

Appendix A

Notice of Preparation (NOP) and NOP Comments



Planning and Development Department
Land Use Planning Division

NOTICE OF PREPARATION (NOP) OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSED ASHBY BART STATION AND NORTH BERKELEY BART STATION TRANSIT-ORIENTED DEVELOPMENT ZONING STANDARDS

The City of Berkeley is preparing a Draft Environmental Impact Report (EIR) for the Ashby BART Station and North Berkeley BART Station Transit-Oriented Development (TOD) Zoning Standards Project ("the Project") and is requesting comments on the scope and content of the Draft EIR. The Draft EIR will address the potential physical and environmental effects of the Project for each of the environmental topics outlined in the California Environmental Quality Act (CEQA).

The City of Berkeley is the Lead Agency for the Project. This notice is being sent to the California State Clearinghouse, Alameda County Clerk, adjacent cities, and other interested parties. When the Draft EIR is published, a Notice of Availability of a Draft EIR will be sent to Responsible Agencies, other public agencies, and interested parties and individuals who have indicated that they would like to review the Draft EIR.

Responses to this Notice of Preparation (NOP) and any questions or comments should be directed in writing to: *Alisa Shen, Principal Planner, Planning and Development Department, 1947 Center Street, 2nd Floor, Berkeley, CA 94704; or ashen@cityofberkeley.info*. Comments on the NOP must be received **on or before December 21, 2020**. In addition, comments may be provided at the EIR Scoping Meeting (see below). Comments should focus on: possible impacts on the physical environment; ways in which potential adverse effects might be minimized, mitigated or avoided; and alternatives to the proposed project.

EIR PUBLIC SCOPING MEETING: The City of Berkeley will conduct a public scoping session on **December 2, 2020** as part of a regularly scheduled Planning Commission meeting. The meeting will start at **7:00 PM** and be held via video and teleconference only. Interested parties should check the Planning Commission website for information on how to join the meeting and to confirm the meeting date, time, and agenda: https://www.cityofberkeley.info/Clerk/Commissions/Commissions_Planning_Commission_Homepage.aspx

PROJECT TITLE: Ashby BART Station and North Berkeley BART Station Transit-Oriented Development Zoning Standards Project

PROJECT LOCATION: The project location consists of the Ashby BART Station site and the North Berkeley BART Station site.

The Ashby BART station site consists of two parcels: a 4.4-acre parcel that makes up

the block surrounded by Adeline Street, Ashby Avenue and Martin Luther King Jr Way, which includes the station building and surface parking; and a 1.9-acre surface parking lot located on the north side of Tremont Street on the block surrounded by Woolsey Street, Tremont Street, Adeline Street and Essex Street in south Berkeley (see Figure 1). The Ed Roberts Campus is located between the two parcels.

The North Berkeley BART Station site includes an 8.1-acre property currently occupied by the station entrance building, surface parking, and a BART operations building, on the block surrounded by Sacramento Street, Delaware Street, Acton Street and Virginia Street in north Berkeley. The Station site also includes three auxiliary lots, located north and west of the 8.1-acre property along the Ohlone Greenway: a 0.75 acre surface parking lot at the northwest corner of the intersection of Acton and Virginia Streets; an 0.44 acre surface parking lot located on the west side of Franklin Street between Virginia and Cedar Streets; and an 0.64 acre parcel currently occupied by the Peralta and Northside Community Gardens located between Peralta and Northside Avenues (see Figure 2).

PROJECT SPONSOR: City of Berkeley

EXISTING CONDITIONS: The project sites consist of two regional transit stations (the Ashby BART Station and North Berkeley BART Station). Both BART stations are located in urbanized areas and are generally surrounded by residential and mixed-use development.

The Ashby BART station west parking lot is currently zoned South Area Commercial (C-SA). The 1.9-acre east parking lot located east of the Ed Roberts campus is zoned Multiple Family Residential (R-3).

The North Berkeley BART station is current zoned Unclassified (U) and the three auxiliary parking lots are zoned Single Family Residential (R-1) and Restricted Two-family Residential (R-2A).

PROJECT DESCRIPTION and BACKGROUND: California Assembly Bill (AB) 2923, passed in 2018, requires the adoption of TOD zoning standards for BART-owned properties within ½-mile of station entrances in Alameda, Contra Costa and San Francisco counties that establish specific local zoning requirements for height, density, parking, and floor area ratio. The Project includes development of standards that comply with AB 2923 and are guided by additional City policy priorities related to affordable housing, an overall emphasis on social equity, and development without displacement. In 2020, the City of Berkeley began a community planning process to develop zoning/site planning scenarios for the Ashby and North Berkeley BART stations to refine into final zoning standards that comply with AB 2923.

According to AB 2923, zoning standards developed for the Ashby and North Berkeley BART stations must allow the following:

- Development at a density of 75 units per acre (or higher)
- Development at a height of 7 stories (or higher)
- Development with a Floor Area Ratio (FAR) of 4.2 (or higher)

In addition, the following parking standards are required:

- No minimum required vehicle parking
- No more than one vehicle parking space per unit is permitted
- A minimum of one bicycle parking space per unit

The proposed Project involves updating the City's zoning standards at the station sites to comply with AB 2923. The zoning at the Ashby and North Berkeley BART stations will primarily permit housing, but will also likely permit other non-residential uses such as retail, community-serving uses and civic spaces. The proposed Project would also constitute an update to the General Plan and potentially require changes to the Adeline Corridor Specific Plan (if adopted prior to the adoption of the BART TOD zoning). The proposed Project does not involve any specific development projects, but rather consists of land use and policy changes that could encourage new development.

The AB 2923 assumptions outlined above will be used to analyze potential environmental impacts of development that could be encouraged by the land use regulation changes in the proposed Project. At the Ashby BART station, the EIR will evaluate the impact of up to 1,200 dwelling units and 50,000 square feet of non-residential space that would be constructed, distributed between the 4.4-acre station site and the 1.9 acre surface parking lot east of the Ed Roberts campus. At the North Berkeley BART station, the EIR will evaluate the impact of up to 1,200 dwelling units, as well as 25,000 square feet of non-residential space, located on the main 8.1-acre station site. The three auxiliary lots located northwest of the station along the Ohlone Greenway are not anticipated to include any new development. Per the Memorandum of Understanding (MOU) between BART and the City of Berkeley, and due to their location directly above the underground BART right of way, it is anticipated that these lots would include only surface infrastructure enhancements.

These buildout assumptions are based on a reasonable maximum building envelope, taking into account the AB 2923 requirements, state and local land use regulations and other constraints of the sites. Any future development project proposed pursuant to these land use changes would be subject to its own project-level environmental analysis under CEQA.

More information about the project can be found on the City's website:

<https://www.cityofberkeley.info/bartplanning/>

POTENTIAL ENVIRONMENTAL EFFECTS: The proposed project may result in potentially significant environmental effects to the following: Air Quality, Cultural and Tribal Cultural Resources, Energy, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Land Use and Planning, Population and Housing, Public Services and Recreation, Transportation, and Utilities and Service Systems. All of these environmental factors will be analyzed in depth in the Draft EIR. Other issue areas, including Aesthetics, Agriculture and Forestry Resources, Biological Resources, Geology and Soils, Mineral Resources, and Wildfire, are anticipated to have no impacts or less than significant impacts.

The Draft EIR will also examine a reasonable range of alternatives to the proposed project, including the CEQA-mandated No Project Alternative and other potential

alternatives that may be capable of reducing or avoiding potential environmental effects while generally meeting the Plan objectives.



Alisa Shen, Principal Planner

Date of Distribution: November 20, 2020

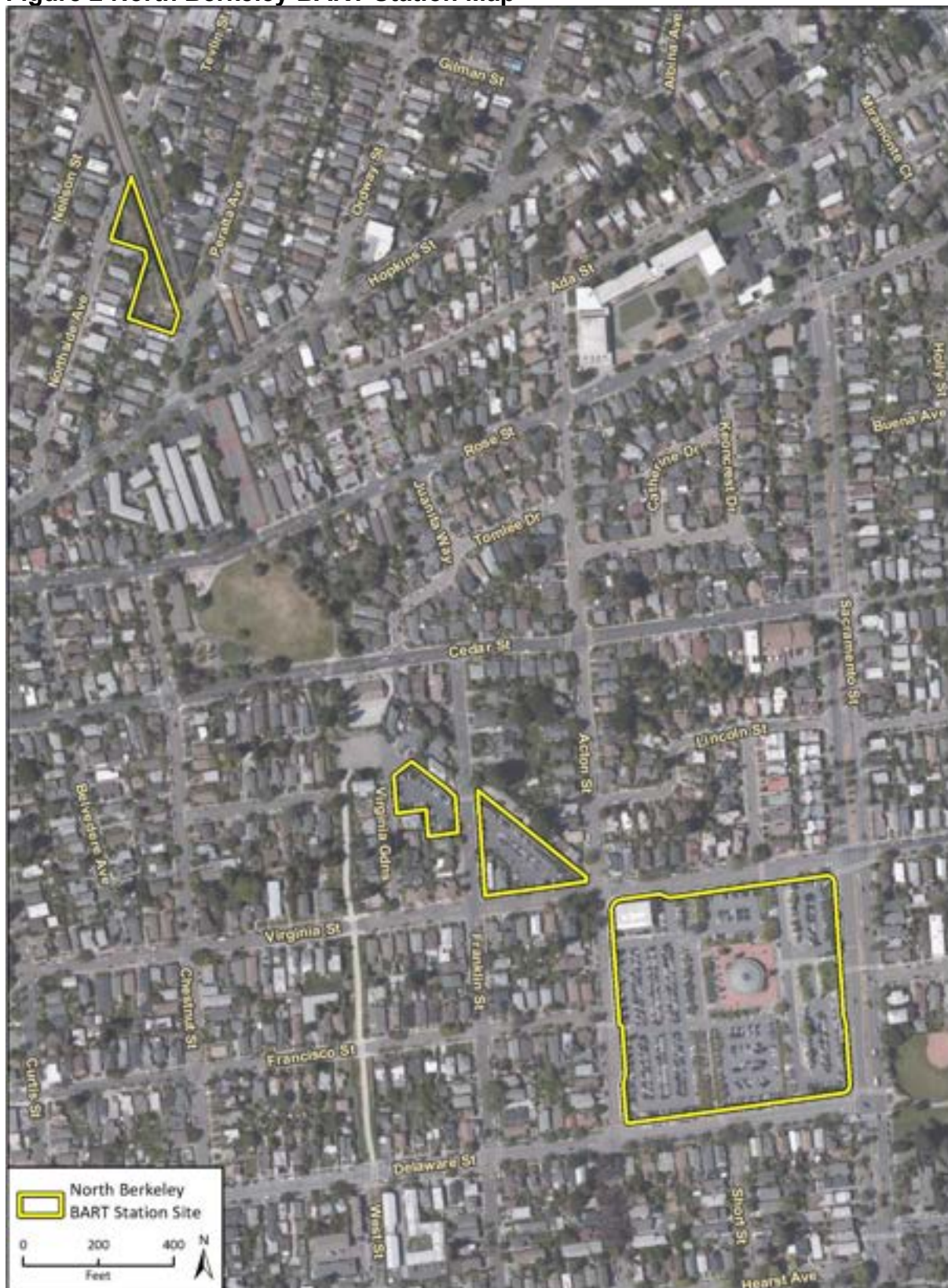
Attachments: Figure 1: Ashby BART Station Map
Figure 2: North Berkeley BART Map

Figure 1 Ashby BART Station Map



Imagery provided by Microsoft Bing and its licensors © 2020.

Figure 2 North Berkeley BART Station Map



Karly Kaufman

From: Mary Lai <mary@bigtoad.com>
Sent: Thursday, December 10, 2020 1:58 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Cc: North Berkeley Neighborhood Alliance
Subject: Keep North Berkeley development to 4 stories maximum!

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Please - no high rise building at this site! And why, with the unknowns of how the virus will mutate and how long we will need to isolate, would we want to build a building where people would have to squeeze into an elevator to leave their apartments?

We need light and air to stay healthy, and a high rise is NOT going to provide that. And the neighbors will lose their light and air as well.

YES, the politicians in Sacramento have mandated 7 stories, but do we have to knuckle under? Let's build housing that serves people, not housing that someone (who isn't a planning professional) tells us to build.

Respectfully yours,

Mary Lai
Age 78, resident of California & Delaware since 1963

Karly Kaufman

From: Lynda Caesara <lcaesara@hotmail.com>
Sent: Sunday, December 13, 2020 6:16 PM
To: Shen, Alisa
Subject: Height of the Bart Development at North Berkeley Bart

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hi ,

I live a block and a half from the Bart station. It is important the Bart development fit the neighborhood. We have apartments now in the neighborhood. i.e The Parc apartments on Delaware that are still advertising for tenants. There are many Market rate housing already in Berkeley and already being built. We need affordable housing not more market rate housing.

Putting up to 1100 units is more than the neighborhood can absorb. I understand that under AB2923 the site must be zoned for 7 stories. But this needs to be the maximum. No more than 7. Since the MOU states a commitment to respecting the neighborhood context That means that the site should be zoned for no more than 4 stories. Ideally four in the middle dropping to two on the outside.

Please don't overload our neighborhood with more people than we have parking for. It is absurd to think that people won't have a car in the neighborhood. How does one shop at Costco without a car. You can't just decide that families won't need and use a car.

I want an affordable , contextual and energy efficient development that will enhance the neighborhood and the city.

Thank you,
Lynda Caesara

Lapira, Katrina

From: Lynda Caesara [mailto:lcaesara@hotmail.com]
Sent: Wednesday, December 2, 2020 10:40 AM
To: Pearson, Alene <apearson@cityofberkeley.info>
Subject: North Berkeley Bart Housing Project

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

To Whom it may concern,

I am concerned about the project at the North Berkeley Bart Station. I understand that the project must comply with the minimum standards set by the state.

If the Bart lot is 8.1 acres and the minimum is 75 units per acre that totals 600 units which in and of itself is an enormous addition to the neighborhood. If 1200 unit are proposed and you have 2 or 3 people per unit- a minimum, you are adding over 3,000 people to the neighborhood. It is likely to be more than that.

This neighborhood can't absorb more than 3,000 people. There are 61 people housed on my block both sides of the street. You are likely to double the existing population in the neighborhood.

We don't have enough resources for double the population. There aren't enough parks. The parks in the neighborhood are already crowded. We don't have enough street parking. We may overload sewage, gas and electrical services. Please truly consider what you are asking the neighborhood to absorb.

Thank you,
Lynda Caesara
1619 Virginia ST.
Berkeley, Ca 94703.

Karly Kaufman

From: Lois Cantor <locando@comcast.net>
Sent: Thursday, December 10, 2020 11:58 AM
To: Shen, Alisa
Subject: BART

WARNING: This email originated outside of City of Berkeley.
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I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.
Lois Cantor
1629 Sacramento St.

Karly Kaufman

From: Leonard Mudrock <lmudrock@icloud.com>
Sent: Thursday, December 10, 2020 3:39 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Cc: Leonard Mudrock
Subject: North Berkeley BART planners

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear City of Berkeley BART planners,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 4 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Please think about comparing to maximum of 4 to 5 stories along busy University Ave between San Pablo Ave and Martin Luther King Jr. Way. It's fair to the height maximum in the neighborhoods in a distance radius. Delaware Street should not be busy and shows stepping down to two at the perimeter-this fits in with the surrounding residences. Also, "^^" shaped roof is appropriate to match with the surrounding residences' homes (not flat roof at the top).

