be reviewed and approved by the Fire Department, Planning Department, and PG&E, prior to issuance of the revised environmental review document…"*

[5] See "Vibration Monitoring and Management Plan" in the project case file.

The Vibration Monitoring and Management Plan was reviewed and approved by the Planning Department and PG&E.[6] The Emergency Response and Evacuation Plan was reviewed and approved by the San Francisco Fire Department, the Planning Department and PG&E.[7]

- *"…That the Planning Department shall incorporate any recommendations of the approved Vibration Management Plan into the mitigation included in the revised environmental review document…"*

This document includes all recommendations listed in the approved Vibration Monitoring and Management Plan as part of Mitigation Measure M-NO-3 described below.

Pursuant to Section 31.16(d)(5)(A) of the San Francisco Administrative Code, in the event an organization or individual wishes to appeal the revised negative declaration, such appeal shall be made directly to the Board of Supervisors within 30 days of publication of this Revised MND. Further, any appeals shall be limited to the portions of this Revised MND that are additions to, or deletions from, the version previously certified on June 15, 2017. Amendments to the June 15, 2017, Final MND are shown as deletions in ~~strikethrough~~ and additions in double underline, for ease of reference. The proposed project includes minor updates, which include removing a parking space in each home and a corresponding increase in habitable area, which are detailed below in the Project Description.

A. PROJECT SITE

The approximately 6,500 square-foot project site (two lots at 1,750 sf (25 feet by 70 feet) each and an approximately 2,000 sf street improvement) is located in the Bernal Heights neighborhood and is located within a block bounded by Bernal Heights Boulevard to the north, Gates Street to the west, Powhattan Avenue to the south and Folsom Street to the east. The site is located on the west side of an approximately 145 foot long unimproved segment of Folsom Street, north of Chapman Street, that ends at the Bernal Heights Community Garden. This unimproved right-of-way is known as a "paper

[6] See March 17, 2020 approval letter from Planning Department.

[7] Letter from PG&E Gas Transmission Pipeline Services—Integrity Management, November 13, 2018. Letter from San Francisco Fire Department to Dan Sider, Fabian Lannoye, January 10, 2019.

street." Undeveloped land along this unimproved segment of Folsom Street has been subdivided into six lots, three on each side of Folsom Street. There are two existing residences on this unimproved segment of Folsom Street (3574 and 3577 Folsom Street) that are accessible via private driveways running from Chapman Street. **Figure 1** shows the location of the project site and **Figure 2** provides an aerial view of the site. **Figure 3** illustrates the project site.

The project site is currently vacant and has not been previously developed. There are bushes and other small plants on the project site. The project site is at a slope of approximately ~~28~~33% and slopes downward from north to south. PG&E Natural Gas Pipeline 109 runs through the project site, along the western edge of the "paper street" section of Folsom Street, approximately four to six feet below ground surface.[8]

B. PROPOSED PROJECT

The project sponsor proposes the construction of two single-family residences on two of the vacant lots along the west side of the unimproved portion of Folsom Street, the construction of the connecting segment of Folsom Street to provide vehicle and pedestrian access to the project site and the construction of a stairway to provide pedestrian access from the improved section of Folsom Street to Bernal Heights Boulevard that would run to the northwest of Folsom Street, within Public Works property, and at least 15 feet downhill from an existing stand of hummingbird sage, a locally sensitive plant species. Both single-family homes would be 27 feet tall, two-story-over-garage buildings and would each include ~~two~~ one off-street vehicle parking spaces accessed from a twelve-foot-wide garage door. Vehicle access would be provided by a 10-foot wide curb cut on Folsom Street.

The existing, unimproved project site is represented in **Figure 3**. Plans for the proposed project are depicted in **Figures 4 through 12**.[9]

[8] A "paper street" is a street or road that appears on maps but does not exist in reality. Paper streets generally occur when city planners or subdivision developers lay out and dedicate streets that are never built.

[9] Figures 4 through 11 have been updated to reflect the changes to the project description noted in this section. A car parking space has been removed from both garages and replace with bicycle parking, which created more gross square footage of living space. The building envelopes remain the same.

The proposed project includes modifications to address concerns expressed by the Board of Supervisors regarding vibration resulting from construction activity as well as minor updates to the proposed project detailed below. These modifications include an Emergency Response and Evacuation Plan, as described below.

Project Building Characteristics

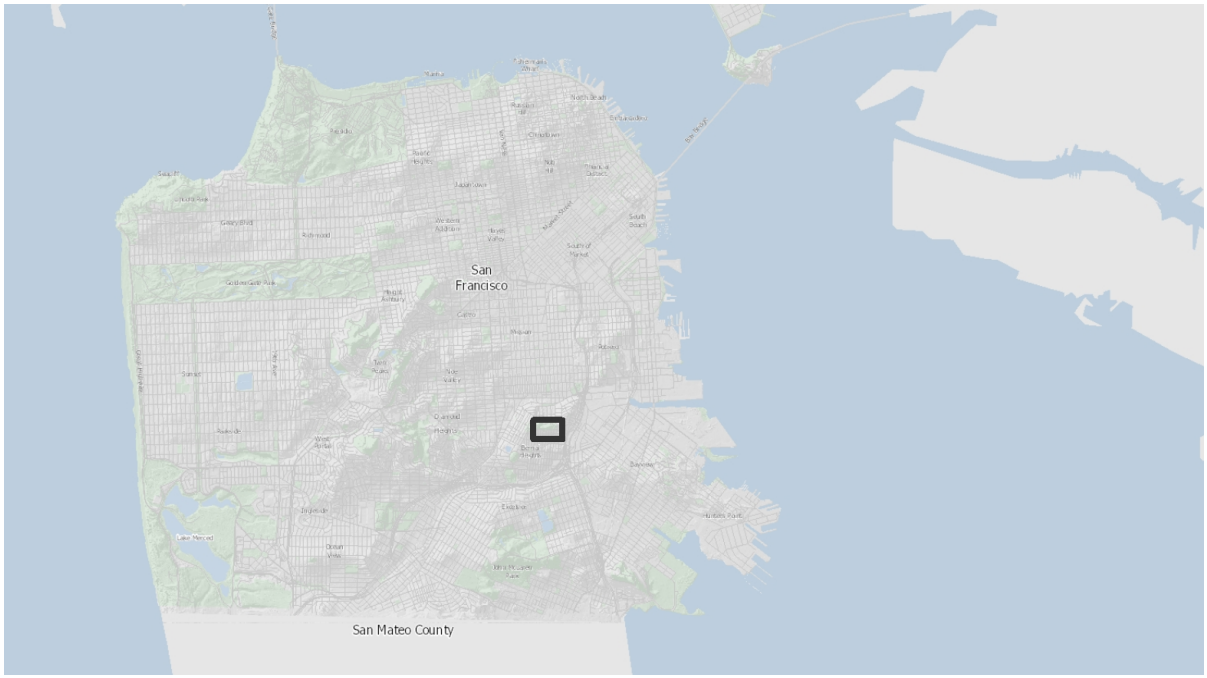
The proposed project would result in the construction of two immediately adjacent single-family homes, each with three levels of living area (a garage and recreation room with two levels above). The buildings would be approximately ~~2,230~~ 2,551 and 2,384 gsf.

Each building would be set back between approximately three and three-and-a-half feet from the street front property line at grade ~~and stepped back up to 10 feet from the building façade at the second level~~. Each building would be set back approximately 24-and-a-half feet from the rear property line.

Access and Parking

Pedestrian and vehicle access to the proposed project would be provided via Folsom Street, and pedestrian access to the project site would be provided by a stairway connecting Folsom Street and Bernal Heights Boulevard, which would be improved consistent with a Street Improvement Permit that would be issued by San Francisco Public Works (Public Works). Resident access to each unit would be provided from within the basement ~~ground~~ level garage and through a front door along Folsom Street. A total of ~~four~~ two parking spaces (one for each unit) would be provided on site. New curb cuts for each proposed garage access driveway would be 12 feet in width.

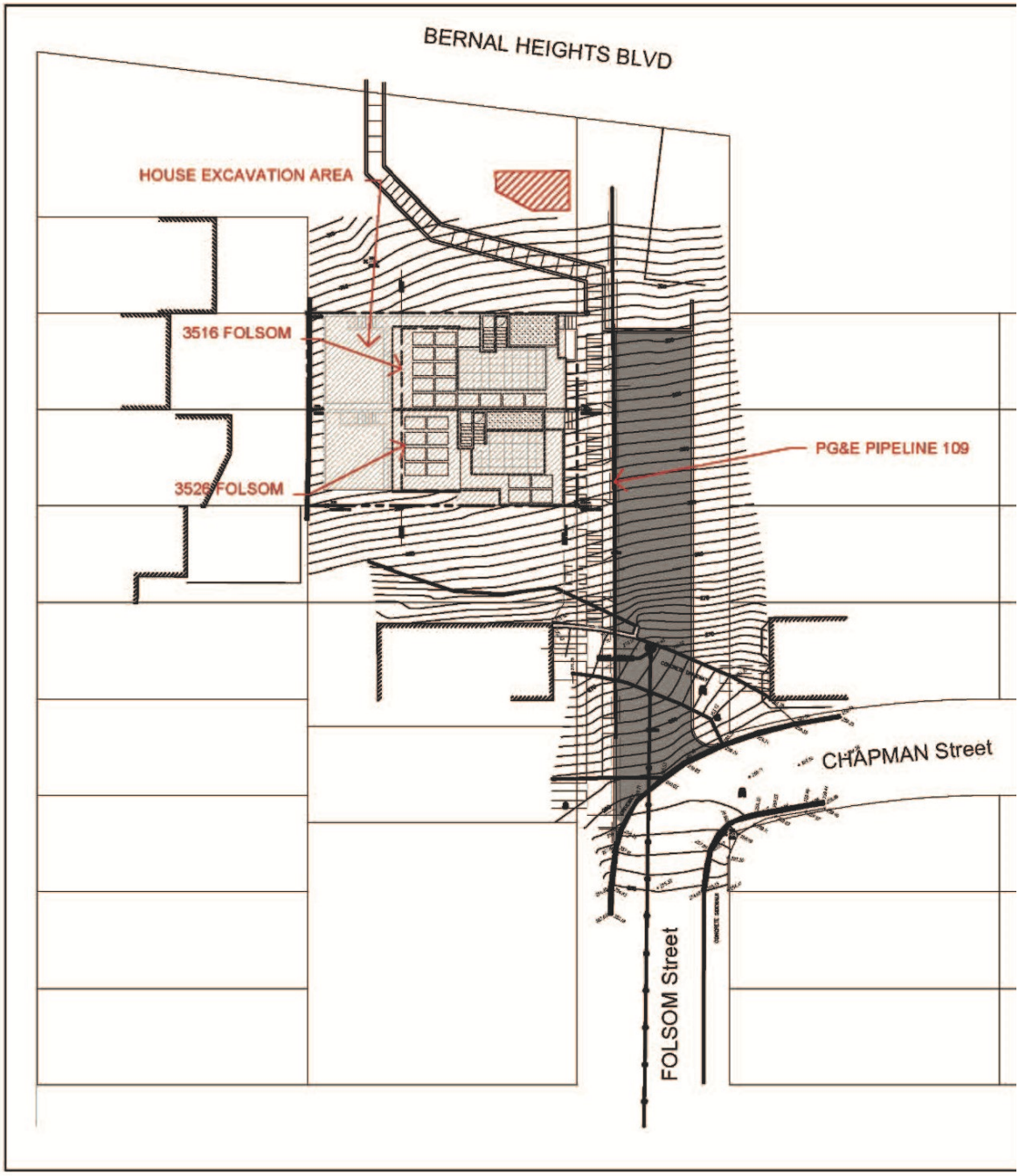
Figure 1: Project Location and Regional Vicinity Map



Source: San Francisco Planning Department

Figure 2: Existing Site Conditions

Figure 3: Project Site[10]



[10] See Figure 12 below as well, which shows the pipeline in greater detail. See also "Location, Depth and Condition of Pipeline No. 109" in the project case file