Thank you.
Leonard Mudrock
1408 Delaware Street

Berkeley, CA 94702
(Across the street - North Berkeley BART parking lot)

Lapira, Katrina

From: Laura Klein [mailto:lauraanneklein@gmail.com]

Sent: Tuesday, December 1, 2020 7:38 PM

To: Shen, Alisa <AShen@cityofberkeley.info>

Subject: Message for the Planning Commission re Wednesday Dec. 3rd meeting on scoping North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear Members of the Planning Commission,

Thank you for all your work on this project. I live one block away from the site, and am supportive of housing being built. Here are my concerns about the environmental impact of the North Berkeley BART station project:

- The surrounding neighborhood consists of mostly one-to-two story homes, with a few low rise apartment buildings. **I support housing 2 stories at the perimeter, 4 stories in the center.** The proposed 1200 units of housing is WAY out of scale and would have a drastic effect on the surrounding community. This is not in keeping with The City of Berkeley's General Plan support for maintaining character of the neighborhoods. AB2923's characterization of the station as "Urban Area" was erroneous, and high rise buildings are completely out of place here. This is not a downtown, or a commercial area.
- I would like to see **affordable** housing be built here-it's public land, and should be for the public good.
- I'd like to see this be a **green** development-an inspiring example of truly environmental building, with solar power, grey water recycling, and other state of the art energy efficiency measures. This is a chance for the City of Berkeley to lead the way!
- I am very concerned about the **environmental impact of 800+ commuters who will no longer have a place to park**, and therefore will be cruising the neighborhood. This will cause increased emissions, noise, traffic and congestion. I am a senior and a working musician. When I come home with multiple bags of groceries or heavy musical equipment, I need to park close to my home. (I don't have a usable driveway.) The area will become a parking nightmare without replacement parking for commuters.

Thank you very much

Sincerely,
Laura Klein
1519 Virginia Street
Berkeley, CA 94703

Kevin James and Tom Reilly
1450 Keoncrest Drive
Berkeley, CA 94702
December 2, 2020

Members
Berkeley Planning Commission

Ladies and Gentlemen:

We write to express our concerns about the nature and scope of the proposals for development of the parking lot at the North Berkeley BART station for housing. We would support the construction of housing at the parking lot if the housing to be built were affordable housing and if the development were of the same approximate size and scope of the housing that has been built on such major nearby thoroughfares as University Avenue and San Pablo Avenue. But the currently contemplated development of the parking lot suffers from several major flaws. First, most of the units to be built will be market rate units and not affordable units; this means that the development will do little to ease the Bay Area's housing crisis. Second, the parking and traffic impacts of the development have been wished away; BART appears to assume that the residents of the apartment complex will not use cars. They will. Finally, the contemplated height of the apartment complex is entirely out of scale with the surrounding neighborhood of single-family homes. Indeed, it is taller than any of the apartment buildings that have been built on nearby commercial thoroughfares, and it is taller than the apartment buildings under construction next to the Fruitvale and Coliseum BART stations, and near the planned Berryessa/North San José station.

I. The parking lot at the North Berkeley BART station should be developed for affordable housing. The parking lot is publicly owned land, and it should be put to a use that will provide the greatest benefit to the public: construction of affordable housing for the teachers, city employees, plumbers, auto mechanics and baristas who work in Berkeley. All of the proposals for the development of housing at the North Berkeley BART station, however, assume that more than 70% of the housing that will be built will be market rate housing – i.e., expensive housing for well-paid professionals who work in other cities. This is squandering the opportunity that development of the North Berkeley BART station presents: BART faces no land acquisition costs and can take longer to recoup its development and construction costs than can any private developer. BART can and should ensure that at least half of the units built at the site are affordable units and, to that end, should choose a non-profit housing developer as its partner on the project.

Moreover, there is no shortage of market rate housing locally. BART has not yet tenanted the massive towers of “luxury apartments” (as they have been advertised) that it built at the MacArthur station, and there are human-scale, market-rate apartment buildings within a quarter mile of the North Berkeley BART station (e.g., “The Parc at 1300”) that have been seeking tenants for at least the past six months.

II. The proposals for the development of housing at the North Berkeley BART station include little to no parking for the people who will live in the new apartment complex. BART assumes that, if the residents of the new apartment complex do not have parking spaces, they will not have or use cars. This is wishful

thinking. While the residents of the new apartment complex may take BART to their jobs in Oakland or San Francisco, they will use cars for many other purposes – to shop, to take their children to preschool and school (children in Berkeley do not necessarily attend the elementary school nearest their home), to attend worship services, for medical appointments, etc. BART was designed and functions as a commuter rail service: it moves people from distant suburbs to downtown Oakland and downtown San Francisco. It is not an urban subway system. It does not reach most of the places that residents of the East Bay visit on a regular basis. Moreover, the North Berkeley BART station is on the Richmond line. This means that, even when BART is running normally, trains come only once every twenty minutes evenings and Sundays and that there is no direct service to San Francisco at those times. (The lack of direct service is significant; in our experience, the timed transfers at the MacArthur and 19th Street stations fail at least half the time evenings and weekends). This means that, as a practical matter, people in North Berkeley who want to travel to San Francisco in the evening or on the weekend find it much faster to drive into the City.

Moreover, even before the pandemic severely curtailed its operations, BART had suffered a marked decline in the quality of its service. Outside of commute hours, train cars frequently reeked of weed, and contained puddles of vomit, urine, and beer. Sexual harassment of female patrons was common, and assaults on passengers were not unusual.¹ BART ridership was falling even then as a result of these problems.² As such, the residents of any apartment complex likely to be built at the North Berkeley BART station are likely to use cars evenings and on weekends.

Much as we might prefer that everyone in Berkeley used public transportation and bicycles for all their transportation needs, the residents of the apartment complex to be built at the North Berkeley BART station will use cars. They will, therefore, significantly increase the vehicle traffic on nearby roads. If they own those cars, they will need a place to park them. If insufficient parking spaces are created for their cars, they will park them on the streets of North Berkeley adjacent to the North Berkeley BART station. While those streets are subject to a Residential Preferential Parking (RPP) system, the residents of the new apartment complex will likely manage to obtain parking permits enabling them to park on nearby streets. (Even if the City of Berkeley solemnly promises that the apartment complex residents will *never* be eligible for residential parking permits, the complex residents will eventually succeed in changing the City's policy. The residents of the apartment complex will, after all, constitute a substantial number of voters.)

If the residents of the apartment complex to be built at the North Berkeley BART station do not own their own cars, they will use Uber and Lyft for many of their trips. From a traffic congestion and environmental perspective, this would be far worse than if the residents owned and used their own cars: a 2019 study conducted in San Francisco found that “[an]Uber [or] Lyft [vehicle is] empty either waiting for a ride request or heading to pick up a passenger roughly half of the time [the] vehicle is on

¹ BART's statistics may not reflect the scope of the problem. In 2019, one of us was assaulted at the Lake Merritt BART station. The assailant left quickly, and we had no idea who he was. As there were no injuries, we did not report the incident.

² Swan, Rachel. “Flagging ridership puts BART in budget bind, raises specter of more fare hikes.” *San Francisco Chronicle*, 9 May 2019. Indeed, BART's weak financial position likely explains both the massive size of the proposed development of the North Berkeley BART station and the relative lack of affordable housing in any of the proposals.

the road.”³ The last thing we want is for the residents of the new apartment complex to rely on Uber and Lyft because BART failed to create an adequate number of parking spaces for them when it developed the property.

Accordingly, a thorough analysis of any proposal for construction of housing at the North Berkeley BART station must include an honest appraisal of the traffic and parking impacts of the new housing. Pretending that the residents will rely on BART for most or all of their transportation needs is naive if not intellectually dishonest.⁴

III. Several of the proposals under consideration for the development of housing at the North Berkeley BART station contemplate the construction of at least a seven-story apartment building. This is because BART has designated North Berkeley as an “urban neighborhood/city center,” requiring the City of Berkeley to zone the site to permit the construction of at least seven stories. But BART’s designation of the site appears so unwarranted as to be arbitrary and capricious: the surrounding streets consist primarily of one and two-story single-family homes, and buildings on the nearest commercial thoroughfare, University Avenue, are no more than four or five stories. Accordingly, construction at the site should be limited to four or five stories, as it would be if it were located on University Avenue. (Berkeley’s zoning practices hardly constitute the sort of exclusionary zoning that would justify BART to ride roughshod over them. Although Berkeley has less developable space than most cities in the Bay Area, it has built hundreds of new housing units in the past decade in downtown Berkeley, along the San Pablo corridor and along University Avenue.) Indeed, BART’s contemplated development of a seven to fifteen story building at the North Berkeley BART station is inconsistent with its ongoing development of four and five story apartment buildings adjacent to the Fruitvale and Coliseum BART stations, and with the construction of five story apartment buildings near its new station in North San José.

Assembly Bill 2923 was adopted to allow BART to develop transit-oriented housing in communities that had long used their zoning laws to prevent development. Instead of using its authority under AB 2923 to develop housing in such communities, it is using that authority at a site that local authorities were already planning to develop, with broad community support and in accordance with local zoning requirements that have allowed the development of a significant amount of housing in the past decade. Sadly, none of the projects that BART is considering creates a significant amount of affordable housing; as such, none of those projects, if built, will do anything to ease the Bay Area’s housing crisis. Moreover, BART assumes away the significant increased traffic and parking problems that will be created both by the development of housing at the North Berkeley BART station and by the elimination of most of the commuter parking at the station. Finally, BART is misusing its authority – giving a site in a neighborhood of single-family homes the same designation that it would give a site in downtown San Francisco – in

³ Rodriguez, Joe Fitzgerald. “Uber and Lyft traffic impacts double SF’s own estimates.” *San Francisco Examiner*, 5 August 2019.

⁴ Similarly, a thorough analysis of any proposal or construction of housing at the North Berkeley BART station must include an honest appraisal of the traffic and parking impacts of eliminating approximately 600 parking spaces for commuters at the station. Pretending that all the commuters who currently park at the station will commute to the station by bus or bicycle is wishful thinking. They might, instead, drive to San Francisco or Oakland; this would significantly increase traffic congestion and automobile emissions. Alternatively, they might commute to the North Berkeley BART station by Uber or Lyft. This would result in roughly double the current level of congestion and automobile exhaust created by those commuters.

order to build an apartment complex that is far taller than its surroundings and which is taller than the new housing now being built near other BART stations. BART should, instead, work closely with the City of Berkeley to develop an apartment complex roughly four or five stories high, with adequate parking for residents, and with a minimum of 50% affordable units. It should also work closely with the City to determine how best to address the loss of commuter parking spaces at the North Berkeley BART station: assuming that all of the commuters no longer able to park at the station will instead ride the bus to the station is not adequate analysis or a practical solution.

Sincerely yours,

Kevin James
Tom Reilly

Karly Kaufman

From: Elana Naftalin-Kelman <elanank@gmail.com>
Sent: Friday, December 11, 2020 11:49 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Good Afternoon,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Elana Naftalin-Kelman (1680 Short St.)

Karly Kaufman

From: Kathy Tuttle <kathy.tuttle@comcast.net>
Sent: Sunday, December 13, 2020 9:57 PM
To: Shen, Alisa
Subject: Development of Housing at North Berkeley BART

WARNING: This email originated outside of City of Berkeley.
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Dear Planning Commission:

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

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This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Sincerely,
Kathleen Tuttle
1451 Virginia Street

Karly Kaufman

From: Sbcglobal <kathy_jo@sbcglobal.net>
Sent: Sunday, December 13, 2020 4:18 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Development at North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

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I am a resident of North Berkeley and would like to see that development at the North Berkeley BART is no more than four stories, stepping down to two at the perimeter. This would be more in keeping with the surrounding neighborhood. High-rise housing would not be appropriate at this site.

Thank you.

Kathleen Jo
1440 Lincoln Street

Karly Kaufman

From: Karl Goldstein <kgoldstein46@gmail.com>
Sent: Sunday, December 13, 2020 5:02 PM
To: Shen, Alisa
Subject: N. Berkeley BART development

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I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

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Thank you.
Karl Goldstein

Lapira, Katrina

From: Pearson, Alene
Sent: Wednesday, December 2, 2020 11:41 AM
To: Lapira, Katrina
Subject: FW: BART development

From: Karl Goldstein [mailto:kgoldstein46@gmail.com]
Sent: Wednesday, December 2, 2020 11:37 AM
To: Pearson, Alene <apearson@cityofberkeley.info>
Subject: BART development

WARNING: This email originated outside of City of Berkeley.
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To the Planning Commission:

I am a resident of Berkeley, and want the North Berkeley station site developed in a way that is:

- **Liveable:** A project that harmonizes with, and does not overshadow the neighborhood: four story center stepped down to two-story soft perimeter.
- **Greener than green:** A net-zero, energy-efficient project.
- **Affordable:** 100% affordable for middle- and low- ^[L]~~[SEP]~~ income renters and buyers, with a nonprofit housing organization as builder.
- **Access to BART:** Safe, timely, guaranteed access to the station for all riders and **no** increased traffic/parking/congestion around the station.

This land was paid for by taxpayers and should not be used to enrich BART and private developers. We already have a glut of market rate housing in Berkeley. Public land for the public good!

*Sincerely,
Karl Goldstein
1376 Virginia Street
Berkeley, CA 94702*

Karly Kaufman

From: karen sumner <kjsumner@gmail.com>
Sent: Sunday, December 13, 2020 3:54 PM
To: Shen, Alisa
Subject: N berkely bart

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

hello,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site. This is a residential neighborhood.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

I believe the housing should be priced at a rate that would help people who work in our community to actually live here.

Thank you.

Karen Sumner
1659 Short St
Berkeley

Karly Kaufman

From: Julio Remelexo <remelexojulio@gmail.com>
Sent: Sunday, December 13, 2020 7:53 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Development at North Berkeley Bart

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hi,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Julio Barreto
1721 Sacramento St
Berkeley, CA 94702

Karly Kaufman

From: JULIA HUGHES <juliajnyahjulio@gmail.com>
Sent: Sunday, December 13, 2020 7:52 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART development

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hi,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Julia Hughes
1721 Sacramento St
Berkeley, CA 94702

Lapira, Katrina

From: Pearson, Alene
Sent: Wednesday, December 2, 2020 10:05 AM
To: Lapira, Katrina
Subject: FW: Proposed bldg N Berkeley BART

-----Original Message-----

From: Judy Peck [mailto:canarsiesfriend@icloud.com]
Sent: Wednesday, December 2, 2020 10:02 AM
To: Pearson, Alene <apearson@cityofberkeley.info>
Subject: Proposed bldg N Berkeley BART

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear Ms. Pearson and Planning Commission, I live on Virginia St,. 4 houses from the corner of Acton (NW corner of main N Berkeley BART parking lot) and across the street from one of the smaller lots. The proposed large development of a 7-storey building and 1200 units of housing at NBerkele BART is totally inappropriate. This neighborhood has one- or two-storey houses or apartments. Please study this issue and you will see such a large, high development does not belong. The city should be suing BART for the erroneous and harmful classification of the area as urban.
Judith Peck, 1366 Virginia

Sent from my iPhone

Karly Kaufman

From: Judy Massarano <jmassarano@gmail.com>
Sent: Sunday, December 13, 2020 9:19 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: BART plans

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is **no more than 4** stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used **for the public good**. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Judy Massarano

Attachments area

Lapira, Katrina

From: Pearson, Alene
Sent: Wednesday, December 2, 2020 10:26 AM
To: Lapira, Katrina
Subject: FW: BART ZONE Environment Review

From: john tozer [mailto:jvtozer@sonic.net]
Sent: Wednesday, December 2, 2020 10:25 AM
To: Pearson, Alene <apearson@cityofberkeley.info>
Subject: BART ZONE Environment Review

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear Sir/Madam:

There are many standard areas that are covered in an environmental review. I believe the following areas also need to be examined regarding the effect to the environment and the zoning of BART Parking Lots at Ashby and North Berkeley:

1. The parking issue needs to be examined because of the size of the project and the over flow of vehicles into the neighborhood for parking. Especially the issue of self drive vehicles and those how cannot or no longer drive who will be able to have vehicles in the future because of the ability of the vehicle to self drive. Many older people have given up driving because their reduced driving skill and safety to the general public. With the advent of self-drive vehicles, it is expected that there will be increase in the use and ownership of vehicle by people who do not drive now.
2. The size of the buildings will cause the signals for cell phones, televisions, music system etc. to be impacted and may cause significant degradation of the signals for these devices.
3. The increased number of residents in both areas will cause a significant increase in garbage - does the City of Berkeley currently have the resosurces to deal with these large increases in garbage and the landfill to dump this increase in garbage.
4. As the people in Berkeley have just witnessed a small seven story building burned on University Ave. and the fire department did not have the resources to totally put out the fire for three to four days. What will happen to the neighborhood if these large complexes are built without adequate fire protection.
5. The City of Berkeley has passed an ordiance that prohibits natural gas from being used in new construction. There is a waiver for high rise buildings - will these building be included in that waiver and what affect will it have on the City of Berkeley and the State California reaching its goals to meet climate change.
6. Many of the streets in both areas are very small and are already filled with cars. If there is an evacuation for some reason, how will the residents of these buildings be evacuated along with the current residence in the area.
7. What will be done to mitigate the shadows caused by these buildings.

Thank you for the work you are doing.

Yours truly,

John V. Tozer

1413 Cypress St.

Berkeley, CA 94703

Karly Kaufman

From: Joel Resnikoff <socialwks@hotmail.com>
Sent: Saturday, December 12, 2020 8:51 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Cc: Basak Altan
Subject: North Berkeley BART development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

We live at 1660 Short St, directly north of the North Berkeley BART station. The housing project there should be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but we understand that under AB2923, it must be zoned for at least that).

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter -- this fits in with the surrounding residences.

Remarkably, we have looked around Berkeley and **cannot find a single housing development which is 7 stories high**, let alone higher. We do not want high-rise housing at the site.

A major problem with this development is the **issue of parking**. If there is not a parking place for every apartment **and** for the BART riders who, pre-pandemic, filled the parking lots daily at N. Berkeley BART, the surrounding neighborhoods will be overrun with cars. We have lived in or tried to visit friends in cities with inadequate parking (San Francisco, Tel Aviv, Buenos Aires, Jerusalem, and even U.C.'s Albany Village) and it is a nightmare. Commuters from Grizzly Peak, Euclid, or Spruce will not suddenly begin riding bicycles or skateboards to the BART station in the morning if there is inadequate parking. They will either park on surrounding streets or skip BART and go back to commuting to work in their own cars -- not the direction we want to go in this age of global warming. The same is true for the thousand new neighbors who will be moving in across the street. They will still own cars and we, the existing neighbors and our guests coming to our homes, will be living in a traffic and parking nightmare. This may sound melodramatic, but we are only reporting on the reality which we and our friends have experienced elsewhere where there is inadequate parking.

Solar energy - We have invested \$20,000 in solar panels on our house. Highrise development at the BART site will block the southern sun and relegate our solar panels to the status of "useless". I would have never have expected such a situation in Berkeley, of all places, when we decided four years ago to invest in solar. The shadow of this housing will also impact many other residences which already have, or may want to invest in, solar power. In this age of global warming, this is, very simply, terrible planning.

This is not the only place in Berkeley to build housing. There is plenty of available market rate housing, and much more going up. The station is public land, and should

be used for the public good. We want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Joel and Irene Resnikoff
1660 Short St.

Karly Kaufman

From: Jodi Ravel <jodi.ravel@gmail.com>
Sent: Sunday, December 13, 2020 10:04 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Urgent: Uphold policy agreements and Respect the Context - No more than 4 stories at North Berkeley BART.

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hello Berkeley Leaders,

I am a resident of North Berkeley and I live 3 blocks from the North Berkeley BART station. While I'm not particularly joyful about it, I do understand the need to reclaim some of the BART parking lot to accommodate housing, and that AB 2923 requires the area to be zoned for 7 stories. That said, and as I'm sure you completely know in your heart and mind, actually allowing building that high, in the middle of this completely residential neighborhood, is WAY out of scale. This is not a downtown shopping area, nor a major street/boulevard throughfare like San Pablo or University, and it is a completely different type of location than the Ashby BART station.

So - I am writing to encourage/plead/beg city leaders to have an open mind, humility and vision, and to listen to the recommendations of well-respected, Berkeley citizens who have studied the requirements, and offer a compromise to limit the building height to no more more than 4 stories with step down to 2 stories on the perimeter. This is a decent compromise that provides for many additional units, and ALSO respects the aesthetics and emotional feeling of this small neighborhood in Berkeley as much as possible.

To address the need for maximizing housing in Berkeley, please remember this is not the only place to build or zone housing in Berkeley. In fact, market rate housing is already going up and a lot more are planned/underway. For example, I have attached 2 photos of huge rental buildings on San Pablo that are not even full. Please note that these are 3 and 4 story buildings and you can see how overwhelming they already feel, so you can only imagine how a 7 story building would look and feel like tucked into a residential area.

The BART station is public land, and should be used and considered for the public good for ALL. I want affordable, contextual, energy-efficient, green, 21st century development that will enhance this neighborhood and the city, and not turn it into a reminiscent 1960s era Soviet-style looking neighborhood.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents **ALL commit to respecting the context in developing the North Berkeley BART site**. These current policy agreements must not be ignored. Contextual development for this neighborhood is **no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences**.

Thank you for listening to tax paying, voting, neighbors of the North Berkeley BART.

Jodi Ravel
1272 Francisco Street.

Photos are from San Pablo Avenue - between University and Gilman.



Lapira, Katrina

From: Pearson, Alene
Sent: Wednesday, December 2, 2020 11:05 AM
To: Lapira, Katrina
Subject: FW: NO on 1200 units for N Berkeley BART Station development.!!

From: Jodi Ravel [mailto:jodi.ravel@gmail.com]
Sent: Wednesday, December 2, 2020 11:03 AM
To: Pearson, Alene <apearson@cityofberkeley.info>
Subject: Fwd: NO on 1200 units for N Berkeley BART Station development.!!

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hello

Please forward this for the record on upcoming City Council vote.

Even considering 1200 new units is totally crazy!! It is completely out of proportion to the area and unfair to the surrounding homes and community.

Also there are hundreds of units in developments already up and down San Pablo Avenue sitting empty. Take a look and focus on filling these first through incentives!!!!!!

Ask yourself, would you want 1200 new units built on YOUR street? I didn't think so.

NO on scoping for 1200 new units! It should be much much less.

Jodi Ravel
1272 Francisco St.

Karly Kaufman

From: Jason Warriner <jason.jaywar@gmail.com>
Sent: Thursday, December 10, 2020 12:13 PM
To: Shen, Alisa
Subject: North Berkeley BART development

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Jason

Karly Kaufman

From: J & J Schroeder <janicejimschroeder@gmail.com>
Sent: Thursday, December 10, 2020 5:00 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Re: Community Advisory Board meeting

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Mayor Arreguin, BART planners, City Council members,

I have lived in North Berkeley in a 480 square foot house for the past 42 years with my late husband and son. I remember Berkeley as a city with a much more diverse population and truly affordable housing/rental options. My neighborhood consisted of folks: of various cultures and many ethnicities, some people with disabilities, people of all ages, and many from the working class. There was a real sense of community.

I am writing to you because I want the North Berkeley BART to be zoned for a *maximum* of 7 stories, no more. We need truly affordable housing, energy-efficient units and units accessible for people with disabilities on fixed incomes.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter. This kind of development fits in with the surrounding residences. I do not want high-rise housing at the site.

There are a number of available market rate housing units, and lots more going up in Berkeley. Importantly, the North Berkeley BART station is **public** land. I strongly believe it should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city. Let us remember housing is a right, not a privilege!

Sincerely,
Janice Schroeder
1610 Curtis St.

Karly Kaufman

From: Elana Naftalin-Kelman <elanank@gmail.com>
Sent: Sunday, December 13, 2020 9:13 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office; Kesarwani, Rashi
Subject: building on north berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

To whom it may concern,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you,

Elana Naftalin-Kelman
1680 Short St.

Karly Kaufman

From: Eileen Hughes <jnyahsgrandma@gmail.com>
Sent: Sunday, December 13, 2020 9:29 AM
To: Berkeley Mayor's Office; All Council; bartplanning; Shen, Alisa
Subject: Fwd: Reminder: important call to action: send emails, speak up at tomorrow's CAG meeting!

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am fully in support of the NBNA positions cited below. I am strongly opposed to high-rise development at the site.

N Berk BART development should be consistent with the neighborhood (2 stories outside, no more than 4 stories inside).

Parking sufficient for the new residents and for BART customers should be provided on the BART property. Residential parking permits should not be provided to new residents. The RPP should not be changed to allow new residents to park on the street, taking away parking from existing residents.

It's disturbing to see for-profit interests be considered at the expense of existing residents.

Public land for public good!

Sincerely
Eileen Hughes
1721 Sacramento Street
Berkeley CA 94702

Begin forwarded message:

From: North Berkeley Neighborhood Alliance <nbneighborhoodalliance@gmail.com>
Date: December 13, 2020 at 9:02:56 AM PST
To: North Berkeley Neighborhood Alliance <nbneighborhoodalliance@gmail.com>
Subject: Reminder: important call to action: send emails, speak up at tomorrow's CAG meeting!

Dear neighbors,

Please take these two important actions!

1. Attend and speak at the Community Advisory Board (CAG) meeting tomorrow! (Monday, December 14th, 6-9PM) This meeting will address the height and size of the development at N. Berkeley BART, so it's a crucial one. To ensure that you get to speak, join no later than 8PM, and "raise your hand" as soon as public comment begins. You will probably have 1-2 minutes. Our community has only one representative (Tony Corman) on the 15 member committee, so we must make our voices heard! Access the meeting agenda [here](#).

Meeting details:

To join from a computer or smartphone: <https://zoom.us/j/95548545979?pwd=NGF4RTNjMjE1UVJzZExsaDNzNnhGdz09>.

To request to speak, use the "raise hand" icon by rolling over the bottom of the screen.

To join by phone: Dial (669) 900-6833 and enter Meeting ID: 955 4854 5979. The Meeting Passcode is 716555 If you wish to comment during the public comment portion of the agenda, Press *9 and wait to be recognized by the Chair.

Talking points:

- I live in North Berkeley- this is my neighborhood, and I want the housing at the BART site to be no more than 4 stories in the middle, 2 at the perimeter- appropriate for this low rise residential community.
- North Berkeley BART is not the only place to build housing in Berkeley. There's lots of market rate housing in Berkeley already, and more going up. This is public land and should be used for the public good- not for enriching BART and developers. Let's build a true paradise: contextual (low rise), affordable, and green (energy-efficient) housing.

2. Email the BART planners, Mayor and City Council. Copy and paste this message, or write your own, and send it to:

ashen@cityofberkeley.info, council@cityofberkeley.info,
mayor@cityofberkeley.info

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site.

Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

(Your name and address)

Please spread the word: attached to this email is a pdf to print out & give to neighbors that are in agreement with these points. Bring three new people to tomorrow's meeting-our strength is our numbers!

Many thanks to everyone who came to the two membership meetings this week-great to see & hear all of you!

Your neighbor,
Laura

<NBNAhandout.pdf>

Karly Kaufman

From: Dorit Resnikoff <doritresnikoff@yahoo.com>
Sent: Friday, December 11, 2020 12:12 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART building proposal

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hello,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I grew up in the area, and I have been priced out by "market-rate" housing prices. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Dorit Resnikoff
1364 Francisco St.

Lapira, Katrina

From: Pearson, Alene
Sent: Wednesday, December 2, 2020 10:51 AM
To: Lapira, Katrina
Subject: FW: Plan to build housing at North Berkeley BART station

From: DAVID POPE [mailto:popedm@comcast.net]
Sent: Wednesday, December 2, 2020 10:51 AM
To: Pearson, Alene <apearson@cityofberkeley.info>
Subject: RE: Plan to build housing at North Berkeley BART station

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

To the Planning Commission:

I live at 1635 Virginia St., a block and a half from the station. I am writing to express my opposition to any housing development at North Berkeley BART station at all.

David Pope

Karly Kaufman

From: Claudia <chava52@gmail.com>
Sent: Sunday, December 13, 2020 4:57 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I live half a block from the North Berkeley Bart station and want to underscore the need to build contextual housing there. The Bart station should be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There is plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Claudia Valas

1818 Short St, Berkeley, CA 94702

Lapira, Katrina

-----Original Message-----

From: Catherine Fox [mailto:cevensfox@msn.com]
Sent: Wednesday, December 2, 2020 10:27 AM
To: Pearson, Alene <apearson@cityofberkeley.info>
Subject: Transit housing at No Berk BART

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Ms. Pearson:

I support housing at North Berkeley BART that does not exceed 4 stories in height and honors the neighborhood that surrounds it. Suggestions that 1200 units might be built on the site are going to produce an enormous negative impact on the area: traffic, parking, pedestrian safety, etc. I do NOT support buildings that exceed 4 levels, and do not provide substantial affordable and low-income stock.

I have lived a block from the BART station since 1992, and recognize the need to provide affordable/below-market housing in our city. Yes to low-rise housing at North Berkeley BART.

Thank you.

Catherine Fox
Cevensfox@msn.com

Karly Kaufman

From: Basak Altan <basak.alt@gmail.com>
Sent: Friday, December 11, 2020 9:21 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Preserve the North Berkeley BART Neighborhood

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hello,

I am a resident of North Berkeley for over 18 years and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Basak Altan
1661 Short Street
Berkeley, CA 94702

Horner, Justin

From: Christopher Marks <CMarks@alamedactc.org>
Sent: Tuesday, December 22, 2020 2:11 PM
To: Shen, Alisa
Subject: Response to the NOP for
Attachments: Ashby_North_Berkeley_BART_TOD_Berkeley_NOP_20201221.pdf

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hi Alisa,

Please see our agency's response to the NOP for the proposed Ashby BART station and North Berkeley BART station TOD Zoning Standards project. Please let me know if you have any comments or concerns.

Best,

Chris G. Marks, Associate Transportation Planner
Alameda County Transportation Commission
1111 Broadway, Suite 800, Oakland, CA 94607
510.208.7453 direct dial | 510.208.7400 main line

Email: cmarks@alamedactc.org Website: www.alamedactc.org

Facebook: www.facebook.com/AlamedaCTC Twitter: [@AlamedaCTC](https://twitter.com/AlamedaCTC)



Our mission is to plan, fund and deliver a broad spectrum of transportation programs and projects that expand access and improve mobility to foster a vibrant and livable Alameda County.

Horner, Justin

From: Clarke Teresa <tkclarke2@yahoo.com>
Sent: Monday, December 21, 2020 10:43 PM
To: bartplanning
Cc: All Council; Berkeley Mayor's Office
Subject: BART EIR scoping

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear BART Planning Staff:

The EIR scoping should contemplate and study a much higher development intensity than the minimum required under AB 2923 and BART TOD for both the North Berkeley and Ashby BART stations. This means we should contemplate several stories higher than 7 stories, much, much, more density than 75 du/acre, and higher than 4.2 FAR.