Figure 4: 3526 Folsom Street: Garage and First Floor Plans

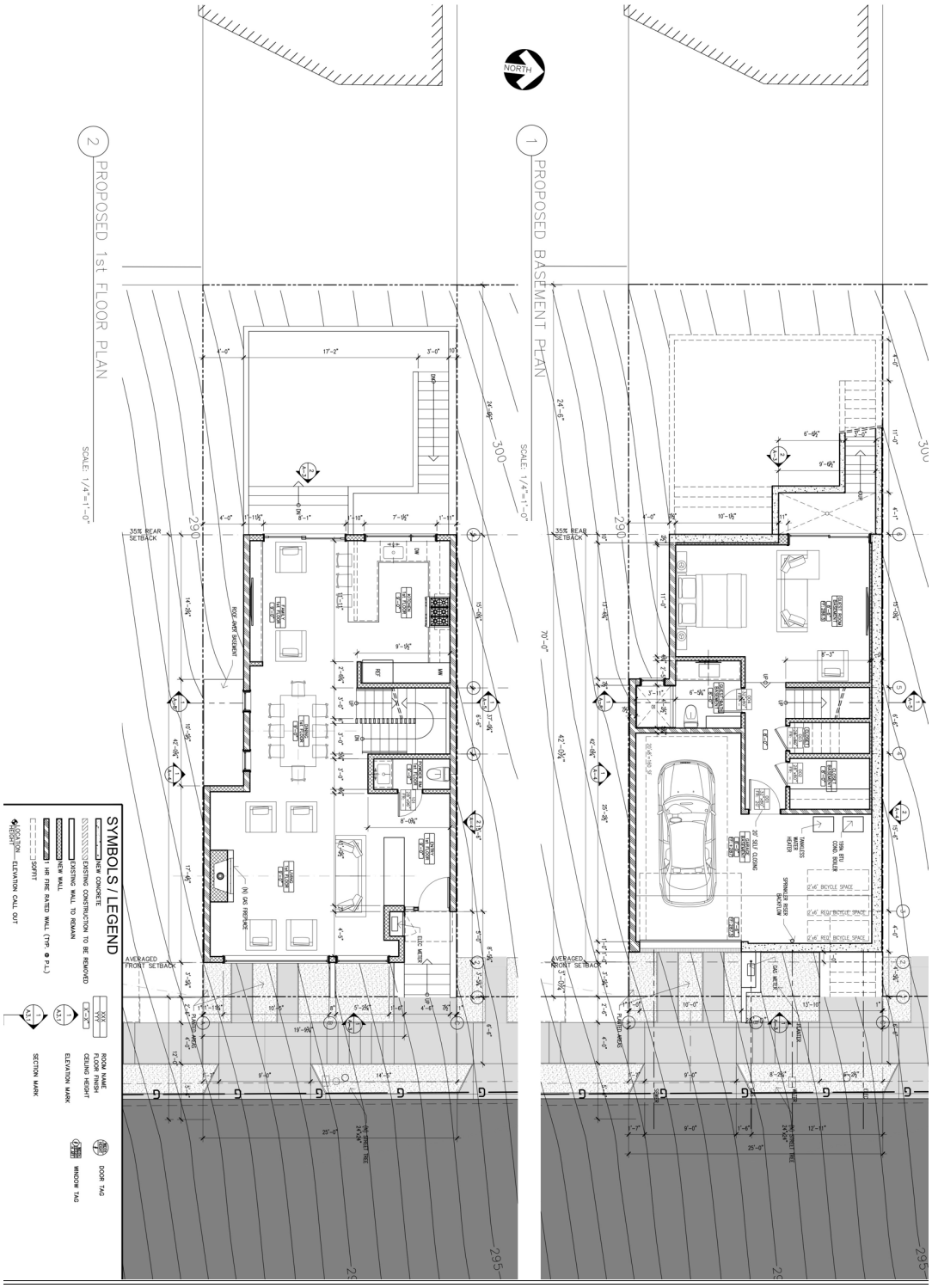


Figure 5: 3526 Folsom Street: Second Floor and Roof Plans

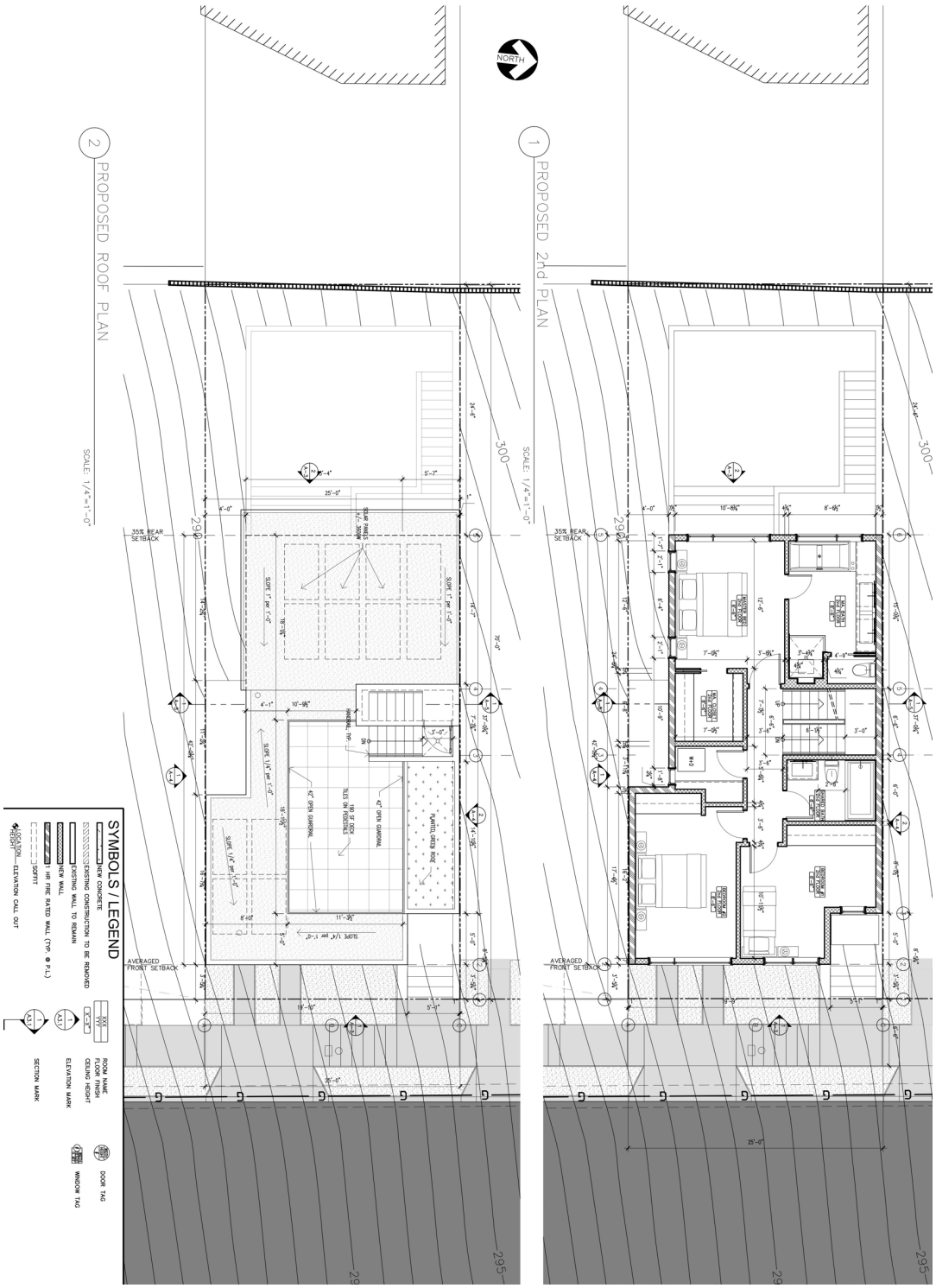


Figure 6: 3526 Folsom Street: North and South Elevations

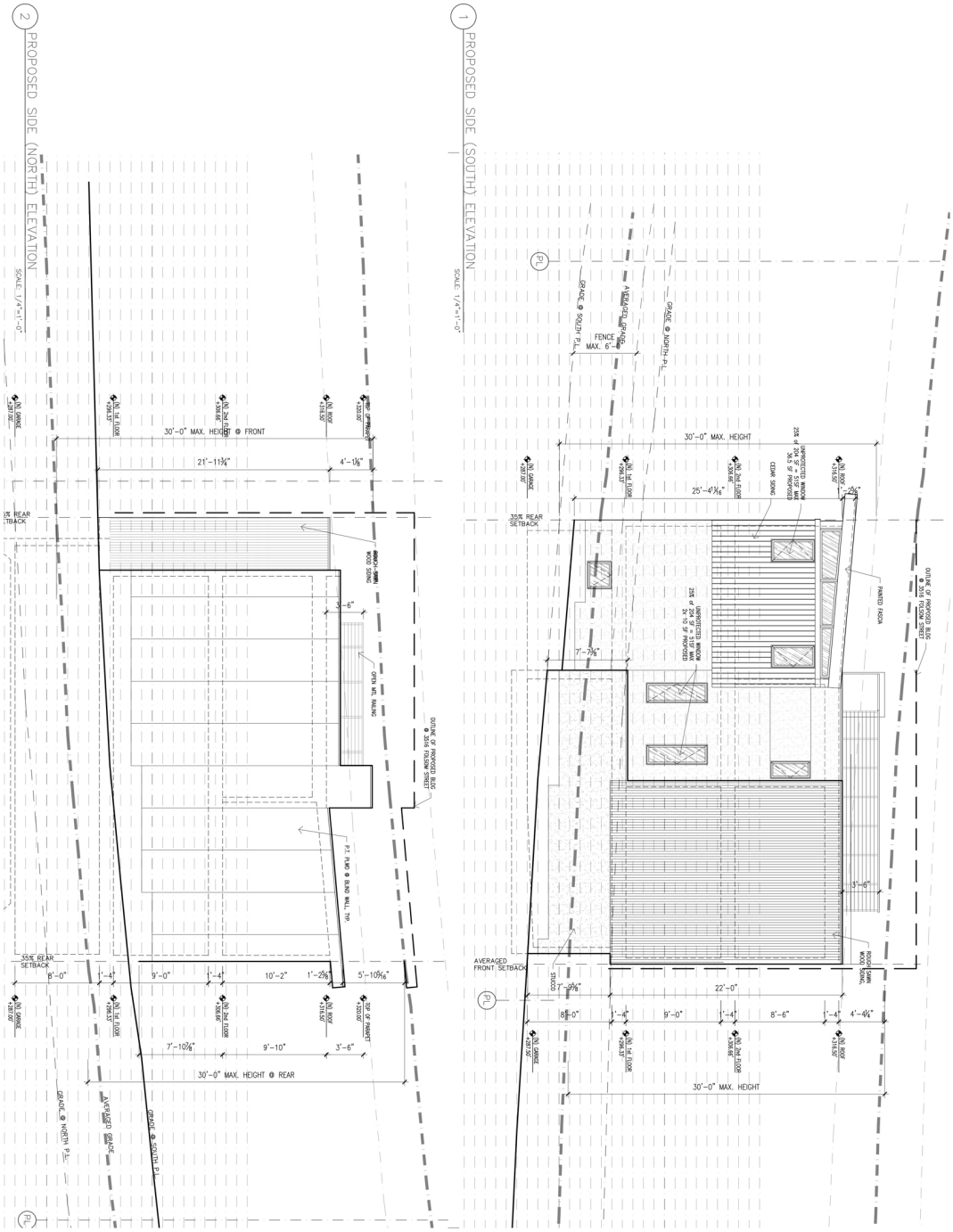


Figure 7: 3526 Folsom Street: East and West Elevations

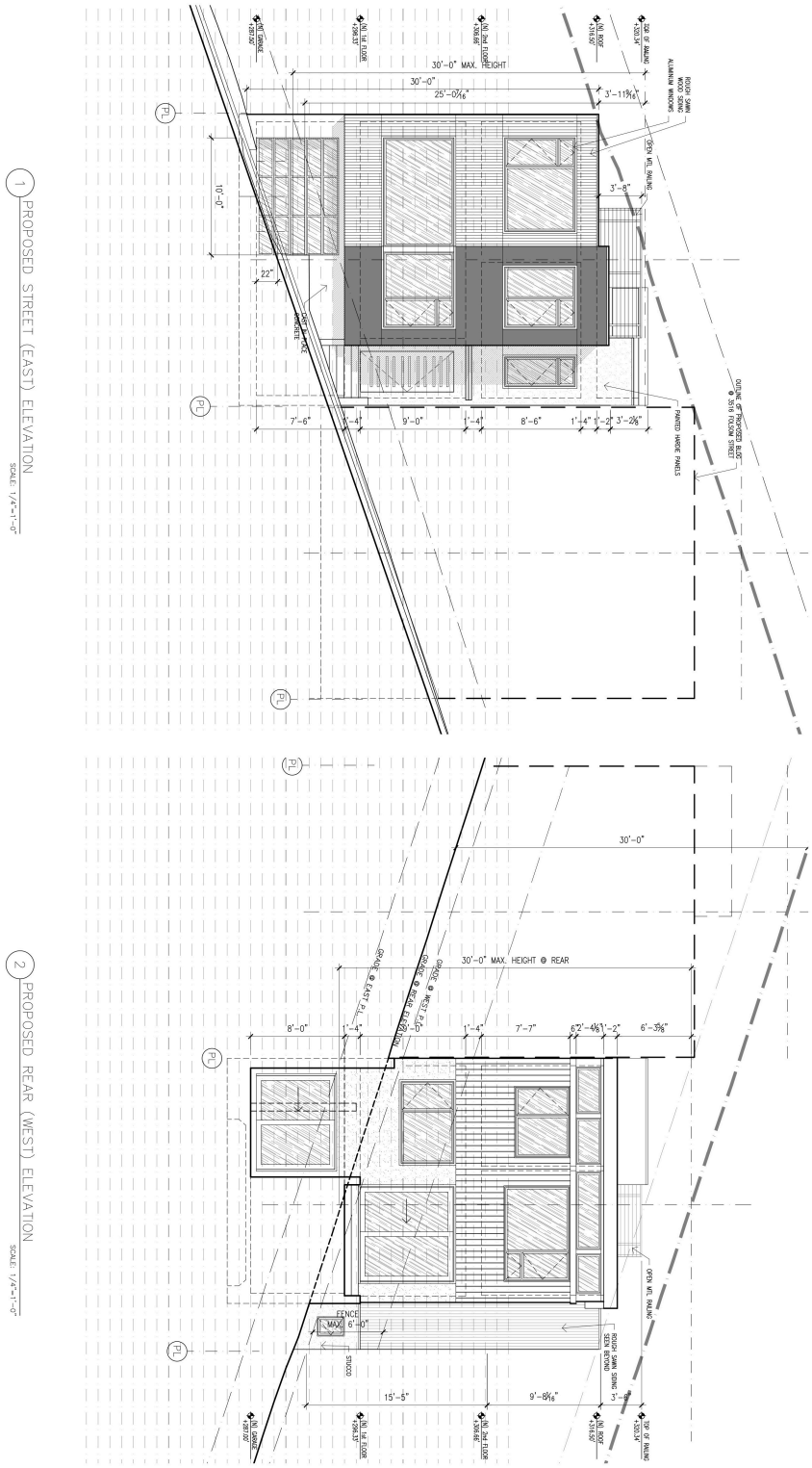


Figure 8: 3516 Folsom Street: Garage and First Floor Plans

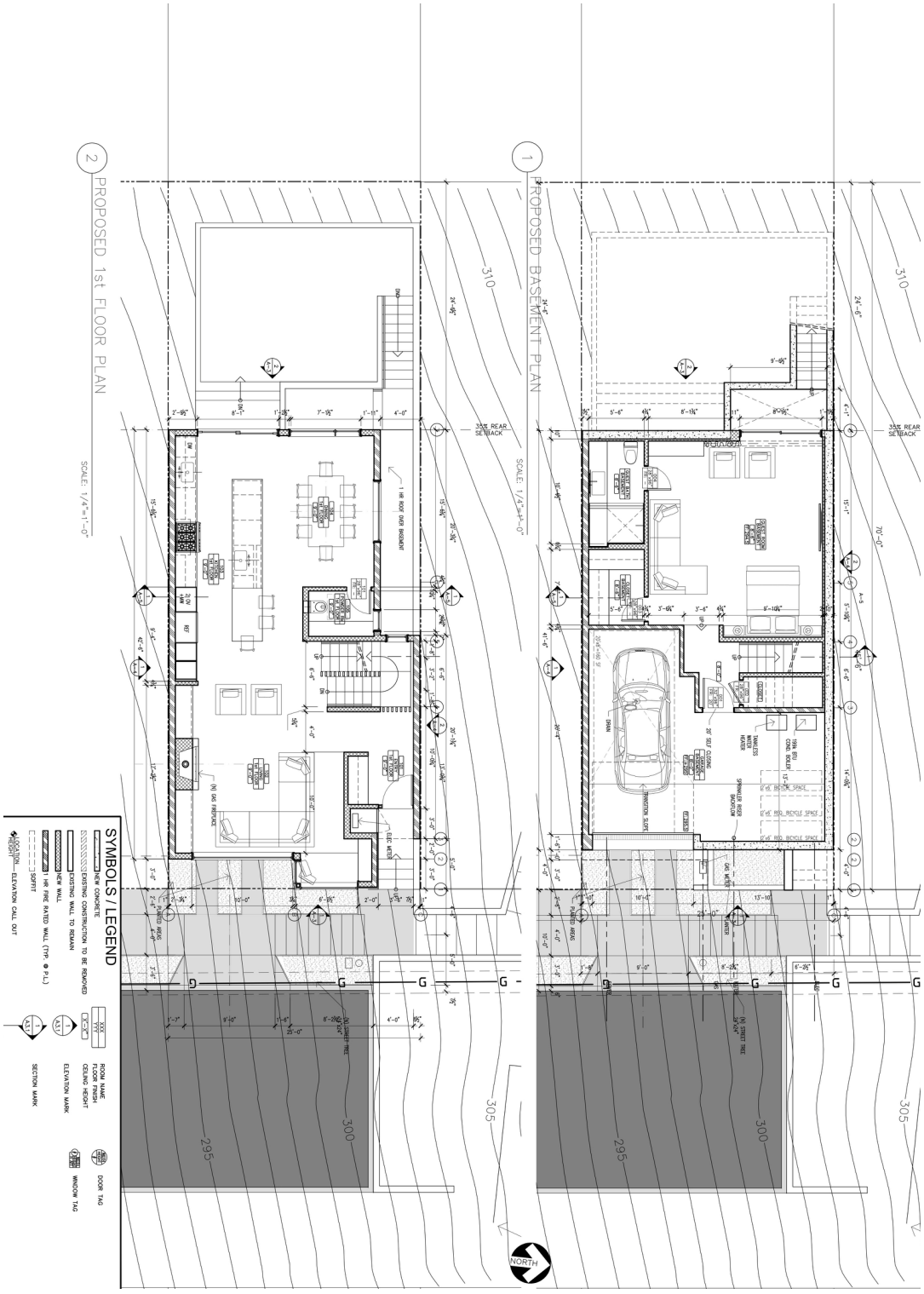


Figure 9: 3516 Folsom Street: Second Floor and Roof Plans

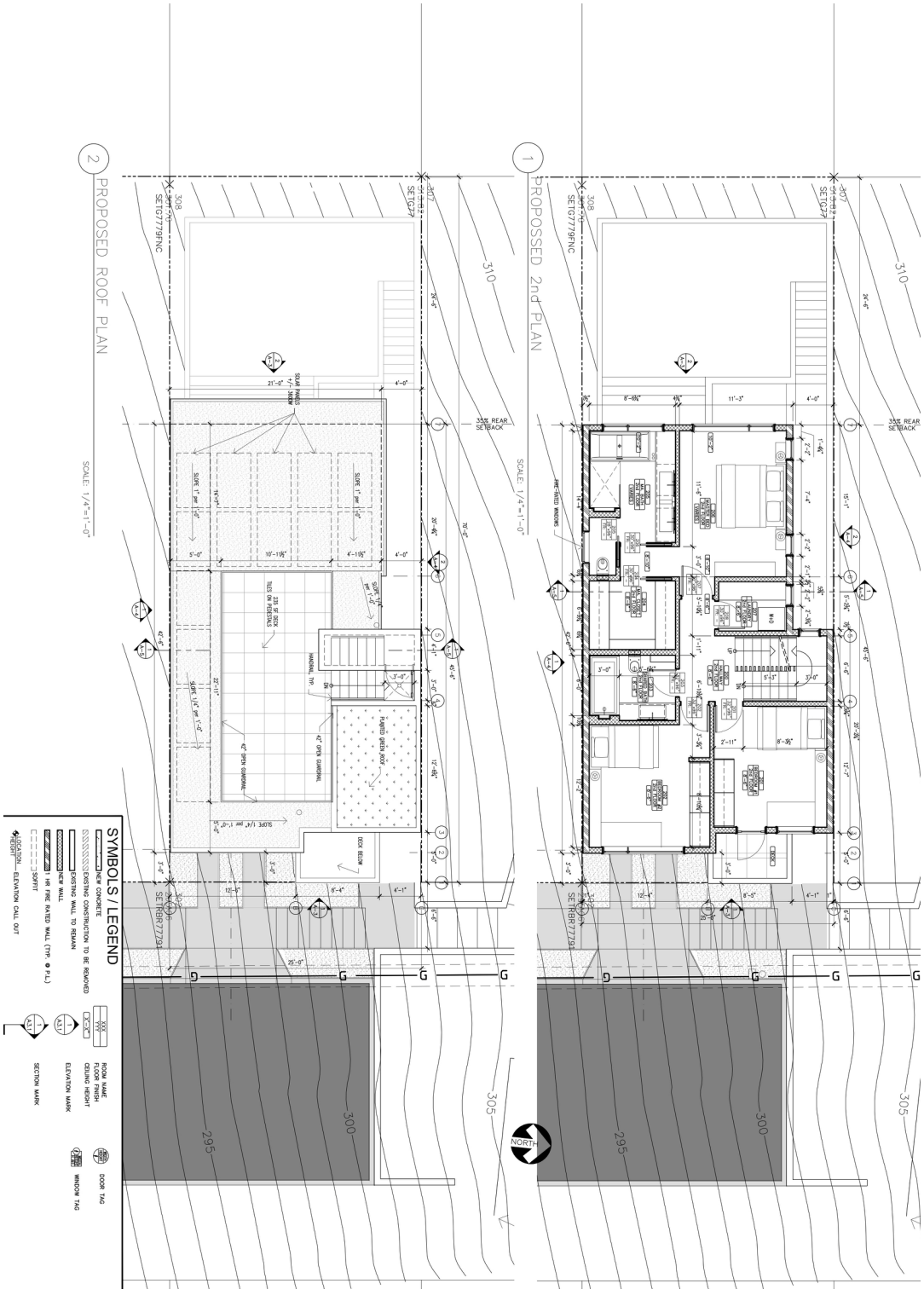


Figure 10: 3516 Folsom Street: North and South Elevations

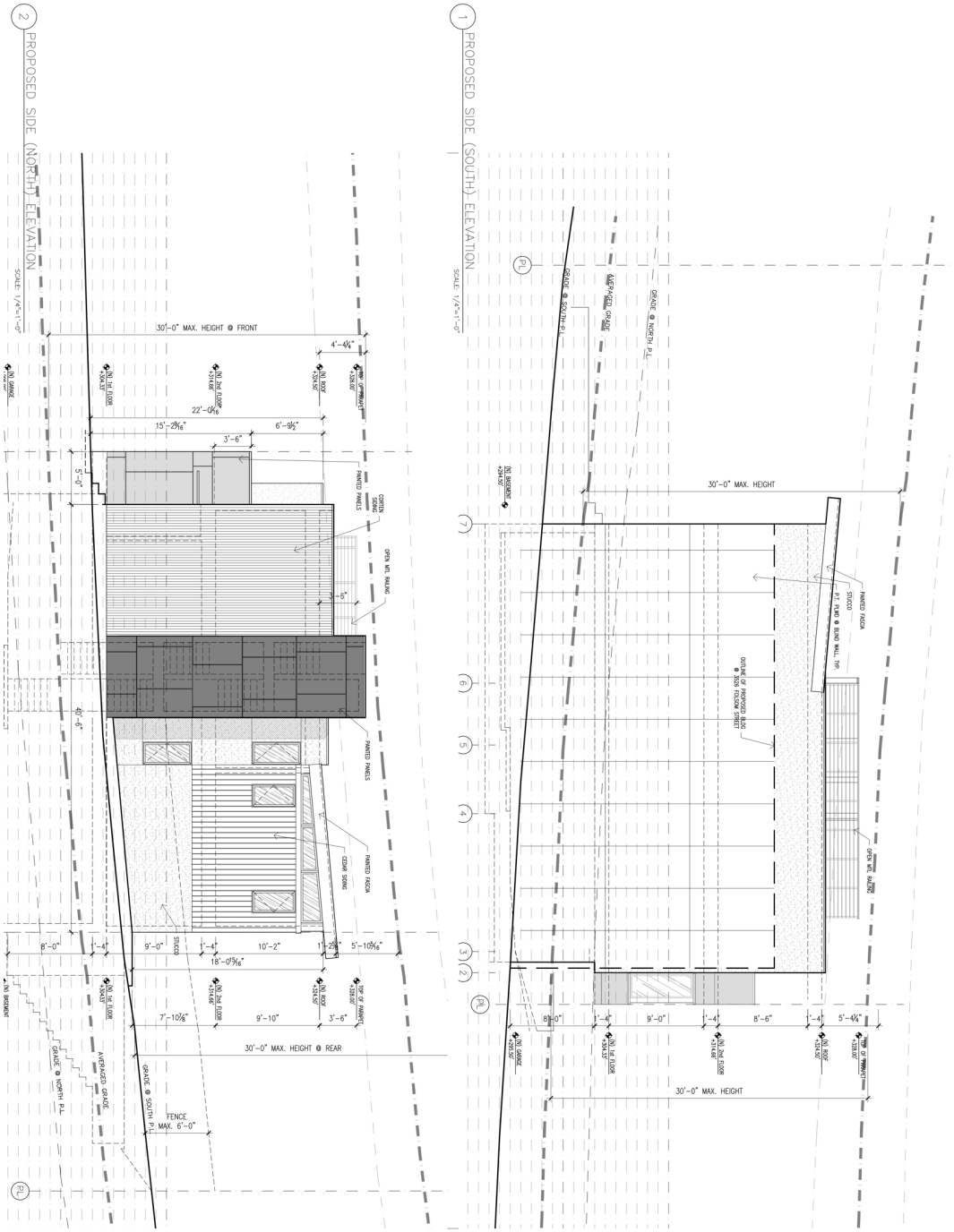


Figure 11: 3516 Folsom Street: East and West Elevations

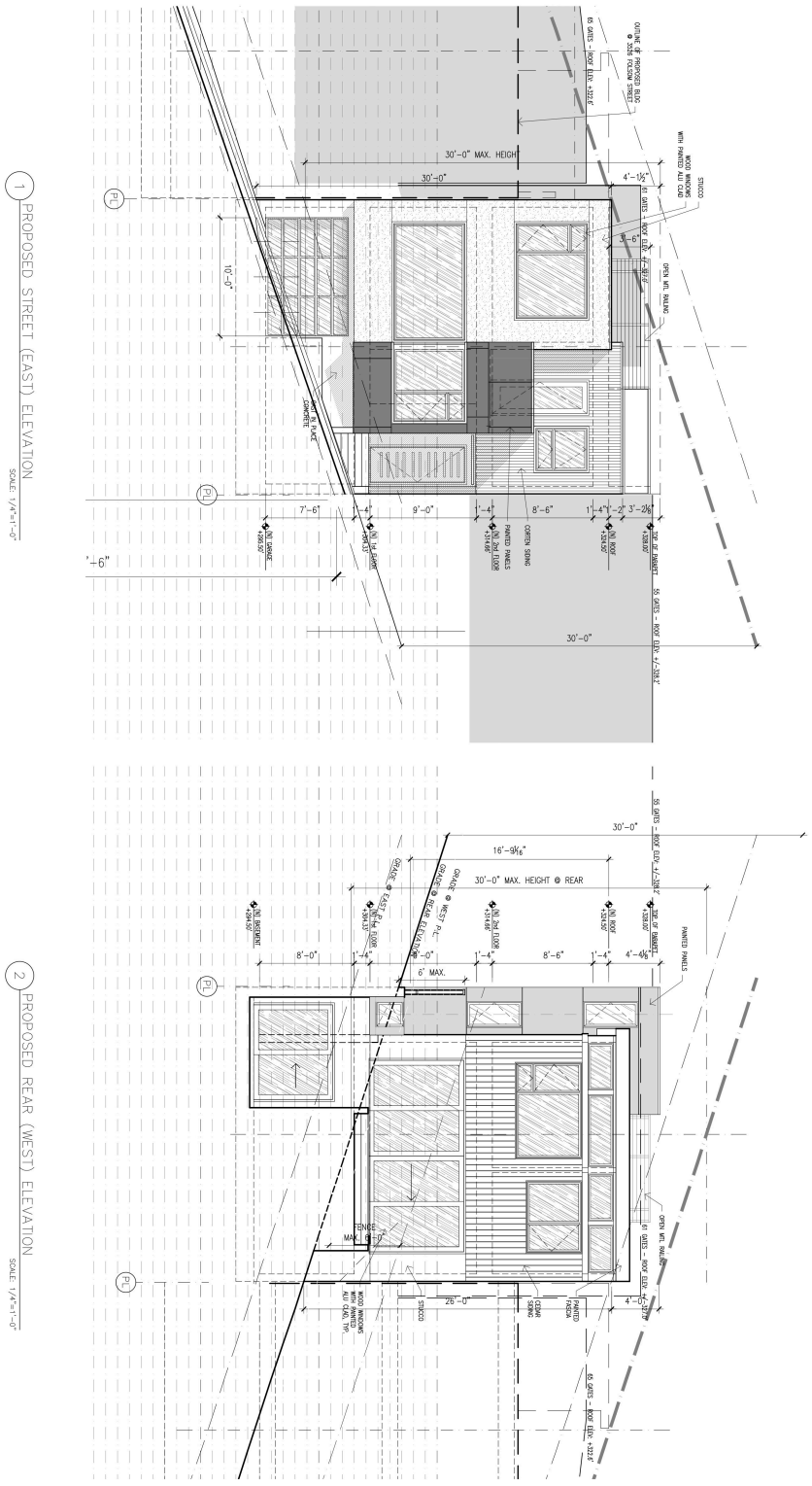
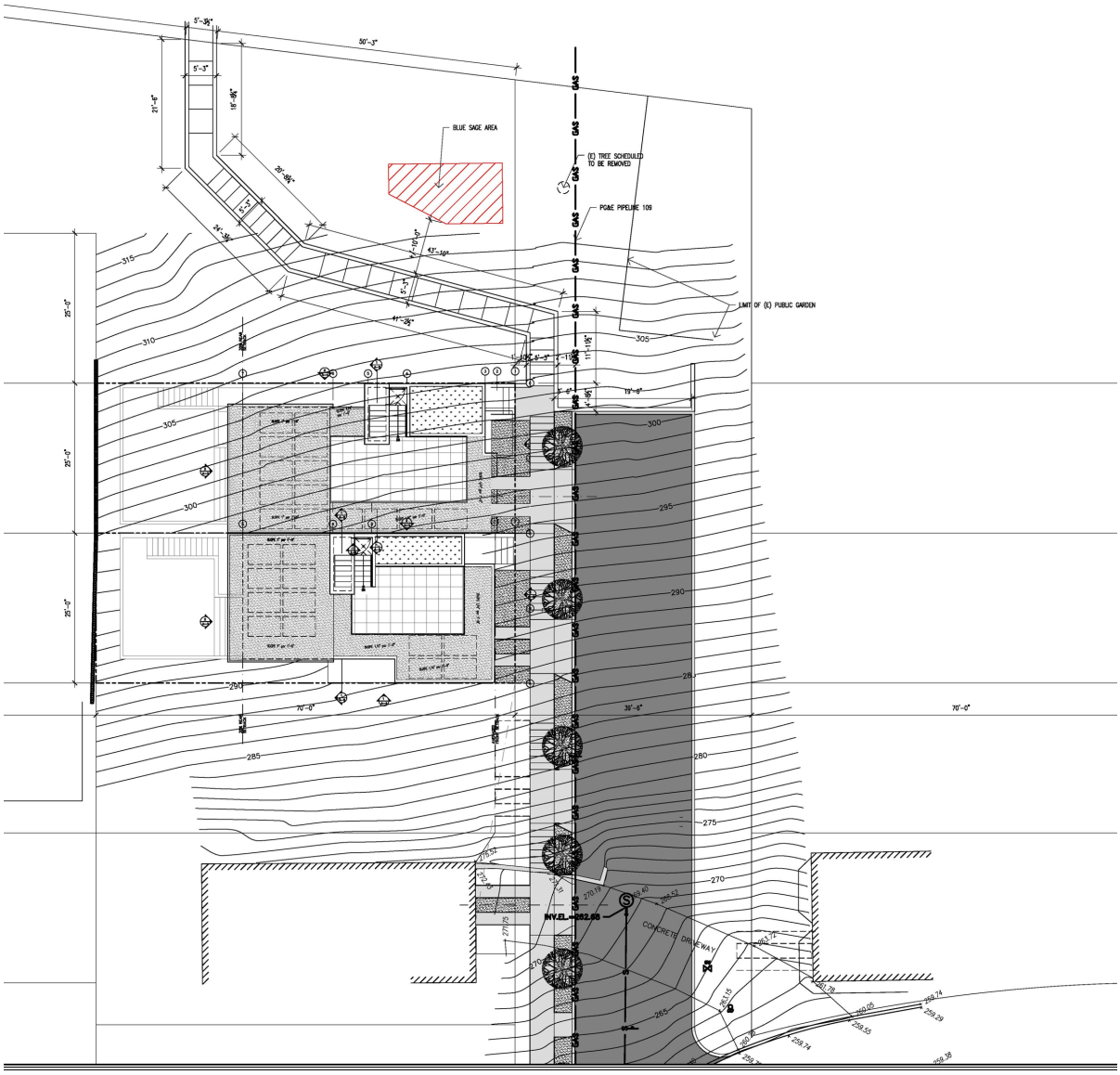


Figure 12: Proposed Street Improvement and Stairway Alignment



Demolition and Construction

Construction activities at the project site would begin with clearing the site. A total of approximately 650 cubic yards of soil would be excavated from the site to accommodate new foundations and utility connections. Excavated materials would be delivered to 20 cubic yard capacity haul trucks located on Bernal Heights Boulevard by conveyor belt. The excavation of 3516 Folsom Street would include approximately 30 truck trips and the excavation of 3526 Folsom Street would include approximately 25 truck trips. Construction of the proposed project is anticipated to occur over a 12 month period. The concrete required for each foundation slab would require four cement truck trips for each residence (eight, total) plus another four trips per residence for the concrete retaining walls for each residence (eight, total). Concrete trucks and concrete pumps would operate from Bernal Heights Boulevard, and all materials deliveries would occur from Bernal Heights Boulevard. The proposed project would connect to water, sewer, electrical, natural gas, and telecommunications connections that would be brought to the project site by the improvement of the "paper street" section of Folsom Street. The proposed project would include approximately two weeks of excavation, eight weeks of foundation work, and ten weeks for framing. The construction of the two houses would take approximately twelve months. Trucks would access the project site to and from the 101 freeway via Cesar Chavez Street, to Folsom Street and Bernal Heights Boulevard.

The improvement of the "paper street" segment of Folsom Street would be performed under a separate Street Improvement Permit issued by the Department of Public Works. This improvement would include the removal of plants and topsoil along the current right-of-way and the creation of a paved roadway and the construction of a stairway between Folsom Street and Bernal Heights Boulevard. The proposed road improvement would require 92 cubic yards of material to be removed from the project site, which would result in approximately seven haul truck trips. Concrete imported onto the project site for the road improvement would require about ten truck trips. Road work would be conducted from the intersection of Folsom Street and Chapman Street.

Emergency Response and Evacuation Plan

Pursuant to the FMND appeal findings adopted by the Board of Supervisors on September 26, 2017 in motion M17-152 (Legislative File Number 171022) regarding the potential effects of construction-related vibration on the integrity of PG&E Pipeline 109, the proposed project also includes an

Emergency Response and Evacuation Plan to ensure adequate access for emergency response and the ability for a safe and timely evacuation of the project vicinity in the event of an emergency. The Emergency Response and Evacuation Plan includes steps to be taken pre-construction as well as during any excavation near PG&E Natural Gas Pipeline 109. Natural Gas Pipeline 109 is located approximately 12 feet from the nearest outside perimeter of the proposed homes, and is buried under approximately four to six feet of earth (refer to Figure 12). The provisions of the Emergency Response and Evacuation Plan are summarized below.

Pre-Construction: Before the commencement of any construction, the project sponsor would:

- Provide two working days' notice to PG&E, Elpinike Pappous, Pipeline Engineer (or authorized agent), 925-872-1027, prior to commencing any construction.
- Schedule 811 (a utility location service) to mark all utilities in work area.
- Fence the area within 10 feet of the pipeline at each site and clearly post notices indicating that no work can be done in defined area without presence of PG&E standby engineer.
- Install protection fence around any area containing hummingbird sage.
- Install vibration monitoring equipment and test with PG&E present.
- Set up pre-construction meeting with Public Works (DPW) and the Department of Building Inspection (DBI).
- Post notice of emergency evacuation routes and identify one or more off-site assembly areas where residents and workers can gather in event of an emergency.
- Post emergency route signs within 300 feet from project site, 48-hours prior to commencing work.
- Post communication system at project site, which includes contact information for the owner, contractor, and PG&E.

During Construction within 10 feet of PG&E Pipeline 109: At any time construction would occur within 10 feet of PG&E Natural Gas Pipeline 109:

- The project sponsor would ensure that a PG&E inspector be on standby during all excavation and Folsom Street extension work within 10 feet of Pipeline. The PG&E standby inspector

would manage the vibration monitoring equipment and ensure that vibration levels remain below 2 inches per second (2 in/s).

- If vibration levels exceed 2 inches per second (in/s), the PG&E inspector would ensure that all construction activity ceases and call the PG&E pipeline engineer responsible for the SF area (Elpinike Pappous, 925-872-1027, or authorized agent).
- For any gas-related emergencies, such as leaks, the contractor would call Gas Control at 1-800-811-4111 (if the PG&E Inspector would be present, the inspector would call Gas Control). Gas Control would then communicate with the San Francisco Fire Department (SFFD) and the San Francisco Police Department (SFPD), as well as other first responders.
- PG&E leak survey personnel would be deployed to survey the pipeline in the immediate vicinity of the vibration to verify that damage had not occurred. Response time would be a maximum of 3 hours and the survey would be completed within the same business day. Work can only resume with PG&E authorization.

During Construction Beyond 10 feet of PG&E Pipeline 109: Anytime construction would occur beyond 10 feet of PG&E Natural Gas Pipeline 109:

- The on-site Project Manager would manage the vibration monitoring equipment and ensure that vibration levels remain below 2 in/s.
- If the vibration monitoring equipment indicates vibration levels are above 2 in/s, the Project Manager would stop all work immediately.
- The Project Manager or their agent would contact the PG&E pipeline engineer responsible for the San Francisco area (Elpinike Pappous [or authorized agent], 925-872-1027).
- If a gas leak is detected, the project manager (or the PG&E pipeline engineer, if present) would call Gas Control at 1-800-811-4111. Gas Control would communicate with SFFD and SFPD as well as other first responders. In addition, PG&E leak survey personnel would be deployed to survey the pipeline in the immediate vicinity of the vibration. Response time would be a maximum of 3 hours and the survey would be completed within the same business day.
- In the event of any work stoppage, work would only resume when PG&E informs the project sponsor.

At all times, the project sponsor would:

- Ensure that trained personnel, knowledgeable about emergency procedures, be on-site during all project work.
- Comply with all CalOSHA regulations regarding shoring and excavation.
- Comply with all City and County of San Francisco regulations regarding shoring and excavation.
- Remove all combustible scrap and debris at regular intervals during the course of construction.
- Prohibit smoking on the jobsite and in the vicinity of operations including the posting of "No Smoking or Open Flame" signs.
- Keep the storage site free of the accumulation of unnecessary combustible materials.
- Ensure that all materials are stored, handled, and piled with due regard to their fire characteristics.
- Ensure that noncompatible materials, which may create a fire hazard, be segregated by a barrier having a fire resistance of at least 1 hour
- Ensure that material would be piled to minimize the spread of fire internally and to permit convenient access for firefighting.

The Emergency Response and Evacuation Plan also details required evacuation routes from the vicinity of the project site (Figure 13). The Emergency Response and Evacuation Plan has been reviewed and approved by the Planning Department,[11] PG&E and the San Francisco Fire Department.[12] After the Evacuation Plan was approved by both PG&E and the Fire Department, the project sponsor moved one safe gathering area located on Bernal Heights Blvd east of Nevada Street to Powhattan and Nevada streets in order to provide an easier-to-access gathering area. Planning Department staff followed up with PG&E and San Francisco Fire Department staff who approved the plan and received no concerns from either with moving the safe gathering area.

A Vibration Monitoring and Management Plan prepared for the proposed project by a qualified expert provides the source of the 2 in/s vibration level that is specified in the Emergency Response

[11] See March 17, 2020 approval letter from Planning Department.

[12] Letter from PG&E Gas Transmission Pipeline Services—Integrity Management, November 13, 2018. Letter from San Francisco Fire Department to Dan Sider, Fabian Lannoye, January 10, 2019.

and Evacuation Plan. The Vibration Monitoring and Management Plan was reviewed and approved by PG&E and the Planning Department. The plan was also evaluated by an independent, third-party qualified expert.[13] As discussed in the Noise and Vibration section below on page 55, recommendations from the Vibration Monitoring and Management Plan are included in **Mitigation Measure M-NO-3, Vibration Management**.

C. PROJECT APPROVALS

The project is located in the RH-1 (Residential House, Single-Family) residential zoning district and within the 40-X height and bulk district and within the Bernal Heights Special Use District which reflects the special characteristics and hillside topography of an area of the City that has a collection of mostly older buildings situated on lots generally smaller than the lot patterns in other low-density areas of the City. The proposed project would require the following City, State, and regional approvals. These approvals may be considered in conjunction with the required environmental review, but will not be granted until the required environmental review has been completed:

- Approval of building permits by the Department of Building Inspection (DBI);
- Street Improvement Permit from Department of Public Works for improvement of Folsom Street.

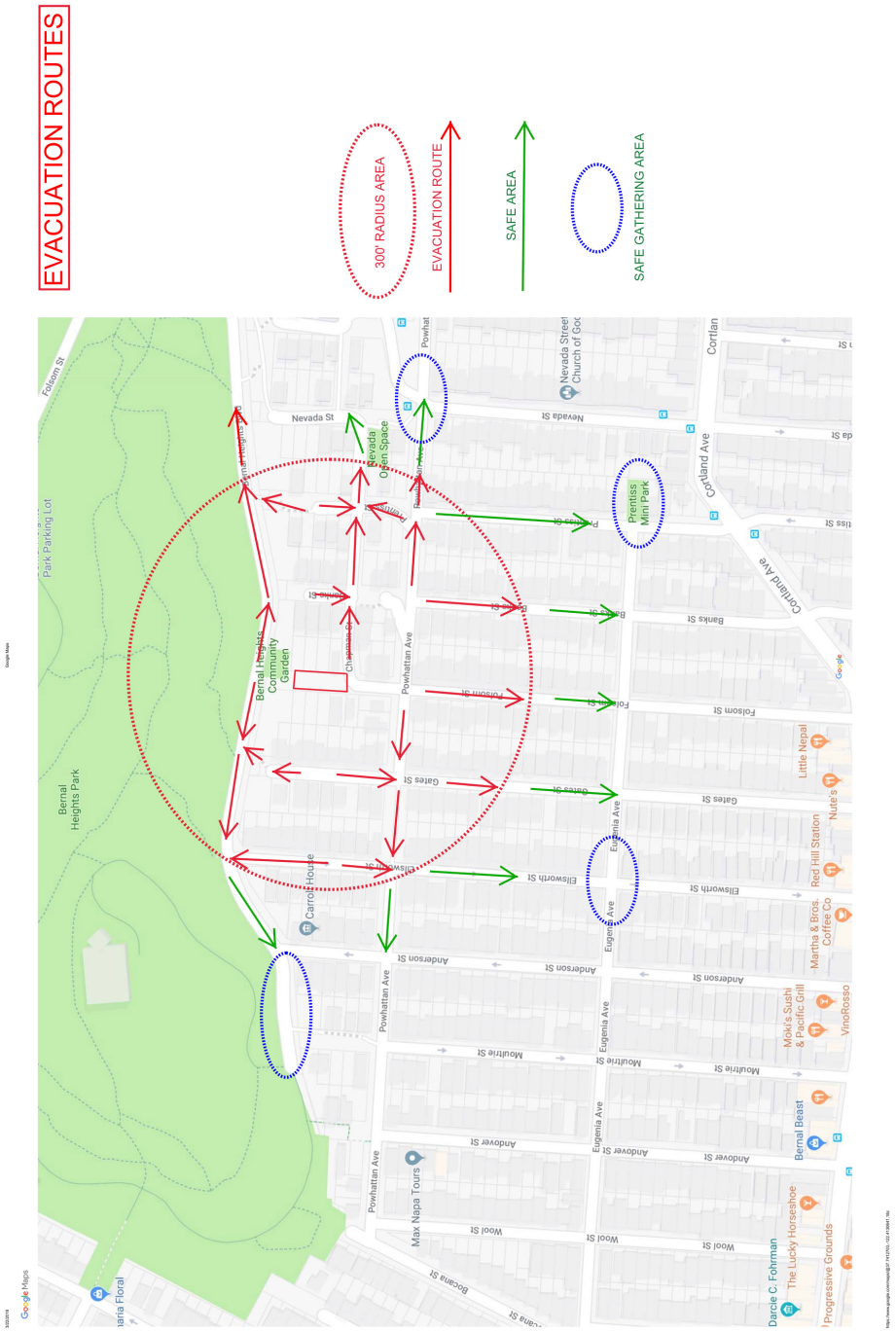
Pursuant to Section 31.16(d)(5)(A) of the San Francisco Administrative Code, in the event an organization or individual wishes to appeal the revised negative declaration, such appeal shall be made directly to the Board of Supervisors within 30 days of publication of this Revised FMND. Further, any appeals shall be limited to the portions of this Revised FMND that are additions to, or deletions from, the version previously certified on June 15, 2017.

~~The approval of the building permits by the Department of Building Inspection constitutes the Approval Action for the proposed project, pursuant to Section 31.04(h)(3) of the San Francisco Administrative Code. The Approval Action date establishes the start of the 30-day appeal period for~~

[13] Buehler, David, P.E. INCE Bd. Cert., October 17, 2019, Review of Vibration Management Plan Prepared for 3516-3526 Folsom Residential Construction.