Currently, we have been told that the EIR is going to study 1200 units on each BART station. However, no information has been provided to the public with the reasoning on how staff and consultants came up with these numbers. The numbers appear to be somewhat arbitrary since the BART stations have different acreages, why would they have the same number of units? Please provide the reasoning that came up with these numbers before finalizing the EIR scoping, and allow the public to comment on this logic. It doesn't seem right that North Berkeley BART would have the same number of units when it has a larger acreage and north Berkeley has historically had exclusive and discriminatory single family zoning practices that have kept densities low.

Zoning plans are done every 20 years. However, building technology and codes are changing rapidly. The idea that the zoning heights should be limited based on current assumptions about building types and construction costs is bad planning. This mistake was done with the Adeline Plan by assuming some building types were not feasible, and the zoning was unnecessarily limited based on this initial assumption.

I suggest allowing zoning heights up to 10 stories on both BART stations. Step backs and step downs can be used to lower heights adjacent to lower density existing. Engineered steel building are becoming cost competitive and can go up to 10 stories. Recently completed project by CCDC and MEDA is a 9 story mid-rise see 1296 Shotwell and another is an 8 story with parking lifts at SAHA's Madison at 14th.

<https://medasf.org/programs/community-real-estate/1296-shotwell-street-affordable-senior-housing-in-the-mission/>

One of many 8 story buildings have been built around the East Bay.
[Madison at 14th Apartments | SAHA](#)



Density and Building intensity:

A current project I am working on that will be starting construction in March 2021:

8 stories,

87 units

230 du/acre

5.6 FAR including the structured parking lifts (BART's FAR does NOT include structured parking)

parking ratio=.45 = 39/87 .

Construction cost= \$44 Million = \$505/SF

The above is an affordable non-profit project and is very similar to the Madison at 14th project. If we want to maximize the affordable non-profit projects on BART we need to allow for at least this much intensity and density.

Please provide for a zoning envelope that is much higher than the minimums required. We need to allow maximum flexibility to create a lot of housing if we are to get anywhere near the 7700 units in our upcoming RHNA goals.

I also urge the city council to immediately direct city planning staff to begin study of re-zoning within 1/2 mile of the BART stations with an overlay of higher density. Single family zoning around our BART stations does not make any sense anymore. This should build on the discussion of housing at BART stations. We must move away from having such low density around transit. It is simply bad city planning.

Sincerely,

Teresa Clarke
resident of Berkeley
94703

Horner, Justin

From: aimee baldwin <junk.menagerie@gmail.com>
Sent: Friday, December 18, 2020 10:00 AM
To: bartplanning
Cc: Kesarwani, Rashi; Berkeley Mayor's Office; All Council
Subject: Re: Dec 16 CAG office-hours: I expect an apology

WARNING: This email originated outside of City of Berkeley.

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Hello,

I would like to read the following statement at the beginning of the next public meeting about the BART developments (not yet scheduled?). I know I am a terrible public speaker, and I am sure my emotional distress of this topic, which makes it hard for me to breathe if I even start thinking of this, will make it even harder for me to be clear, but what I have to say needs to be heard, and I deserve just a few minutes of everyone's time and patience to say it.

By fabricating a fake racist history for personal gain, Barnali Ghosh has undermined efforts to gain acknowledgement of the true past racist practices that took place here. The acknowledgment of those past injustices are essential to us finding a path to healing from those wounds and to preventing future injustices. Barnali Ghosh has made a mockery out of real struggles and hardships faced by families who were redlined into neighborhoods around the BART stations. She has acted as though racism is a toy that gets waived around by a spoiled child, just because she doesn't want to do the hard work on the CAG, of respectfully negotiating a great variety of needs and desires from the community regarding the future BART developments. I want civic policy, public projects, and developments to work towards fixing the racial inequalities inflicted in past, but by fabricating a false racist past which is the exact opposite of the true racist past in my neighborhood, her actions go directly against these very hard, and very real struggles. I need a public admission of wrong-doing by Barnali Ghosh. I also need her and all of the other members of the CAG committee, who did not call her out on this falsehood, to understand the depth and severity of this transgression.

Thank you,
Aimee

On Thu, Dec 17, 2020 at 4:52 PM aimee baldwin <junk.menagerie@gmail.com> wrote:

Unfortunately, I have another example from Dec 16th CAG office-hours of losing my trust in this CAG process. This is beyond what I was complaining about in my previous email, where I stated that the consultants who are in the development industry are pointedly guiding the final decisions of the CAG to be what developers want, without a fully open communal process. This is far more personally insulting and hurtful than just showing preference for one construction method over another.

I was deeply offended by Barnali Ghosh's condescending, self-righteous rant that she is trying to fight historic racism by insisting on maximizing units in super tall, dense developments at North Berkeley BART. She claims that it is the CAG's duty to ignore the vocalized desires against super tall buildings by the neighbors near North Berkeley BART because she claims it's an historically privileged neighborhood with exclusionary practices, and neighbors are just trying to perpetuate racist policy.

My family was redlined into this neighborhood, where I still live, within two blocks of North Berkeley BART. If Barnali had been actually talking to more underprivileged neighbors, as she claims, rather than making up fictional narratives, she would know that we are not an historically privileged neighborhood. Much of the neighborhood around North Berkeley BART was the poorer "undesirable" redlined neighborhoods (it's easy to look up on historical redlining maps!), and there are still many of us families here who were redlined into living west/north of the BART station in the 1950s and 60s, back before BART even existed. We are not an "historically privileged" community, as she wants to claim. I am insulted that she is pretending to want to fight racism, by erasing my family's legacy of getting redlined into this neighborhood, because it doesn't suit her desired outcome in the CAG's final decisions.

When Barnali does not even know what Berkeley's historically racist policies have been, it is deeply offensive to families who lived through that racist policy, that she is allowed to disingenuously claim special understanding of racism, and any more of these kinds of

claims she makes should not be tolerated. I do not want her to falsely use racism as an excuse to disregard honest viewpoints expressed by actual local residents during public comments, when she finds them to conflict with her own viewpoints.

Giving Barnali a platform to disseminate outright lies about Berkeley's racist past, will perpetuate misconceptions about the hardships my family and many others faced, and mislead Berkeley's consultants, employees, committee members, and members of the public into promoting and making misdirected permanent civic policies that have no connection to any _actual_ social justice. I want assurances that if Barnali is not dismissed from her role in the CAG, that at least the CAG will not tolerate any future outbursts of this nature. I need Barnali to make a public apology during one of our publicly attended BART planning meetings, *without the condescending attitude*, admitting that she was trying to manipulate Berkeley's racist history so that she could justify throwing out public comments in conflict with her own agenda. Apparently the other members of the CAG were completely fine accepting Barnali's self-appointed authority on racist history, and I can't believe that I am supposed to trust this process or any of these people who have been put in charge for the final decisions that are made. How could the other attendees of the CAG workshop not speak out against her lies? Do absolutely none of the other CAG members or committee members know that areas around North Berkeley BART were historically redlined neighborhoods? Do I chalk it up to ignorance or complicity, that nobody else was going to call this out? I was offered no apology when I spoke up about this during the office-hours, and I am not willing to accept "short on time" as an excuse.

I suspect the reason that Barnali thought she could claim to speak for victims of historic racism is that she is aware that so few of us show up to civic meetings. I know that my legacy redlined neighbors are not involved with city politics, and aren't going to come out to be vocal during this process. Nor are any of the Section 8 residents of the area. As I also stated in my previous email, the people who get involved in things like this BART station planning are generally educated; in the industry; privileged enough to understand how to navigate political process, have internet and have free time; and tend to be white: who are raised with the expectation that their voices would be heard and respected in political processes. If I had not sat in on the office-hours because I am simply trying to understand concepts like FAR, who would speak out against these falsehoods? How many other times has Barnali, or anyone else, been allowed to assert false narratives during planning meetings, because people who share my family's history in Berkeley are not in attendance to call out the lies? How many times are we given false information, but because we don't have specialized knowledge, we can't debate its credibility?

Just because Barnali has brown skin, it does not give her the right to rewrite history. Barnali's angry, entitled, sanctimonious attitude that she thinks her opinions matter more than anyone else's, is completely unprofessional and inappropriate to the setting of a civic meeting where disparate ideas will inevitably come in conflict. Her behavior foments conflict, and her negative attitude accepted during this process will hinder our ability to bring seemingly different ideas together smoothly. I still think it could be possible for the neighbors who want low rise buildings to find some physically taller buildings acceptable if we can use the right design, and if they do not simply get their ideas shut down condescendingly. Keeping open, respectful communication between neighbors is an essential element of what makes a neighborhood livable, even though it is not a tangible part. I would like to think I can approach my neighbors and have a civil discussion about our concerns, even if our ideas are conflicting. I would hope this civic process of the CAG would be the same. With so many differing ideas of what the final BART developments need to be, it is inevitable that many desires will need to be compromised, but I had expected that the CAG members would be better able to maintain respect and civility in the process. I didn't expect such condescension, manipulation and deception would be used in an attempt to completely shut out voices of the public.

Having sat through so many CAG meetings, I now understand better why so many neighbors are very fearful of what is going to be built on the BART station. After yesterday's office hours, I am left hurt, angry, suspicious of city appointees, and totally distrustful of the civic process. If entire carefully selected civic committees accept easily disprovable false "racist" history, which is being fabricated entirely to shut down undesirable viewpoints, how many other false narratives and outright lies are being pushed on the community to shut out unwanted viewpoints? I'm not even sure who I can complain to about this, because I don't know if the people in charge of the original appointments to the CAG committee made their selection to create a bias to suit their interests.

Aimee

Horner, Justin

From: Aviv Schiffrin <asmusic39@gmail.com>
Sent: Friday, December 18, 2020 12:26 AM
To: bartplanning; +council@cityofberkeley.info; +mayor@cityofberkeley.info
Subject: All I want for North Berkeley BART is...

WARNING: This email originated outside of City of Berkeley.

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Desired uses

- Mixed income housing with the highest number of subsidized affordable homes possible.
- The majority of North Berkeley's users do not come via car. Prioritize the safety of cyclists, pedestrians, and others. More car parking = more car traffic
- Improved walkways for people who walk to and from the station (current conditions have many pedestrians walking across wide intersections/roadways and through a parking lot which is not fun or safe)
- With regards to parking, drivers with disabled placards should have priority (with some spaces for carpools and electric vehicles as well). Aside from those uses, we should have an extremely limited number of parking spaces for new residents' private cars for BART. When possible, we should prioritize housing people who won't bring private cars.
- In order to allow as many people who currently drive to BART to get there by other means, AC Transit's buses should be more frequent (and they or The City Of Berkeley should have a route on Sacramento-Monterrey-Solano), and The City Of Berkeley's bikeways should be expanded and made safer.
- Easy access for buses and cars to drop off and pick up passengers on Sacramento Street.

Community amenities

- I want a public plaza for all to enjoy, not just residents or commuters
- We need bike share and lots of secure bike parking for commuters
- Complete the Ohlone Greenway from the corner of Virginia & Acton to Ohlone Park, with a much better intersection at Sacramento at the very least.
- Community space for non-profits and neighborhood groups to rent
- Small commercial spaces that are affordable to different kinds of businesses
- On-site retail will help generate much needed revenue to pay for vital infrastructure

Zoning standards/building form

- Transit-oriented housing is eco-friendly and desirable; let's bring as many new neighbors to North Berkeley as possible by zoning for more than the minimum height
- Invite cross-pollination between new neighbors and existing residents with neighborhood-facing stoops, open space, and an enhanced Greenway

- **Density is good.** Density brings street life, better public transit, better services, and more revenue to pay for all of that

Horner, Justin

From: aimee baldwin <junk.menagerie@gmail.com>
Sent: Thursday, December 17, 2020 4:53 PM
To: bartplanning
Cc: Kesarwani, Rashi; Berkeley Mayor's Office; All Council
Subject: Re: Dec 16 CAG office-hours: I expect an apology

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Unfortunately, I have another example from Dec 16th CAG office-hours of losing my trust in this CAG process. This is beyond what I was complaining about in my previous email, where I stated that the consultants who are in the development industry are pointedly guiding the final decisions of the CAG to be what developers want, without a fully open communal process. This is far more personally insulting and hurtful than just showing preference for one construction method over another.

I was deeply offended by Barnali Ghosh's condescending, self-righteous rant that she is trying to fight historic racism by insisting on maximizing units in super tall, dense developments at North Berkeley BART. She claims that it is the CAG's duty to ignore the vocalized desires against super tall buildings by the neighbors near North Berkeley BART because she claims its an historically privileged neighborhood with exclusionary practices, and neighbors are just trying to perpetuate racist policy.

My family was redlined into this neighborhood, where I still live, within two blocks of North Berkeley BART. If Barnali had been actually talking to more underprivileged neighbors, as she claims, rather than making up fictional narratives, she would know that we are not an historically privileged neighborhood. Much of the neighborhood around North Berkeley BART was the poorer "undesirable" redlined neighborhoods (it's easy to look up on historical redlining maps!), and there are still many of us families here who were redlined into living west/north of the BART station in the 1950s and 60s, back before BART even existed. We are not an "historically privileged" community, as she wants to claim. I am insulted that she is pretending to want to fight racism, by erasing my family's legacy of getting redlined into this neighborhood, because it doesn't suit her desired outcome in the CAG's final decisions.

When Barnali does not even know what Berkeley's historically racist policies have been, it is deeply offensive to families who lived through that racist policy, that she is allowed to disingenuously claim special understanding of racism, and any more of these kind of claims she makes should not be tolerated. I do not want her to falsely use racism as an excuse to disregard honest viewpoints expressed by actual local residents during public comments, when she finds them to conflict with her own viewpoints.

Giving Barnali a platform to disseminate outright lies about Berkeley's racist past, will perpetuate misconceptions about the hardships my family and many others faced, and mislead Berkeley's consultants, employees, committee members, and members of the public into promoting and making misdirected permanent civic policies that have no connection to any _actual_ social justice. I want assurances that if Barnali is not dismissed from her role in the CAG, that at least the CAG will not tolerate any future outbursts of this nature. I need Barnali to make a public apology during one of our publicly attended BART planning meetings, *without the condescending attitude*, admitting that she was trying to manipulate Berkeley's racist history so that she could justify throwing out public comments in conflict with her own agenda. Apparently the other members of the CAG were completely fine accepting Barnali's self-appointed authority on racist history, and I can't believe that I am supposed to trust this process or any of these people who have been put in charge for the final decisions that are made. How could the other attendees of the CAG workshop not speak out against her lies? Do absolutely none of the other CAG members or committee members know that areas around North Berkeley BART were historically redlined neighborhoods? Do I chalk it up to ignorance or complicity, that nobody else was going to call this out? I was offered no apology when I spoke up about this during the office-hours, and I am not willing to accept "short on time" as an excuse.

I suspect the reason that Barnali thought she could claim to speak for victims of historic racism is that she is aware that so few of us show up to civic meetings. I know that my legacy redlined neighbors are not involved with city politics, and aren't going to come out to be vocal during this process. Nor are any of the Section 8 residents of the area. As I also stated in my previous email, the people who get involved in things like this BART station planning are generally educated; in the industry; privileged enough to understand how to navigate political process, have internet and have free time; and tend to be white: who are raised with the expectation that their voices would be heard and respected in political processes. If I had not sat in on the office-hours because I am simply trying to understand concepts like FAR, who would speak out against these falsehoods? How many other times has Barnali, or anyone else, been allowed to assert false narratives during planning meetings, because people who share my family's history in Berkeley are not in attendance to call out the lies? How many times are we given false information, but because we don't have specialized knowledge, we can't debate its credibility?

Just because Barnali has brown skin, it does not give her the right to rewrite history. Barnali's angry, entitled, sanctimonious attitude that she thinks her opinions matter more than anyone else's, is completely unprofessional and inappropriate to the setting of a civic

meeting where disparate ideas will inevitably come in conflict. Her behavior foments conflict, and her negative attitude accepted during this process will hinder our ability to bring seemingly different ideas together smoothly. I still think it could be possible for the neighbors who want low rise buildings to find some physically taller buildings acceptable if we can use the right design, and if they do not simply get their ideas shut down condescendingly. Keeping open, respectful communication between neighbors is an essential element of what makes a neighborhood livable, even though it is not a tangible part. I would like to think I can approach my neighbors and have a civil discussion about our concerns, even if our ideas are conflicting. I would hope this civic process of the CAG would be the same. With so many differing ideas of what the final BART developments need to be, it is inevitable that many desires will need to be compromised, but I had expected that the CAG members would be better able to maintain respect and civility in the process. I didn't expect such condescension, manipulation and deception would be used in an attempt to completely shut out voices of the public.

Having sat through so many CAG meetings, I now understand better why so many neighbors are very fearful of what is going to be built on the BART station. After yesterday's office hours, I am left hurt, angry, suspicious of city appointees, and totally distrustful of the civic process. If entire carefully selected civic committees accept easily disprovable false "racist" history, which is being fabricated entirely to shut down undesirable viewpoints, how many other false narratives and outright lies are being pushed on the community to shut out unwanted viewpoints? I'm not even sure who I can complain to about this, because I don't know if the people in charge of the original appointments to the CAG committee made their selection to create a bias to suit their interests.

Aimee

Horner, Justin

From: Cece Littlepage <cecelittlepage@gmail.com>
Sent: Thursday, December 17, 2020 4:47 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office; Kesarwani, Rashi; bartplanning
Cc: North Berkeley Neighborhood Alliance
Subject: Follow-up on CAG meeting 12/14

WARNING: This email originated outside of City of Berkeley.

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All-

I attended the CAG meeting on 12/14 and spoke briefly toward the end. I made a number of notes and would like to offer some thoughts and ideas appropriate to the current planning for the NB station.

- I spoke on green space in the development, in particular surrounding it. I'm a horticulturist and landscape contractor of 40 years experience, and my eye goes to the landscape architectural aspect of a plan. Here's what I noted:
 - There is virtually no planting shown for the areas between the buildings and the sidewalk and the sidewalk and the street, thus creating a very stark streetscape. Adding space for shrubs and trees will benefit the residents, the neighbors, and the environment. Even good architecture needs the softening and grounding that plants provide. Personally, I would be happier with one (only) center building of the several at 7 stories to allow for more green space than with unrelenting blank architecture facing the streets.
 - Most of the interior courtyards are located in the shadow of what will be the tallest buildings, which, in our cool climate, will make them unappealing, even unusable, except for during extreme heat waves. Few plants are happy in heavy shade and grass will die out. Location of communal outdoor spaces should be rethought with this in mind.
- There was discussion about retail- whether or not to include any, and, if so, what kind. Reflecting on the topic, I've come up with what I believe to be an original concept: homegrown mini-retail. This would consist of mini-sized retail spaces which could be located on the street or in an arcade. Rental fees would be kept moderate, and the spaces would be offered to local makers- craftspeople, artists, for example- as well as other small local retail businesses. Leases would be offered first to building residents and surrounding neighbors. This use of retail space would be a good combo with social services, which were proposed as an adjunct or replacement for retail, and would also present little competition to our existing local retailers.
- IT was proposed that our RPP area be changed to allow for 4 hour non-resident parking instead of the current 2 as a way to replace lost parking at the station. NO! Do not crowd our streets, do not make us park far from our own homes! If the current development plans are deficient in their arrangements for resident and BART commuter parking, that should be remedied in the planning now. The neighborhood should not be forced to bear the brunt of bad planning.
- There were a couple of speakers who claimed that "people have been unfairly excluded from the NB BART neighborhood" and thus maximum units should be built. Bullshit. When I moved to Acton St. 35 years ago, my block was a nice and friendly mix of races, ethnicities, and economic classes. As those folks have moved or died, their homes have entered the market at current outrageous prices, sadly unaffordable to all but the wealthy. This is what has changed the character of our neighborhood, not any attempt, desire, or intention to exclude anyone.

Thank you for reading and considering my comments, thoughts and feedback are welcome.

Sincerely,

Cece Littlepage
1618 Acton St. 94702
510-381-3772

Horner, Justin

From: Grace Do <xgrace@gmail.com>
Sent: Thursday, December 17, 2020 4:38 PM
To: Berkeley Mayor's Office; Shen, Alisa; All Council
Subject: North Berkeley BART Development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want contextual, energy-efficient development, with maximum affordability, that will enhance our neighborhood and our city.

Thank you for your time,

--

Grace Do
1479 Lincoln St, Berkeley CA 94702

Horner, Justin

From: Alisa <moonmom@sbcglobal.net>
Sent: Thursday, December 17, 2020 6:12 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: My comment after the Dec 14th CAG meeting on North Berkeley Bart

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Devin Cory
1803 Mcgee Ave
Berkeley CA
94703

Horner, Justin

From: Emily Castelli <emilycastelli@gmail.com>
Sent: Wednesday, December 16, 2020 7:15 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: BART residences

WARNING: This email originated outside of City of Berkeley.

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I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.

Emily Castelli
1287 francisco St, Berkeley, Ca 94702

Horner, Justin

From: Sue Martin <getmesue@gmail.com>
Sent: Wednesday, December 16, 2020 6:59 PM
To: bartplanning
Subject: Please add me to list of poeple to be notified

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear Alisa,

Please add my name and email to the notification list so that I am notified of meetings related to the TOD at NB BART.

Thank you!

Have a lovely holiday season.

warmly,
Sue

Horner, Justin

From: Irene Rice <ir07441@gmail.com>
Sent: Wednesday, December 16, 2020 4:18 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

City of Berkeley:

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.) Concerned citizens have addressed this with the City multiple times; please respect the opinions and good will of North Berkeley residents.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site. Crowding residents into a small space seems wrong as we struggle with a pandemic easily spread. How about moving City attention toward Solar/Climate Change - utilizing all the great minds of Berkeley and the University system. Lead the CA movement toward healing the planet and creating novel ideas for energy use; reduce all the car traffic - set an example for other cities!

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.
Irene Rice, North Berkeley Resident

Horner, Justin

From: Wilson, Jacqueline <Jacqueline.Wilson@ucsf.edu>
Sent: Wednesday, December 16, 2020 2:34 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART Housing

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I live very near the North Berkeley BART and want it to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for my friendly neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site and don't want to lose the family character of my neighborhood.

This is not the only place in Berkeley to build housing. Shattuck, University, and San Pablo are great places for more housing in fact there is a large amount of building going on in these locations already. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Also please consider the effect on my neighborhood of all the new residents and commuters driving endlessly around looking for parking. Existing residential parking restrictions must be maintained so my family, neighbors and their children can safely walk and bike in our neighborhood.

Thank you,

Jacqueline Wilson and Family
1556 Sacramento Street
Berkeley 94702

Horner, Justin

From: Dmitriy Shirchenko <caldima@gmail.com>
Sent: Wednesday, December 16, 2020 2:15 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART

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DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.

Dmitriy Shirchenko
1479 Lincoln St, Berkeley, CA 94702

Horner, Justin

From: Carol Hirth <chirth@mac.com>
Sent: Wednesday, December 16, 2020 2:13 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Housing at North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

As a resident of North Berkeley, I want the North Berkeley BART to be zoned for a maximum of 4 stories, no more. 7 stories is way out of scale for this neighborhood, more than 7 is outrageous!

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. **Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.**

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. **I want contextual, energy-efficient development, with maximum affordability, that will enhance our neighborhood and our city.**

Thank you.

Carol Hirth
1309 Cornell
94702

Horner, Justin

From: Michael Katz <mqkatz@gmail.com>
Sent: Wednesday, December 16, 2020 11:17 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART: "Contextual" zoning, vision statement, and design criteria

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear BART CAG members and staff, Mayor Arreguin, Councilmember Hahn, and Council colleagues, I'm a North Berkeley resident, who depends on the North Berkeley BART station for access to BART's network. I ask that the zoning, "vision statement," conceptual designs, and development criteria that you produce for housing at this station reflect the following community benefits and (widely shared) community desires:

- Zone for a maximum of 7 stories, no higher. (AB 2923's misclassification of this residential neighborhood requires 7-story zoning, even though that's out of scale and inappropriate. Don't compound this bad bill's errors by zoning higher.)
- The "contextual" criteria that this community was promised for the ultimate development project: No higher than four stories at the center, stepping down to two stories at the edges, to blend in with the historically low-rise surrounding neighborhood.
- Maximum affordability of the units built here. Public land should be used for the public good.
- 100% replacement of current commuter parking. If short-distance drivers are denied convenient access to BART, many of these "choice" commuters will simply abandon transit and drive all the way to their workplaces in San Francisco or the Pleasanton/580 tech corridor. This will be a failed "transit-oriented" development project if it actually reduces net BART ridership, and worsens our city's climate impacts.
- Minimize retail and "plaza" follies: Public spectators to CAG meetings have heard sound arguments that struggling nearby commercial districts on University and San Pablo don't need onsite retail competition at the BART station. We've also heard that construction of "public plazas" would be just ridiculously expensive, bleeding tens of millions of dollars from needed housing. Just preserve ample surface parking at this station. As recent years have shown, this site's parking can be converted in off-hours to farmer's markets, food-truck villages, and performance spaces. All while preserving the commuter parking needed during business hours.

The City of Berkeley's General Plan, the Berkeley/BART MOU, and BART's own documents all commit to developing the North Berkeley BART site in a way that respects the neighborhood's historic and physical context. Please honor those controlling documents and commitments, and make this project a consensus success that will serve as a model for developing other outlying BART stations.

Thank you for considering these comments.

Respectfully yours,
Michael Katz

2117 Rose Street, Berkeley 94709

Horner, Justin

From: Leslie Valas <vffam5@gmail.com>
Sent: Wednesday, December 16, 2020 10:09 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Norht Berkeley Bart developepoment

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

As I stated at the CAG meeting this week, during Public Comment, I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. 7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that. Many, many of my neighbors ALSO stated this preference. If affordable housing is the issue of concern, the units should be 100% in this category, with no need for any commercial development on this property. University Avenue has many unused and empty storefronts. We are within easy walking distance to preschools, food markets, and a neighborhood small market (Cedar Market) that serves the neighborhood very well. Commercial development at the station will only increase the likelihood of neighborhood businesses failing due to unfair advantage given to newcomer businesses.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. **Contextual development is no more than four stories, stepping down to two at the perimeter**-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.

Leslie Valas
1685 SHort Street

District 1 Voter

Horner, Justin

From: Toby Salk <tobysmj@gmail.com>
Sent: Wednesday, December 16, 2020 9:40 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley Bart Housing Proposal

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.

Toby Salk
1811 McGee Avenue
Berkeley, CA 94703

--

Toby Salk–Mah Jongg for Everyone
tobysmj@gmail.com
www.mahjonggforeveryone.com
510.334.4516

Horner, Justin

From: Becca Schonberg <becca.schonberg@gmail.com>
Sent: Wednesday, December 16, 2020 8:42 AM
To: bartplanning; All Council; Berkeley Mayor's Office
Subject: All I want for North Berkeley BART is...

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hi,

I'm not sure if this email is coming too late, but I am a Berkeley resident (I live in West Berkeley). My family and I **STRONGLY** support a plan for the North Berkeley BART that prioritizes housing, accessibility to cyclists and pedestrians (including bike parking), small retail spaces that will be affordable for local businesses, mixed-use planning, and public art for children to interact with. Please do not prioritize car parking. People > cars -- that's all there is to it. We want more space for new neighbors to come join us! And this plan can help support the rebuilding of small businesses and public transit in the wake of the pandemic.

Thank you,
Becca Schonberg
931 Channing Way, Berkeley, CA 94710
607-227-9445

Horner, Justin

From: Linda Gallaher-Brown <lgallaherbrown@aol.com>
Sent: Wednesday, December 16, 2020 8:09 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want 7 story or higher housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.

Linda Gallaher-Brown
1616 Virginia Street
Berkeley, CA 94703

Horner, Justin

From: Alice Gates <alicegates111@gmail.com>
Sent: Wednesday, December 16, 2020 8:05 AM
To: Shen, Alisa
Subject: North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.

Alice Gates, 1630 Buena Ave, Berkeley, CA 94703

Horner, Justin

From: Vicki <vickisommer@gmail.com>
Sent: Tuesday, December 15, 2020 9:41 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Proposed North Berkeley BART development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you,
V.Sommer
Delaware st , Berkeley
94703

Horner, Justin

From: The-Anh Cao <theanh0413@gmail.com>
Sent: Tuesday, December 15, 2020 8:47 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Cc: THEANH0413
Subject: THE NORTH BERKELEY BART HOUSING PROJECT

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.

Mrs The-Anh Cao
1481 Virginia St.
Berkeley , CA
94702

Horner, Justin

From: Daryl Martinez <balisong4@hotmail.com>
Sent: Tuesday, December 15, 2020 8:16 PM
To: Shen, Alisa
Subject: North Berkeley BART Development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear Ashen,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.

Daryl Martinez
1461 Virginia St.
Berkeley, CA 94702
510.859.6997

Sent from [Outlook](#)

Horner, Justin

From: Andrea Altschuler <andreaaltschuler@gmail.com>
Sent: Tuesday, December 15, 2020 7:31 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Affordable, neighborhood appropriate housing at North Berkeley BART parking lot

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear Ms. Shen, City Council Members, and Mayor Arreguin,

I live in the North Berkeley BART neighborhood and strongly support that housing planned for the BART parking lot is zoned for a maximum of 7 stories. I understand that under AB2923 it must be zoned for at least seven stories, but such a height is beyond out of scale for this neighborhood.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development would be a maximum of four stories, stepping down to two at the perimeter of the lot. This would fit in with the surrounding neighborhood that consists of one and two story houses and apartment buildings for blocks and blocks. High-rise housing at the site would go against the overall neighborhood context; additionally, building taller buildings with many more apartments would make parking a fiasco in the neighborhood, since it seems that little if any onsite parking is planned for the housing development.

This is not the only place in Berkeley or the East Bay to build housing. There are available lots elsewhere in Berkeley and the surrounding area to address the current housing crisis. There also seems to be plenty of available market rate housing, and lots more is going up in Berkeley and Oakland. The station is public land, and should be used for the public good. I definitely want to see *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city, and allow many more people to live in Berkeley who want to who otherwise couldn't afford to live here.

Thank you for your consideration.

Sincerely yours,
Andrea Altschuler
1417 Virginia Street
Berkeley, 94702

Horner, Justin

From: kary schulman <kary_schulman@hotmail.com>
Sent: Tuesday, December 15, 2020 7:19 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Cc: anthonyjaycorman@gmail.com
Subject: Development plans for North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I write to support the North Berkeley Neighborhood Alliance's commonsense, neighborhood-preserving approach to development at North Berkeley Bart which takes into account the need for housing, open space and parking solutions.

Replacement parking, or sufficient public transportation to BART is a particular concern. After the Loma Prieta earthquake in 1989, when the Bay Bridge was down but BART was running, North Berkeley Bart's residential neighborhood clogged up with commuter cars. Parking solutions should be in place before anything is built or ridership will inevitably erode.

I also would like to bring up an issue that has not to my knowledge been discussed: The fact that these plans were begun years ago-- pre-COVID when the world was different. **I'm concerned that we'll be trying to solve pre-2020 problems in a post-2020 world.** Wouldn't it be sensible to pause to see where we are in a year or two when we'll be able to assess the evolving situation regarding housing needs, commuting needs, public transportation needs, and parking needs, in order to best-fit the use of this asset to the community's needs post-2020 which we are not yet able to predict.