~~the California Environmental Quality Act determination pursuant to Section 31.16(d) of the San Francisco Administrative Code~~

Figure 13. Emergency Response and Evacuation Routes[14]



[14] After the Evacuation Plan was approved by both PG&E and the Fire Department, the project sponsor moved one safe gathering area located on Bernal Heights Blvd east of Nevada Street to Powhattan and Nevada streets in order to provide an easier-to-access gathering area. Planning Department staff followed up with PG&E and San Francisco Fire Department staff who approved the plan and received no concerns from either with moving the safe gathering area.

D. PROJECT SETTING

As previously noted, the project site occupies two parcels located on the west side of an unimproved section of Folsom Street in the Bernal Heights neighborhood of San Francisco. Existing uses within the same block consist of unimproved open space, two other primarily two- to three-story single-family residential homes and the Bernal Heights Community Garden. Two-to-three-story residential uses border the site to the south and west, and unimproved lots border the site to the north and east. A two-story residential building borders the site to the south. **Figure 2** illustrates the surrounding residential and open space land uses within the vicinity of the site.

No MUNI bus or light rail lines border the proposed project site. The project site is within ¼ mile of MUNI bus line 24-Divisidero and 67-Bernal Heights. The nearest BART station is 24th Street Mission, which is approximately ¾ mile from the project site. There are no bike routes within 250 feet of the project site.

E. CUMULATIVE SETTING

Past, present and reasonably foreseeable cumulative development projects within ¼-mile radius of the project site include three residential additions and renovations as well as new construction, including a new single family home at 495 Chapman Street, a vertical addition to a home at 100 Gates Street, a demolition of an existing home and construction of a new home at 49 Nevada Street, and a subdivision with new construction at 40 Bernal Heights Blvd. These cumulative projects are the subject of individual Environmental Evaluation Applications on file with the Planning Department, where applicable.[15] There are no active planning applications for any adjacent properties or for the other four lots on this unimproved section of Folsom Street.

[15] 100 Gates Street (Case #2016-011777ENV), 49 Nevada Street (Case #2013-0223ENV), 40 Bernal Heights Blvd (Case #2014-002982ENV).

F. COMPATIBILITY WITH ZONING AND PLANS

	Applicable	*Not Applicable*
Discuss any variances, special authorizations, or changes proposed to the Planning Code or Zoning Map, if applicable.	☐	☒
Discuss any conflicts with any adopted plans and goals of the City or Region, if applicable.	☐	☒
Discuss any approvals and/or permits from City departments other than the Planning Department or the Department of Building Inspection, or from Regional, State, or Federal Agencies.	☒	☐

San Francisco Planning Code and Zoning Maps

The San Francisco Planning Code (Planning Code) incorporates by reference the City's Zoning Maps, governs permitted uses, densities, and the configuration of buildings within San Francisco. Permits to construct new buildings (or to alter and demolish existing ones) may not be issued unless: 1) the proposed project conforms to the Planning Code; 2) allowable exceptions are granted pursuant to provisions of the Planning Code; or 3) legislative amendments to the Planning Code are included as part of the proposed project.

The project site is located in the RH-1 District. As stated in Planning Code Section 209.1, the RH-1 District allows up to one dwelling unit per lot and up to one unit per 3,000 square feet of lot area with conditional use approval. Under the Bernal Heights Special Use District (as specified in Planning Code Section 242), buildings on lots which have a depth of 70 feet or less shall have a rear yard depth equal to 35 percent of the total depth of the lot. The proposed project would result in the development of two residential units with two buildings on two existing 1,750 square-foot lots, each with a rear yard with a depth that is 35% of the total depth of the lot. Within the RH-1 District, the proposed residential uses are principally permitted.

The project site is located within a 40-X Height and Bulk District, which permits a maximum building height of 40 feet, and the Bernal Heights Special Use District, which does not permit any dwelling unit to exceed a height of 30 feet. The proposed project buildings would be less than 30 feet in height. Bernal Heights Special Use District bulk controls reduce the size of a building's floorplates as the building increases in height. Therefore, the proposed structures would comply with existing height and bulk controls.

~~According to Planning Code Section 242, two off-street parking spaces are required for a dwelling unit with a usable floor area of between 1,201 square feet (-sf) and 2,250-sf, as is the case with each unit of the proposed project. Thus, the proposed four off-street parking spaces (two per building) would comply with Planning Code Section 242.~~[16] Planning Code Section 155.2 requires new residential buildings to provide one secured (Class 1) bicycle parking space per each dwelling unit. As the proposed project would provide three Class 1 bicycle parking spaces in each garage (for a total of ~~four~~ six spaces), the project would comply with the Planning Code's bicycle parking requirements.

Plans and Policies

San Francisco General Plan

The San Francisco General Plan (General Plan) establishes objectives and policies to guide land use decisions related to physical development in the City. It is comprised of ten elements, each of which addresses a particular topic that applies citywide: Air Quality; Arts; Commerce and Industry; Community Facilities; Community Safety; Environmental Protection; Housing; Recreation and Open Space; Transportation; and Urban Design.

Two General Plan elements that are particularly applicable to planning considerations associated with the proposed project are the Housing and Urban Design elements. These elements are discussed in more detail below. Other elements of the General Plan that are applicable to technical aspects of the proposed project include Air Quality, Community Safety, Recreation and Open Space, and Transportation. The proposed project's potential to conflict with the individual policies contained in these more technical elements is discussed in the appropriate topical sections of this Initial Study.

Objectives of the General Plan's Urban Design Element that are applicable to the proposed project include emphasizing the characteristic pattern which gives the City and its neighborhoods an image, a sense of purpose, and a means of orientation and conserving resources which provide a sense of nature, continuity with the past, and freedom from overcrowding.

[16] Planning Code Section 242 no longer requires two off-street car parking spaces.

The Housing Element Update was originally adopted by the Planning Commission on March 2011 and certified by the California Department of Housing and Community Development in July 2011.[17] The key objective of the Housing Element is to promote the development of new housing in San Francisco and the retention of existing housing in a way that is protective of neighborhood identity, sustainable, and is served by adequate community infrastructure. A particular focus of the Housing Element is on the creation and retention of affordable housing, which reflects intense demand for such housing, a growing economy (which itself puts increasing pressure on the existing housing stock), and a constrained supply of land (necessitating infill development and increased density). In general, the Housing Element supports projects that increase the City's housing supply (both market-rate and affordable housing), especially in areas that are close to the City's job centers and are well-served by transit. The proposed project, which is a residential project consisting of two dwelling units, would not obviously conflict with any objectives or policies in the Housing Element.

The proposed project would not obviously or substantially conflict with any goals, policies, or objectives of the General Plan. A conflict between a proposed project and a General Plan policy does not, in itself, indicate a significant effect on the environment within the context of the California Environmental Quality Act (CEQA). Any physical environmental impacts that could result from such conflicts are analyzed in this Initial Study. In general, potential conflicts with the General Plan are considered by the decisions-makers (typically the Planning Commission) independently of the environmental review process. Thus, in addition to considering inconsistencies that affect environmental issues, the Planning Commission considers other potential inconsistencies with the General Plan independently of the environmental review process, as part of the decision to approve or disapprove a proposed project. Any potential conflict not identified in this environmental document would be considered in that context and would not alter the physical environmental effects of the proposed project that are analyzed in this Initial Study.

[17] Pursuant to a court order, the 2011 certification was set aside and a partially Revised Environmental Impact Report (Revised EIR) for the 2004 and 2009 Housing Element was later certified by the Planning Commission on April 24, 2014. No changes were made to the objectives or policies contained within the Housing Element as a result of this action.

The Accountable Planning Initiative

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 to the Planning Code to establish eight Priority Policies. These policies are: 1) preservation and enhancement of neighborhood-serving retail uses; 2) protection of neighborhood character; 3) preservation and enhancement of affordable housing; 4) discouragement of commuter automobiles; 5) protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership; 6) maximization of earthquake preparedness; 7) landmark and historic building preservation; and 8) protection of open space. The Priority Policies, which provide general policies and objectives to guide certain land use decisions, contain certain policies that relate to physical environmental issues. Where appropriate these issues are discussed in the topical sections of this Initial Study.

Prior to issuing a permit for any project which requires an Initial Study under CEQA; prior to issuing a permit for any demolition, conversion, or change of use; and prior to taking any action which requires a finding of inconsistency with the General Plan, the City is required to find that the proposed project or legislation would be consistent with the Priority Policies. As noted above, the physical environmental effects of the project as they may relate to the Priority Policies are addressed in the analyses in this Initial Study. The information contained in this Initial Study will be referenced as appropriate in the Planning Department's comprehensive project analysis and findings regarding the consistency of the proposed project with the Priority Policies.

Other Local Plans and Policies

In addition to the *General Plan*, the *Planning Code* and Zoning Maps, and the Accountable Planning Initiative, other local plans and policies that are relevant to the proposed project are discussed below.

- The *San Francisco Sustainability Plan* is a blueprint for achieving long-term environmental sustainability by addressing specific environmental issues including, but not limited to, air quality, climate change, energy, ozone depletion, and transportation. The goal of the *San Francisco Sustainability Plan* is to enable the people of San Francisco to meet their present needs without sacrificing the ability of future generations to meet their own needs.
- The *Climate Action Plan for San Francisco: Local Actions to Reduce Greenhouse Emissions* is a local action plan that examines the causes of global climate change and the human activities that contribute to

global warming, provides projections of climate change impacts on California and San Francisco based on recent scientific reports, presents estimates of San Francisco's baseline greenhouse gas emissions inventory and reduction targets, and describes recommended actions for reducing the City's greenhouse gas emissions. The 2013 Climate Action Strategy is an update to this plan.

- The *Transit First Policy* (City Charter, Section 8A.115) is a set of principles that underscore the City's commitment to prioritizing travel by transit, bicycle, and on foot over travel by private automobile. These principles are embodied in the objectives and policies of the Transportation Element of the *General Plan*. All City boards, commissions, and departments are required by law to implement Transit First principles in conducting the City's affairs.
- The *San Francisco Bicycle Plan* is a citywide bicycle transportation plan that identifies short-term, long-term, and other minor improvements to San Francisco's bicycle route network. The overall goal of the *San Francisco Bicycle Plan* is to make bicycling an integral part of daily life in San Francisco.
- The *San Francisco Better Streets Plan* consists of illustrative typologies, standards, and guidelines for the design of San Francisco's pedestrian environment, with the central focus of enhancing the livability of the City's streets.
- *Transportation Sustainability Fee Ordinance* requires that development projects that filed environmental review applications prior to July 21, 2015, but have not yet received approval, pay 50 percent of the applicable Transportation Sustainability Fee (TSF). TSF funds may be used to improve transit services and pedestrian and bicycle facilities.

The proposed project has been reviewed in the context of these local plans and policies and would not obviously or substantially conflict with them. Staff reports and approval motions prepared for the decision-makers would include a comprehensive project analysis and findings regarding the consistency of the proposed project with applicable local plans and policies.

Regional Plans and Policies

There are several regional planning agencies whose environmental, land use, and transportation plans and policies consider the growth and development of the nine-county San Francisco Bay Area. Some of these plans and policies are advisory, and some include specific goals and provisions that must be considered when evaluating a project under CEQA. The regional plans and policies that are relevant to the proposed project are discussed below.

- The principal regional planning documents and the agencies that guide planning in the nine-county Bay Area include *Plan Bay Area*, the region's first Sustainable Communities Strategy, developed in accordance with Senate Bill 375 and adopted jointly by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) on July 18, 2013. *Plan Bay Area* is a long-range land use and transportation plan that covers the period from 2010 to 2040. *Plan Bay Area* calls for concentrating housing and job growth around transit corridors, particularly within areas identified by local jurisdictions as Priority Development Areas. In addition, *Plan Bay Area* specifies strategies and investments for maintaining, managing, and improving the region's multi-modal transportation network and proposes transportation projects and programs to be implemented with reasonably anticipated revenue. *Plan Bay Area* will be updated every four years;
- *Plan Bay Area* includes the population and employment forecasts from ABAG's Projections 2013, which is an advisory policy document used to assist in the development of local and regional plans and policy documents, and MTC's 2040 *Regional Transportation Plan*, which is a policy document that outlines transportation projects for highway, transit, rail, and related uses through 2040 for the nine Bay Area counties;
- The *Regional Housing Needs Plan* for the San Francisco Bay Area: 2014–2022 reflects projected future population growth in the Bay Area region as determined by ABAG and addresses housing needs across income levels for each jurisdiction in California. All of the Bay Area's 101 cities and nine counties are given a share of the Bay Area's total regional housing need. The Bay Area's regional housing need is allocated to each jurisdiction by the California Department of Housing and Community Development (HCD) and finalized though negotiations with ABAG;
- The Bay Area Air Quality Management District (BAAQMD)'s *2010 Clean Air Plan* updates the Bay Area 2005 Ozone Strategy, in accordance with the requirements of the California Clean Air Act (CCAA), to implement feasible measures to reduce ozone and provide a control strategy to reduce ozone, particulate matter (PM), air toxics, and greenhouse gas emissions throughout the region; and
- The San Francisco Regional Water Quality Control Board's *Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan)* is a master water quality control planning document. It designates

beneficial uses and water quality objectives for waters of the state, including surface waters and groundwater, and includes implementation programs to achieve water quality objectives.

The proposed project has been reviewed against these regional plans and policies. Due to the relatively small size and infill nature of the proposed project, there would be no anticipated conflicts with regional plans. Therefore, the proposed project would not obviously or substantially conflict with regional plans or policies.

Other Related Policies

The proposed project includes work in proximity to Pacific Gas & Electric (PG&E) gas Pipeline 109 and is therefore subject to PG&E's rules and regulations regarding work near their facilities.[18] In a letter to the San Francisco Planning Department, PG&E outlined the requirements that would apply to the proposed project.[19] These requirements include the physical presence of a PG&E inspector whenever work within 10 feet of the pipeline is performed; grading and digging standards; the placement of pipeline markers during demolition and construction; standards for construction machinery and loading near and on top of underground pipelines; and limitations on placing landscaping, structures or fencing within certain distances from the pipeline.

Subsequent to the proposed project receiving entitlements from the City of San Francisco, the proposed project would be submitted to PG&E for their review to ensure the safety and integrity of their pipeline. Compliance with PG&E's regulations, and additional requirements found necessary subsequent to project approval, would be a requirement of the proposed project.

---

[18] On January 29, 2019, PG&E filed voluntary petitions under Chapter 11 of the U.S. Bankruptcy Code. According to PG&E, the company remains committed to providing safe natural gas and electric service to customers as it prepares to initiate voluntary reorganization proceedings under Chapter 11. See "PG&E Remains Committed to Providing Safe Natural Gas and Electric Service to Customers as it Prepares to Initiate Voluntary Reorganization Cases Under Chapter 11," accessed on December 6, 2019 at: https://www.pge.com/en/about/newsroom/newsdetails/index.page?title=20190114_pge_remains_committed_to_providing_safe_natural_gas_and_electric_service_to_customers_as_it_prepares_to_initiate_voluntary_reorganization_cases_under_chapter_11.

[19] John Dolcini, Pipeline Engineer-Gas Transmission, Pacific Gas and Electric Company, *Letter Re: 3516/3526 Folsom Street*, March 30, 2017.

G. SUMMARY OF ENVIRONMENTAL EFFECTS

Environmental effects are discussed with mitigation measures, where appropriate, in **Section H, Evaluation of Environmental Effects,** of this Initial Study. All mitigation measures identified are listed in **Section I, Mitigation Measures and Improvement Measures**, have been agreed to by the project sponsor, and will be incorporated into the proposed project. For items designated "Not Applicable" or "No Impact," the conclusions regarding potential significant environmental effects are based upon field observations, staff and consultant experience and expertise on similar projects, and/or standard reference materials available within the San Francisco Planning Department, such as the California Natural Diversity Database and maps published by the California Department of Fish and Wildlife, the California Division of Mines and Geology Mineral Resource Zone designations, and the California Department of Conservation's Farmland Mapping and Monitoring Program. For each checklist item, the evaluation has considered both individual and cumulative impacts of the proposed project.

H. EVALUATION OF ENVIRONMENTAL EFFECTS

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less-Than-Significant Impact*	*No Impact*	*Not Applicable*
1. LAND USE AND LAND USE PLANNING— Would the project:					
a) Physically divide an established community?	☐	☐	☒	☐	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐	☐

Impact LU-1: The proposed project would not physically divide an established community. ***(Less-Than-Significant Impact)***

The division of an established community would typically involve the construction of a barrier to neighborhood access (such as a new freeway segment) or the removal of a means of access (such as a

bridge or roadway). The proposed project would result in the construction of two two-story, up to 30-foot-tall buildings with a total of two dwelling units and street improvements, including a pedestrian connection between Bernal Heights Boulevard and Folsom Street. The proposed project would be incorporated into the existing street configuration. The proposed project includes the improvement of a currently unimproved "paper street" segment of Folsom Street, which would improve connectivity between Bernal Heights Park to the north and the existing residential neighborhood south of the project site. The proposed project would not construct a physical barrier to neighborhood access or remove an existing means of access, such as a bridge or roadway which would create an impediment to the passage of persons or vehicles. The existing access driveway for two existing buildings adjacent to the project site would be replaced by the proposed extension of Folsom Street. As such, the proposed project would not physically divide an established community.

The established community surrounding the project site includes primarily residential uses. The proposed project would introduce new residential uses within an existing residential area and would not alter the land use pattern of the immediate area. The proposed project would not introduce any new land uses, such as industrial uses, that would either create potential conflicts through incompatible uses or result in disruptions to the community's established land use patterns.

For these reasons, the proposed project would not physically divide an established community. This impact would be less than significant and no mitigation measures would be required.

Impact LU-2: The proposed project would not conflict with any applicable land use plans, policies or regulations of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. *(Less-Than-Significant Impact)*

Land use impacts are also considered to be significant if the proposed project would conflict with any plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Environmental plans and policies are those, like the Bay Area Air Quality Management District's 2017~~0~~ Clean Air Plan, which directly address environmental issues and/or contain targets or standards that must be met in order to preserve or improve characteristics of the City's physical environment.

The General Plan contains objectives and policies that guide land use decisions, as well as some objectives and policies that relate to physical environmental issues. As identified in **Section F, Compatibility with Zoning and Plans** (page 29), the proposed project does not conflict with any existing General Plan objectives or policies. Therefore, this impact would be less than significant and no mitigation measures would be required.

Impact C-LU-1: The proposed project would not make a considerable contribution to any significant cumulative land use impacts. ***(Less-Than-Significant Impact)***

The project as proposed is for the construction of two single-family residences on two vacant lots located on the "paper street" segment of Folsom Street as well as utility extensions and street improvements that would serve the two homes and four undeveloped lots along this segment of Folsom Street. The four adjacent lots are all under different ownership than the project lots and no Environmental Evaluation applications are on file with the Planning Department for development of those lots. Any future development proposals on the adjacent lots would require further environmental review and City approval.

Since the 3516 and 3526 Folsom Street project is the first proposed development on the "paper street" segment of Folsom Street, the project sponsor would be required to construct pedestrian and vehicular access to this segment of Folsom Street. The project sponsor has also agreed to construct utilities to service the remaining four undeveloped lots so as to avoid any need to excavate the improved section of Folsom Street in the event homes are proposed for the four remaining vacant lots in the future.

Pursuant to CEQA, cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other physical environmental impacts. The proposed project would construct two single-family homes, improve a segment of Folsom Street, and provide utilities for the two proposed homes and four adjacent lots. While there are no Environmental Evaluation applications on file with the Planning Department for the four adjacent lots, the improvements proposed by the project would facilitate future development of those lots. Any subsequent development would be required to comply with the same regulations as the proposed project including, but not limited to, compliance with the San Francisco Building and Fire

Codes, Slope Protection Act, PG&E regulations for work in proximity to their pipeline, the SFPUC's Stormwater Management Ordinance and Construction Site Runoff Ordinance, the Migratory Bird Treaty Act (MBTA) and Department of Fish and Wildlife (DFW) regulations protecting nesting birds and the Bernal Heights East Slope Design Guidelines. These regulations would ensure that development of the adjacent lots would not result in significant environmental effects.

The proposed project and cumulative projects would be consistent with the envisioned land uses for this area, and no other potential conflicts with policies adopted for the purpose of mitigating an environmental effect have been identified. Thus, the proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a considerable cumulative land use impact.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less-Than-Significant Impact*	*No Impact*	*Not Applicable*
2. POPULATION AND HOUSING— Would the project:					
a) Induce substantial 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 housing units or create demand for additional housing, necessitating the construction of replacement housing?	☐	☐	☒	☐	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐	☐

Impact PH-1: The proposed project would not directly or indirectly induce substantial population growth in San Francisco. ***(Less-Than-Significant Impact)***

In general, a project would be considered growth-inducing if its implementation would result in a substantial population increase and/or new development that might not occur if the project were not approved and implemented. The addition of the two new residential units would increase the

residential population on the site by approximately five persons,[20] resulting in a direct increase in population on the project site and contributing to anticipated population growth in both the neighborhood and citywide context.

However, the addition of five residents represents an incremental increase in the population of the area and would not result in a substantial increase to the population of the larger neighborhood or citywide. The 2010 U.S. Census indicates that the population in the project vicinity (Census Tract 252) is approximately 5,369 persons.[21] The proposed project would increase the population near the project site by approximately 0.1 percent. The proposed project could indirectly induce additional population growth in the project area because the proposed improvement of the "paper street" section of Folsom Street could enable additional development of four additional houses in the currently undeveloped area. However the addition of four units, with approximately 10 residents, would not be considered substantial population growth. The project would also not generate new employment on the site which could in turn indirectly increase the demand for housing elsewhere. Therefore, the proposed project would not directly or indirectly induce substantial population growth in San Francisco. This impact would be less than significant and no mitigation measures are necessary.

Impact PH-2: The proposed project would not displace substantial numbers of existing housing units or people and would not create demand for additional housing elsewhere. ***(Less-Than-Significant Impact)***

The project site is currently undeveloped, and there are no existing housing units on the project site. Therefore, implementation of the proposed project would not displace existing housing units or residents. The proposed project would result in the development of two new residential units and would not include uses that could generate demand for additional housing citywide, such as

[20] The project site is located in Census Tract 252, which is generally bounded by Cesar Chavez Street to the north, Cortland Ave to the south, Nebraska and Alabama Streets to the east, and Elsie Street to the west. The population calculation is based on Census 2010 data, which estimates 2.52 people per household in Census Tract 252. It should be noted that this census tract has somewhat larger households than the citywide average of 2.26 persons per household.

[21] The population estimate is based on data from the 2010 Census for Census Tract 252.

commercial space. Therefore, this impact would be less than significant and no mitigation measures are necessary.

Impact C-PH-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact related to population and housing. ***(Less-Than-Significant Impact)***

The proposed project includes the improvement of the "paper street" segment of Folsom Street which could induce the development of the four remaining lots adjacent to the project site.[22] Four more single-family homes could increase the area population by an additional ten residents, or a 0.2 percent increase in the population of the census tract. As described under Impact PH-1, the proposed project's individual contribution to population and employment growth would not be considerable and represents a minimal percentage of overall population increase within the neighborhood and Citywide. The population of San Francisco is projected to increase by approximately 280,490 persons for a total of 1,085,725 persons by 2040.[23] The residential population introduced as a result of the proposed project would constitute less than one percent of projected city-wide growth. Thus, this population increase would be accommodated within the planned growth for San Francisco. Furthermore, these additional residential units would provide more opportunities for housing, which is a Citywide need. Additionally, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in the displacement of substantial numbers of housing units as the majority of the approved and proposed projects would include development of housing or unimproved parcels or the expansion of existing residential properties.

For these reasons, the proposed project in combination with other past, present, and reasonably foreseeable future projects would not result in a cumulatively considerable impact related to population and housing.

---

[22] Assumes the City of San Francisco average of 2.52 persons per household.

[23] ABAG, *Plan Bay Area*, p. 40. Available online at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf, accessed January 25, 2017.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	Not Applicable
3. CULTURAL RESOURCES— Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco *Planning Code*?	☐	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐	☐
d) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074?	☐	☐	☒	☐	☐

Impact CP-1: Implementation of the proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco *Planning Code*. *(Less-Than-Significant Impact)*

As discussed on page ~~16~~ 6 of **Section A, Project Site**, the project site is currently vacant, undeveloped land, and does not include any historic resources. Neither the project site nor the immediately surrounding neighborhood is within a historic district designated under federal, state or local regulations. Therefore, the proposed project would result in a Less-Than-Significant Impact on historical resources.

Impact CP-2: The proposed project would not result in a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. *(Less-Than-Significant Impact)*

This section discusses archaeological resources, both as historical resources according to Section 15064.5 as well as unique archaeological resources as defined in Section 21083.2(g).

The potential for encountering archaeological resources is determined by several relevant factors including archaeological sensitivity criteria and models, local geology, site history, and the extent of a potential projects soils disturbance/modification, as well as any documented information on known

archaeological resources in the area. A Planning Department archaeologist completed a preliminary archeological review (PAR) for the proposed project.[24] The PAR determined that there is a no potential to adversely affect archaeological resources. There are no documented or recorded archaeological sites in the immediate vicinity of the proposed project. Therefore, the proposed project construction would have a Less-Than-Significant Impact on prehistoric or historical archaeological resources.

Impact CP-3: Construction activities for the proposed project would not result in the disturbance of human remains, including those interred outside of formal cemeteries, should such remains exist beneath the project site. ***(Less-Than-Significant Impact)***

There are no known human remains, including those interred outside of formal cemeteries, located in the immediate vicinity of the site. It is considered highly unlikely that human remains would be encountered at the project site during excavation and grading for the proposed project. Therefore, this impact is considered less than significant.

Impact CP-4: Construction activities for the proposed project would not result in the disturbance of tribal resources, should such resources exist beneath the project site. ***(Less-Than-Significant Impact)***

CEQA Section 21074.2 requires the lead agency to consider the effects of a project on tribal cultural resources. As defined in Section 21074, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing, on the national, State, or local register of historical resources. Based on discussions with Native American tribal representatives, in San Francisco, prehistoric archeological resources are presumed to be potential tribal cultural resources. A tribal cultural resource is adversely affected when a project causes a substantial adverse change in the resource's significance.

[24] Randall Dean, Archeologist, San Francisco Planning Department, Preliminary Archeological Review, 3516-26 Folsom Street, September 23, 2013.

Pursuant to CEQA Section 21080.3.1(d), within 14 days of a determination that an application for a project is complete or a decision by a public agency to undertake a project, the Lead Agency is required to contact the Native American tribes that are culturally or traditionally affiliated with the geographic area in which the project is located. Notified tribes have 30 days to request consultation with the Lead Agency to discuss potential impacts on tribal cultural resources and measures for addressing those impacts. On March 29, 2017, the Planning Department contacted Native American individuals and organizations for the San Francisco area, providing a description of the project and requesting comments on the identification, presence and significance of tribal cultural resources in the project vicinity.

No Native American tribal representatives have contacted the Planning Department to request consultation as of the publication of this Initial Study. Department staff has determined that the proposed project would not be expected to affect legally-significant archeological resources, including prehistoric archeological resources. Therefore, the proposed project would have a Less-Than-Significant Impact on previously unknown tribal cultural resources.

Impact C-CP-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity would not result in cumulative impacts to historic architectural resources. *(Less-Than-Significant Impact)*

The proposed project would have Less-Than-Significant Impacts on historical resources, and there are no proposed projects within the vicinity of the project that would result in historical resources impacts, so the proposed project could not result in a cumulatively considerable contribution to cumulative historic resource impacts.

Impact C-CP-2: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity would not result in a substantial adverse change in the significance of previously undiscovered archaeological resources, human remains, including those interred outside of formal cemeteries; and tribal resources should such resources exist on or beneath the project site. *(Less-Than-Significant Impact)*

Archeological resources and tribal cultural resources are non-renewable and finite, and all adverse effects to subsurface archeological resources and tribal cultural resources have the potential to erode a dwindling cultural/scientific resource base. Past, present, and reasonably foreseeable future

development projects within San Francisco and the Bay Area region would include construction activities that could disturb archaeological resources and tribal cultural resources and could contribute to cumulative impacts related to the loss of significant historical, scientific, and cultural information about California, Bay Area, and San Francisco history and prehistory including the historic and prehistory of Native American peoples. Similar to the proposed project, development projects within San Francisco would be subject to the City's standard archeological and human remains mitigation measures, thereby reducing the potential for cumulative archeological-related and tribal-cultural-resource-related impacts.

As discussed above, the proposed project would have Less-Than-Significant Impacts on archeological resources, and therefore the proposed project could not contribute to cumulative impacts and would not be cumulatively considerable. Therefore, this impact would be less than significant with mitigation.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less-Than-Significant Impact*	*No Impact*	*Not Applicable*
4. TRANSPORTATION AND CIRCULATION— Would the project:					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	☐	☐	☐	☐	☒

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	Not Applicable
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	☐	☐	☒	☐	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐	☐

The proposed project would not result in a change in air traffic patterns, and would therefore not cause substantial air traffic safety risks. Therefore, topic 4c is not applicable to the project.

Setting

The proposed project includes two single-family homes along the west side of a "paper street" section of Folsom Street in the Bernal Heights neighborhood. The immediate vicinity of the project site is made up of two- to-three story residential properties and is exclusively residential, save for the Bernal Heights Community Garden and Bernal Heights Park, both to the north of the project site. The project site is not adjacent to any MUNI transit lines. The project site is within ¼ mile of MUNI bus line 24-Divisidero and 67-Bernal Heights. The nearest BART station is 24th Street Mission, which is approximately ¾ mile from the project site. There are no bike routes within 250 feet of the project site. The proposed project will include the improvement of the paper street and the addition of a sidewalk and stairs to create a pedestrian connection between Bernal Heights Boulevard and Folsom Street and the immediate neighborhood to the south.