Thank you for your consideration.

Marianne (Kary) Schulman
1707 Buena Ave (four blocks from North Berkeley BART)

,

Horner, Justin

From: Eleni <agenteleni@gmail.com>
Sent: Tuesday, December 15, 2020 6:41 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Housing at North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear Berkeley City Representatives,

I have been a resident of North Berkeley for ten years; I live half a block from the North Berkeley BART station. I am writing because I would like the zoning for the housing being planned at the North Berkeley BART station to be limited to a maximum of seven stories. (I wrote to you and my district rep earlier this year, indicating that I thought four stories was appropriate for the scale of my neighborhood, but I understand that because of AB2923, seven stories are required.)

As I understand it, the City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

The station is public land, and as such, should be used for the public good. And housing at the site must be contextual, energy-efficient, and affordable to low and middle income residents. I'd also like to see adequate green space for public use.

Lastly, I am very concerned about how parking will be handled for the new building's residents. I do not have a driveway or garage and must park on the street. I urge you to ensure that the people renting the new housing units built at the BART station are not able to park on nearby streets, if they do, the nearby streets will be flooded with cars and will translate into a massive parking shortage in my neighborhood. That will result in ongoing resentment and conflict, and no one wants that.

I consider myself an environmentalist, and pro (affordable) housing, but building a giant high rise at the BART station in a low-rise, residential neighborhood is a mistake on multiple levels, and will go down in history that way. Whatever gets built there will be there for decades; I implore you to limit it to seven stories and ensure that the housing that is built is sustainable, equitable and affordable.

Thank you.

Eleni Sotos

1520 Virginia St, Berkeley, CA 94703

Horner, Justin

From: philoxenia@earthlink.net
Sent: Tuesday, December 15, 2020 6:41 PM
To: Shen, Alisa
Subject: North Berkeley Development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.

Norman McKnight
1533 Francisco Street

Horner, Justin

From: Lj.Cranmer, <ellejai@sonic.net>
Sent: Tuesday, December 15, 2020 5:55 PM
To: Shen, Alisa
Subject: North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley for 38 years and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There are plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.

Lj Cranmer

My Bottom line is:
LOVE

Horner, Justin

From: Kenneth C Gross <kcgnj7491@sbcglobal.net>
Sent: Tuesday, December 15, 2020 5:52 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART Construction

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories pursuant to the minimum requirements of AB2923.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. Nor is it the only housing project that BART is pursuing throughout the Bay area. There plenty of available market rate housing in Berkeley, and more being constructed. The station is public land potentially acquired, through the use of, or threat of condemnation, and therefore should be used for the public good including the good of current and future residents. I would like *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.

Kenneth C Gross e-mail: kcgnj7491@sbcglobal.net (Mobile Phone: 510-265-4396)

Horner, Justin

From: Sara Dwight <sara.dwight@gmail.com>
Sent: Tuesday, December 15, 2020 5:50 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.

Sara and Kathy Dwight
1434 Delaware St

Sent from my iPhone

Horner, Justin

From: Julieta Pisani McCarthy <pisanimcc@gmail.com>
Sent: Tuesday, December 15, 2020 5:37 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There is plenty of available market rate housing, and lots more going up. **The station is public land, and should be used for the public good, (which would actually mean keeping the parking lot for light, openness and public transit connectivity for the whole city, but I understand that BART will not pass the opportunity to create a big source of income for itself forgetting all about its main and foremost mission to create a transit network and leaving everybody not living around the station completely out of the public transit loop)** and I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.

Julieta Pisani McCarthy
1377 Francisco Street

Horner, Justin

From: Julio Remelexo <remelexojulio@gmail.com>
Sent: Tuesday, December 15, 2020 5:31 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Building at north Berkeley bart

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hi

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you,

Julio Barreto
1721 Sacramento St
Berkeley, CA 94702

Horner, Justin

From: JULIA HUGHES <juliajnyahjulio@gmail.com>
Sent: Tuesday, December 15, 2020 5:30 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: N. Berkeley Bart development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hi at City of Berkeley,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you,

Julia Hughes
1721 Sacramento St
Berkeley, CA 94702

Horner, Justin

From: Todd Stuart <tstuart@strongtie.com>
Sent: Tuesday, December 15, 2020 5:23 PM
To: Shen, Alisa
Subject: Development of housing at North Berkeley BART Parking

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

To whom it may concern:

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

This is public land and the public most affected by its use must be heard. In my 15 years in Berkeley I have paid over \$200,000 in taxes. I have supported this city becoming what it is. Please do not sell your soul to developers for money and greed. Do the the right thing.

Thank you.

T

Todd Stuart

Simpson Strong-Tie | Senior Quality Engineer

5956 West Las Positas Boulevard | Pleasanton, CA 94588

Direct 925-560-9143 | 800-925-5099 | strongtie.com



We're all Quality.

Horner, Justin

From: Dorit Resnikoff <doritresnikoff@yahoo.com>
Sent: Tuesday, December 15, 2020 5:21 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Building Paradise at the N. Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

And if the building blocks the efficacy of the neighbor's solar panels, they should be reimbursed for their investment.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

I also think that we need to consider where everyone (residents and BART users) are going to park. There will Not be enough street parking for 7 floors of housing as well as patrons and neighbors.

Additionally, I do not believe we need more shops or conveniences. There is a Target, coffee shops, restaurants and convenience stores 3 blocks away on San Pablo Ave. If we are going to build housing- it should be housing. Not

more shops.

Thank you.

Dorit Resnikoff
1364 Francisco St.
Berkeley

Horner, Justin

From: Laura Klein <lauraanneklein@gmail.com>
Sent: Tuesday, December 15, 2020 5:12 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear Ms. Shen, City Councilmembers, and Mayor Arreguin,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, **no more**. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want *contextual, energy-efficient development, with maximum affordability*, that will enhance our neighborhood and our city.

Thank you.

Sincerely,

Laura Klein
1519 Virginia Street
Berkeley 94703

Horner, Justin

From: aimee baldwin <junk.menagerie@gmail.com>
Sent: Tuesday, December 15, 2020 3:53 PM
To: bartplanning
Subject: Bart Form/Uses: Potential retail at North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Potential retail at North Berkeley

I would like commercial uses to be allowed at the North Berkeley BART station. However, I think we should consider uses unlike traditional large scale retail. I would like retail to be innocuous, regardless of whether the business was open, shut or vacant. Long term vacant storefronts are a blight.

Are there inexpensive, and possible modular/changeable/non-permanent options?

What are creative commercial space options that keep the operation costs low for small locally owned businesses, and which would not greatly permanently effect the neighborhood feel, whether commercial was either open, shut, or vacant?

It is not uncommon to have restaurants or food businesses start as pop-ups or food trucks because costs of renting traditional restaurant/cafe spaces can be prohibitive. I don't know if allowing food trucks requires specific zoning laws.

Would it be feasible to consider a couple very small restaurant spaces that can be used as pop up spaces for short term renters? Take-out only style services, like food trucks?

What if there was a limited-menu dinner take-out pickup location at BART, and different local restaurants could sign up to distribute from that space once a month? —commuters or neighbors could drop off, call in or do online orders before 3pm to pick up from 4-8pm. It could rotate vendors, introduce people to different existing restaurants around Berkeley that they might not know about, and would not need to be a full service restaurant.

Would the physical constraints on top of the non-buildable areas over the BART tunnel at North Berkeley allow for smaller kiosk type buildings that could house small food service or retail? It seems like large vehicles can drive on top of the BART tunnels, so it doesn't seem impossible.

Allow a farm CSA to distribute subscription produce box pick up, plus small-scale produce sales from something like a kiosk, or the back of a truck? Mini-farmer's market once a week?

Allow a local dry cleaner to have a pickup/drop off location a couple times a week?

Allow small pop-up art gallery/retail space? Temporary art/craft/vendor tents like farmer's market, or small retail in building with rotating vendors?

Berkeley Public library book drop off? Library on wheels?

I like the idea of flexible use spaces, rotating small commercial businesses, not constrained by large burdensome leases which would need larger franchise or chain tenants.

BTW, we need public restrooms at both BART stations, which are well maintained, and not just past the pay gates in the station. We would need public restrooms especially if there is commercial space, but even if there is not.

If there were something larger like daycare, could that space also serve something else like a yoga studio during evening hours, or host craft classes, or occasional performance/practice space? What can we do to maximize use of space so that we do not have large vacant spaces sitting idle for long stretches of time?

What can we do to make commercial spaces support small local businesses better?

Horner, Justin

From: aimee baldwin <junk.menagerie@gmail.com>
Sent: Tuesday, December 15, 2020 2:27 PM
To: bartplanning
Subject: BART CAG zoning FAR calculations

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Determining FAR and number of units.

The FAR calculations to determine the total number of units to fit into the BART developments should not include any non-buildable areas of BART properties. If the power substation can not be changed or re-integrated into a development, it can not be included in the acres of DEVELOPABLE land used to determine the final number of units. Same goes for any other odd little piece of existing station infrastructure, or area of land over BART tunnels. Calculations of FAR in determining the number of units in the station developments must be based only on areas that are actually truly developable.

Horner, Justin

From: (null) (null) <ickagglorp@yahoo.com>
Sent: Tuesday, December 15, 2020 2:25 PM
To: bartplanning
Subject: BART CAG process industry bias

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

To all of the CAG members and others involved in this BART station zoning process:

I want to express my concern for the biased information being fed to the CAG and community by our consultants who are professional developers. This whole meeting process is filtering all results to point in favor of developer needs, while disguising it as a community focused process. I understand that providing us with information is a lot of work, and that people in the development industry are needed to help those of us who aren't, however, I would appreciate it greatly, if they could stop steering meeting conclusions towards their own desired outcomes.

My first example is in Karen Murray's most recent video, Building Form and Density, part 4 of the series. During the slide about Building Construction Types, showing type VI through type I, at about 03:40, she states that type III is the most likely for our sites because a development might not be financially feasible if we build fewer than the 6-8 stories of type III. This goes against information that BART has provided in its AB 2923 TOD guidelines, which very clearly designate a large number of BART station sites around the Bay Area as "Town Center", allowing communities to zone as few as five stories on their sites. The labor and material costs of construction are equal across our region. As mandated "community benefit" expenses might not automatically apply to development on public lands, they should not have been a factor in the establishment of AB2923 TOD guidelines. If it is financially feasible to build as few as five stories in Daly City, it should be equally financially feasible to build as few as five stories on either Ashby or North Berkeley BART. The information given by Karen about the relative scale of fire resistance, relative height, and cost per square foot of building types might be factually accurate, but the clearly biased statement about what is financially feasible is absolutely not. I do not appreciate that someone, whose profession is likely to financially benefit from upzoning, is clearly steering our community towards a particular choice, rather than leaving us to make our own decisions based on facts alone.

My second example is in part 3 of the series, Public Recapture of Value, narrated by Rick Jacobs (?). If we follow along the intro of the video, at about 00:40 he mentions concerns of communities that new higher buildings will result in gentrification. Starting in at about 02:10 he goes into lengthy detail about land owners are the biggest winners of up zoning, for the next several minutes in the video describes in detail examples of skyrocketing real estate prices in up zoned areas around MacArthur BART, and goes into lengthy explanation of how up zoning increases land value. How are examples of how up zoning increasing real estate prices supposed to make us think this isn't gentrification? So now a funky run down property on Shattuck and 47th that is a mixed retail/residential use, is now totally unaffordable for some weird community live-work art collective, because it is now only affordable for real estate developers to buy, knock down, and build market rate housing? I, for one, do not find the details of the information in this video to make me less wary of large developers, despite Rick Jacob's attempts at the beginning of the video to claim that big developers should be viewed as our anti-gentrification buddies. I do realize that real estate prices might skyrocket even without the up zoning, but these presentations are not being factual enough for me, and the thinly veiled, or blatantly stated, biases in these videos are leading me to distrust both developers and this entire CAG process. Increasingly, as I watch the details of this CAG process, it is looking like a convoluted way to force the community to giving into developer desires, rather than actually representing our community.

Another example of this bias, is of how we have these consultants in the breakout rooms, and often being in charge of creating summaries of opinions voiced by the community and CAG. We get slides during the CAG meetings summarizing past meetings, but which only include bullet points that the consultants have decided to highlight. They are free to cherry pick comments they find favorable in summaries at their own discretion. In this last CAG meeting a slide included a bullet point stating that “North Berkeley BART area has enough green space, Ashby BART area needs more” (maybe slightly different wording —I am sorry I didn’t take a screenshot of this slide to be able to properly reference it). Why was this divisive statement included by the person who made the slides? It could just state that the “Ashby neighborhood needs greenspace” —which to note, the sample “*for zoning study only” building massing slides did make it quite clear that no greenspace was included at Ashby. If I recall correctly, the first time I heard “North Berkeley has enough greenspace” was in a breakout room during a community meeting, and it was stated by a North Oakland resident. Maybe it was mentioned in different breakout rooms as well, but of all the myriad opinions voiced about greenspace on either of these developments, this is an entirely strange one to select to highlight as a bullet point on one of twenty slides during the CAG meeting. Why make a bullet point that makes it seem as if greenspace were a limited resource that can’t be had at both North Berkeley and Ashby sites? Fifteen opinions might be voiced during a breakout room, and then these consultants, who have a financial stake in the industry, could choose to summarize down by dropping off what they view as “unfavorable” when rejoining the main meeting. Yes trying to get every voice heard is hard, but this meeting process is not a system that is going to be impervious to biasing towards people who are professionals in development, rather than community representation.

It is far more difficult during COVID for smaller community groups to be able to gather opinions of the people who have not specifically chosen to follow this whole process from the beginning. I am greatly concerned that this is leaving out a large number of people who might be willing to talk to a neighbor about their opinions on BART development, but who would never take time to struggle through this painful public process of online meetings. Since most of us are avoiding taking BART, from working from home or just being out of work, its not like we get to just easily take a poll of our fellow BART riders and station users to represent “normal” BART riders. Our community outreach mechanisms are stunted in a way that biases gathering community opinion towards people who have a minimum of personal tech, can navigate zoom use, and can afford spare time to follow many multiple meetings, do homework on the side, and in general favors those are white, educated, above a certain socio-economic line, or in the industry (development, urban design, architecture...etc).

As a community member, I feel like this entire slow moving CAG process is simply railroading us into making our BART station zoning what developers wish to have zoned. Meeting time-limits muddle us past too-small-to-fight microaggressions, and we are pushed through a complicated process that repeatedly filters out opinions that are not industry-friendly, so we can arrive at handing our spaces over to developers on a silver platter, while claiming that it was achieved by a process of community consensus.

At a minimum, anyone involved in this CAG and zoning process should have all of their past, present, and future employer and businesses affiliations disqualified from any of the RFP/RFQ or final developments. We need to work harder to avoid allowing industry bias to steer our CAG process.

Aimee

Horner, Justin

From: Kenneth C Gross <kcgnj7491@sbcglobal.net>
Sent: Tuesday, December 15, 2020 12:11 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART Construction

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley that was unable to attend last nights meeting on December 14th to discuss the size and height of the building to be constructed on the BART site. I am asking that the building be no taller than seven stories which is the minimum permitted by legislation allowing this construction. Thank you for your consideration of this request.

Sent from my iPhone

Horner, Justin

From: Pearson, Alene
Sent: Tuesday, December 15, 2020 12:08 PM
To: Shen, Alisa
Subject: FW: North Berkeley building

Is this too late to add to EIR scoping comments?
I think that's what it was meant for...

From: L.M. [mailto:lmudrock@gmail.com]
Sent: Thursday, December 3, 2020 12:35 PM
To: Pearson, Alene <apearson@cityofberkeley.info>
Subject: North Berkeley building

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hi Alene,

I live at Delaware Street across North Berkeley parking lot. I don't want any taller buildings that above 3 floors at the front side of Delaware Street. Ashby Bart zone is different from North Berkeley zone. See the link: <https://www.cityofberkeley.info/gisportal/>. zoom out and see different color of zones depending on heights of buildings.

North Berkeley is in yellow zones which limit the height of buildings.

Also, saying green environments. Make sure not reflective window glasses of buildings from the sun. Winter time, the sun direction is south side. I don't want to see too bright of sun on window glasses of new buildings into neighbors' living room windows.

Thanks,
Leonard Mudrock

Horner, Justin

From: Alex Brouwer <alextbrouwer@gmail.com>
Sent: Tuesday, December 15, 2020 11:02 AM
To: bartplanning; +council@cityofberkeley.info; +mayor@cityofberkeley.info
Subject: All I want for North Berkeley BART is...

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Good morning,

As a Berkeley resident, I'm emailing you to share my thoughts about the housing development plan at Ashby Bart.

I'm in strong favor of maximizing housing units and prioritizing subsidized or low income housing options.

I think the city should zone for 8 stories and not limit itself in the number of available units.

I'd encourage zoning for public spaces like a plaza, walkways, and art displays, rather than focusing on parking or car transit.

Now is the time to think about affordable housing, sustainable transit, and community resources rather than parking and commuters.

Thank you for receiving my thoughts and feedback.

Alex Brouwer
2942 Harper St., Berkeley, CA 94703

Horner, Justin

From: Molly Tolins <mol.tolins@gmail.com>
Sent: Tuesday, December 15, 2020 9:13 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There is plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Molly Tolins
[1815 Short street](#)

Horner, Justin

From: Allegra Guarino MEd <allegrag@berkeley.edu>
Sent: Monday, December 14, 2020 10:45 PM
To: Shen, Alisa; Berkeley Mayor's Office; All Council
Subject: North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There is plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Allegra Guarino
1815 Short street

Horner, Justin

From: Peggy Scott <plscott@stanfordalumni.org>
Sent: Monday, December 14, 2020 7:26 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: NO tall buildings on the North Berkeley BART lot please!

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

To the BART planners, Mayor and City Council.

I live in North Berkeley where I have owned my home since 1993. (For 15 years before that I lived on Dana St.) My home is convenient to both AC Transit and the North Berkeley BART station which has been great for my busy lifestyle as a single mom who is a working professional. The North Berkeley BART should be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

I do not want high-rise housing at the site. Who decided that was even close to appropriate?

I suggest you drive (or take BART) to the Del Norte station and take a look at the housing that is going up there right along San Pablo Ave. It is huge, hideous, dwarfs the street, has no setback, and this is an extremely urban piece of real estate. It's awful.

I think whoever decided on that highrise height limit for our little piece of North Berkeley was just throwing a noodle at a wall to see if it would stick. So we must fight it at all costs.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter. This would fit in with the surrounding residences.

We also need a good sized parking garage - don't forget that part. MacArthur BART has that. This is not the only place in Berkeley to build housing. There is plenty of available market rate housing here now, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Sincerely,
Peggy Scott

Peggy Scott plscott@stanfordalumni.org Mobile: 510-816-1960

1839 Catalina Ave. Berkeley CA 94707

"Do the best you can until you know better. Then when you know better, do better." Maya Angelou

"If there are no dogs in Heaven, then when I die I want to go where they went." -- Will Rogers

Horner, Justin

From: Alan Finkelstein <alan.finkelstein@sjsu.edu>
Sent: Monday, December 14, 2020 7:09 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Bart Development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I live next to the North Berkeley Bart station and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. I understand that under AB2923, it must be zoned for at least 7 stories. Just to restate an obvious point, a 7 story building is out of scale with this residential neighborhood.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Alan Finkelstein
1685 Short St.
District 1 Voter

Horner, Justin

From: meryl siegal <merylsiegal@gmail.com>
Sent: Monday, December 14, 2020 6:14 PM
To: All Council; Berkeley Mayor's Office; bartplanning; Shen, Alisa
Subject: Regarding the North Berkeley BART Project

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear All,

I am a resident of North Berkeley and have lived in North Berkeley for nearly 3 decades. I live close to BART purposefully as a believer in public transportation and I am proud to be part of this neighborhood. Although not the richest neighborhood in Berkeley, we have several aspects of this neighborhood that make us unique. The neighbors here in North Berkeley are cohesive. We have been diligently part of community processes over the past 2 years regarding the BART development and other community projects (Adult school garden, for example).

In following the General Plan, it states that new development is to be in the character of the neighborhood.

It is imperative that the North Berkeley BART project be kept in the scale of the neighborhood under 7 stories. I ask that the city as a charter city dispute AB 2923. 7 stories is out of scale for this neighborhood. That would make the BART project the tallest outside of the downtown.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. It is upsetting to see outrageous market rate housing throughout the city. As you all know, we have over the amount of market rate housing as required by ABAG. It makes no sense to have market rate housing on the North Berkeley BART site. I believe in public land for public good, and I would hope that you do, too. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city. There should be public beauty, open space, and affordability.

Let's work for this goal together.
Sincerely,
Meryl Siegal
Cedar Street

Horner, Justin

From: meryl siegal <merylsiegal@gmail.com>
Sent: Monday, December 14, 2020 6:14 PM
To: All Council; Berkeley Mayor's Office; bartplanning; Shen, Alisa
Subject: Regarding the North Berkeley BART Project

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear All,

I am a resident of North Berkeley and have lived in North Berkeley for nearly 3 decades. I live close to BART purposefully as a believer in public transportation and I am proud to be part of this neighborhood. Although not the richest neighborhood in Berkeley, we have several aspects of this neighborhood that make us unique. The neighbors here in North Berkeley are cohesive. We have been diligently part of community processes over the past 2 years regarding the BART development and other community projects (Adult school garden, for example).

In following the General Plan, it states that new development is to be in the character of the neighborhood.

It is imperative that the North Berkeley BART project be kept in the scale of the neighborhood under 7 stories. I ask that the city as a charter city dispute AB 2923. 7 stories is out of scale for this neighborhood. That would make the BART project the tallest outside of the downtown.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. It is upsetting to see outrageous market rate housing throughout the city. As you all know, we have over the amount of market rate housing as required by ABAG. It makes no sense to have market rate housing on the North Berkeley BART site. I believe in public land for public good, and I would hope that you do, too. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city. There should be public beauty, open space, and affordability.

Let's work for this goal together.
Sincerely,
Meryl Siegal
Cedar Street

Horner, Justin

From: sheila himmel <sheila.himmel@gmail.com>
Sent: Monday, December 14, 2020 5:30 PM
To: Shen, Alisa
Subject: North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Many people hear "North Berkeley" and think "rich white people." Those of us who live near the BART station are anything but. We look forward to a new station, with low and moderate-income housing--up to 7 stories--that doesn't tower over the neighborhood.

Thank you,

Sheila Himmel
1460 Lincoln St.
Berkeley, CA 94702

Horner, Justin

From: mrose1126@aol.com
Sent: Monday, December 14, 2020 5:08 PM
To: Shen, Alisa
Subject: Zoning for North Berkeley BART station

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Attention BART planners,

I am a resident of North Berkeley and live one half block from the North Berkeley BART station. I want the North Berkeley BART to be zoned for a maximum of 7 stories—No more than that. I understand that under AB2923 the site must be zoned for at least seven stories, but zoning for seven stories is way out of scale for this neighborhood, so it should NOT be zoned for more than seven stories. In fact I have heard Mayor Arreguin say that although the site must be zoned for seven stories, that that does not mean it must be built that high.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context when developing the North Berkeley BART site. Contextual development at this site would be no more than four stories and stepping down to two stories maximum at the perimeter. That would fit in with the residences in this, our, neighborhood. I do not want high-rise housing at the site.

The station is public land and should be used for the public good. The North Berkeley BART station is not the only site in Berkeley to build housing. There is plenty of available market rate housing, and lots more being built. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you,

Mary Rose
1370 Delaware Street
Berkeley, CA 94702

Horner, Justin

From: Stephen Shiboski <shiboski@gmail.com>
Sent: Monday, December 14, 2020 5:03 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART zoning proposal

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

We have lived a block from North Berkeley BART since 1992, and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city. Further, before any decisions are made, residents should be informed of concrete plans and timelines for addressing associated parking, pedestrian, public transit, safety and other city services needs which will surely arise as a result of this proposed development.

Thank you.

Caroline & Stephen Shiboski
1431 Lincoln Street
Berkeley 94702

Horner, Justin

From: Linda Gallaher-Brown <lgallaherbrown@aol.com>
Sent: Monday, December 14, 2020 4:53 PM
To: Shen, Alisa
Subject: N. Berkeley BART development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a long-time resident of North Berkeley, and live just 3 blocks from N. Berkeley BART.

I am in favor of no more than 4 stories stepped down to 2 stories on BART property in our residential neighborhood. I also think it should be primarily affordable and there should be low impact on parking for BART. Disabled and older people are not able to bike or walk to BART. Parking should be provided for the residents of new housing.

Thank you for your time and attention.

Linda Gallaher-Brown

Horner, Justin

From: Cece Littlepage <cecelittlepage@gmail.com>
Sent: Monday, December 14, 2020 4:06 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office; Kesarwani, Rashi
Cc: North Berkeley Neighborhood Alliance
Subject: Regarding tonight's CAG meeting

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

As a resident of the NB BART neighborhood, I have serious and important concerns about the direction of the development now in the planning stage for the station property.

While I understand that AB2723 requires that the development be zoned for a minimum of 7 stories, it does not require that it be designed and built to that height. A 7 or more story structure will dwarf and loom over the surrounding residential neighborhood. It will be a monstrosity that violates the existing City of Berkeley General Plan, and the MOU between the City and BART, as well as BART documents, which all commit to respecting the context in developing the North Berkeley BART site. The context of this site is a neighborhood of one and two story residences where contextual development means no more than two stories on the perimeters, rising in the center to a maximum of four stories. Even this will create a radical change in the aesthetics and scale of the neighborhood.

New housing, the vast majority of it market rate, is going up all over the City, more is planned, and sites remain for future housing development. There is no need for a massive market rate development at the NB BART site. This is public land and should be used for the common good, including a meaningful % of affordable units, energy-efficient design, and a respect for the character of the neighborhood. There is, of course, money to be made here for BART and for the City, but we can't allow this to be the driving force behind planning decisions.

In the 1970s, many nice old homes were torn down by developers to make way for apartment buildings, which the city later recognized as misguided, and thus the Berkeley Neighborhood Preservation Ordinance was created. I can't imagine anything more in conflict with the spirit of the ordinance than an out of scale development on the BART site. Berkeley has a unique character

defined by its neighborhoods, which we will lose quickly if high rise towers are allowed in low rise neighborhoods.

You are our elected representatives, you have taken on the responsibility to represent us, your constituents. In this case that means speaking up for our interests, and taking a stand in this planning process. Do not allow the lure of financial gain to guide you, do not repeat mistakes made in previous decades, do not just sit by and watch. Do your jobs.

Sincerely,
Cece Littlepage
1618 Acton St. 94702
510-381-3772

Horner, Justin

From: ntorcolett@aol.com
Sent: Monday, December 14, 2020 3:26 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART station proposed zoning and building

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There is plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.
Nina Torcoletti
1370 Delaware ST
Berkeley, CA 94702

Horner, Justin

From: Laura García-Moreno <lauragarmor@gmail.com>
Sent: Monday, December 14, 2020 2:32 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear Major Arreguín, BART planners and City Council Members,

I live right across the North Berkeley BART and am extremely concerned about the housing development plans at the site. This is a quiet, mostly single story neighborhood. I do not want high-rise housing at all and can only hope that The City of Berkeley's General Plan, the MOU between Berkeley and BART, all commit to respecting the context in developing the North Berkeley BART site.

Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences.

As we all know, this is not the only place in Berkeley to build housing. There is plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good, not for enriching developers. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you for your attention to this matter.

Sincerely,

Laura García Moreno
1385 Francisco St.

Horner, Justin

From: Leslie Valas <vffam5@gmail.com>
Sent: Monday, December 14, 2020 1:33 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley Bart Station and housing

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley, and live on a street that dead ends at the North Berkeley Bart station. I want to state clearly that the North Berkeley BART should be zoned for a maximum of 7 stories, no more. A zoning regulation that allows for 7 stories is *completely out of scale for this neighborhood*, but I understand that under AB2923 it must be zoned for at least that.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than ***four stories, stepping down to two at the perimeter-this fits in with the surrounding residences***. The master plan of Berkeley states a commitment to maintaining neighborhood character and I fully expect you to comply with this goal. I absolutely do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Leslie Valas
1685 Short Street
Berkeley
District 1 voter

Attachments area

Horner, Justin

From: Fran Smith <smithlfran@gmail.com>
Sent: Monday, December 14, 2020 1:32 PM
To: All Council; Shen, Alisa; Berkeley Mayor's Office
Subject: BART planning

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

I and many others in my neighborhood have repeatedly made this plea, since the first announcement of plans to build at North Berkeley BART. I begin to wonder if there is anyone at City Hall who cares. Is our input of any value at all? Is this a democracy? So, once again, I beg you to listen.

Thank you.

Lois F. Smith
1732 Acton Street

Attachments area

Horner, Justin

From: madeleine scott <mady mango@yahoo.com>
Sent: Monday, December 14, 2020 1:24 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Madeleine Scott
1717 Virginia St

Horner, Justin

From: Julieta Pisani McCarthy <pisanimcc@gmail.com>
Sent: Monday, December 14, 2020 11:20 AM
To: All Council; Shen, Alisa; Berkeley Mayor's Office
Subject: North Berkeley BART Station Development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Good morning (please, read my whole message!),

I am a resident of North Berkeley (I live 3 doors away from the parking lot) and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. **This is a quiet, small, mostly single-story neighborhood. My children play on the street with our neighbors' children. We have vegetable gardens. Contextual development is no more than four stories (which already feels like a huge stretch), stepping down to two at the perimeter to at least try to fit in with the surrounding residences. I do not want high-rise housing at the site. Light is essential for our gardens and -more important- for our mental health. I was raised in downtown Buenos Aires, have a lot of experience living in high-rise areas and know this is NOT a minor issue.**

This is actually not the only place in Berkeley to build housing. **The parking lot IS actually a paradise** (and Joni Mitchel's song is actually AGAINST development!) in that it makes our city more sustainable by allowing people to park their cars and take public transportation to San Francisco instead of driving. It actually gives the city unity in terms of transportation. It has also provided an open space for families to safely come together with their young children and ride bikes during the pandemic. There are plenty of available market rate housing, and lots more going up along more urbanized and developed corridors, like University Avenue. The station is public land, and should be used for the public good. But it is **VERY CLEAR TO ME that this is NOT about housing or sustainability but about creating a big source of income for BART and developers. If we are going to lose transit**

connection as a city, at the very least I want affordable, contextual, energy-efficient development.

I am also **VERY CONCERNED at the little communication and inclusion during this whole process.** Many neighbors still think that they should not worry about the "possibility" of development because "zoning in our area does not allow for high-rise development." I have not received regular communications from the City –just two letters in over two years, which is **NOT ENOUGH to ensure inclusion.** It's also scary that these important decisions are being made at a time when everybody is so busy and under so much stress due to the pandemic. I would have participated more if I were not dealing with distance-learning for my two grade-school children, and constant stressful changes at work.