Background on Vehicle Miles Traveled (VMT) in San Francisco and Bay Area

In January 2016, OPR published for public review and comment a Revised Proposal on Updates to CEQA Guidelines on Evaluating Transportation Impacts in CEQA[25] (proposed transportation impact guidelines) recommending that transportation impacts for projects be measured using a VMT metric. VMT measures the amount and distance that a project might cause people to drive,

[25] This document is available online at: https://www.opr.ca.gov/s_sb743.php.

accounting for the number of passengers within a vehicle. OPR's proposed transportation impact guidelines provides substantial evidence that VMT is an appropriate standard to use in analyzing transportation impacts to protect environmental quality and a better indicator of greenhouse gas, air quality, and energy impacts than automobile delay. Acknowledging this, San Francisco Planning Commission Resolution 19579, adopted on March 3, 2016:

- Found that automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, shall no longer be considered a significant impact on the environment pursuant to CEQA, because it does not measure environmental impacts and therefore it does not protect environmental quality.
- Directed the Environmental Review Officer to remove automobile delay as a factor in determining significant impacts pursuant to CEQA for all guidelines, criteria, and list of exemptions, and to update the Transportation Impact Analysis Guidelines for Environmental Review and Categorical Exemptions from CEQA to reflect this change.
- Directed the Environmental Planning Division and Environmental Review Officer to replace automobile delay with VMT criteria which promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses; and consistent with proposed and forthcoming changes to CEQA Guidelines by OPR.

Planning Commission Resolution 19579 became effective immediately for all projects that have not received a CEQA determination and all projects that have previously received CEQA determinations, but require additional environmental analysis.

Many factors affect travel behavior. These factors include density, diversity of land uses, design of the transportation network, access to regional destinations, distance to high-quality transit, development scale, demographics, and transportation demand management. Typically, low-density development at great distance from other land uses, located in areas with poor access to non-private vehicular modes of travel, generate more automobile travel compared to development located in urban areas, where a higher density, mix of land uses, and travel options other than private vehicles are available.

Given these travel behavior factors, San Francisco has a lower vehicle miles traveled (VMT) ratio than the nine-county San Francisco Bay Area region. In addition, some areas of the City have lower VMT ratios than other areas of the City. These areas of the City can be expressed geographically through transportation analysis zones (TAZs). TAZs are used in transportation planning models for transportation analysis and other planning purposes. The zones vary in size from single city blocks in the downtown core, multiple blocks in outer neighborhoods, to even larger zones in historically industrial areas like the Hunters Point Shipyard.

The San Francisco County Transportation Authority (Transportation Authority) uses the San Francisco Chained Activity Model Process (SF-CHAMP) to estimate VMT by private automobiles and taxis for different land use types. Travel behavior in SF-CHAMP is calibrated based on observed behavior from the California Household Travel Survey 2010-2012, Census data regarding automobile ownership rates and county-to-county worker flows, and observed vehicle counts and transit boardings. SF-CHAMP uses a synthetic population, which is a set of individual actors that represents the Bay Area's actual population, who make simulated travel decisions for a complete day. The Transportation Authority uses tour-based analysis for office and residential uses, which examines the entire chain of trips over the course of a day, not just trips to and from the project. For retail uses, the Transportation Authority uses trip-based analysis, which counts VMT from individual trips to and from the project (as opposed to an entire chain of trips). A trip-based approach, as opposed to a tour-based approach, is necessary for retail projects because a tour is likely to consist of trips stopping in multiple locations, and the summarizing of tour VMT to each location would over-estimate VMT.[26,27]

Impact TR-1: The proposed project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets,

[26] To state another way: a tour-based assessment of VMT at a retail site would consider the VMT for all trips in the tour, for any tour with a stop at the retail site. If a single tour stops at two retail locations, for example, a coffee shop on the way to work and a restaurant on the way back home, then both retail locations would be allotted the total tour VMT. A trip-based approach allows us to apportion all retail-related VMT to retail sites without double-counting.

[27] San Francisco Planning Department, Executive Summary: Resolution Modifying Transportation Impact Analysis, Appendix F, Attachment A, March 3, 2016.

highways and freeways, pedestrian and bicycle paths, and mass transit. (*Less-Than-Significant Impact)*

VMT Analysis

Land use projects may cause substantial additional VMT. The following identifies thresholds of significance and screening criteria used to determine if a residential land use project would result in significant impacts under the VMT metric. For residential projects, a project would generate substantial additional VMT if it exceeds the regional household VMT per capita minus 15 percent.[28] As documented in the *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* ("proposed transportation impact guidelines"), a 15 percent threshold below existing development is "both reasonably ambitious and generally achievable."[29] OPR's proposed transportation impact guidelines provides screening criteria to identify types, characteristics, or locations of land use projects that would not exceed these VMT thresholds of significance. OPR recommends that if a project or land use proposed as part of the project meets any of the below screening criteria, then VMT impacts are presumed to be less than significant for that land use and a detailed VMT analysis is not required. These screening criteria and how they are applied in San Francisco are described below:

- Map-Based Screening for Residential, Office, and Retail Projects. OPR recommends mapping areas that exhibit where VMT is less than the applicable threshold for that land use. Accordingly, the Transportation Authority has developed maps depicting existing VMT levels in San Francisco for residential, office, and retail land uses based on the SF-CHAMP 2012 base-year model run. The Planning Department uses these maps and associated data to determine whether a proposed project is located in an area of the City that is below the VMT threshold.
- Small Projects – OPR recommends that lead agencies may generally assume that a project would not have significant VMT impacts if the project would either: (1) generate fewer trips than the level

[28] OPR's proposed transportation impact guidelines state a project would cause substantial additional VMT if it exceeds both the existing City household VMT per capita minus 15 percent and existing regional household VMT per capita minus 15 percent. In San Francisco, the City's average VMT per capita is lower (8.4) than the regional average (17.2). Therefore, the City average is irrelevant for the purposes of the analysis.

[29] Governor's Office of Planning and Research, *Revised Proposal on Updates to CEQA Guidelines on Evaluating Transportation Impacts in CEQA,* January 20, 2016, p. III:20. This document is available online at: https://www.opr.ca.gov/s_sb743.php.

required for studying consistency with the applicable congestion management program or (2) where the applicable congestion management program does not provide such a level, fewer than 100 vehicle trips per day. The Transportation Authority's 2015 San Francisco Congestion Management Program does not include a trip threshold for studying consistency. Therefore, the Planning Department uses the 100 vehicle trip per day screening criterion as a level generally where projects would not generate a substantial increase in VMT.

- Proximity to Transit Stations. OPR recommends that residential, retail, and office projects, as well projects that are a mix of these uses, proposed within ½ mile of an existing major transit stop (as defined by CEQA Section 21064.3) or an existing stop along a high quality transit corridor (as defined by CEQA Section 21155) would not result in a substantial increase in VMT. However, this presumption would not apply if the project would: (1) have a floor area ratio[30] of less than 0.75; (2) include more parking for use by residents, customers, or employees of the project than required or allowed, without a conditional use; or (3) is inconsistent with the applicable Sustainable Communities Strategy.[31]

The existing average daily VMT per capita for the transportation analysis zone the project site is located in, TAZ 432, is below the existing regional average daily VMT. For residential uses in TAZ 432, the average daily VMT per capita is 10.2, which is about 41 percent below the existing regional average daily VMT per capita of 17.2.

Thus, as described above, the project site is located within an area of the City where the existing VMT is more than 15 percent below the regional VMT, and the proposed project land uses would not generate substantial additional VMT.[32]

---

[30] Floor area ratio means the ratio of gross building area of the development, excluding structured parking areas, proposed for the project divided by the net lot area.

[31] A project is considered to be inconsistent with the Sustainable Communities Strategy if development is located outside of areas contemplated for development in the Sustainable Communities Strategy.

[32] The Map-Based Screening for Residential, Office, and Retail Projects was applied to the proposed project. The project site is located within TAZ 432, which is within an area of the City where the existing VMT is more than 15 percent below the regional VMT thresholds, as documented in Executive Summary Resolution Modifying Transportation Impact Analysis, Attachment F (Methodologies, Significance Criteria. Thresholds of Significance, and Screening

Trip Generation

The proposed project would result in the construction of two new single-family residences. Trip generation rates from the Institute of Transportation Engineer's (ITE) Trip Generation Manual, 9th Edition, were used to estimate the daily and peak-hour trip generation for the proposed project. Table 1 below summarizes the trip generation for the proposed project.

Table 1: Project Trip Generation

Land Use	Units	Daily Person Trips	PM Peak Hour
Residential—Single Family	2	20	2

Notes: Rates per ITE *Trip Generation Manual, 9th Edition*; Land Use Code (230) Residential Condominium/Townhouse

Source: San Francisco Planning Department, Trip Generation Table for 3516-3526 Folsom Street, 2017.

As shown in Table 1 above, the proposed project is expected to generate approximately 20 daily vehicle trips, with 2 trips occurring during the PM peak hour.

Construction

Construction of the proposed project would be expected to take approximately 12 months. During this period, temporary and intermittent transportation impacts would result from truck movements to and from the project site during excavation and construction activities associated with the proposed buildings. Construction activities would generate construction worker trips to and from the project site and a temporary demand for parking and public transit. However, the additional trips would not exceed the capacity of local or regional transit service. Due to the temporary nature of the construction activities, the construction related impacts on transportation and circulation would be less than significant.

Criteria for Vehicle Miles Traveled and Induced Automobile Travel Impacts), Appendix A (SFCTA Memo), March 3, 2016. Available online at http://commissions.sfplanning.org/cpcpackets/Align-CPC%20exec%20summary_20160303_Final.pdf. Accessed March 21, 2016.

Due to the limited addition of project-related traffic (2 PM peak hour trips), the proposed project is not anticipated to result in a conflict with any established plans or policies. In addition, as discussed above, the proposed project would meet the VMT Map screening criteria. Implementation of the proposed project would result in Less Than Significant construction-related transportation impacts. Therefore, the proposed project would not conflict with any plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system or congestion management program. This impact would be less than significant and no mitigation measures would be required.

Impact TR-2: The proposed project would not result in substantially increased hazards due to particular design features (e.g., sharp curves or dangerous intersections) or incompatible uses. ***(Less-Than-Significant Impact)***

The proposed project would include the construction of two two-story buildings with a total of two residential units, which is considered a compatible use with the surrounding area. Access to the project site would be provided by the improvement of a "paper street" section of Folsom Street. The proposed project would not result in roadway design changes that would include sharp curves or other roadway design elements that would create dangerous conditions, and the improved street section would not be a through street; that is, the improved section would not be used by the general public but would typically be limited to the residents of the proposed project. The improved section would not include any on-street parking facilities. The proposed design of the street must be reviewed and approved by San Francisco Public Works (Public Works) and found consistent with the City's Subdivision Regulations. The proposed project would result in a Less-Than-Significant Impact related to hazards associated with a design feature and no mitigation is required.

Impact TR-3: The proposed project would not result in inadequate emergency access. ***(Less-Than-Significant Impact)***

Emergency access to the project site would remain mostly unchanged from existing conditions. The Project Sponsor has consulted the San Francisco Fire Department (SFFD) regarding emergency access.[33] While the width and grade of the proposed street improvement preclude SFFD apparatus from

[33] Sponsor meeting with SFFD Assistant Fire Marshall Rich Hill, April 29, 2016.

traversing the proposed street, the proposed project conforms to Fire Code Section 503.1.1, which requires all portions of the exterior walls of the first story of any constructed building to be within 150 feet of an approved fire apparatus access road. Both Folsom Street and Bernal Heights Boulevard are accessible to SFFD apparatus and are within 150 feet of all portions of the exterior walls of the first floor of both proposed homes. Furthermore, Fire Code Section 503.1.1 allows a Fire Code Official to offer an exception to the 150 foot requirement if subject buildings are equipped with an approved automatic sprinkler system. While the Project Sponsor is not requesting an exception to Fire Code Section 503.1.1, the proposed homes would include automatic sprinkler systems. As the proposed houses are within 150 feet of approved fire access roads and include automatic sprinkler systems, the proposed project conforms with the Fire Code. Therefore, the proposed project would not result in inadequate emergency access and the impacts would be less than significant.

Impact TR-4: The proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, or cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity or alternative travel modes. ***(Less-Than-Significant Impact)***

Implementation of the proposed project would add two residential units to the project site, increasing the residential population on the site by approximately five persons.[34] The proposed project would not substantially increase the population in the project vicinity and would result in a minimal number of transit trips, pedestrian, and bicycle trips. The proposed project would include street improvements which would increase pedestrian access and pedestrian network connectivity between Bernal Heights Boulevard and the improved section of Folsom Street and the neighborhood to the south. Thus, the proposed project would not substantially effect the utilization of local and regional transit service, pedestrian facilities, or bicycle facilities. Therefore the proposed project would not result in changes to the City's transportation and circulation system that could conflict with adopted policies, plans, or programs regarding transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, or cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity or

[34] The population estimate is based on Census 2010 data, which estimates 2.52 per household in Census Tract 252.

alternative travel modes. Therefore, this impact would be less than significant and no mitigation measures would be required.

Impact C-TR-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in substantial cumulative transportation impacts. ***(Less-Than-Significant Impact)***

VMT, by its very nature, is largely a cumulative impact. The VMT associated with past, present, and future projects contributes to physical secondary environmental impacts. It is likely that no single project by itself would be sufficient in size to prevent the region or state from meeting its VMT reduction goals. Instead, a project's individual VMT contributes to cumulative VMT impacts. The VMT and induced automobile travel project-level thresholds are based on levels at which new projects are not anticipated to conflict with state and regional long-term greenhouse gas emission reduction targets and statewide VMT per capita reduction targets set in 2020. For residential uses in TAZ 432, the average daily VMT per capita in 2040 is estimated to be 8.9, which is about 45 percent below the estimated 2040 regional average daily VMT per capita of 16.1. Therefore, because the estimated average daily VMT for TAZ 432 would be more than 15 percent below the estimated regional average daily VMT, the proposed project would not be considered to result in a cumulatively considerable contribution to VMT impacts.

Based on the foregoing, in combination with past, present, and reasonably foreseeable future projects, the proposed project would not contribute considerably to any substantial cumulative increase in VMT, impacts to the effectiveness of the circulation system, impacts related to design features or incompatible uses, inadequate emergency access, or conflicts with alternative modes of transportation. Therefore, this impact would be less than significant and no mitigation measures would be required.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	Not Applicable
5.	**NOISE and Vibration—Would the project:**					
a)	Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐	☐
b)	Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐	☐
c)	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐	☐
d)	Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐	☐
e)	For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	☐	☐	☐	☐	☒
f)	For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐	☒
g)	Be substantially affected by existing noise levels?	☐	☐	☐	☐	☒

The project site is not within an airport land use plan area or in the vicinity of a private airstrip. Therefore, topics 5e and 5f are not applicable and will not be further discussed.

Fundamentals of Environmental Noise and Groundborne Vibration

A project will normally have a significant effect on the environment related to noise if it would substantially increase the ambient noise levels for adjoining areas or conflict with the adopted environmental plans and policies of the community in which it is located. Noise impacts can be described in three categories. The first is audible impacts that increase noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3.0 decibels (dB) or greater since this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, is the change in the noise level between 1.0 and 3.0 dB. This range of

noise levels has been found to be noticeable only in laboratory environments. The last category is changes in noise level of less than 1.0 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered when analyzing the effects of project-generated noise.

Operational Noise and Vibration

The primary existing noise sources contributing to ambient noise in the project area are traffic associated with Bernal Heights Boulevard and surrounding residential streets and other noise from motor vehicles, the interaction between the tires and the road, and vehicle exhaust systems. Existing ambient noise levels at the project site range from 55 to 60 dBA.[35] Residential land uses are not considered sources of vibration and observation indicates that there are no major sources of vibrations at the project site.

Construction Noise and Vibration

The operation of heavy construction equipment, particularly pile-driving equipment and other impact devices (e.g., pavement breakers), creates seismic waves that radiate along the surface of the ground and downward. These surface waves can be felt as ground vibration. Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Several different methods are used to quantify vibration. The most frequently used method to describe vibration impacts is peak particle velocity (PPV). PPV is defined as the maximum instantaneous peak of the vibration signal in inches per second (in/sec).[36]

Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. This attenuation is a complex function of how energy is imparted

[35] City and County of San Francisco, *General Plan, Environmental Protection Element, Map 1 (Background Noise Levels, 2009),* 2009. This document is available for review at: http://generalplan.sfplanning.org/images/I6.environmental/ENV_Map1_Background_Noise%20Levels.pdf.

[36] Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment*, May 2006, pp. 8-1 to 8-3, Table 8-1. Available online at https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed February 7, 2017.

into the ground as well as the soil or rock conditions through which the vibration is traveling. Variations in geology can result in different vibration levels, with denser soils generally resulting in more rapid attenuation over a given distance. The effects of groundborne vibration on buildings include movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. The rumbling sound caused by the vibration of room surfaces is called groundborne noise, which can occur as a result of the low-frequency components from a specific steady source of vibration, such as a rail line. Receptors sensitive to vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment. Fragile buildings and underground facilities, in particular those that are considered historic, are included because groundborne vibration can result in structural damage. In extreme cases, high levels of vibration can damage fragile buildings or interfere with sensitive equipment. With the exception of long-term occupational exposure, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that can affect concentration or disturb sleep. People may tolerate infrequent, short duration vibration levels, but human annoyance to vibration becomes more pronounced if the vibration is continuous or occurs frequently. A vibration level that causes annoyance will be well below the damage threshold for normal buildings. Annoyance generally occurs in reaction to newly introduced sources of noise that interrupt ongoing activities. Community annoyance is a summary measure of the general adverse reaction of people to noise that causes speech interference, sleep disturbance, or interference with the desire for a tranquil environment.[37] People react to the duration of noise events, judging longer events to be more annoying than shorter ones, and transportation noise is usually a primary cause of community dissatisfaction. Construction noise or vibration also often generates complaints, especially during lengthy periods of heavy construction, when nighttime construction is undertaken to avoid disrupting workday activity, or when the adjacent community has no clear understanding of the extent or duration of the construction.[38]

[37] Ibid, pp. 2-13 to 2-17
[38] Ibid. p. 12-1.

The City does not have regulations that define acceptable levels of vibration. Therefore, this document references a Federal Transit Administration (FTA) publication concerning noise and vibration impact assessment from transit activities[39] and other relevant sources.

Noise Compatibility

San Francisco addresses noise in the General Plan's Environmental Protection Element.[40] This element includes a Transportation Noise section that provides general guidance for reducing transportation noise through "sound land use planning and transportation planning." It also states: "in a fully developed city, such as San Francisco, where land use and circulation patterns are by and large fixed, the ability to reduce the noise impact through a proper relationship of land use and transportation facility location is limited."[41] The General Plan focuses on the effect of noise on the community due to ground transportation noise sources and establishes the "Land Use Compatibility Chart for Community Noise" for determining when noise reduction requirements for new development should be analyzed, such as providing sound insulation for affected properties. The land use compatibility standards for community noise determine the maximum acceptable noise environment for each newly developed land use, and are shown in Table 2. Although Table 2 presents a range of noise levels that are considered compatible or incompatible with various land uses, the maximum "satisfactory" noise level is 60 dBA L_{dn} for residential and hotel uses; 65 dBA L_{dn} for schools, classrooms, libraries, churches and hospitals; 70 dBA L_{dn} for playgrounds, parks, offices, retail commercial uses, and noise-sensitive manufacturing/communication uses; and 77 dBA L_{dn} for other commercial uses such as wholesale, certain retail, industrial/manufacturing, transportation, communications, and utilities uses. If these uses are proposed to be located in areas with noise levels that exceed these guidelines, a detailed analysis of noise reduction requirements will typically be necessary prior to final building review and approval.

[39] Ibid.

[40] City and County of San Francisco, *City of San Francisco General Plan*, December 2, 2004. This document is available for review at www.sf-planning.org/ftp/general_plan/index.htm.

[41] Ibid.

Overall, the General Plan recognizes that transportation noise remains a problem and provides guidance to manage incompatible transportation noise levels through various transportation noise-related policies. The City's background noise levels map identifies the project site to be exposed to traffic noise levels between 50 and 60 dBA L_{dn}.[42] According to the City's General Plan, new development should incorporate noise insulation features if the noise levels exceed the sound level guidelines shown in the land use compatibility chart.

Noise Regulations

The San Francisco Noise Ordinance (Noise Ordinance) regulates both construction noise and stationary-source noise within the City, including noise from transportation, construction, mechanical equipment, entertainment, and human or animal behavior. Found in Article 29, "Regulation of Noise," of the San Francisco Police Code, the Noise Ordinance addresses noise from construction equipment, nighttime construction work, and noise from stationary mechanical equipment and waste processing activities.[43] The following regulations are applicable to the proposed project.

Section 2907, Construction Equipment, and Section 2908, Construction Work at Night

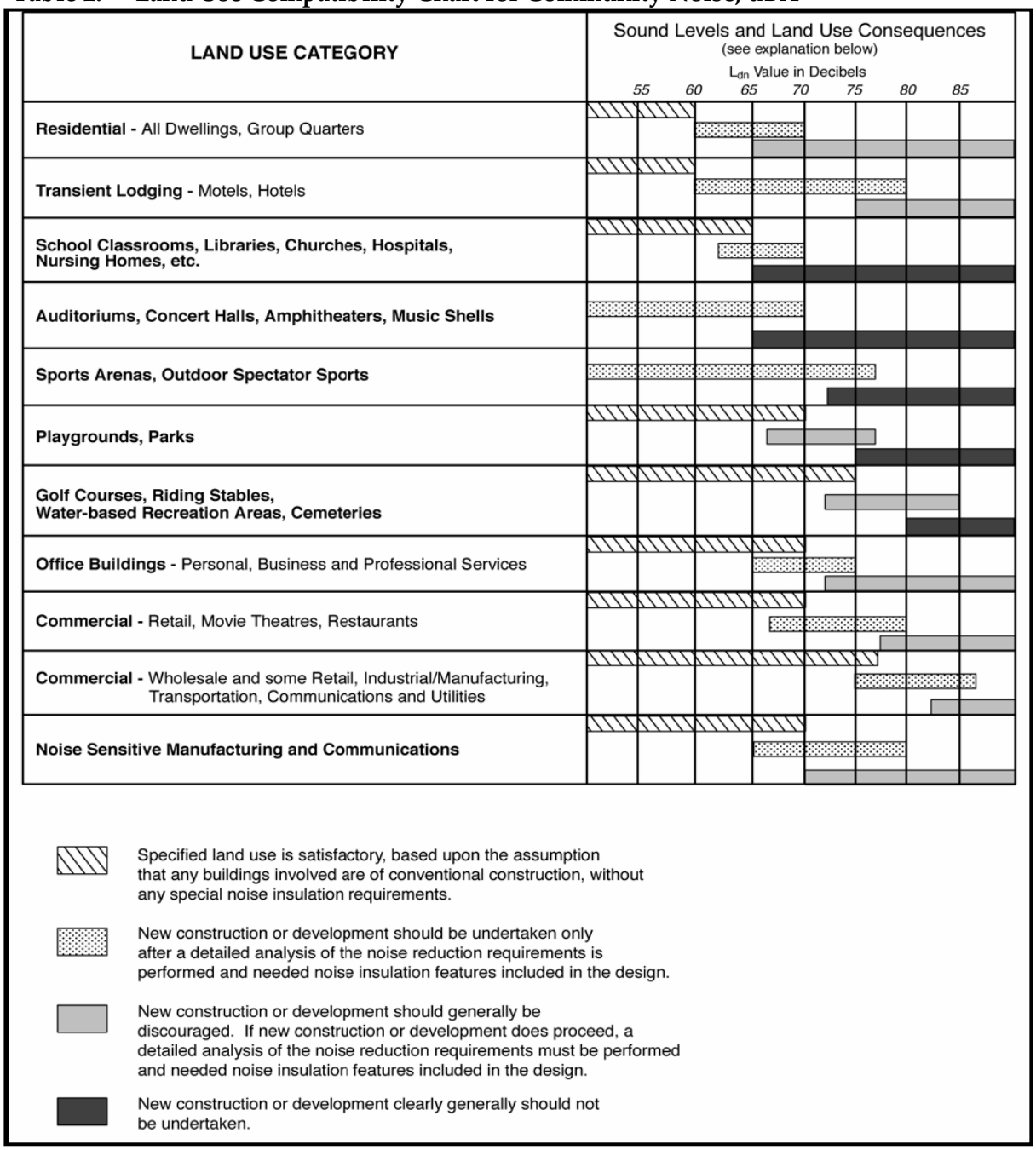
Section 2907(a) requires that construction work be conducted in the following manner: (1) noise levels of construction equipment, other than impact tools, must not exceed 80 dBA at a distance of 100 feet from the source (the equipment generating the noise); (2) impact tools must have intake and exhaust mufflers that are approved by the Director of San Francisco Public Works or the Director of the DBI to best accomplish maximum noise reduction; and (3) if the noise from the construction work would exceed the ambient noise levels at the site property line by 5 dBA, the work must not be conducted between 8:00 p.m. and 7:00 a.m. unless the Director of Public Works authorizes a special permit for conducting the work during that period.

---

[42] City and County of San Francisco, *General Plan, Environmental Protection Element, Map 1 (Background Noise Levels, 2009),* 2009. This document is available for review at: http://generalplan.sfplanning.org/images/I6.environmental/ENV_Map1_Background_Noise%20Levels.pdf.

[43] City and County of San Francisco, *Article 29 of the San Francisco Police Code, Regulation of Noise*, 2012. This document is available for review at: www.amlegal.com/nxt/gateway.dll/California/police/article29regulationofnoise?f=templates$fn=default.htm$3.0$vid=amlegal:sanfrancisco_ca. Accessed April 17, 2017.

Table 2: Land Use Compatibility Chart for Community Noise, dBA



Source: City and County of San Francisco, City of San Francisco General Plan, December 2, 2004. This document is available for review at: www.sf-planning.org/ftp/general_plan/index.htm.

Section 2909, Noise Limits

This section of the Noise Ordinance regulates noise from mechanical equipment and other similar sources. This includes all equipment, such as electrical equipment (transformers, emergency

generators) as well as mechanical equipment that is installed on commercial/industrial and residential properties. Mechanical equipment operating on residential property must not produce a noise level more than 5 dBA above the ambient noise level at the property boundary. Section 2909 also states in subsection (d) that no fixed (permanent) noise source (as defined by the Noise Ordinance) may cause the noise level inside any sleeping or living room in a dwelling unit on residential property to exceed 45 dBA between 10:00 p.m. and 7:00 a.m. or 55 dBA between 7:00 a.m. and 10:00 p.m. when windows are open, except where building ventilation is achieved through mechanical systems that allow windows to remain closed.

Existing Sensitive Receptors

Certain land uses are considered more sensitive to noise than others. Examples of these include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The project site occupies parcels located on the west side of an unimproved section of Folsom Street. Existing uses within the same block consist primarily of two- to three-story medium-density residential uses.

Impact NO-1: The proposed project would not result in exposure of persons to, or generation of, noise levels in excess of standards established in San Francisco's Noise Ordinance, nor would the proposed project result in a substantial permanent increase in ambient noise levels above levels existing without the project. ***(Less-Than-Significant Impact)***

For the purpose of this analysis, operation of the proposed project would result in a significant noise impact if:

1. Implementation of the proposed project would increase ambient noise levels from traffic-generated sources by greater than 3 (dBA)[44] *and* the resulting noise level is greater than the "satisfactory" standards for adjacent land uses cited in Table 2. Land Use Compatibility Chart, below, or
2. Where the existing or existing plus project noise levels are within "satisfactory" standards for adjacent land uses (again, according to Table 2) if implementation of the proposed project

[44] A-weighted decibels, abbreviated dBA, are an expression of the relative loudness of sounds in air as perceived by the human ear. In the A-weighted system, the decibel values of sounds at low frequencies are reduced, compared with unweighted decibels, in which no correction is made for audio frequency.

would result in project-related traffic noise increases above ambient noise levels by more than 5 dBA.

Additionally, the proposed project would result in a significant operational noise impact if noise from the project exceeds the standards in Section 2909 (a) and (d) of the San Francisco Noise Ordinance (Noise Ordinance), discussed above.

As discussed above in **Section H.4, Transportation and Circulation,** the increase in traffic associated with the proposed project would be minimal. An estimated two PM peak-hour vehicle trips would be generated by the project. As such, project-related increases in traffic noise levels are also anticipated to be minimal along Folsom Street and would not be perceptible by the human ear. Therefore, project-related traffic noise on off-site land uses would be less than significant, and no mitigation would be required.

In addition to generating imperceptible traffic-related noise, the proposed project is also anticipated to result in less than significant noise levels associated with operation of mechanical systems. The proposed project would include two residential units, which are not typically associated with high levels of operational noise. In addition, the proposed project's mechanical equipment would be required to comply with the San Francisco Noise Ordinance restricting equipment operating on residential property from generating noise greater than 5 dBA above the ambient noise level at the property boundary and ensuring that the mechanical equipment does not exceed 55 dBA during daytime hours, and 45 dBA during nighttime hours inside nearby residential uses. Therefore, project-related operational noise impacts would be less than significant, and no mitigation would be required.

Impact NO-2: Project demolition and construction would result in a temporary and periodic increase in ambient noise levels in the project vicinity above existing conditions. (*Less-Than-Significant Impact)*

In terms of construction impacts, construction activities are temporary and intermittent. Therefore, for purposes of this analysis, the proposed project would result in significant construction-related impacts if the proposed project's construction noise levels would result in a substantial temporary or periodic increase in ambient noise levels. Construction noise is evaluated for its potential to exceed

the requirements in Section 2907, Construction Equipment, and Section 2908, Construction Work at Night of the Noise Ordinance, and considering other qualitative factors such as duration and frequency of noise events in excess of Noise Ordinance standards.

Short-term noise impacts would occur during demolition, grading and site preparation activities. Construction-related short-term noise levels would be higher than existing ambient noise levels currently in the project area but would cease once construction of the project is completed.

The proposed project would require construction for approximately 12 months. Two types of short-term noise impacts could occur during construction of the proposed project. The first type involves construction crew commutes and the transport of construction equipment and materials to the project site, which would incrementally increase noise levels on roads leading to the site. The excavation of 3516 Folsom Street would include approximately 30 truck trips and the excavation of 3526 Folsom Street would include approximately 25 truck trips. Construction of the proposed project is anticipated to occur over a 12 month period. The concrete required for each foundation slab would require four cement truck trips for each residence (eight, total) plus another four trips per residence for the concrete retaining walls (eight, total). Trucks would access the project site to and from the 101 freeway via Cesar Chavez Street, to Folsom Street and Bernal Heights Boulevard. The improvement of the "paper street" segment of Folsom Street would be performed under a separate Street Improvement Permit issued by the Department of Public Works and the proposed road improvement would require 92 cubic yards of material to be removed from the project site, which would result in approximately seven haul truck trips. Concrete imported onto the project site would require about ten truck trips. Road work would be conducted from the intersection of Folsom Street and Chapman Street.

The second type of short-term noise impact is related to noise generated during excavation, grading, and construction on the project sites. Construction is performed in discrete steps, or phases, each with its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment,

similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

Table 3, below, lists maximum noise levels recommended for noise impact assessments for typical construction equipment, based on a distance of 50 feet between the equipment and a noise receptor. The Noise Ordinance limits construction equipment to 80 dBA at 100 feet. Noise attenuates by approximately 6 dBA to 7.5 dBA per doubling of distance.[45] Therefore, noise levels in Table 3 were adjusted by 6 dBA to generate noise levels of typical construction equipment at 100 feet. As shown in Table 3, there would be a relatively high single-event noise exposure potential at a maximum level of 82 dBA for haul trucks passing at 100 feet. Haul trucks would access the project site to and from the 101 freeway via Cesar Chavez Street, to Folsom Street and Bernal Heights Boulevard. The location nearest the project site on Bernal Heights Boulevard (where Bernal Heights Boulevard meets the Folsom Street right of way, near the Bernal Heights Community Garden) is approximately 115 feet away, and downhill, from the nearest sensitive receptor, with other nearby receptors located 125 feet, 140 feet, and 145 feet away and downhill from Bernal Heights Boulevard.

Typical maximum noise levels for construction equipment range from 76 to 80 dBA at 100 feet. The site preparation phase, including excavation and grading of the site, tends to generate the highest noise levels because earthmoving machinery is the noisiest construction equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings.

[45] The 1.5-dBA variation in attenuation rate (6 dBA vs. 7.5 dBA) can result from ground-absorption effects, which occur as sound travels over soft surfaces such as soft earth or vegetation (7.5 dBA attenuation rate) versus hard ground such as pavement or very hard-packed earth (6 dBA rate) (U.S. Housing and Urban Development, The Noise Guidebook, 1985, p. 24. Available online at https://www.hudexchange.info/onecpd/assets/File/Noise-Guidebook-Chapter-4.pdf. Accessed April 24, 2017.

Table 3: Project Construction Equipment Maximum Noise Levels, L_{max}			
Type of Equipment	**Range of Maximum Sound Levels (dBA at 50 feet)**	**Suggested Maximum Sound Levels for Analysis (dBA at 50 feet)**	**Maximum Sound Levels (dBA) at 100 feet**
Jackhammers	75 to 85	82	76
Pneumatic Tools	78 to 88	85	79
Haul Trucks	83 to 94	88	82
Hydraulic Backhoe	81 to 90	86	80
Hydraulic Excavators	81 to 90	86	80
Air Compressors	76 to 89	86	80
Trucks	81 to 87	86	80
Source: Bolt, Beranek & Newman, 1987. *Noise Control for Buildings and Manufacturing Plants*.			

Sensitive receptors are located immediately adjacent to the proposed project at 55 Gates Street, 61 Gates Street, 65 Gates Street, and 3574 Folsom Street. During the construction period for the proposed project of approximately twelve months, occupants of the nearby properties could be disturbed by construction noise. Times may occur when noise could interfere with indoor activities in nearby residences and other businesses near the project site.

As shown in Table 3, above, construction equipment would comply with the limits in the Noise Ordinance and would not exceed 80 dBA at 100 feet, with the exception of haul trucks. In the case of haul trucks, the noise impact would be less than significant, as the analysis above is based on the maximum value in the range of maximum sound level and estimated noise presented in Table 3 is at a distance 15 feet closer to the nearest actual sensitive receptor to the proposed project. Additionally, the Federal Highway Administration, in a more recent publication than that used above, estimates dump trucks to generate noise at a level closer to 70 dBA at 100 feet, a noise level 24 dBA less than the estimate utilized in the above analysis.[46] Therefore, haul trucks used during construction of the project are anticipated to meet the noise levels in the Noise Ordinance. The increase in noise in the project area during project construction would not be considered a significant impact of the proposed project because the construction noise would be temporary, intermittent, and restricted in occurrence

[46] US Department of Transportation, Federal Highway Administration, *Construction Noise Handbook*, Table 9.1, July 2011.

and level, as the contractor would be required to comply with the Noise Ordinance. Therefore, given the above, construction noise would be less than significant.

Impact NO-3: The proposed project could result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels. ***(Less-Than-Significant Impact with Mitigation Incorporated)***

Project operation associated with residential uses would not generate substantial groundborne noise and vibration. Construction of the proposed project would involve site preparation and other construction activities. It would include the use of construction equipment that could result in groundborne vibration affecting properties adjacent to the project site or to PG&E Pipeline 109. No pile driving, blasting, or substantial levels of excavation or grading activities are proposed.

Given the proposed project's proximity to PG&E Pipeline 109, a construction vibration analysis was performed for the proposed project to assess any potential adverse impact on the Pipeline from vibration due to construction-related equipment and work.[47] The report evaluated vibratory impacts related to excavation of the site for the purpose of developing a proper foundation for the buildings, digging trenches for utilities to the residences, and the extension of Folsom Street for access to the residences.

The analysis assumed work on the proposed project would include:

- For the foundations, the excavation and the installation of a 12-inch to 18-inch thick concrete slab, with a potential of drilling holes for piers. If needed, compaction of the site would be done by hand, and there is potential of hand operated jack hammering being required.
- For the utility trenches, excavation would be done at distances no closer than 5 feet from Pipeline 109. For the street extension, top soil up to as much as 12 inches will be removed, and a cement concrete road surface with a thickness of 8 to 10 inches would be installed.
- For both the foundations and the street extension, the soils from the sites would be transported out by a conveyor belt to Bernal Heights Boulevard.

[47] Illingworth and Rodkin, Inc., *Construction Vibration Evaluation for 3516 and 3526 Folsom Street*, March 24, 2017.

In order to estimate the vibration level at the Pipeline, the analysis utilized the following equation:

$$PPV_{equip}=PPV_{ref}(25/D)^{n}$$

PPV_{equip}: the Peak Particle Velocity (PPV) at 25 feet measured in inches/sec
PPV_{ref}: the PPV at the distance being measured
D: the distance being measured
n: a value determined by soil conditions, ranging from 1.5 to 1[48]

The PPV_{equip} values for the equipment to be used for the proposed were collected from three sources: the Federal Transit Authority (FTA), the New Hampshire Department of Transportation, and from a study of vibration from construction activities for a project at the Haleakala National Park in Hawaii. The PPVs for each pieces of equipment proposed to be used during project construction activities are summarized in the following table:

Table 4: Peak Particle Velocities (PPVs) of Project Construction Equipment

	Source of Data		
Equipment (project phase)	**FTA**	**New Hampshire DOT**	**Haleakala Project**
Excavator (foundation and utility trenches)		0.04 PPV	0.18 PPV
Jackhammer, if needed (foundation)	0.04 PPV		
Small Bulldozer (grading)	0.003 PPV		
Caisson drilling, if needed (piers)	0.09 PPV		

For the purposes of analysis, the higher (more conservative) value of 0.18 was used for the examining the impacts of the excavator. For the n-value in the equation above, the California Department of Transportation (Caltrans) recommends a value of 1.1 for "very stiff" and "firm" soils which, according to the August 2013 soils report, characterize the top 3 to 4 feet of the project site, which is

[48] *Ibid.*

also underlain with chert bedrock.[49] Caltrans suggests an *n*-value of 1.0 for "hard, competent rock: bedrock, exposed hard rock," which characterizes the chert bedrock located beneath the soils on the project site.[50] Utilizing the equation above, a lower *n*-value is associated with a lower PPV level—that is, harder rock reduces vibration more quickly than looser rock or soils. For the purposes of the analysis, however, to obtain a conservative (worst-case) result, an *n*-value of 1.5, the maximum value, was used.

To determine the potential for an adverse impact to the PG&E Pipeline 109, the analysis compared the highest estimated PPV for each piece of equipment at its nearest proximity to the pipe during project work. The criteria for damage to a pipeline due to vibration cover a wide-range of PPV, as documented by Caltrans.[51] For example, a PPV value of 25 in/sec associated with an "explosive near [a] buried pipe" resulted in no damage, as did PPV values for "explosive[s] near [a] buried pipe" of 50-150 PPV. The analysis prepared for the proposed project utilized a conservative 12 inches/second, a value based on the West Roxbury Lateral Project in Massachusetts, as the criteria for potential damage to the pipe.[52]

The calculated maximum PPVs for each type of equipment proposed to be used during project construction activities are summarized below in Table 5.

[49] H. Allen Gruen, *Report Geotechnical Investigation Planned Residence at 3516 Folsom Street, San Francisco, California*, August 3, 2013.

[50] Illingswoth & Rodkin Inc, Memo: *Ground Characteristics and Effect on Predicted Vibration*, April 14, 2017.

[51] California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, September 2013, page 76.

[52] The analysis notes that buried pipes can withstand higher PPV because they are constrained and do not amplify ground motion, like freestanding structures, like historic buildings, do. According to the Caltrans report cited in the analysis, PPV values as high as 150 have been shown to not harm underground pipes.

Table 5: PPV Estimates and Damage Potential of Project Construction Equipment			
Equipment (project phase)	**Closest Proximity to Pipe**	**Highest Estimated PPV (inches/second)**	**Damage criteria PPV at the Pipeline (inches/second)**
Excavator (foundation)	13 feet	0.48	12
Jackhammer (foundation)	13 feet	0.11	12
Drilling (piers)	12 feet	0.24	12
Small bulldozer (road construction)	1 foot	0.38	12
Excavator (utility trenches)	5 feet	2.01	12

Although the vibration assessment for the proposed project is based on damage criteria of 12 in/sec, PG&E has evaluated the proposed project and, through its regulatory authority for work in proximity to its pipeline, has set a PPV standard of 2 in/sec for this section of Pipeline 109.[53] It is noted that this standard is highly conservative in that it is a factor of 10 lower (more stringent) than the already conservative damage criteria used in the vibration assessment.

As discussed above, on page 22, the proposed project would be required to comply with PG&E regulations for construction work within 10 feet of a pipeline. These requirements include the physical presence of a PG&E inspector whenever work within 10 feet of a pipeline is performed; grading and digging standards; the placement of pipeline markers during demolition and construction; standards for construction machinery and loading near and on top of underground pipelines; and limitations on placing landscaping, structures or fencing within certain distances from the pipeline. These practices, as required by law, are in place to ensure construction activities do not substantially affect underground services, including natural gas pipelines. Furthermore, the proposed project, including street improvements, would be subject to the same PG&E plan approvals and oversite as other excavation and street improvements in San Francisco.

[53] PG&E Gas Transmission Pipeline Services—Integrity Management, 3516/26 Folsom Street, March 30, 2017.

In accordance with CEQA, the Planning Department does not require mitigation measures for impacts that would be less than significant through compliance with applicable regulatory requirements. Further, the vibration analysis for the project indicates that the proposed project would not exceed PG&E's highly conservative 2 in/sec PPV value (which is measured as a value rounded to a whole number). However, in an abundance of caution for the purposes of this project's environmental evaluation, this Initial Study finds that project construction would have a significant vibration impact to Pipeline 109. Implementation of Mitigation Measure M-NO-3: Vibration Management would reduce this impact of the proposed project to a less-than-significant level.

At its meeting of September 12, 2017, the Board of Supervisors adopted Motion No. M17-152, which stated the following regarding the environmental review of the proposed project:

- "…That this Board of Supervisors directs the Planning Department to provide additional information and analysis regarding whether the proposed project construction would result in vibration impacts on PG&E Pipeline No. 109 that could create a risk to public safety;
- "…In conducting any such additional environmental analysis, the Planning Department shall enlist an independent qualified expert to use all appropriate methods to determine the location, depth and condition of Pipeline No. 109 in the project area and prepare a Vibration Management Plan for the project prior to the issuance of the revised environmental review document;
- "…That the Vibration Management Plan shall specify what types of construction equipment may be used at the project and any limitations on the use or storage of such equipment in the project vicinity, the specific roles of the Planning Department, Department of Building Inspection, PG&E and any other necessary party in monitoring and enforcing the recommendations of the Vibration Monitoring Plan, and any appropriate safety protocols that must be employed during project construction, including communications between the contractors and PG&E, to reduce the risk of damage to the pipeline;
- "…That a site-specific Emergency Response and Evacuation Plan be prepared to ensure adequate access for emergency response and the ability for a safe and timely evacuation;
- "…That the Vibration Management Plan shall be reviewed and approved by the Planning Department and PG&E, and the Emergency Response and Evacuation Plan shall be reviewed

and approved by the Fire Department, Planning Department, and PG&E, prior to issuance of the revised environmental review document;

- "…That the Planning Department shall incorporate any recommendations of the approved Vibration Management Plan into the mitigation included in the revised environmental review document;
- "…As to all other issues, the Board finds the FMND conforms to the requirements of CEQA and is adequate, accurate, and objective, the record does not include substantial evidence to support a fair argument that the project may have a significant effect on the environment, and no further analysis is required."

An Emergency Response and Evacuation Plan was prepared for the proposed project, was reviewed and approved by the San Francisco Fire Department, the Planning Department and PG&E, and is included as part of the project description, above.[54]

A Vibration Management Plan was prepared for the proposed project and was reviewed and approved by PG&E and the Planning Department.[55] Recommendations from the Vibration Management Plan are included in **Mitigation Measure M-NO-3, Vibration Management**, below.

An independent review of the Vibration Management Plan was also conducted by a third-party qualified expert.[56] The engineering review focused on the technical accuracy of the Vibration Management Plan, and reviewed comments raised by prior appellants relevant to the engineering review of the Plan. The Plan was found in the independent review to be technically accurate and consistent with common engineering practice. The review found that, while there is inherent uncertainty associated with vibration analysis, the Plan authors prudently chose to make conservative assumptions in developing equipment vibration source levels from standard references

[54] Letter from San Francisco Fire Department to Dan Sider, Fabian Lannoye, January 10, 2019. See Footnote above related to Fire Department and Planning Department approval.

[55] Letter from PG&E Gas Transmission Pipeline Services—Integrity Management, November 13, 2018; see March 17, 2020 approval letter from Planning Department.

[56] Buehler, David, P.E. INCE Bd. Cert., October 17, 2019, Review of Vibration Management Plan Prepared for 3516-3526 Folsom Residential Construction.

and in calculating vibration levels at various distances. The review also found that the Plan provides a detailed approach to monitoring and limiting vibration on the project site and includes a factor of safety of 6.0 relative to the buried pipeline criterion. Specifically, a vibration level of 12 in/sec PPV was found to be a reasonable vibration criterion for a buried pipeline, but under the Vibration Monitoring and Management Plan, work would be stopped if vibration reaches 2 in/sec PPV, which is a factor of safety of 6 (i.e., 2 in/sec PPV multiplied by 6 results in a vibration level of 12 in/sec PPV).

Implementation of Mitigation Measures M-NO-3 would ensure that PPV values remain at or below PG&E's 2 in/sec PPV value. With implementation of M-NO-3, below, there would be no possibility of a significant vibration effect on PG&E's Pipeline 109.

Mitigation Measure M-NO-3, Vibration Management ~~Plan~~:

The project sponsor shall implement all recommendations included in the Vibration Monitoring Plan approved by PG&E on November 13, 2018 and the Planning Department on March 17, 2020. These recommendations include the following.

The project sponsor shall monitor vibration levels continuously during construction. Prior to construction activities, the monitoring equipment shall be installed and checked for proper operation and connectivity to the internet by the project sponsor and by PG&E. After the installation is verified, pre-construction vibration levels will be monitored for a week, if the schedule allows. The project sponsor shall install two geophones (devices used for detecting vibration through rocks, soil or ice) approximately 6 inches away from Pipeline 109, to the depth of the pipeline, positioned to the west side of the pipeline toward the construction site. The project sponsor shall maintain these monitoring locations throughout the construction activities of concern: building foundation excavation, utility trenching, and the street extension. The output of these geophones shall be transmitted to two battery powered vibration loggers (Instantel MiniMate Plus seismographs or equivalent). The project sponsor shall house this equipment in two 30x16x12 inch metal containers which will be secured appropriately on the site and placed at a distance such as not to interfere with construction activities. The Peak Particle Velocity (PPV) will be logged in 10-second intervals for comparison to the 2.0 in/sec limit.

The project sponsor shall install warning lights on the equipment boxes, programmed to illuminate if the level reaches 2.0 in/sec. Additionally, the project sponsor shall connect each project seismograph to a wireless data modem which shall send an alert to pre-determined cell phones or email addresses in case the vibration limit is reached. These alerts shall go to Illingworth & Rodkin, Inc. (I&R) personnel assigned to the project, the on-site construction manager or other persons authorized to halt construction activities, and any other personnel authorized by the project manager. Using this system, the monitoring will be typically unattended.

A project team technician shall check the vibration monitoring equipment on a weekly basis, and equipment battery replacement and other maintenance shall be completed at this time. All project seismographs shall be programmed to complete a daily self-check of the geophone response during non-construction hours. The levels collected for the week shall be reviewed by I&R personnel to determine if levels are approaching the threshold.

If the level of construction vibration reaches 2.0 in/sec, construction shall be halted. The construction manager (or designee) shall attempt to identify the construction activity responsible. If necessary, I&R personnel will assist in this identification on-site.

~~The Project Sponsor shall retain the services of a qualified structural engineer to develop, and the Project Sponsor shall adopt, a vibration management and continuous monitoring plan to cover any construction equipment operations performed within 20 feet of PG&E Pipeline 109. The vibration management and monitoring plan shall be submitted to PG&E and Planning Department staff for review and approval prior to issuance of any construction permits. The vibration management plan shall include:~~

- ~~**Vibration Monitoring**: Continuous vibration monitoring throughout the duration of the major structural project activities to ensure that vibration levels do not exceed the established standard.~~

Maximum PPV Vibration Levels: Maximum PPV vibration levels for any equipment shall be less than 2 inches per second (in/sec). Should maximum PPV vibration levels exceed 2 in/sec, all construction work shall stop, and PG&E shall be notified to oversee further work.

Work Beyond 10 Feet of Pipeline 109: Whenever construction would occur on-site beyond 10 feet of Pipeline 109, the on-site Project Manager shall manage the vibration monitoring equipment. If the vibration monitoring equipment indicates vibration levels above 2 in/second, the Project Manager shall stop all construction activity. The Project Manager or their agent would then contract the PG&E pipeline engineer responsible for the San Francisco area (at the time of publication of this ~~P~~MND, Elpinike Pappous). If a gas leak is detected, the project manager (or the PG&E pipeline engineer, if present) would call Gas Control at 1-800-811-4111. Gas Control would communicate with SFFD and SFPD as well as other first responders. In addition, PG&E leak survey personnel would be deployed to survey the pipeline in the immediate vicinity of the vibration. Response time would be a maximum of 3 hours and the survey would be completed within the same business day. In the event of any work stoppage, work would only resume when PG&E informs the project sponsor.

Standby Inspection for Work Within 10 Feet of Pipeline 109: A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity within 10 feet of the gas pipeline(s). This includes all grading, trenching, gas line depth verifications (potholes), asphalt or concrete demolition/removal, removal of trees, signs, light poles, etc. This inspection would be coordinated through the Underground Service Alert (USA) service at **811 or 1-800-227-2600**. A minimum notice of 48 hours is required. If vibration levels exceed 2 inches per second, the PG&E inspector would ensure that all construction activity ceases and call the PG&E pipeline engineer responsible for the SF area (Elpinike Pappous, 925-872-1027, or authorized agent).

For any gas-related emergencies, such as leaks, the contractor would call Gas Control at 1-800-811-4111 (if the PG&E Inspector is present, the inspector would call Gas Control). Gas Control would then communicate with the San Francisco Fire Department (SFFD) and the San Francisco Police Department (SFPD), as well as other first responders. PG&E leak survey personnel would be deployed to survey the pipeline in the immediate vicinity of the vibration to verify that damage had not occurred. Response time would be a maximum of 3 hours and the survey would be completed within the same business day. Work can only resume with PG&E authorization.

Grading/Excavation: Any excavations, including grading work, above or around Pipeline 109 must be performed with a PG&E inspector present. This includes all laterals, subgrades, and gas line depth verifications (potholes). Work in the vicinity of Pipeline 109 must be completed consistent with PG&E Work Procedure TD-4412P-05 "Excavation Procedures for Damage Prevention." Any plans to expose and support Pipeline 109 across an open excavation must be approved by PG&E Pipeline Engineering in writing prior to performing the work. Any grading or digging within two (2) feet of Pipeline 109 shall be dug by hand. Water jetting to assist vacuum excavating must be limited to 125 pounds per square inch gage (psig).

Pipeline Markers: Prior to the commencement of project activity, pipeline markers must be placed along the pipeline route. With written PG&E approval, any existing markers can be temporarily relocated to accommodate construction work, but must be reinstalled once construction is complete.

Fencing: No parallel fencing is allowed within 10 feet of Pipeline 109 and any perpendicular fencing shall require 14 foot access gates to be secured with PG&E corporation locks.

Structures: Permanent structures must be located a minimum distance of 10 feet from the edge of Pipeline 109. A total width of 45 feet shall be maintained for pipeline maintenance. No storage of construction or demolition materials is permitted within this 45 foot zone.

Construction Loading: To operate or store any construction equipment within 10 feet of Pipeline 109 that exceeds the half-axle wheel load (half axle weight is the gross weight upon any one wheel, or wheels, supporting one end of an axle) in the table below, approval from a PG&E gas transmission pipeline engineer is required. Pipeline 109 may need to be potholed by hand in to confirm the depth of the existing cover. These weight limits also depend on the support provided by the Pipeline's internal gas pressure. If PG&E's operating conditions require the Pipeline to be depressurized, maximum wheel loads over the pipeline will need to be further limited. For compaction within two feet of Pipeline 109, walk-behind compaction equipment shall be required. Crane and backhoe outriggers shall be set at least 10 feet from the centerline of Pipeline 109. Maximum PPV vibration levels for any equipment shall be less than 2 in/sec.

Depth of Cover to Top of Pipe (ft.)	Maximum Half-Axle Wheel Loading (lbs)
2	4,580
3	6,843
4	7,775
5	7,318

At all times, the project sponsor shall:

- Ensure that trained personnel, knowledgeable about emergency procedures, be on-site during all project work.
- Comply with all CalOSHA regulations regarding shoring and excavation.
- Comply with all City and County of San Francisco regulations regarding shoring and excavation.
- Remove all combustible scrap and debris at regular intervals during the course of construction.
- Prohibit smoking on the jobsite and in the vicinity of operations including the posting of "No Smoking or Open Flame" signs.
- Keep the storage site free of the accumulation of unnecessary combustible materials.
- Ensure that all materials are stored, handled, and piled with due regard to their fire characteristics.
- Ensure that noncompatible materials, which may create a fire hazard, be segregated by a barrier having a fire resistance of at least 1 hour.
- Ensure that material would be piled to minimize the spread of fire internally and to permit convenient access for firefighting.

With implementation of **Mitigation Measure M-NO-3** significant vibration impacts to PG&E's Pipeline 109 would be reduced to a less-than-significant level.

Impact NO-4: The proposed project would not be substantially affected by existing noise levels. *(Not Applicable)*

This impact is only to be analyzed if the proposed project would exacerbate the existing noise environment. Impact NO-1 concluded the proposed project would not result in a significant noise impact. Therefore, this impact need not be analyzed. Impacts NO-2 and No-3 address construction related noise and vibration impacts, which would not affect the proposed project as the project site would not be occupied until completion of construction activities. However, the following is provided for informational purposes.

Roadway noise is the predominant source of noise in the project vicinity. The City's background noise levels map identifies the project site to be exposed to traffic noise levels between 55 and 60 dBA L_{dn}.[57] The City's land use compatibility chart shows that "satisfactory" sound levels for residential land uses are 60 dBA L_{dn} for outdoor environments. For indoor environments, the noise level inside any sleeping or living room in a dwelling unit on residential property should not exceed 45 dBA between 10:00 p.m. and 7:00 a.m. or 55 dBA between 7:00 a.m. and 10:00 p.m.

According to the City's General Plan, new development should incorporate noise insulation features if the noise levels exceed the sound level guidelines shown in the land use compatibility chart. The proposed project would be required to comply with the California Noise Insulation Standards in Title 24. The Title 24 acoustical requirement for residential structures is incorporated into Section 1207 of the San Francisco Building Code and requires these structures be designed to prevent the intrusion of exterior noise so that the noise level with windows closed, attributable to exterior sources, shall not exceed 45 dBA in any habitable room. With use of standard construction materials and compliance to the Title 24 standards, the proposed project would feasibly attain acceptable interior noise levels.

Impact C-NO-1: The proposed project in combination with past, present, and reasonably foreseeable future projects would not create a significant cumulative noise or vibration impact. *(Less-Than-Significant Impact)*

[57] City and County of San Francisco, *General Plan, Environmental Protection Element, Map 1 (Background Noise Levels, 2009),* 2009. This document is available for review at: http://generalplan.sfplanning.org/images/I6.environmental/ENV_Map1_Background_Noise%20Levels.pdf.

Construction

Construction of the proposed project, such as excavation, grading, or demolition and construction of other buildings in the area, would occur on a temporary and intermittent basis. In general, compliance with Noise Ordinance requirements would maintain the noise impact from project construction at a Less Than Significant level. Project construction-related noise would not substantially increase ambient noise levels at locations greater than a few hundred feet from the project site. There are no future projects identified within the immediate vicinity of the site that would have the potential to result in cumulative construction noise or vibration impacts.

Operations

The proposed project would include new fixed noise sources that would produce operational noise on the project site, as well as new mobile sources. The project-related contribution of two PM peak-hour vehicle trips would represent a small fraction of existing traffic volumes and would be imperceptible. In addition, any new residents that would result from implementation of the cumulative development in the project vicinity would generate a similarly low amount of new PM peak-hour trips. Furthermore, the proposed project and future projects in the vicinity primarily consist of residential uses, which are uses that do not typically generate substantial sources of operational noise, and would be subject to the Noise Ordinance's requirements for residential noise limits.

Given this, the proposed project, in combination with past, present, and reasonably foreseeable future projects would not result in considerable contribution to a permanent increase in noise or vibration in the project area. This impact would be less than significant and no mitigation measure is required.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	Not Applicable
6.	**AIR QUALITY— Would the project:**					
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐	☐
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐	☐
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal, State, or regional ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐	☐
e)	Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐	☐

The San Francisco Bay Area Air Basin (SFBAAB) encompasses San Francisco, Alameda, Contra Costa, San Mateo, and Napa Counties, and includes parts of Solano and Sonoma Counties. Although air quality in the air basin has generally improved over the last several decades, elevated levels of ozone, carbon monoxide, and particulate matter have been observed. The federal Clean Air Act and California Clean Air Act contain ambient air standards and related air quality reporting systems to be used by regional regulatory agencies in developing air pollution control measures. The Bay Area Air Quality Management District (BAAQMD) is the primary responsible regulatory agency in the Bay Area for planning, implementing, and enforcing the federal and State ambient air quality standards for criteria pollutants. Criteria air pollutants include carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter ($PM_{2.5}$ and PM_{10}), and lead.

In most of the Bay Area, transportation-related sources account for a majority of air pollutant emissions. Therefore, a major focus of the BAAQMD is on reducing vehicle trips associated with new development. Localized air quality issues include CO hotspots associated with traffic.

Health Vulnerable Locations

San Francisco adopted Article 38 of the San Francisco Health Code in 2008, requiring an Air Quality Assessment for new residential projects of 10 or more units located in proximity to high-traffic roadways, as mapped by the Department of Public Health (DPH), to determine whether residents would be exposed to unhealthful levels of $PM_{2.5}$. The air quality assessment evaluates the concentration of $PM_{2.5}$ from local roadway traffic that may impact a proposed residential development site. If the DPH air quality assessment indicates that the annual average concentration of $PM_{2.5}$ at the site would be greater than 0.2 $\mu g/m^3$, Health Code Section 3807 requires development on the site to be designed or relocated to avoid exposure greater than 0.2 $\mu g/m^3$, or a ventilation system to be installed that would be capable of removing 80 percent of ambient $PM_{2.5}$ from habitable areas of the residential units. The proposed project consists of four residential units and, according to the City's Air Pollutant Exposure Zone Map, the proposed project is not within the air pollutant exposure zone.[58]

Impact AQ-1: Implementation of the proposed project would not conflict with or obstruct implementation of the local applicable air quality plan. *(Less-Than-Significant Impact)*

The applicable air quality plan is the BAAQMD's 2017~~0~~ Clean Air Plan, which was adopted on April 19, 2017. The Clean Air Plan is a comprehensive plan to improve Bay Area air quality and protect public health. The Clean Air Plan defines a control strategy to reduce emissions and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduce greenhouse gas emissions to protect the climate. Consistency with the Clean Air Plan can be determined if the project does the following: 1) supports the goals of the Clean Air Plan; 2) includes applicable control measures from the Clean Air Plan; and 3) would not disrupt or hinder implementation of any control measures from the Clean Air Plan.

The 2017 Clean Air Plan include~~s~~ measures and programs to reduce emissions of fine particulates and toxic air contaminants. In addition, the Regional Climate Protection Strategy is included in the 2017

[58] City and County of San Francisco. *Air Pollutant Exposure Zone Map*. April 10, 2014. This document is available for review at: www.sfdph.org/dph/files/EHSdocs/AirQuality/AirPollutantExposureZoneMap.pdf.

Clean Air Plan, which identifies rules, control measures, and strategies that the BAAQMD can pursue to reduce greenhouse gases throughout the Bay Area.

The proposed project would not conflict with any of the control measures identified in the plan or designed to bring the region into attainment. Additionally, the proposed project would not substantially increase the population, vehicle trips, or vehicle miles traveled. The proposed project would not hinder the region from attaining the goals outlined in the Clean Air Plan. Therefore, the proposed project would not hinder or disrupt implementation of any control measures from the Clean Air Plan.

Additionally, as indicated in the analysis that follows, below, the proposed project would result in Less Than Significant operational and construction-period emissions.

Impact AQ-2: Implementation of the proposed project would not violate an air quality standard or contribute substantially to an existing or projected air quality violation. *(Less-Than-Significant Impact)*

The proposed project would generate air emissions during project construction and operation. Long-term operational emissions are associated with stationary sources and mobile sources. Stationary source emissions result from the consumption of natural gas and electricity. Mobile source emissions result from vehicle trips and result in air pollutant emissions affecting the entire air basin. Short-term construction emissions would occur in association with construction activities, including demolition, excavation, and vehicle/equipment use.

Operational Air Quality Emissions

Long-term air emission impacts are those associated with area sources and mobile sources related to the proposed project. In addition to the short-term construction emissions, the project would also generate long-term air emissions, such as those associated with changes in permanent use of the project site. These long-term emissions are primarily mobile source emissions that would result from vehicle trips associated with the proposed project. Area sources, such as natural gas heaters, landscape equipment, and use of consumer products, would also result in pollutant emissions.

The BAAQMD has developed screening criteria to provide lead agencies with a conservative indication of whether the proposed project would result in potentially significant air quality impacts. If all of the screening criteria are met by a proposed project, then the lead agency would not need to perform a detailed air quality assessment of the proposed project's emissions. These screening levels are generally representative of new development without any form of mitigation measures taken into consideration. In addition, the screening criteria do not account for project design features, attributes, or local development requirements that could also result in lower emissions.

For single family land uses, the BAAQMD screening size for operational criteria pollutants is 325 dwelling units. Since the proposed project would only include two dwelling units, based on the BAAQMD's screening criteria, operation of the proposed project would result in a Less-Than-Significant Impact to air quality from criteria air pollutant and precursor emissions and no mitigation measures would be required.

Localized CO Impacts

The BAAQMD has also established a screening methodology that provides a conservative indication of whether the implementation of a proposed project would result in significant CO emissions. According to the BAAQMD CEQA Guidelines, a proposed project would result in a less-than significant impact to localized CO concentrations if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, and the regional transportation plan and local congestion management agency plans.
- Project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, or below-grade roadway).

Implementation of the proposed project would not conflict with the San Francisco County Transportation Authority San Francisco Transportation Plan (SFTP) for designated roads or highways, a regional transportation plan, or other agency plans. The project site is not located in an area where vertical or horizontal mixing of air is substantially limited. In addition, the proposed project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour and would not result in localized CO concentrations that exceed State or federal standards. This impact would be less than significant and no mitigation measures would be required.

Construction Emissions

During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by excavation, grading, hauling, and other activities. Emissions from construction equipment are also anticipated and would include CO, NO_x, ROG, directly-emitted particulate matter ($PM_{2.5}$ and PM_{10}), and toxic air contaminants (TACs) such as diesel exhaust particulate matter.

As discussed above, the BAAQMD has developed screening criteria to provide lead agencies with a conservative indication of whether the proposed project would result in potentially significant air quality impacts. If all of the screening criteria are met by a proposed project, then the lead agency would not need to perform a detailed air quality assessment of the proposed project's emissions. For single family residential land uses, the BAAQMD screening size for construction criteria pollutants is 114 dwelling units. Since the proposed project would only include two dwelling units, based on the BAAQMD's screening criteria, construction of the proposed project would result in a Less-Than-Significant Impact to air quality from criteria air pollutant and precursor emissions and no mitigation measures would be required.

Impact AQ-3: Implementation of the proposed project would not result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal, State, or regional ambient air quality standard. ***(Less-Than-Significant Impact)***

CEQA defines a cumulative impact as two or more individual effects, which when considered together, are considerable or which compound or increase other environmental impacts. According to the BAAQMD, air pollution is largely a cumulative impact and no single project is sufficient in size to itself result in nonattainment of ambient air quality standards. In developing the thresholds of

significance for air pollutants used in the analysis above, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The BAAQMD CEQA Air Quality Guidelines indicate that if a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. If daily average or annual emissions of operational-related criteria air pollutants exceed any applicable threshold established by the BAAQMD, the proposed project would result in a cumulatively significant impact.

As discussed above, implementation of the proposed project would generate Less Than Significant criteria air pollutant and precursor emissions. Therefore, the project would not make a cumulatively considerable contribution to regional air quality impacts. No mitigation measures would be required.

Impact AQ-4: Implementation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations. ***(Less-Than-Significant Impact)***

Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Individuals particularly vulnerable to diesel particulate matter are children, whose lung tissue is still developing, and the elderly, who may have serious health problems that can be aggravated by exposure to diesel particulate matter. Exposure from diesel exhaust associated with construction activity contributes to both cancer and chronic non-cancer health risks. As noted above, the project site is not located within an Air Pollutant Exposure Zone.

Excessive Cancer Risk

According to the BAAQMD, a project would result in a significant impact if it would: individually expose sensitive receptors to TACs resulting in an increased cancer risk greater than 10.0 in one million, increased non-cancer risk of greater than 1.0 on the hazard index (chronic or acute), or an annual average ambient $PM_{2.5}$ increase greater than 0.3 $\mu g/m^3$. A significant cumulative impact would occur if the project in combination with other projects located within a 1,000-foot radius of the project sites would expose sensitive receptors to TACs resulting in an increased cancer risk greater than 100.0 in one million, an increased non-cancer risk of greater than 10.0 on the hazard index (chronic), or an

ambient $PM_{2.5}$ increase greater than 0.8 $\mu g/m^3$ on an annual average basis. Impacts from substantial pollutant concentrations are discussed below. As discussed below, this impact would be less than significant.

The project site is located in a residential neighborhood, and the closest sensitive receptors are residential uses located immediately adjacent to the proposed project. Construction of the proposed project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, project construction emissions would be below the BAAQMD's significance thresholds and once the project is constructed, the project would not be a source of substantial emissions. Therefore, sensitive receptors are not expected to be exposed to substantial pollutant concentrations during project construction or operation, and potential impacts would be considered less than significant.

Based on the foregoing, the proposed project would not expose sensitive receptors substantial pollutant contributions. Therefore, this impact would be less than significant, and no mitigation measures would be required.

Impact AQ-5: Implementation of the proposed project would not create objectionable odors affecting a substantial number of people. ***(Less-Than-Significant Impact)***

During project construction, some odors may be present due to diesel exhaust. However, these odors would be temporary and limited to the construction period. The proposed project would not include any activities or operations that would generate objectionable odors and once operational, the project would not be a source of odors. Therefore, the proposed project would not create objectionable odors affecting a substantial number of people, and no mitigation is required.

Impact C-AQ-1: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area would not contribute to a cumulative air quality impact. ***(Less-Than-Significant Impact)***

As discussed above, regional air pollution is by its very nature largely a cumulative impact. Emissions from past, present, and future projects contribute to the region's adverse air quality on a

cumulative basis. No single project by itself would be sufficient in size to result in regional nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative adverse air quality impacts. The project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, because the proposed project's construction and operational emissions would not exceed the project-level thresholds for criteria air pollutants, the proposed project would not result in a cumulatively considerable contribution to regional air quality impacts. This impact would be less than significant and no mitigation measures would be required.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less-Than-Significant Impact*	*No Impact*	*Not Applicable*
7. 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 any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐	☐

Greenhouse gas (GHG) emissions and global climate change represent cumulative impacts. GHG emissions cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects have contributed and will continue to contribute to global climate change and its associated environmental impacts.

The Bay Area Air Quality Management District (BAAQMD) has prepared guidelines and methodologies for analyzing GHGs. These guidelines are consistent with CEQA Guidelines Sections 15064.4 and 15183.5 which address the analysis and determination of significant impacts from a proposed project's GHG emissions. CEQA Guidelines Section 15064.4 allows lead agencies to rely on a qualitative analysis to describe GHG emissions resulting from a project. CEQA Guidelines Section

15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of GHGs and describes the required contents of such a plan. Accordingly, San Francisco has prepared *Strategies to Address Greenhouse Gas Emissions*[59] which presents a comprehensive assessment of policies, programs, and ordinances that collectively represent San Francisco's qualified GHG reduction strategy in compliance with the CEQA guidelines. These GHG reduction actions have resulted in a 23.3 percent reduction in GHG emissions in 2012 compared to 1990 levels,[60] exceeding the year 2020 reduction goals outlined in the BAAQMD's *Bay Area 2010 Clean Air Plan,* Executive Order (EO) S-3-05, and Assembly Bill (AB) 32 (also known as the Global Warming Solutions Act).[61] Given that the City' has met the State and region's 2020 GHG reduction targets and San Francisco's GHG reduction goals are consistent with, or more aggressive than, the long-term goals established under EO S-3-05[62], EO B-30-15,[63,64] and Senate Bill (SB) 32 [65,66] the City's GHG reduction goals are

[59] San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco,* 2010. This document is available online at: http://www.sf-planning.org/index.aspx?page=2627.

[60] ICF International, *Technical Review of the 2012 Community-wide GHG Inventory for the City and County of San Francisco,* January 21, 2015. Available at http://sfenvironment.org/sites/default/files/fliers/files/icf_verificationmemo_2012sfecommunityinventory_2015-01-21.pdf, accessed March 16, 2015.

[61] Executive Order S-3-05, Assembly Bill 32, and the *Bay Area 2010 Clean Air Plan* set a target of reducing GHG emissions to below 1990 levels by year 2020.

[62] Office of the Governor, Executive Order S-3-05, June 1, 2005. Available at http://www.pcl.org/projects/2008symposium/proceedings/Coatsworth12.pdf, accessed March 16, 2016. Executive Order S-3-05 sets forth a series of target dates by which statewide emissions of GHGs need to be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 million metric tons of carbon dioxide equivalents ($MTCO_2E$)); by 2020, reduce emissions to 1990 levels (approximately 427 million $MTCO_2E$); and by 2050 reduce emissions to 80 percent below 1990 levels (approximately 85 million $MTCO_2E$). Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

[63] Office of the Governor, *Executive Order B-30-15,* April 29, 2015. Available at https://www.gov.ca.gov/news.php?id=18938, accessed March 3, 2016. Executive Order B-30-15, issued on April 29, 2015, sets forth a target of reducing GHG emissions to 40 percent below 1990 levels by 2030 (estimated at 2.9 million $MTCO_2E$).

[64] San Francisco's GHG reduction goals are codified in Section 902 of the Environment Code and include: (i) by 2008, determine City GHG emissions for year 1990; (ii) by 2017, reduce GHG emissions by 25 percent below 1990 levels; (iii) by 2025, reduce GHG emissions by 40 percent below 1990 levels; and by 2050, reduce GHG emissions by 80 percent below 1990 levels.

[65] Senate Bill 32 amends California Health and Safety Code Division 25.5 (also known as the California Global Warming Solutions Act of 2006) by adding Section 38566, which directs that statewide greenhouse gas emissions to be reduced by 40 percent below 1990 levels by 2030.

[66] Senate Bill 32 was paired with Assembly Bill 197, which would modify the structure of the State Air Resources Board; institute requirements for the disclosure of greenhouse gas emissions criteria pollutants, and toxic air contaminants; and establish requirements for the review and adoption of rules, regulations, and measures for the reduction of greenhouse gas emissions.

consistent with EO S-3-05, EO B-30-15, AB 32, SB 32 and the *Bay Area 2010 Clean Air Plan*. Therefore, proposed projects that are consistent with the City's GHG reduction strategy would be consistent with the aforementioned GHG reduction goals, would not conflict with these plans or result in significant GHG emissions, and would therefore not exceed San Francisco's applicable GHG threshold of significance.

The following analysis of the proposed project's impact on climate change focuses on the project's contribution to cumulatively significant GHG emissions. Because no individual project could emit GHGs at a level that could result in a significant impact on the global climate, this analysis is in a cumulative context, and this section does not include an individual project-specific impact statement.

Impact C-GG-1: The proposed project would generate greenhouse gas emissions, but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing greenhouse gas emissions. (*Less-Than-Significant Impact*)

Individual projects contribute to the cumulative effects of climate change by directly or indirectly emitting GHGs during construction and operational phases. Direct operational emissions include GHG emissions from new vehicle trips and area sources (natural gas combustion). Indirect emissions include emissions from electricity providers; energy required to pump, treat, and convey water; and emissions associated with waste removal, disposal, and landfill operations.

The proposed project would increase the intensity of use of the site by constructing two residential units on a currently vacant site. Therefore, the proposed project would contribute to annual long-term increases in GHGs as a result of increased vehicle trips (mobile sources) and residential operations that result in an increase in energy use, water use, wastewater treatment, and solid waste disposal. Construction activities would also result in temporary increases in GHG emissions.
The proposed project would be subject to regulations adopted to reduce GHG emissions as identified in the GHG reduction strategy. As discussed below, compliance with the applicable regulations would reduce the project's GHG emissions related to transportation, energy use, waste disposal, wood burning, and use of refrigerants.

Compliance with the City's bicycle parking requirements would reduce the proposed project's transportation-related emissions. These regulations reduce GHG emissions from single-occupancy vehicles by promoting the use of alternative transportation modes with zero or lower GHG emissions on a per capita basis.

The proposed project would be required to comply with the energy efficiency requirements of the City's Green Building Code which would promote energy and water efficiency, thereby reducing the proposed project's energy-related GHG emissions.[67]
The proposed project's waste-related emissions would be reduced through compliance with the City's Recycling and Compositing Ordinance, and Construction and Demolition Debris Recovery Ordinance. These regulations reduce the amount of materials sent to a landfill, reducing GHGs emitted by landfill operations. These regulations also promote reuse of materials, conserving their embodied energy[68] and reducing the energy required to produce new materials.

Compliance with the City's Street Tree Planting requirements would serve to increase carbon sequestration. Other regulations, the Wood Burning Fireplace Ordinance would reduce emissions of GHGs and black carbon, respectively. Regulations requiring low-emitting finishes would reduce volatile organic compounds (VOCs).[69] Thus, the proposed project was determined to be consistent with San Francisco's GHG reduction strategy.[70]

The project sponsor is required to comply with these regulations, which have proven effective as San Francisco's GHG emissions have measurably decreased when compared to 1990 emissions levels, demonstrating that the City has met and exceeded EO S-3-05, AB 32, and the *Bay Area 2010 Clean Air Plan* GHG reduction goals for the year 2020. Other existing regulations, such as those implemented

[67] Compliance with water conservation measures reduce the energy (and GHG emissions) required to convey, pump and treat water required for the project.

[68] Embodied energy is the total energy required for the extraction, processing, manufacture and delivery of building materials to the building site.

[69] While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

[70] San Francisco Planning Department, *Greenhouse Gas Analysis: Compliance Checklist for 3516-26 Folsom Street*, February 16, 2017

through AB 32, will continue to reduce a proposed project's contribution to climate change. In addition, San Francisco's local GHG reduction targets are consistent with the long-term GHG reduction goals of EO S-3-05, EO B-30-15, AB 32, SB 32 and the *Bay Area 2010 Clean Air Plan.* Therefore, because the proposed projects is consistent with the City's GHG reduction strategy, it is also consistent with the GHG reduction goals of EO S-3-05, EO B-30-15, AB 32, SB 32 and the *Bay Area 2010 Clean Air Plan*, would not conflict with these plans, and would therefore not exceed San Francisco's applicable GHG threshold of significance. As such, the proposed project would result in a Less-Than-Significant Impact with respect to GHG emissions. No mitigation measures are necessary.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less-Than-Significant Impact*	*No Impact*	*Not Applicable*
8. WIND AND SHADOW— Would the project:					
a) Alter wind in a manner that substantially affects public areas?	☐	☐	☒	☐	☐
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?	☐	☐	☒	☐	☐

Impact WS-1: The proposed project would not alter wind in a manner that substantially affects public areas within the vicinity of the project area. ***(Less-Than-Significant Impact)***

A proposed project's wind impacts are directly related to its height, orientation, design, location and surrounding development context. Based on wind analyses for other development projects in San Francisco, a building that does not exceed 80 feet generally has little potential to cause substantial changes to ground-level wind conditions. The proposed project would construct two 30-foot-tall buildings that would be about the same height as existing adjacent and nearby buildings. The proposed project would also be oriented towards Folsom Street in a similar manner as buildings surrounding the project site. As such, the proposed project would not alter wind in a manner that substantially affects public areas. This impact would be less than significant, and no mitigation measures would be required.

Impact WS-2: The proposed project would not create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas. ***(Less-Than-Significant Impact)***

In 1984, San Francisco voters approved an initiative known as "Proposition K, The Sunlight Ordinance," which was codified as Planning Code Section 295 in 1985. Planning Code Section 295 generally prohibits new structures above 40 feet in height that would cast additional shadows on open space that is under the jurisdiction of the San Francisco Recreation and Park Commission between one hour after sunrise and one hour before sunset, at any time of the year, unless that shadow would not result in a significant adverse effect on the use of the open space. Public open spaces that are not under the jurisdiction of the Recreation and Park Commission as well as private open spaces are not subject to Planning Code Section 295.

Implementation of the proposed project would result in the construction of two 30-foot-tall buildings (including parapets and roof deck railings), which would be similar in size to existing surrounding buildings. The project site is located to the southwest of the Bernal Heights Community Garden. Therefore, a shadow analysis was prepared by the Project Sponsor/Architect. The shadow analysis provides simulations that show that the proposed project would cast new shadow on the Bernal Heights Community Garden, but that shadow would be limited to only certain periods in the winter and summer and the new shadow would only fall on a portion of the southwestern corner of the community garden mainly in the evening after 5:30 pm. In most cases throughout the year, the shadow cast by the proposed project either does not fall on the community garden or is contained within shadow already cast by existing structures on Gates Street.

While the proposed project would cast new shadow on the community garden, it is not expected to substantially affect the use or enjoyment of the Bernal Heights Community Garden such that a significant environmental effect would occur. For these reasons, the proposed project would not create new shadow in a manner that substantially affects outdoor recreation facilities and other public areas. This impact would be less than significant, and no mitigation measures would be required.

Impact C-WS-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative wind or shadow impacts. ***(Less-Than-Significant Impact)***

As discussed above, buildings shorter than 80 feet have little potential to cause substantial changes to ground-level wind conditions. Given that the height limit in the project vicinity is 30 feet, none of the

nearby cumulative development projects would be tall enough to alter wind in a manner that substantially affects public areas. The proposed project would not shadow any nearby parks or open spaces such that a significant environmental effect would occur. Therefore, the proposed project would not contribute to any potential cumulative shadow impact on parks and open spaces. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative wind or shadow impact.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less-Than-Significant Impact*	*No Impact*	*Not Applicable*
9. 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 facilities 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?	☐	☐	☒	☐	☐
c) Physically degrade existing recreational resources?	☐	☐	☒	☐	☐

Impact RE-1: The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. ***(Less-Than-Significant Impact Impact)***

The neighborhood parks or other recreational facilities closest to the project site are the Bernal Heights Community Garden (60 feet northeast of the project site) and Bernal Heights Park (120 feet north. The proposed project would increase the population of the project site by about five residents. This residential population growth would increase the demand for recreational facilities. The project residents may use parks, open spaces, and other recreational facilities in the project vicinity. The Bernal Heights Community Garden has a controlled membership and may not be available for use by residents of the proposed project. The additional use of these recreational facilities is expected to be modest based on the size of the projected population increase and would not result in the substantial physical deterioration of recreational facilities. Therefore this impact would be less than significant and no mitigation measures would be required.

Impact RE-2: The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. ***(Less-Than-Significant Impact)***

The project site is within walking distance to parks, open spaces, or other recreational facilities, as discussed above. It is anticipated that these existing recreational facilities would be able to accommodate the increase in demand for recreational resources generated by the project residents. For these reasons, the construction of new or the expansion of existing recreational facilities, both of which might have an adverse physical effect on the environment, would not be required. This impact would be less than significant and no mitigation measures would be required.

Impact RE-3: The proposed project would not physically degrade existing recreational resources. ***(Less-Than-Significant Impact)***

The proposed project would not result in the physical alteration or degradation of any recreational resources in the project vicinity or the City as a whole. Project-related construction activities would occur within the boundaries of the project site, which does not include any existing recreational resources. This impact would be less than significant and no mitigation measures would be required.

Impact C-RE-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact on recreational facilities or open space resources. ***(Less-Than-Significant Impact)***

Cumulative development in the project vicinity would result in a minor intensification of land uses and a cumulative increase in the demand for recreational facilities and resources. The City has accounted for such growth as part of the Recreation and Open Space Element of the General Plan. In addition, San Francisco voters passed two bond measures, in 2008 and 2012, to fund the acquisition, planning, and renovation of the City's network of recreational resources. As discussed above, there are open spaces and other recreational facilities within less than 1/4 mile of the project site. It is expected that these existing recreational facilities would be able to accommodate the increase in demand for recreational resources generated by the proposed project and nearby cumulative development projects. For these reasons, the proposed project would not combine with past, present,

and reasonably foreseeable future project in the project vicinity to create a significant cumulative impact on recreational facilities or resources. This impact would be less than significant and no mitigation measures would be required.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	Not Applicable
10.	**UTILITIES AND SERVICE SYSTEMS—Would the project:**					
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐	☐
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐	☐
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐	☐
d)	Have sufficient water supply available to serve the project from existing entitlements and resources, or require new or expanded water supply resources or entitlements?	☐	☐	☒	☐	☐
e)	Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐	☐
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐	☐
g)	Comply with federal, State, and local statutes and regulations related to solid waste?	☐	☐	☒	☐	☐

The project site is within an urban area that is served by utility service systems, including water, wastewater and stormwater collection and treatment, and solid waste collection and disposal. The proposed project would add new daytime and nighttime population to the site that would increase the demand for utilities and service systems on the site, but not in excess of amounts expected and provided for in the project area.

Impact UT-1: Implementation of the proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, would not exceed the capacity of the wastewater treatment provider that would serve the project, and would not require the construction of new or expansion of existing wastewater treatment or stormwater drainage facilities. *(Less-Than-Significant Impact)*

Project-related wastewater and stormwater would flow to the City's combined stormwater/sewer system and would be treated to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant prior to discharge into San Francisco Bay. The NPDES standards are set and regulated by the San Francisco Bay Area Regional Water Quality Control Board (RWQCB). Therefore, the proposed project would not conflict with RWQCB requirements related to wastewater discharge.

For the reasons specified above, the proposed project would not generate wastewater or stormwater discharges that have the potential to degrade water quality or contaminate a public water supply. Additionally, the proposed project is required to comply with the Stormwater Management Ordinance, which requires the project to maintain or reduce the existing volume and rate of stormwater runoff at the site by retaining runoff onsite, promoting stormwater reuse, and limiting site discharges before entering the combined sewer collection system.

The proposed project would also be required to comply with requirements of the Construction Site Runoff Ordinance, which regulates the discharge of sediment or other pollutants from construction sites and prevents erosion and sedimentation due to construction activities. Furthermore, before the street improvement permit can be finalized, SFPUC must review and approve the proposed plans. Therefore, the proposed project would not have significant environmental impacts related to water quality.

For the reasons discussed above, the proposed project would incrementally increase demand for and use of these services, but not in excess of amounts expected and provided for in this area. The proposed project would not exceed any applicable wastewater treatment requirements or otherwise conflict with RWQCB requirements, and the minor population increase associated with the proposed project would not exceed the capacity of the existing wastewater treatment provider or substantially

increase the demand for wastewater treatment or stormwater drainage facilities requiring the construction of new facilities or expansion of existing facilities. This impact would be less than significant and no mitigation measures are required.

Impact UT-2: The proposed project would not require expansion or construction of new water supply or treatment facilities. ***(Less-Than-Significant Impact)***

The proposed project would add two residential units to the project site, which would increase the demand for water on the site compared to existing conditions, but not in excess of amounts expected and provided for in the project area. Although the proposed project would incrementally increase the demand for water in San Francisco, the estimated increase in demand could be accommodated within anticipated water use and supply for the City.[71] The proposed project would also be designed to incorporate water-conserving measures, such as low-flush toilets and urinals, as required by the San Francisco Green Building Ordinance. The project site is not located within a designated recycled water use area, as defined in the Recycled Water Ordinance 390-91 and 393-94; thus, the project is not required to install a recycled water system. Since the proposed project's water demand could be accommodated by the existing and planned supply anticipated under the San Francisco Public Utilities Commission's (SFPUC's) 2010 Urban Water Management Plan (UWMP), as updated by the SFPUC's 2013 Water Availability Study, the proposed project would result in less-than-significant impacts related to water services and no mitigation measures would be required.

Impact UT-3: The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. ***(Less-Than-Significant Impact)***

In September 2015, the City entered into a landfill disposal agreement with Recology, Inc. for disposal of all solid waste collected in San Francisco at the Recology Hay Road Landfill in Solano County for nine years or until 3.4 million tons have been disposed whichever occurs first. The City would have an option to renew the agreement for a period of six years or until an additional 1.6

[71] San Francisco Public Utilities Commission, *2010 Urban Water Management Plan*, June 2011. This document is available for review at: www.sfwater.org/Modules/ShowDocument.aspx?documentID=1055.

million tons have been disposed, whichever occurs first.[72] The Recology Hay Road Landfill is permitted to accept up to 2,400 tons per day of solid waste, at that maximum rate the landfill would have capacity to accommodate solid waste until approximately 2034. At present, the landfill receives an average of approximately 1,850 tons per day from all sources, with approximately 1,200 tons per day from San Francisco; at this rate landfill closure would occur in 2041. The City's contract with the Recology Hay Road Landfill is set to terminate in 2031 or when 5 million tons have been disposed, whichever occurs first. At that point, the City will either further extend the Recology Hay Road Landfill contract or find and entitle another landfill site. The proposed project, which would include construction waste and operational waste associated with the residential use, would generate a minimal amount of solid waste to be deposited at the landfill. Therefore, the proposed project would be served by landfills with sufficient permitted capacity to accommodate its solid waste disposal needs. This impact would be less than significant and no mitigation measures would be required.

Impact UT-4: Construction and operation of the proposed project would comply with all applicable statutes and regulations related to solid waste. ***(Less-Than-Significant Impact)***

The California Integrated Waste Management Act of 1989 (AB 939) requires municipalities to adopt an Integrated Waste Management Plan (IWMP) to establish objectives, policies, and programs relative to waste disposal, management, source reduction, and recycling. Reports filed by the San Francisco Department of the Environment showed the City generated approximately 870,000 tons of waste material in 2000. By 2010, that figure decreased to approximately 455,000 tons. Waste diverted from landfills is defined as recycled or composted.[73] San Francisco has a goal of 75 percent landfill diversion by 2010 and 100 percent by 2020. As of 2012 (the most recent year reported), 80 percent of

[72] San Francisco Planning Department, *Agreement for Disposal of San Francisco Municipal Solid Waste at Recology Hay Road Landfill in Solano County Final Negative Declaration*, Planning Department Case No. 2014.0653, May 21, 2015. Available online at: sfmea.sfplanning.org/2014.0653E_Revised_FND.pdf.

[73] CalRecycle, Jurisdiction Diversion/Disposal Rate Detail. Available online at: www.calrecycle.ca.gov/LGCentral/Reports/Viewer.aspx?P=OriginJurisdictionIDs%3d438%26ReportYear%3d2013%26ReportName%3dReportEDRSJurisDisposalByFacility.

San Francisco's solid waste was being diverted from landfills, indicating that San Francisco met the 2010 diversion target.[74]

In September 2015, the City approved an Agreement with Recology, Inc., for the transport and disposal of the City's municipal solid waste at the Recology Hay Road Landfill in Solano County. The City began disposing its municipal solid waste at Recology Hay Road Landfill in January, 2016, and that practice is anticipated to continue for approximately nine years, with an option to renew the Agreement thereafter for an additional six years. San Francisco had a goal of 75% solid waste diversion by 2010, which it exceeded at 80% diversion, and has a goal of 100% solid waste diversion or "zero waste" to landfill or incineration by 2020. San Francisco Ordinance No. 27-06 requires mixed construction and demolition debris be transported by a Registered Transporter and taken to a Registered Facility that must recover for reuse or recycling and divert from landfill at least 65% of all received construction and demolition debris. The San Francisco Green Building Code also requires certain projects to submit a Recovery Plan to the Department of the Environment demonstrating recovery or diversion of at least 75% of all demolition debris. San Francisco's Mandatory Recycling and Composting Ordinance No. 100-09 requires all properties and everyone in the city to separate their recyclables, compostables, and landfill trash.

Therefore, given the above, the construction and operation of the project would result in a Less-Than-Significant Impact regarding compliance with all applicable statutes and regulations related to solid waste and no mitigation measures would be required.

Impact C-UT-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact related to utilities or service systems. ***(Less-Than-Significant Impact)***

Cumulative development in the project site vicinity would incrementally increase demand on citywide utilities and service systems, but not beyond levels anticipated and planned for by public

[74] San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america.

service providers. The SFPUC has accounted for such growth in its water demand and wastewater service projections, and the City has implemented various programs to divert 80 percent of its solid waste from landfills. Nearby cumulative development projects would be subject to the same water conservation, wastewater discharge, recycling and composting, and construction demolition and debris ordinances applicable to the proposed project. Compliance with these ordinances would reduce the effects of nearby cumulative development projects to Less Than Significant levels. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact on utilities and service systems.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less-Than-Significant Impact*	*No Impact*	*Not Applicable*
11. PUBLIC SERVICES—Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of, 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 public services such as fire protection, police protection, schools, parks, or other services?	☐	☐	☒	☐	☐

The proposed project's impacts on parks and recreation are discussed under **Section H.9, Recreation**. Impacts to other public services are discussed below.

Impact PS-1: The proposed project would not result in a substantial adverse physical impact associated with the provision of police services. ***(Less-Than-Significant Impact)***

The project site currently receives police services from the San Francisco Police Department (SFPD). The proposed project would result in the addition of two residential units on the currently unoccupied project site and is unlikely to result in an increase in demand for police service calls in the project area. Police protection is provided by the Ingleside Police Station located at 1 Sgt John V Young Lane, approximately 2.5 miles east of the project site. The Ingleside Station would be able to provide the necessary police services and crime prevention in the area. Meeting the service demand

associated with two residential units at the project site would not require the construction of new police facilities that could cause significant environmental impact. As such, the impact would be less than significant, and no mitigation measures would be required.

Impact PS-2: The proposed project would not result in a substantial adverse physical impact associated with the provision of fire services. ***(Less-Than-Significant Impact)***

The project site receives fire protection services from the San Francisco Fire Department (SFFD). Fire stations located nearby include Station 32, at 194 Park Street approximately 0.8 miles southwest of the project site; and Station 9 at 2245 Jerrold Avenue approximately 1.5 miles from the project. The proposed project would result in the addition of two residential units on the currently unoccupied project site and is unlikely to result in an increase in demand for fire service calls in the project area. Moreover, the proposed project would be required to comply with all applicable building and fire code requirements, which identify specific fire protection systems, including, but not limited to, the provision of State-mandated smoke alarms, fire alarm and sprinkler systems, fire extinguishers, fire-rated walls, the required number and location of egress with appropriate distance separation, and emergency response notification systems. Compliance with all applicable building and fire codes, would further reduce the demand for Fire Department service and oversight.

Given that the prosed project would not result in a fire service demand beyond the projected growth for the area or the city, the proposed project would not result in the need for new fire protection facilities, and would have no adverse impact on the physical environment related to the construction of new or physically altered fire protection facilities. This impact would be less than significant and no mitigation measures would be required.

Impact PS-3: The proposed project would not result in a substantial adverse physical impact associated with the provision of school services. ***(Less-Than-Significant Impact)***

The San Francisco Unified School District (SFUSD) provides public primary and secondary education in the City and County of San Francisco. Junipero Serra Elementary School at 625 Holly Park Circle Street is approximately 0.7 mile southwest of the project site. Willie L Brown Jr Middle School at 2055 Silver Avenue is located approximately 1.5 miles southeast of the site. The nearest high school to the

project site is Thurgood Marshall High School at 45 Conkling Street, approximately 1.4 miles southeast of the project site.

Based on a student generation rate employed by SFUSD of 0.203 students per dwelling unit, the two residential units that would be built as part of the proposed project could generate approximately one K-12 student. Similar to other City-wide developments, the proposed project would be assessed $2.42 per gross square foot of residential space as a school impact fee. The estimated one additional new student would not require the construction or expansion of school facilities. It is anticipated that the new student could be accommodated by existing schools under the jurisdiction of the SFUSD since the SFUSD is currently not experiencing high growth rates, and public school facilities throughout the City and County of San Francisco are generally underutilized. The SFUSD is not planning to construct new schools near the project site.

Given that SFUSD has adequate facilities to accommodate growth, the new student generated by the proposed project would not substantially increase demand for school facilities in San Francisco and would not result in a significant impact. In addition, as with all new development, the project sponsor would be required to pay one-time school impact fees under Government Code Section 65995(b)(3), as stated above, which could be used by SFUSD for costs associated with providing facilities for new students.

In addition, The Leroy F. Greene School Facilities Act of 1998, or Senate Bill 50 (SB 50), restricts the ability of local agencies, such as the City of San Francisco, to deny land use approvals on the basis that public school facilities are inadequate. SB 50 establishes the base amount of allowable developer fees for school facilities at $2.24 per square foot of residential construction and $0.21 per square foot of commercial construction as of 2006. These fees are intended to address local school facility needs resulting from new development. Public school districts may, however, impose higher fees provided they meet the conditions outlined in the act.

Based on the foregoing, the proposed project would not result in a substantially increased demand for school facilities, and would not require new or expanded school facilities. Therefore, this impact would be less than significant and no mitigation measures would be required.

Impact PS-4: The proposed project would not result in a substantial adverse physical impact associated with the provision of other public services, such as libraries. ***(Less-Than-Significant Impact)***

Implementation of the proposed project would add approximately five residents to the project site which would increase the demand for other public services such as libraries. This increase in demand would not be substantial given the overall demand for library services on a citywide basis. The San Francisco Public Library (SFPL) operates 29 branches throughout the City and it is anticipated that the Bernal Heights Branch Library, which is located 0.4 miles south of the project site, would be able to accommodate the minor increase in demand for library services generated by the proposed project. For these reasons, the proposed project would not require the construction of new or alteration of existing governmental facilities. This impact would be less than significant and no mitigation measures would be required.

Impact PS-5: The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in a cumulative impact on public services. ***(Less-Than-Significant Impact)***

Cumulative development in the project vicinity would result in a minor intensification of land uses and a cumulative increase in the demand for fire protection, police protection, school services, and other public services. The Fire Department, the Police Department, the SFUSD, SFPL, and other City agencies have accounted for such growth in providing public services to the residents of San Francisco. Nearby cumulative development projects would be subject to many of the same development impact fees applicable to the proposed project. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact on public services. This impact would be less than significant and no mitigation measures would be required.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	Not Applicable
12. 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 Game or 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, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (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?	☐	☐	☐	☐	☒

The project site is located within a built environment and does not contain riparian habitat or other sensitive natural communities as defined by the California Department of Fish and Wildlife and the United States Fish and Wildlife Service; therefore, Topic 12.b is not applicable to the proposed project. In addition, the project area does not contain wetlands as defined by Section 404 of the Clean Water Act; therefore, Topic 12.c is also not applicable. Finally, there are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, of other approved local, State, or regional habitat conservation plans applicable to the project site. Therefore, implementation of the proposed project could not conflict with the provisions of any such plan and Topic 12.f is not applicable to the proposed project.

Impact BI-1: The proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species, riparian habitat or sensitive natural communities, and would not interfere substantially with 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. *(Less-Than-Significant Impact)*

The project site is an undeveloped lot in a built urban environment and does not include any candidate, sensitive, or special-status species, any riparian habitat, or other sensitive natural community identified in regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service, nor would it interfere substantially with any native resident or migratory species, or species movement or migratory corridors.

A sensitive plant species, hummingbird sage (*Salvia spathacea*) is present on the northern portion of Public Works' property adjacent to the project site, to the north, along Bernal Heights Boulevard. The proposed stairway between Folsom Street and Bernal Heights Boulevard would be located at least 15 feet downhill from where the plants are located and would not run through or otherwise disturb the existing hummingbird sage. The Emergency Response and Evacuation Plan also requires that a protective fence would be installed around areas on the project site with hummingbird sage. The proposed alignment would both avoid the sensitive species during construction and direct pedestrians along a route that would avoid contact with the plants.

Migrating birds do pass through San Francisco. Nesting birds, their nests, and eggs are fully protected by *California Fish and Game Code* (Sections 3503, 3503.5) and the federal Migratory Bird Treaty Act (MBTA). Although the proposed project would be subject to the MBTA, the site does not contain habitat supporting migratory birds.

San Francisco is within the Pacific Flyway, a major north-south route of travel for migratory birds along the western portion of the Americas. Planning Code Section 139, Standards for Bird-Safe Buildings, establishes building design standards to reduce avian mortality rates associated with bird strikes. This ordinance focuses on location-specific hazards and building feature-related hazards. Location-specific hazards apply to buildings in, or within 300 feet of and having a direct line of sight to, an Urban Bird Refuge, which is defined as an open space "two acres and larger dominated by

vegetation, including vegetated landscaping, forest, meadows, grassland, or wetlands, or open water." Although the project site is within 300 feet of an Urban Bird Refuge, Bernal Heights Park, Planning Code Section 139 exempts projects that are less than 45 feet in height and have an exposed façade comprised of less than 50% glass, such as the proposed project, from the requirement to implement birdsafe design standards. Even though the Planning Code deems structures such as the proposed project too small to require birdsafe design, the likelihood of even occasional bird strikes to the proposed project having a substantial adverse impact on candidate, sensitive, or special-status bird species is very low.

Given the above, implementation of the proposed project would not modify any natural habitat and this impact would be Less Than Significant.

Impact BI-2: The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. ***(No Impact)***

The City's Urban Forestry Ordinance, *Public Works Code* Sections 801 et. seq., requires a permit from San Francisco Public Works to remove any protected trees. There are no existing trees or other vegetation on the project site that would be removed as part of the proposed project, and as previously discussed, the proposed project includes one street tree per unit, and the subsequent street improvement would include the planting of additional street trees, upon approval by Public Works. The proposed project would not conflict with any local policies or ordinances that protect biological resources, and no impact would occur. Also, as mentioned above, a sensitive plant species, hummingbird sage (*Salvia spathacea*) is present on the northern portion of Public Works property adjacent to the north of the project site, along Bernal Heights Boulevard. The proposed stairway between Folsom Street and Bernal Heights Boulevard would be located at least 15 feet downhill from where the plants are located, and would not run through or otherwise disturb the existing hummingbird sage.

Impact C-BI-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact related to biological resources. ***(Less-Than-Significant Impact)***

Cumulative development in the project vicinity would result in the construction of multi-story buildings that can injure or kill birds in the event of a collision and would result in the removal of existing street trees or other vegetation. Moreover, while there is a sensitive plant species on a property adjacent to the project site, the property is publically-owned and the proposed project's stairway alignment would be downhill from the plant and would direct future pedestrian traffic around it. No other candidate, sensitive or special-status species, any riparian habitat, or other sensitive natural community in the project vicinity. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact on biological resources. This impact would be less than significant and no mitigation measures would be required.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	Not Applicable
13. GEOLOGY AND SOILS— Would the project:					
a) Expose people or structures to 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 Division of Mines and Geology 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 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, creating substantial risks to life or property?	☐	☐	☒	☐	☐
e) 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?	☐	☐	☐	☐	☒
f) Change substantially the topography or any unique geologic or physical features of the site?	☐	☐	☒	☐	☐
g) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐	☐

The project site would be connected to the City's existing sewer system and would not require use of septic systems. Therefore, Topic 13.e would not be applicable to the project site.

The analysis in this section is based, in part, on the Geotechnical Investigations prepared for the proposed project.[75] The project site is underlain by three to four feet of soil overlying chert bedrock. The soil is characterized as very stiff, lean clay at one boring location, and very stiff, silty clayey sand overlying sandy lean clay at another boring location. Groundwater was not encountered at the maximum boring depth of five feet. The proposed project includes a maximum depth of excavation of ten feet for installation of the spread footing foundations for the proposed residences.

Impact GE-1: The proposed project would not result in exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, seismic groundshaking, liquefaction, lateral spreading, or landslides. ***(Less-Than-Significant Impact)***

The project site is not located within an Earthquake Fault Zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act and no known or potentially active fault exists on the site.[76] No active faults have been mapped on the project site by the United States Geological Survey (USGS) or the California Geological Survey (CGS).[77] In a seismically active area, such as the San Francisco Bay Area, the possibility exists for future faulting in areas where no faults previously existed. However, since faults with known surface rupture have been mapped in California, and no evidence of active faulting on the site has been found, the potential for impacts to the proposed project due to fault rupture are less than significant.

However, although the project site is not located within a seismic hazard zone, it may be subject to ground shaking in the event of an earthquake on regional fault lines like the entire San Francisco Bay Area would.[78] The site is located approximately six miles northeast of the San Andreas Fault. The

[75] H. Allen Gruen, Geotechnical Engineer, Geotechnical Investigation, Planned Development at 3516 Folsom Street, San Francisco, California, August 3, 2013. H. Allen Gruen, Geotechnical Engineer, Geotechnical Investigation, Planned Development at 3526 Folsom Street, San Francisco, California, August 3, 2013.

[76] California Department of Conservation, California Geological Survey, Alquist-Priolo Fault Zones in Electronic Format, 2010. This document is available for review at www.quake.ca.gov/gmaps/ap/ap_maps.htm

[77] U.S. Geological Survey and California Geological Survey, Quaternary Fault and Fold Database for the United States, 2010. This document is available for review at www.earthquake.usgs.gov/hazards/qfaults .

[78] California Division of Mines and Geology, State of California Seismic Hazard Zones, City and County of San Francisco Official Map, November 17, 2000. This document is available for review at gmw.consrv.ca.gov/ shmp/download/pdf/ozn_sf.pdf.

2007 Working Group on California Earthquake Probabilities estimates that there is a 63 percent chance that a magnitude 6.7 or greater earthquake will occur in the San Francisco Bay Area within 30 years. The Association of Bay Area Governments (ABAG) has classified the Modified Mercalli Intensity Shaking Severity Level of ground shaking in the project vicinity due to an earthquake on the North Golden Gate segment of the San Andreas Fault System as "VIII-Very Strong."[79] Therefore, it is likely that the site would experience periodic minor or major earthquakes associated with a regional fault, resulting in strong to very strong ground shaking.

Ground shaking associated with an earthquake on one of the regional faults around the project site may result in ground failure, such as that associated with soil liquefaction, lateral spreading, and differential compaction. The project site does not lie within a liquefaction potential zone as mapped by the California Division of Mines and Geology, and borings at the site indicate that the liquefaction potential at the site is low. Because the project site's liquefaction potential is low, lateral spreading would be unlikely to occur. Risks associated with liquefaction and differential compaction would be reduced with implementation of standard building engineering and design measures.

As shown on the official State of California Seismic Hazards Zone Map for San Francisco prepared under the Seismic Hazards Mapping Act of 1990,[80] the project site is not located within an area subject to landslides (see Map 5 of the Community Safety Element). Therefore, the proposed project would result in Less Than Significant landslide-related impacts.

Given the above, the proposed project would not result in exposure of people or structures to potential substantial adverse effects, nor would it aggravate existing seismic hazards, including the risk of loss, injury, or death involving rupture of a known earthquake fault, seismic groundshaking, liquefaction, lateral spreading, or landslides. This impact would be less than significant and no mitigation measures would be required.

---

[79] Association of Bay Area Governments, Earthquake Shaking Hazard Map, San Francisco Scenario, North Golden Gate Segment of the San Andreas Fault System, 2003. This document is available for review at resilience.abag.ca.gov/earthquakes and at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2015-011274ENV.

[80] The Seismic Hazards Mapping Act was developed to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This Act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones.

Impact GE-2: The proposed project would not result in substantial loss of topsoil or erosion. *(Less-Than-Significant Impact)*

The proposed project is currently underdeveloped, and is covered with pervious surf top soil. Although excavation would occur as part of the proposed project, compliance with the City's Construction Site Water Pollution Prevention Program[81] would require the project sponsor to prepare and implement an erosion and sediment-control plan subject to review by the City. Compliance with this regulation would reduce and control site runoff during construction activities and reduce the potential for erosion to a Less Than Significant level. No mitigation measures would be required and the effect is Less Than Significant.

Impact GE-3: The proposed project would not be located on a geologic unit 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. *(Less-Than-Significant Impact)*

The project site and vicinity do not include any hills or cut slopes that could cause or be subject to a landslide. Temporary slopes would be necessary during site excavations. If excavations undermine or remove support from the existing and adjacent structures, it may be necessary to underpin those structures. The final design of the foundation system would be included in a design-level geotechnical investigation that is based on site-specific data in accordance with building code requirements. According to the Geotechnical Investigation, soils at the site are capable of supporting a conventional spread footing foundation in accordance with industry standards and building code requirements. Drilled piers may also be utilized to support the foundation or for shoring and underpinning. Excavation activities would require the use of shoring and underpinning in accordance with the recommendations of the geotechnical report and *San Francisco Building Code* requirements. Groundwater is not anticipated to be encountered during excavation and grading activities.

[81] San Francisco Municipal Code (Public Works Code) Part II. Chapter 10. Article 4.1. 40 GF Section 403.

Adherence to San Francisco Building Code requirements would ensure that the project applicant include analysis and avoidance of any potential impacts related to unstable soils as part of the design-level geotechnical investigation prepared for the proposed project; therefore, any potential impacts related to unstable soils would be less than significant and no mitigation measures would be required.

Impact GE-4: The proposed project could be located on expansive soil, as defined in the California Building Code, but would not create substantial risk to life or property. ***(Less-Than-Significant Impact)***

Expansive soils expand and contract in response to changes in soil moisture, most notably when near surface soils vacillate between a saturated, low-moisture, and a saturated, high-moisture content condition. The presence of expansive soils is typically determined based on site specific data. As noted above, the site is underlain by firm to very stiff, sandy lean clay as well as firm to hard, lean clay with varying amounts of sand. Expansive soils may be encountered at the site; the San Francisco Building Code includes a requirement that the project applicant include analysis of the potential for soil expansion as part of the design-level geotechnical investigation prepared for the proposed project. Compliance with existing building code requirements (which the design-level geotechnical report would be required to comply with), would ensure that any potential impacts related to expansive soils would be less than significant. No mitigation measures would be required and the effects of the proposed project would be Less Than Significant.

Impact GE-5: The proposed project would not substantially change the topography of the site or any unique geologic or physical features of the site. ***(Less-Than-Significant Impact)***

The project site is located on a steep slope of approximately ~~28~~ 33 percent. Although minor excavations would be required to support the building foundation, the proposed project would follow the recommendations in the geotechnical report and have Less-Than-Significant Impacts with respect to alterations to topographical features. The hillside would remain intact and the proposed project would be required to follow the City's stormwater management requirements for the new construction and the roadway extension to provide adequate drainage to the site. The proposed project would not include any work that would significantly alter the grade of the hillside or the

character of the project site as part of a hillside residential area Structures in the immediate vicinity of the proposed project are similarly built into the hillside. This impact would be less than significant and no mitigation measures would be required.

Impact GE-6: The proposed project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. *(Less-Than-Significant Impact)*

Paleontological resources include fossilized remains or traces of animals, plants, and invertebrates, including their imprints, from a previous geological period. Collecting localities and the geologic formations containing those localities are also considered paleontological resources as they represent a limited, non-renewable resource and once destroyed, cannot be replaced.

The project site is underlain by fill and sandy to clayey soils on top of chert bedrock. The likelihood of discovery of paleontological resources or unique geological features as a result of the proposed project is low. Therefore, there would be a Less-Than-Significant Impact and no mitigation measures would be required.

Impact C-GE-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact related to geology and soils. *(Less-Than-Significant Impact)*

The proposed project would result in Less-Than-Significant Impacts related to topographical features and risk of injury or death involving landslides. Impacts related to rupture of an earthquake fault, seismic ground shaking or ground failure, unstable soil, or the loss of top soil would be less than significant. Impacts to paleontological resources and geologic features would also be less than significant. Geology and soils impacts are generally site-specific and localized and do not have cumulative effects with other projects. These impacts are specific to the project and would not combine with similar impacts associated with past, present, and reasonably foreseeable future projects in the site vicinity. These impacts would be less than significant and no mitigation measures would be required.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	Not Applicable
14.	**HYDROLOGY AND WATER QUALITY— Would the project:**					
a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐	☐
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion of siltation on- or off-site?	☐	☐	☒	☐	☐
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐	☐
e)	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?	☐	☐	☒	☐	☐
f)	Otherwise substantially degrade water quality?	☐	☐	☒	☐	☐
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map?	☐	☐	☐	☐	☒
h)	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☐	☒
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☐	☒
j)	Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☐	☒

The project is located well inland from both the San Francisco Bay and the Pacific Ocean, and is not subject to seiche or potential inundation in the event of a levee or dam failure or tsunami occurring

along the San Francisco coast (Maps Five, Six and Seven of the Community Safety Element of the General Plan). [82] In addition, the developed area of the project site would not be subject to mudflow. Therefore, Topic 14.j does not apply. The project site is also not located within a 100-year flood hazard area designated on the City's interim floodplain map, and would not place housing or structures within a 100-year flood hazard area that would impede or redirect flood flows.[83] Therefore, Topics 14.g, 14.h, and 14.i are also not applicable.

Impact HY-1: The proposed project would not violate water quality standards or otherwise substantially degrade water quality. ***(Less-Than-Significant Impact)***

Wastewater and stormwater flows generated on the project site flow into the City's combined sewer system and into the Southeast Water Pollution Control Plant, where they are treated prior to discharge into San Francisco Bay. Treatment is undertaken consistent with the effluent discharge standards established by the plant's National Pollutant Discharge Elimination System (NPDES) permit. In accordance with the permit, discharges of treated wastewater and stormwater into San Francisco Bay meet the requirements of the Clean Water Act, Combined Sewer Overflow Control Policy, and associated State requirements in the Water Quality and Control Plan for the San Francisco Bay Basin and do not violate water quality standards.

The construction and operation of two single-family homes, built consistent with the Planning Code and Building Code, in a residential area would not be expected result in wastewater or stormwater flows that would degrade water quality nor violate water quality standards. This impact would be less than significant and no mitigation measures would be required.

Impact HY-2: The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. ***(Less-Than-Significant Impact)***

[82] San Francisco, City and County of, *San Francisco General Plan, Community Safety Element*, April 2007. This document is available for review at the Planning Department in Case File No. 2011.0409E.

[83] FEMA Preliminary Flood Insurance Rate Map, 2016. Available online at: sfgsa.org/sites/default/files/Document/SF_NE.pdf.

The proposed project includes the construction of two single family homes and street improvements to serve those homes. The proposed project does not include any elements that would tap into, or remove, existing ground water. The two residential units would be constructed consistent with the Building Code and any subsequent street improvement would be required to include design elements to minimize impervious surfaces and to not interfere with groundwater recharge. Existing city regulations would ensure that the project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. This impact would be less than significant and no mitigation measures would be required.

Impact HY-3: The proposed project would not result in altered drainage patterns that would cause substantial erosion or flooding. ***(Less-Than-Significant Impact)***

The project site is currently an unimproved hillside and stormwater flows are currently uncontrolled. The proposed project would include drainage elements that would control stormwater runoff and direct it into the City's combined stormwater/sewer system. The proposed project would be required to comply with SFPUC's Stormwater Management Requirements and Design Guidelines, which include meeting specific performance measures for impervious surfaces and stormwater run-off rate, the approval of a Preliminary Stormwater Control Plan before receiving a Site or Building Permit, and the approval of a Final Stormwater Control Plan before receiving the Certificate of Final Completion.[84] Therefore, the proposed project would not be expected to result in substantial erosion or flooding associated with changes in drainage patterns. This impact would be less than significant and no mitigation measures would be required.

Impact HY-4: The proposed project would not contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. ***(Less-Than-Significant Impact)***

[84] San Francisco Public Utilities Commission, *How Do I Comply with the Stormwater Management Requirements*, http://sfwater.org/index.aspx?page=1006. Accessed: May 25, 2017.

During operation of the proposed project, all wastewater and stormwater runoff from the project site would be treated at the Southeast Water Pollution Control Plant. Treatment would be provided pursuant to the effluent discharge standards contained in the City's NPDES permit for the plant. During construction and operation, the proposed project would be required to comply with all local wastewater discharge and water quality requirements, which would ensure that all stormwater generated by the proposed project is managed on-site such that the project would not contribute additional volumes of polluted runoff to the City's stormwater infrastructure. Therefore, the proposed project would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. As such, this impact would be less than significant, and no mitigation measures would be required.

Impact C-HY-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would result in Less Than Significant cumulative impacts to hydrology and water quality. ***(Less-Than-Significant Impact)***

As stated above, the proposed project would result in no impacts or Less-Than-Significant Impacts related to water quality, groundwater levels, alteration of drainage patterns, capacity of drainage infrastructure, 100-year flood zones, failure of dams or levees, and/or seiche, tsunami, and/or mudflow hazards. The proposed project would adhere to the same water quality and drainage control requirements that apply to all land use development projects in San Francisco. Since all development projects would be required to follow the same drainage, dewatering and water quality regulations, peak stormwater drainage rates and volumes for the design storm would gradually decrease over time with the implementation of new, conforming development projects. Thus, no substantial adverse cumulative effects with respect to drainage patterns, water quality, stormwater runoff, or stormwater capacity of the combined sewer system would occur.

Further, San Francisco's limited use of groundwater would preclude any significant adverse cumulative effects to groundwater levels, and the proposed project would not contribute to any cumulative effects with respect to groundwater. In general, hazards related to 100-year flood zones, failure of dams or levees, and/or seiche, tsunami, and/or mudflows are extremely unusual and are not considered to be substantive impacts in San Francisco such that any cumulative significant impacts would be anticipated, particularly in the interior areas of the city where the project site is located.

Given that cumulative impacts are not anticipated since all development projects would be required to follow the same drainage, dewatering and water quality regulations as the proposed project, the proposed project would not contribute to any such cumulative effects. Thus, cumulative hydrology and water quality impacts would be less than significant and no mitigation measures would be required.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less-Than-Significant Impact*	*No Impact*	*Not Applicable*
15. 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 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 for people residing or working in the project area?	☐	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐	☐
h) Expose people or structures to a significant risk of loss, injury or death involving fires?	☐	☐	☒	☐	☐

The project site is not located within an airport land use plan area or in the vicinity of a private airstrip. Therefore, Questions 15.e and 15.f are not applicable.

As discussed above under Impact NO-3, construction of the proposed project would result in ground vibration that could potentially affect the integrity of PG&E's gas Pipeline 109. The discussion above describes those impacts and sets forth vibration-related mitigation measures to reduce those potential impacts to less than significant.

Impact HZ-1: The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. ***(Less-Than-Significant Impact)***

Construction activities would require the use of limited quantities of hazardous materials such as fuels, oils solvents, paints, and other common construction materials. The City would require the project sponsor and its contractor to implement Best Management Practices (BMPs) as part of their construction activities, including hazardous materials management measures, which would reduce the hazards associated with short-term construction-related transport, and use and disposal of hazardous materials to Less Than Significant levels.

The proposed project's residential uses would involve the use of relatively small quantities of hazardous materials such as cleaners and disinfectants for routine purposes. These products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Most of these materials are consumed through use, resulting in relatively little waste. For these reasons, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. This impact would be less than significant and no mitigation measures would be required.

Impact HZ-2: The proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable conditions involving the release of hazardous materials into the environment. ***(Less-Than-Significant Impact)***

The project site is not currently located in a Maher Area, meaning that it is not known or suspected to contain contaminated soils and/or groundwater.[85] Based on mandatory compliance with existing regulatory requirements, the proposed project would not result in a significant hazard to the public or environment from contaminated soil and/or groundwater, asbestos, or lead-based paint, and the proposed project would result in a Less-Than-Significant Impact with respect to these hazards and no mitigation would be required.

Impact HZ-3: The proposed project would not result in hazardous emissions or in the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 of a mile of an existing school. *(Less-Than-Significant Impact)*

There are no schools within a quarter-mile of the project site. As such, the proposed project would have a Less-Than-Significant Impact related to hazardous emissions or the handling of hazardous materials within a quarter mile of a school and this impact would be less than significant.

Impact HZ-3: The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and the proposed project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. *(Less-Than-Significant Impact)*

The project site is not included on a list of hazardous materials sites compiled by the California Department of Toxic Substance Control pursuant to Government Code Section 65962.5 and, as previously discussed, the project site is not located in a Maher Area. As such, the proposed project is not included on a list of hazardous materials sites and the proposed project would not result in the accidental release of hazardous materials into the environment. This impact would be less than significant and no mitigation measures would be required.

[85] San Francisco Planning Department, Expanded Maher Map Area, March 2015. This document is available for review at: www.sf-planning.org/ftp/files/publications_reports/library_of_cartography/Maher%20Map.pdf.

Impact HZ-4: The proposed project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan and would not expose people or structures to a significant risk of loss, injury, or death involving fires. *(Less-Than-Significant Impact)*

The proposed project would develop residential uses on an existing "paper street' segment of Folsom Street and would not alter the existing street grid. The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The City requires that existing and new buildings meet fire safety standards through compliance with the applicable provisions of the Building Code and Fire Code. Therefore, the proposed project's compliance with Building Code and Fire Code requirements would result in a Less-Than-Significant Impact related to the exposure of persons or structures to fire risks.

Impact C-HZ-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would result in Less Than Significant cumulative impacts related to hazards and hazardous materials. *(Less-Than-Significant Impact)*

Hazards-related impacts are generally site-specific and typically do not combine with impacts from other planned and foreseeable projects to result in significant cumulative impacts. New developments in the vicinity of the project site would be subject to similar regulatory requirements and mitigation measures as the proposed project. Therefore, large, unexpected releases of hazardous materials of the type that would contribute to significant cumulative impacts are not expected. Compliance with existing regulations pertaining to the treatment and management of hazardous materials would ensure that the proposed project would not make a significant cumulative contribution to the release of hazardous materials. Therefore, cumulative hazards impacts would be less than significant and no mitigation would be required.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	Not Applicable
16. MINERAL AND ENERGY 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?	☐	☐	☐	☐	☒
c) Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	☐	☐	☒	☐	☐

All land in the City of San Francisco, including the project site, is designated by the CGS as Mineral Resource Zone Four (MRZ-4) under the Surface Mining and Reclamation Act of 1975. The MRZ-4 designation indicates that adequate information does not exist to assign the area to any other MRZ; thus, the area is not designated to have significant mineral deposits. The area surrounding the project site has previously been developed, and future evaluations of the presence of minerals at this site would therefore not be affected by the proposed project. Further, the development and operation of the proposed project would not have an impact on any off-site operational mineral resource recovery sites. Therefore, Topics 16.a and 16.b are not applicable to the proposed project.

Impact ME-1: The proposed project would not encourage activities which would result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner. ***(Less-Than-Significant Impact)***

Development of new residential uses as part of the proposed project would not result in the consumption of large amounts of fuel, water, or energy. As two new buildings in San Francisco, the proposed project is required to conform to energy conservation standards specified by the San Francisco Building Code, including the San Francisco Green Building Ordinance. The measures required by the San Francisco Green Building Ordinance are intended to reduce greenhouse gas emissions associated with new construction and rehabilitation activities, increase energy efficiency, reduce water use, and realize other environmental gains. Compliance with the San Francisco Green Building Ordinance would reduce the use of energy and water by the proposed project.

Based on the above information, the proposed project would not result in the consumption of large amounts of fuel, water, or energy. This impact would be less than significant and no mitigation measures would be required.

Impact C-ME-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would result in Less Than Significant cumulative impacts to minerals and energy. ***(Less-Than-Significant Impact)***

As described above, no known mineral resources exist at the project site, and therefore the proposed project would not contribute to any cumulative impacts related to mineral resources. Compliance with current State and local standards regarding energy consumption and conservation, including Title 24 of the California Code of Regulations and the San Francisco Green Building Ordinance, would ensure that the project would not in and of itself require a major expansion of power facilities. Therefore, the energy demand associated with the proposed project would result in a Less Than Significant physical environmental effect. The proposed project would not contribute to cumulatively considerable impacts related to energy and natural resources. Overall, the proposed project would not result in cumulatively considerable impacts related to mineral and energy resources. This impact would be less than significant and no mitigation measures would be required.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less-Than-Significant Impact*	*No Impact*	*Not Applicable*
17. 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) prepared by the California Dept. 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, 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)) or timberland (as defined by Public Resources Code Section 4526)?	☐	☐	☐	☐	☒
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 forest land to non-forest use?	☐	☐	☐	☐	☒

The project site is located within an urbanized area of San Francisco. No land in San Francisco County has been designated by the California Department of Conservation's Farmland Mapping and Monitoring Program as agricultural land. The project site does not contain agricultural uses and is not zoned for such uses. As such, the proposed project would not require the conversion of any land designated as prime farmland, unique farmland, or Farmland of Statewide Importance to non-agricultural use. The proposed project would not conflict with any existing agricultural zoning or Williamson Act contracts and the California Department of Conservation designates the project site as "Urban and Built-Up Land." No land in San Francisco is designated as forest land or timberland by the State Public Resource Code. Therefore, the proposed project would not conflict with zoning for forest land, cause a loss of forest land, or convert forest land to a different use. For these reasons, Topics 17.a, 17.b, 17.c, 17.d, and 17.e are not applicable to the proposed project.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	Not Applicable
18. MANDATORY FINDINGS OF SIGNIFICANCE—Would the project:					
a) Have the potential to 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, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐	☐
b) Have impacts that would be 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) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐	☐

a) As discussed, the proposed project is anticipated to have Less-Than-Significant Impacts or Less-Than-Significant Impacts with mitigation incorporated on the environmental topics identified in this Initial Study.

b) The proposed project in combination with past, present and foreseeable projects as described in Section E, would not result in cumulative impacts to land use, population and housing, cultural resources, transportation and circulation, noise and vibration, air quality, wind and shadow, GHG emissions, recreation, utilities and service systems, public services, biological resources, geology and soils, hydrology and water quality, hazards and hazardous materials, mineral and energy resources, and agricultural and forest resources.

c) The proposed project with mitigation incorporated, as discussed above, would not result in significant adverse impacts on human beings, either directly or indirectly.

I. MITIGATION MEASURES

The following mitigation measure has been identified to reduce potentially significant environmental impacts resulting from the proposed project to Less Than Significant levels.

Mitigation Measure M-NO-3, Vibration Management ~~Plan~~:

The project sponsor shall implement all recommendations included in the Vibration Monitoring Plan approved by PG&E on November 13, 2018 and the Planning Department on March 17, 2020. These recommendations include the following.

The project sponsor shall monitor vibration levels continuously during construction. Prior to construction activities, the monitoring equipment shall be installed and checked for proper operation and connectivity to the internet by the project sponsor and by PG&E. After the installation is verified, pre-construction vibration levels will be monitored for a week, if the schedule allows. The project sponsor shall install two geophones (devices used for detecting vibration through rocks, soil or ice) approximately 6 inches away from Pipeline 109, to the depth of the pipeline, positioned to the west side of the pipeline toward the construction site. The project sponsor shall maintain these monitoring locations throughout the construction activities of concern: building foundation excavation, utility trenching, and the street extension. The output of these geophones shall be transmitted to two battery powered vibration loggers (Instantel MiniMate Plus seismographs or equivalent). The project sponsor shall house this equipment in two 30x16x12 inch metal containers which will be secured appropriately on the site and placed at a distance such as not to interfere with construction activities. The Peak Particle Velocity (PPV) will be logged in 10-second intervals for comparison to the 2.0 in/sec limit.

The project sponsor shall install warning lights on the equipment boxes, programmed to illuminate if the level reaches 2.0 in/sec. Additionally, the project sponsor shall connect each project seismograph to a wireless data modem which shall send an alert to pre-determined cell phones or email addresses in case the vibration limit is reached. These alerts shall go to Illingworth & Rodkin, Inc. (I&R) personnel assigned to the project, the on-site construction manager or other persons authorized to halt construction activities, and any other personnel authorized by the project manager. Using this system, the monitoring will be typically unattended.

A project team technician shall check the vibration monitoring equipment on a weekly basis, and equipment battery replacement and other maintenance shall be completed at this time. All project seismographs shall be programmed to complete a daily self-check of the geophone response

during non-construction hours. The levels collected for the week shall be reviewed by I&R personnel to determine if levels are approaching the threshold.

If the level of construction vibration reaches 2.0 in/sec, construction shall be halted. The construction manager (or designee) shall attempt to identify the construction activity responsible. If necessary, I&R personnel will assist in this identification on-site.

~~The Project Sponsor shall retain the services of a qualified structural engineer to develop, and the Project Sponsor shall adopt, a vibration management and continuous monitoring plan to cover any construction equipment operations performed within 20 feet of PG&E Pipeline 109. The vibration management and monitoring plan shall be submitted to PG&E and Planning Department staff for review and approval prior to issuance of any construction permits. The vibration management plan shall include:~~

- ~~**Vibration Monitoring**: Continuous vibration monitoring throughout the duration of the major structural project activities to ensure that vibration levels do not exceed the established standard.~~

Maximum PPV Vibration Levels: Maximum PPV vibration levels for any equipment shall be less than 2 inches per second (in/sec). Should maximum PPV vibration levels exceed 2 in/sec, all construction work shall stop, and PG&E shall be notified to oversee further work.

Work Beyond 10 Feet of Pipeline 109: Whenever construction would occur on-site beyond 10 feet of Pipeline 109, the on-site Project Manager shall manage the vibration monitoring equipment. If the vibration monitoring equipment indicates vibration levels above 2 in/second, the Project Manager shall stop all construction activity. The Project Manager or their agent would then contract the PG&E pipeline engineer responsible for the San Francisco area (at the time of publication of this PMND, Elpinike Pappous). If a gas leak is detected, the project manager (or the PG&E pipeline engineer, if present) would call Gas Control at 1-800-811-4111. Gas Control would communicate with SFFD and SFPD as well as other first responders. In addition, PG&E leak survey personnel would be deployed to survey the pipeline in the immediate vicinity of the vibration. Response time would be a maximum of 3 hours and the survey would be completed within the same business day. In the event of any work stoppage, work would only resume when PG&E informs the project sponsor.

Standby Inspection for Work Within 10 Feet of Pipeline 109: A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity within 10 feet of the gas pipeline(s). This includes all grading, trenching, gas line depth verifications (potholes), asphalt or concrete demolition/removal, removal of trees, signs, light poles, etc. This inspection would be coordinated through the Underground Service Alert (USA) service at **811 or 1-800-227-2600**. A minimum notice of 48 hours is required. If vibration levels exceed 2 inches per second, the PG&E inspector would ensure that all construction activity ceases and call the PG&E pipeline engineer responsible for the SF area (Elpinike Pappous, 925-872-1027, or authorized agent).

For any gas-related emergencies, such as leaks, the contractor would call Gas Control at 1-800-811-4111 (if the PG&E Inspector is present, the inspector would call Gas Control). Gas Control would then communicate with the San Francisco Fire Department (SFFD) and the San Francisco Police Department (SFPD), as well as other first responders. PG&E leak survey personnel would be deployed to survey the pipeline in the immediate vicinity of the vibration to verify that damage had not occurred. Response time would be a maximum of 3 hours and the survey would be completed within the same business day. Work can only resume with PG&E authorization.

Grading/Excavation: Any excavations, including grading work, above or around Pipeline 109 must be performed with a PG&E inspector present. This includes all laterals, subgrades, and gas line depth verifications (potholes). Work in the vicinity of Pipeline 109 must be completed consistent with PG&E Work Procedure TD-4412P-05 "Excavation Procedures for Damage Prevention." Any plans to expose and support Pipeline 109 across an open excavation must be approved by PG&E Pipeline Engineering in writing prior to performing the work. Any grading or digging within two (2) feet of Pipeline 109 shall be dug by hand. Water jetting to assist vacuum excavating must be limited to 125 pounds per square inch gage (psig).

Pipeline Markers: Prior to the commencement of project activity, pipeline markers must be placed along the pipeline route. With written PG&E approval, any existing markers can be temporarily relocated to accommodate construction work, but must be reinstalled once construction is complete.

Fencing: No parallel fencing is allowed within 10 feet of Pipeline 109 and any perpendicular fencing shall require 14 foot access gates to be secured with PG&E corporation locks.

Structures: Permanent structures must be located a minimum distance of 10 feet from the edge of Pipeline 109. A total width of 45 feet shall be maintained for pipeline maintenance. No storage of construction or demolition materials is permitted within this 45 foot zone.

Construction Loading: To operate or store any construction equipment within 10 feet of Pipeline 109 that exceeds the half-axle wheel load (half axle weight is the gross weight upon any one wheel, or wheels, supporting one end of an axle) in the table below, approval from a PG&E gas transmission pipeline engineer is required. Pipeline 109 may need to be potholed by hand in to confirm the depth of the existing cover. These weight limits also depend on the support provided by the Pipeline's internal gas pressure. If PG&E's operating conditions require the Pipeline to be depressurized, maximum wheel loads over the pipeline will need to be further limited. For compaction within two feet of Pipeline 109, walk-behind compaction equipment shall be required. Crane and backhoe outriggers shall be set at least 10 feet from the centerline of Pipeline 109. Maximum PPV vibration levels for any equipment shall be less than 2 in/sec.

Depth of Cover to Top of Pipe (ft.)	Maximum Half-Axle Wheel Loading (lbs)
2	4,580
3	6,843
4	7,775
5	7,318

<u>At all times, the project sponsor shall:</u>

- <u>Ensure that trained personnel, knowledgeable about emergency procedures, be on-site during all project work.</u>
- <u>Comply with all CalOSHA regulations regarding shoring and excavation.</u>

- Comply with all City and County of San Francisco regulations regarding shoring and excavation.
- Remove all combustible scrap and debris at regular intervals during the course of construction.
- Prohibit smoking on the jobsite and in the vicinity of operations including the posting of "No Smoking or Open Flame" signs.
- Keep the storage site free of the accumulation of unnecessary combustible materials.
- Ensure that all materials are stored, handled, and piled with due regard to their fire characteristics.
- Ensure that noncompatible materials, which may create a fire hazard, be segregated by a barrier having a fire resistance of at least 1 hour.
- Ensure that material would be piled to minimize the spread of fire internally and to permit convenient access for firefighting.

J. PUBLIC NOTICE AND COMMENT

~~This Mitigated Negative Declaration has been prepared by the Planning Department pursuant to the Department's rescinding of a July 8, 2016 Categorical Exemption determination to allow for further analysis of potential environmental impacts. The Categorical Exemption was rescinded prior to a scheduled CEQA appeal hearing before the Board of Supervisors in December 2016. The Appellants included individual neighbors and nearby neighborhood organizations, and supporters of the appeal included dozens of individuals, the Sierra Club, and the Bernal Heights Democratic Club. The proposed project was also the subject of Discretionary Review requests by nine individuals and two neighborhood organizations, with the support of neighbors and organizations similar to those supporting the CEQA appeal.~~

~~In the course of both the Discretionary Review process and the appeal filed on the July 2016 Categorical Exemption, public comments included concerns about the appropriateness of a Categorical Exemption for the proposed project due to the unique nature of the project site; concerns about cumulative impacts of the development of the remaining lots; concerns about the integrity and safety of PG&E Pipeline 109; emergency access; traffic; and public vistas.~~

~~As a result of these public comments, the Planning Department decided to rescind the Categorical Exemption and issue a Mitigated Negative Declaration for the proposed project to ensure that potential environmental impacts to these and other resource areas are properly analyzed, and mitigations instituted, if appropriate.~~

Notice of the availability of this Revised FMND has been sent to all who commented on the June 15, 2017 MND. Consistent with San Francisco Board of Supervisors motion M17-152 (Legislative File Number 171022), passed at their meeting of September 26, 2017, comments on this Revised FMND shall be limited to those sections of this Revised FMND that were amended pursuant to the Board's direction, which are shown as deletions in ~~strikethrough~~ and additions in double underline, for ease of reference.

K. DETERMINATION

On the basis of this Initial Study:

☐ 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.

☐ 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 imposed upon the proposed project, no further environmental documentation is required.

3/25/2020

DATE

Lisa Gibson

Lisa Gibson
Environmental Review Officer
for
Rich Hillis ~~John Rahaim~~
Director of Planning

L. INITIAL STUDY PREPARERS

REPORT AUTHORS

Planning Department, City and County of San Francisco
Environmental Planning Division
1650 Mission Street, Suite 400
San Francisco, CA 94103

Environmental Review Officer: Lisa Gibson
Principal Environmental Planner: Joy Navarrete
Senior Environmental Planner: Josh Pollak
Environmental Planner: Justin Horner

PROJECT SPONSOR

Bluorange Designs

Project Sponsor: Fabien Lannoye

Leak, Hazard, and Emergency Response

	Natural Gas	Petroleum Gas	Petroleum Liquids	Anhydrous Ammonia	Carbon Dioxide	Ethanol	Hydrogen Gas	Sour Gas (H2S)	Sour Crude Oil (H2S)	Liquids & Natural Gas
INDICATIONS OF A LEAK										
See - liquid pooling on the ground			X			X			X	X
See - a white vapor cloud that may look like smoke		X		X	X					
See - fire coming out of or on top of the ground	X	X					X	X		X
See - dirt blowing from a hole in the ground	X	X		X	X		X	X		X
See - a sheen on the surface of water		X	X						X	X
See - an area of frozen ground in the summer	X	X		X	X		X	X		X
See - an unusual area of melted snow in the winter	X	X			X		X	X		X
See - an area of dead vegetation	X	X	X	X	X	X	X	X	X	X
See - bubbling in pools of water	X	X		X	X		X	X		X
Hear - a loud roaring sound like a jet engine	X	X		X	X		X	X		X
Hear - a hissing or whistling noise	X	X		X	X		X	X		X
Smell - an odor like rotten eggs or a burnt match	(1)	(1)						X	X	(1)
Smell - an odor like petroleum liquids or gasoline		X	X			X			X	X
Smell - an irritating and pungent odor				X				X	X	
HAZARDS OF A RELEASE										
Highly flammable and easily ignited by heat or sparks	X	X	X			X	X	X	X	X
Will displace oxygen and can cause asphyxiation	X	X		X	X		X	X		X
Vapors are heavier than air and will collect in low areas		X	X	X	X	X		X	X	X
Contact with skin may cause burns, injury or frostbite		X	X	X	X	X	X	X		X
Initial odor may be irritating and deaden the sense of smell								X	X	
Toxic and may be fatal if inhaled or absorbed through skin				X				X	X	
Vapors are extremely irritating and corrosive				X				X	X	
Fire may produce irritating and/or toxic gases	X	X	X	X		X	X	X	X	X
Runoff may cause pollution			X	X		X			X	X
Vapors may form an explosive mixture with air	X	X	X			X	X	X	X	X
Vapors may cause dizziness or asphyxiation without warning	(1)	(1)			X		X	X	X	(1)
Is lighter than air and can migrate underground and into enclosed spaces	X						X			X
EMERGENCY RESPONSE										
Avoid any action that may create a spark	X	X	X			X	X	X	X	X
Do NOT start vehicles, switch lights or hang up phones	X	X	X			X	X	X	X	X
Evacuate the area on foot in an upwind and/or uphill direction	X	X	X	X	X	X	X	X	X	X
Alert others to evacuate the area and keep people away	X	X	X	X	X	X	X	X	X	X
From a safe location, call 911 to report the emergency	X	X	X	X	X	X	X	X	X	X
Call the pipeline operator and report the event	X	X	X	X	X	X	X	X	X	X
Wait for emergency responders to arrive	X	X	X	X	X	X	X	X	X	X
Do NOT attempt to operate any pipeline valves	X	X	X	X	X	X	X	X	X	X
Take shelter inside a building and close all windows				(2)	(2)			(2)	(2)	

(1) The majority of these products are naturally odorless and only certain pipeline systems may be odorized
(2) Sheltering in place is an alternative to evacuation when the products are toxic or the risk of fire is very low

www.pipelineawareness.org

12-19-19

Appendix C

Recommended Minimum Evacuation Distances For Natural Gas Pipeline Leaks and Ruptures

(Not applicable for Butane, Propane, or other Hazardous Liquids)

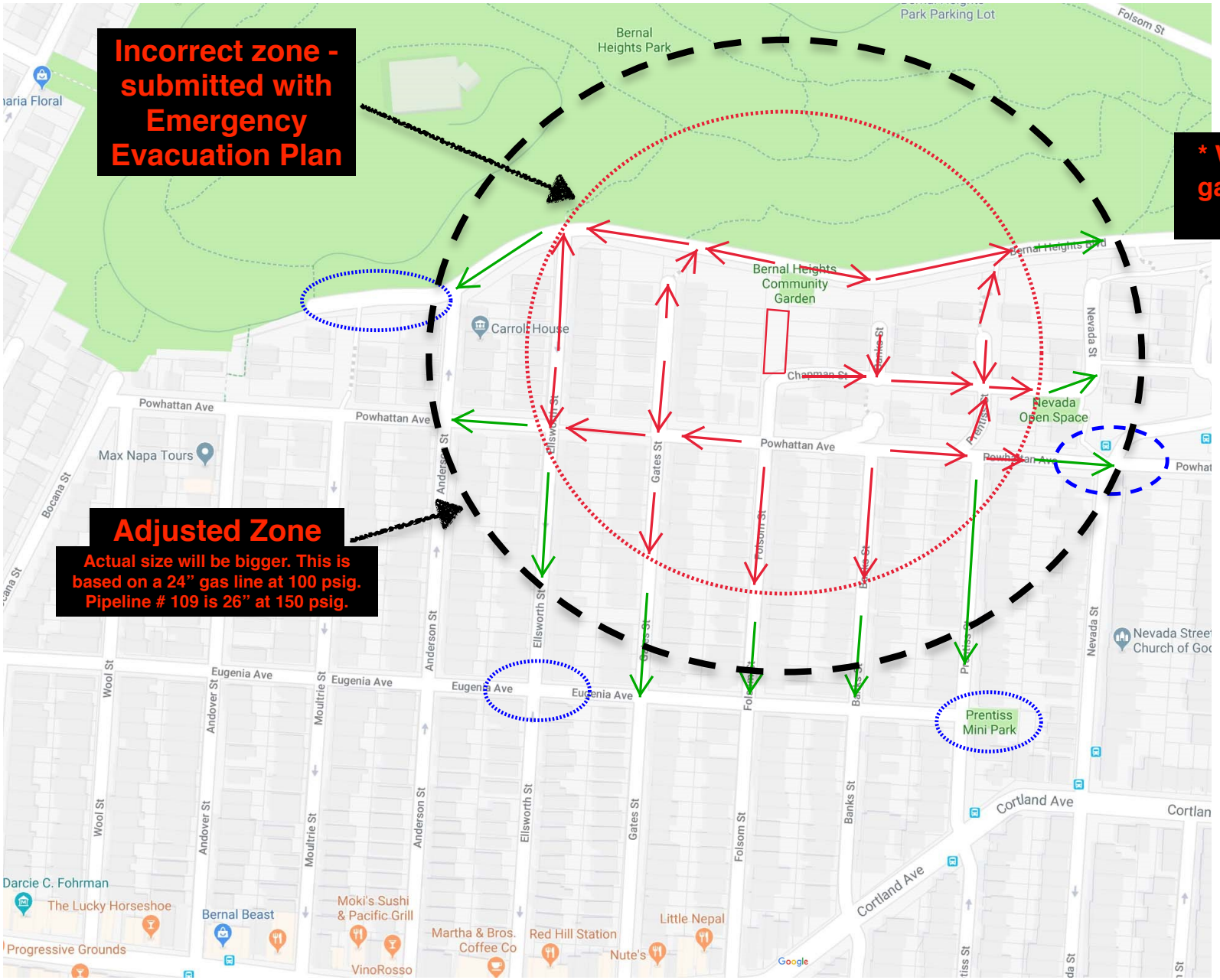
Pipeline Size (Inches)

Pressure (psig)	4	6	8	10	12	16	20	22	24	30	36	42
100	91	137	182	228	274	365	456	502	547	684	821	958
200	129	193	258	322	387	516	645	709	774	967	1161	1354
300	158	237	316	395	474	632	790	869	948	1185	1422	1659
400	182	274	365	456	547	730	912	1003	1094	1368	1642	1915
500	204	306	408	510	612	816	1020	1122	1224	1529	1835	2141
600	223	335	447	558	670	894	1117	1229	1340	1675	2011	2346
700	241	362	483	603	724	965	1206	1327	1448	1810	2172	2534
800	258	387	516	645	774	1032	1290	1419	1548	1935	2322	2709
900	274	410	547	684	821	1094	1368	1505	1642	2052	2462	2873
1000	288	433	577	721	865	1154	1442	1586	1730	2163	2596	3028
1100	302	454	605	756	907	1210	1512	1664	1815	2269	2722	3176
1200	316	474	632	790	948	1264	1580	1738	1896	2369	2843	3317
1300	329	493	658	822	986	1315	1644	1809	1973	2466	2959	3453
1400	341	512	682	853	1024	1365	1706	1877	2047	2559	3071	3583
1500	353	530	706	883	1060	1413	1766	1943	2119	2649	3179	3709
1600	365	547	730	912	1094	1459	1824	2006	2189	2736	3283	3830
1700	376	564	752	940	1128	1504	1880	2068	2256	2820	3384	3948
1800	387	580	774	967	1161	1548	1935	2128	2322	2902	3482	4063
1900	398	596	795	994	1193	1590	1988	2186	2385	2981	3578	4174
2000	408	612	816	1020	1224	1631	2039	2243	2447	3059	3671	4283
2100	418	627	836	1045	1254	1672	2090	2299	2508	3134	3761	4388
2200	428	642	856	1069	1283	1711	2139	2353	2567	3208	3850	4492

Table 1 – Evacuation Distance in Feet

The applicable leak or rupture condition is that of a sustained trench fire fueled by non-toxic natural gas escaping from two full bore pipe ends. Blast overpressure is not addressed. The distances shown in Table 1 are intended to provide protection from burn injury and correspond to a thermal heat flux exposure level of 450 Btu/hr ft2. This is the accepted limit of heat exposure for unprotected outdoor areas where people congregate; as established by the US Department of Housing & Urban Development Code 24CFR51, Subpart C, Siting of HUD Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature. The formula used to calculate distance was taken from the Gas Research Institute Report GRI-00/0189, A Model for Sizing High Consequence Areas Associated with Natural Gas Pipelines, 2001, prepared by C-FER Technologies. The formula is: square root of pressure x nominal pipe size x 2.28. That model does not take into account wind or other factors which may greatly influence specific conditions. Users are advised that the distances shown in Table 1 are considered to be "general information" only and are not intended to replace a site specific risk analysis. The Pipeline Association for Public Awareness makes no warranty with respect to the usefulness of this information and assumes no liability for any and all damages resulting from its use. Anyone using this information does so at their own risk.

Incorrect size of Evacuation Zone *



EVACUATION ROUTES

* Wind and down hill flow of gas will impact the shape of this evacuation map.

300' RADIUS AREA

EVACUATION ROUTE

SAFE AREA

SAFE GATHERING AREA

April 24, 2020

To: Clerk, SF Board of Supervisors

From: Kathy Angus
Bernal Heights So. Slope
Organization
415-690-4568 / kathyangus@comcast.net

Re: Appeal Letter for Revised
Final ~~Mitigated~~ Neg. Dec.
for
3516 & 3526 Folsom St.
Persuant to BOS M17-152

Enclosed please find a check for $1640 for the above appeal. I am also enclosing a copy of the Appeal for Fee Waiver.

All related materials & the Appeal itself were sent via email earlier today.

Contact me if you have any questions.

Clerk, Board of Supervisors
1 Dr. Carlton B. Goodlett Place, Room 244
San Francisco, CA
94102

Bernal Heights So. Slope
organization

Kathy Angus
[redacted]

SAN FRANCISCO CA 940
24 APR 2020 PM 5 L

Revised Final Neg Dec Appeal

LAWRENCE J. NELSON
KATHLEEN R. ANGUS
[redacted]

11-4288-1210

7875

Date 4/24/2020

Pay To The Order Of SF Planning Dept $ 640.00

Six hundred forty —— Dollars

Security Features Included. Details on Back.

WELLS FARGO BANK, N.A.
CALIFORNIA
WELLSFARGO.COM

For B.H. south slope org. 3516 & 3526 Folsom

MP

[redacted]

©CHECKS UNLIMITED • SHADES OF THE SOUTHWEST • TO REORDER: 1-800-204-2244 • www.ChecksUnlimited.com

San Francisco Planning

BOARD OF SUPERVISORS APPEAL FEE WAIVER
FOR NEIGHBORHOOD ORGANIZATIONS

APPLICATION

Appellant's Information

Name: Kathy Angus, Co-chair

Address: St., San Francisco

Email Address: kathyangus@comcast.net

Telephone:

Neighborhood Group Organization Information

Name of Organization: Bernal Heights South Slope Organization

Address: St., San Francisco, CA

Email Address: kathyangus@comcast.net

Telephone:

Property Information

Project Address: 3516 and 3526 Folsom Street

Project Application (PRJ) Record No: 2013.12.16.4318 & 4322 Building Permit No:

Date of Decision (if any): 3/25/2020

Required Criteria for Granting Waiver

All must be satisfied; please attach supporting materials.

REQUIRED CRITERIA	YES	NO
The appellant is a member of the stated neighborhood organization and is authorized to file the appeal on behalf of the organization. Authorization may take the form of a letter signed by the President or other officer of the organization.	✓	
The appellant is appealing on behalf of an organization that is registered with the Planning Department and that appears on the Department's current list of neighborhood organizations.	✓	
The appellant is appealing on behalf of an organization that has been in existence at least 24 months prior to the submittal of the fee waiver request. Existence may be established by evidence including that relating to the organization's activities at that time such as meeting minutes, resolutions, publications and rosters.	✓	
The appellant is appealing on behalf of a neighborhood organization that is affected by the project and that is the subject of the appeal.	✓	

For Department Use Only

Application received by Planning Department:

By: _____ Date: _____

Submission Checklist:

☐ APPELLANT AUTHORIZATION ☐ CURRENT ORGANIZATION REGISTRATION ☐ MINIMUM ORGANIZATION AGE

☐ PROJECT IMPACT ON ORGANIZATION

☐ WAIVER APPROVED ☐ WAIVER DENIED