It's also worrisome that **decisions are being made assuming that everything will go back to normal after we get a vaccine. Big businesses are switching to models that are not dependent on real estate** and are more profitable to them. Pinterest (just to give one example) paid \$70 million to break their lease. Their jobs are no longer tied to real estate and are leaving the Bay Area. We should not make decisions based on a pre-pandemic model that will not come back, at least not in full shape.

Finally, it's very disappointing and stressful to see how **Berkeley's progressive discourse is being manipulated to serve the financial interests of developers and BART.** I have lived in Berkeley for the last 21 years, and I am an environmental activist with quite a bit of perspective in terms of the whole realm of environmental issues. I have a memory, and I always vote.

Thank you,

Julieta Pisani McCarthy
1377 Francisco Street

Horner, Justin

From: Lee Bishop <bishoplm@gmail.com>
Sent: Monday, December 14, 2020 11:16 AM
To: bartplanning; Berkeley Mayor's Office; All Council
Subject: All I want for North Berkeley BART is room for people not cars

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hello,

I think we should prioritize homes for people on the North Berkeley BART land. I would like to see the maximum # of stories as is economically possible--all the way to the street line all the way around. I think we should prioritize the total # of homes of both market rate and affordable housing.

I very much think we need to almost completely eliminate parking on the site. Commuters can park in the ample downtown Berkeley garages. Residents can take public transit. Any onsite parking at all should be dedicated to residents and not commuters.

In addition to that I would like to see a completed protected greenway and open space for pedestrians.

In terms of commercial space I think we have plenty of retail in the surrounding area, but we should have space for a small take-out-focused restaurant (which would serve the nearby Cedar Rose Park along with commuters) and a coffee shop. We should also plan on having enclosed bicycle parking.

Thank you,
Lee

Horner, Justin

From: Whitney Moss <whitneymoss@gmail.com>
Sent: Monday, December 14, 2020 9:14 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley Bart Development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hello there!

I am a homeowner on the north end of Sacramento Street in Berkeley with children at King and BHS.

I'm writing to suggest that the North Berkeley BART development be zoned for a maximum of seven stories to stay aligned with the neighborhood feel - as this is not a city center, but rather a residential area - while also meeting the requirements of AB2923.

I prefer that the development is no more than four stories, stepping down to two at the perimeter to best fit in with the surrounding residences.

I am wondering what the impact of building so many units will have on our neighborhood resources. Do we have the capacity in our schools to accommodate so many more residents? I understand that King Middle School is already maxed out.

Please address the number of units and what other functions (additional fire station?) will have to go along with them for those of us who are not knowledgeable about city planning.

I want to be future-thinking and am open to change that benefits Berkeley from an economic, safety, and climate perspective.

Thank you.

Whitney Moss
1403 Sacramento Street
Berkeley, CA

Horner, Justin

From: Reynaldo <cruzinroseann@aol.com>
Sent: Monday, December 14, 2020 8:49 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Development of North Berkeley BART site

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear Representatives:

I bought my home in North Berkeley thirty-one years ago. We settled here after looking in other Bay area communities because of the warm, residential appeal. I have recently repainted and remodeled my second floor balcony that faces south, specifically, to enjoy the view of the East Bay hills and southern skyline.

My residential neighborhood will be impacted by a huge, housing development. I want and request the BART site to be more than 4 stories in the middle, with 2 stories at the perimeter in order to keep this a low-rise residential community.

I object to a high-rise development in our residential neighborhood. I do not object to low-rise, affordable and energy-efficient housing, but to build on this public land where BART and developers profit is wrong.

Please preserve our neighborhood.

Sincerely,
Reynaldo Santa Cruz
1461 Lincoln Street

Horner, Justin

From: Kathy Tuttle <kathy.tuttle@comcast.net>
Sent: Sunday, December 13, 2020 9:57 PM
To: Shen, Alisa
Subject: Development of Housing at North Berkeley BART

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear Planning Commission:

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Sincerely,
Kathleen Tuttle
1451 Virginia Street

Horner, Justin

From: Judy Massarano <jmassarano@gmail.com>
Sent: Sunday, December 13, 2020 9:19 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: BART plans

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is **no more than 4** stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used **for the public good**. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Judy Massarano

Attachments area

Horner, Justin

From: Elana Naftalin-Kelman <elanank@gmail.com>
Sent: Sunday, December 13, 2020 9:13 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office; Kesarwani, Rashi
Subject: building on north berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

To whom it may concern,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you,

Elana Naftalin-Kelman
1680 Short St.

Horner, Justin

From: Libby Lee-Egan <libbyco@gmail.com>
Sent: Sunday, December 13, 2020 8:44 PM
To: bartplanning; All Council; Berkeley Mayor's Office
Subject: All I want for North Berkeley BART is...

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hi there, I live in North Berkeley and I want to make sure you know that many North Berkeley residents are very supportive of lots of housing at our BART station. I watched all your consultants' videos, I've pored over the relevant BART documents and latest research on TOD, and I'm here to announce my vision for North Berkeley BART is...

something *actually* getting built.

That's not very exciting but that is my main priority and many of my neighbors agree. I kicked off the founding of North Berkeley Now! with "Let's build paradise instead of a parking lot" yard signs and I'm happy to report we've given out all 200 of the ones we originally ordered. We're not always able to show up to every meeting but we are engaged citizens and constituents.

So, in the future I'm going to say we want 8 or 10 stories, or rooftop gardens or a public plaza, but those are not my #1 priority. I want whatever height and community benefits package will get shovels in the ground for a transit village that has the highest number of affordable homes possible.

I know that this issue is not in front of council at the moment but I wanted to make you aware that not everyone in North Berkeley is skeptical of new neighbors.

-Libby Lee-Egan

Horner, Justin

From: Julio Remelexo <remelexojulio@gmail.com>
Sent: Sunday, December 13, 2020 7:53 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Development at North Berkeley Bart

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hi,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Julio Barreto
1721 Sacramento St
Berkeley, CA 94702

Horner, Justin

From: JULIA HUGHES <juliajnyahjulio@gmail.com>
Sent: Sunday, December 13, 2020 7:52 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hi,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Julia Hughes
1721 Sacramento St
Berkeley, CA 94702

Horner, Justin

From: Lynda Caesara <lcaesara@hotmail.com>
Sent: Sunday, December 13, 2020 6:16 PM
To: Shen, Alisa
Subject: Height of the Bart Development at North Berkeley Bart

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hi ,

I live a block and a half from the Bart station. It is important the Bart development fit the neighborhood. We have apartments now in the neighborhood. i.e The Parc apartments on Delaware that are still advertising for tenants. There are many Market rate housing already in Berkeley and already being built. We need affordable housing not more market rate housing.

Putting up to 1100 units is more than the neighborhood can absorb. I understand that under AB2923 the site must be zoned for 7 stories. But this needs to be the maximum. No more than 7. Since the MOU states a commitment to respecting the neighborhood context That means that the site should be zoned for no more than 4 stories. Ideally four in the middle dropping to two on the outside.

Please don't overload our neighborhood with more people than we have parking for. It is absurd to think that people won't have a car in the neighborhood. How does one shop at Costco without a car. You can't just decide that families won't need and use a car.

I want an affordable , contextual and energy efficient development that will enhance the neighborhood and the city.

Thank you,
Lynda Caesara

Horner, Justin

From: Jack Kurzweil <jack.kurzweil@gmail.com>
Sent: Sunday, December 13, 2020 5:45 PM
To: bartplanning; All Council; Berkeley Mayor's Office
Subject: All I want for North Berkeley BART is...

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear All,

I'm given to understand that the final meeting of the CAG group for development at North Berkeley BART is tomorrow night.

This note is to urge you to go down the path of maximum housing density at both the North Berkeley and Ashby BART Stations.

This approach, with an emphasis on affordable housing on the various economic tiers, will I believe can result in the maximum number of affordable units because the inclusion of an appropriate number of market rate units can help subsidize an increase in the number of affordable units.

I want to make the distinction clear: if the number of units at these stations is maximized, then the number of affordable units can increase even though their percentage may be decreased. One of the more slippery linguistic manifestations of housing talk in Berkeley is the advocacy of close to 100% affordable housing at these stations, not acknowledging that this may very well result in a smaller number of affordable units.

Please don't fall into that trap.

But there are other issues at stake at these stations as well: shopping and access.

Let's address access first. Intensive housing development will significantly reduce the availability of parking at these stations, both for those who will live in this housing and for those who have been riding BART by driving to the station and parking. The overall planning for development at these stations needs to include - from the first - careful thinking about how BART riders who live more than - let's say - half a mile from the station are going to get there.

The aspect of development at BART that is designed to help reduce automobile commuting needs to extend to those who don't live that close to a station. This will take thought, coordination with AC Transit on routes and timing, and even more flexible methods of getting dispersed people from one place to another. But it will only happen if the problem is put up on the board as part of the development process.

Now let's go to shopping. Part of the conception of living in apartments at BART stations is that parking will not be available to residents. So the question that should arise in the planning is how and where will the residents do their shopping for groceries and other things.

Noting that many hundreds of people (perhaps thousands) will be living at these BART stations, it is easily observed that:

- Monterey Market and the shops along Solano are not adequate for the increased population at North Berkeley BART

- With regard to Ashby BART, Old Berkeley Bowl on Adeline is always jammed, Whole Foods on Ashby and Telegraph is a mile uphill and very pricy, and the Safeway on Alcatraz and College is almost two miles away.

So you do have to think through just how all of this is going to work. No “re-imagining”, just some careful, complex and transparent planning. And asking the questions that those in charge don’t want you to ask.

Thank You for Your Work and Happy Holidays,

Jack Kurzweil
1737 Allston Way

Horner, Justin

From: Karl Goldstein <kgoldstein46@gmail.com>
Sent: Sunday, December 13, 2020 5:05 PM
To: Shen, Alisa
Subject: my address

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

is 1376 Virginia Street
Berkeley 94702

Previous email omitted the address
Karl Goldstein

Horner, Justin

From: Karl Goldstein <kgoldstein46@gmail.com>
Sent: Sunday, December 13, 2020 5:03 PM
To: Shen, Alisa
Subject: BART development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.
Karl Goldstein

Horner, Justin

From: Karl Goldstein <kgoldstein46@gmail.com>
Sent: Sunday, December 13, 2020 5:02 PM
To: Shen, Alisa
Subject: N. Berkeley BART development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.
Karl Goldstein

Horner, Justin

From: Claudia <chava52@gmail.com>
Sent: Sunday, December 13, 2020 4:57 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I live half a block from the North Berkeley Bart station and want to underscore the need to build contextual housing there. The Bart station should be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There is plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.
Claudia Valas
1818 Short St, Berkeley, CA 94702

Horner, Justin

From: Mail <allen.phil@yahoo.com>
Sent: Sunday, December 13, 2020 4:19 PM
To: Shen, Alisa; All Council; mayor@cityofberkeley.com; Kesarwani, Rashi
Subject: North Berkeley BART housing development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

To all addressed and concerned:

I am a resident of the neighborhood around which the North Berkeley BART is sited.

I just returned from my Covid testing at the Kaiser/Permanente campus. In driving both directions, the sight of the tall residence tower looming over the 40th/MacArthur BART station was not an option. While much of its surroundings are on-the-ground houses and apartments, the area it commands is bustling urban, with many retail and service businesses at hand. It isn't particularly out of place, just a product of hubris by an agency with a history of faux passes.

Another BART station some miles to the north is due for its contribution to the housing shortage, which will be surrounded by a placid entirely residential neighborhood, although a busy commercial thoroughfare runs a couple of blocks away and does not face or relate to that neighborhood.

BART's legal people greatly informed (wrote) the state law known as AB-2923 (rather than its actual name), which apparently entitles the agency to erect buildings on the site of the North Berkeley BART station of at least 7 stories. If the agency gets its way, I will be able to see it above roofs and trees from my second-story front window on San Pablo Avenue. If it really gets its way, goodbye Campanile.

This neighborhood deserves a more considerate consensual result, with structures no higher than 4 stories at the core and 2 stories at the perimeter. Another way of putting this is to ask if BART *has* to build to its legal minimum height, or if they could bend to prevailing neighboring sentiment which does not want a tower over the station.

Berkeley, citizen and governance, knows first-hand its lack of housing. Recent additions have solved the problem for market-rate wallets, and then some. This project should house travel-oriented (right?) folks of lower economic strata. Sites and opportunities for additional affordable housing abound in Berkeley, but as a public agency BART must aim to do the greatest good. In this case, that means an all-affordable North Berkeley project with a maximum height of 4 stories. The height limit would also promote the use of wood for framing, a much cheaper alternative to steel.

Respectfully,

phil allen
(resident of D-1)

Horner, Justin

From: Sbcglobal <kathy_jo@sbcglobal.net>
Sent: Sunday, December 13, 2020 4:18 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Development at North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

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I am a resident of North Berkeley and would like to see that development at the North Berkeley BART is no more than four stories, stepping down to two at the perimeter. This would be more in keeping with the surrounding neighborhood. High-rise housing would not be appropriate at this site.

Thank you.

Kathleen Jo
1440 Lincoln Street

Horner, Justin

From: karen sumner <kjsumner@gmail.com>
Sent: Sunday, December 13, 2020 3:54 PM
To: Shen, Alisa
Subject: N berkely bart

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

hello,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site. This is a residential neighborhood.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

I believe the housing should be priced at a rate that would help people who work in our community to actually live here.

Thank you.

Karen Sumner
1659 Short St
Berkeley

Horner, Justin

From: Jeannette MacMillan <macmillanjeannette@gmail.com>
Sent: Sunday, December 13, 2020 2:37 PM
To: bartplanning; +council@cityofberkeley.info; +mayor@cityofberkeley.info
Subject: All I want for North Berkeley BART is...

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hi, I live half a block from the North Berkeley BART station, and I want to encourage you to do what you can to make a vibrant space for people of all income levels. Please be ambitious with density- I want more housing to be built in my neighborhood! This is good for society and good for the planet. I'm willing to tolerate local impacts for an ambitious project! Thanks!

Jeannette MacMillan
1676 Sacramento Street

Horner, Justin

From: Miranda Ewell <mirandaewell@gmail.com>
Sent: Sunday, December 13, 2020 1:13 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Cc: nbneighborhoodalliance@gmail.com
Subject: Housing at North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am increasingly alarmed at the prospect of BART development of housing at the North Berkeley BART station. The facts show that BART has repeatedly shown itself to be an incompetent, mis-managed, bad faith actor. It cannot be trusted with public funds, much less the development of scarce public land.

If you have not already, please read this recent November editorial from the Mercury News:

<http://www.mercurynews.com/2020/11/28/editorial-vta-bart-the-voters-who-approve-their-tax-increases/>

There is a wrongheaded push for housing at any cost by powerful developers and their political allies in Sacramento, who have tried to wrest away local control over local planning, using specious slogans of environmental stewardship. Please do not let this happen!

Berkeley is a highly desirable city, with an educated and well-to-do, liberal population. Private developers, guided by local officials, will always want to develop luxury housing here. That is happening all over town already. The task for public officials in a society which has seen a frightening acceleration of wealth in the hands of a tiny minority is to protect the integrity of the city's historic promise for equity, justice and equality: we need housing for what I will call essential citizens: middle income workers like school teachers and small business employees and low income families, including minorities, refugees and the homeless.

BART has shown its true colors again and again - with its own excessive salary and benefit costs - to be riddled with classic public corruption. The agency thumbs its nose at any attempts to hold it to legal agreements regarding the use and spending of public monies. This has been well documented.

Can BART be trusted at this very important moment? Surely not. As city officials, you cannot ignore - or later claim you did not know - BART's miserable record of broken promises.

Public land for public good! Only a complete failure of duty on your part would allow you to permit BART to build a multi-story, out-of-context monstrosity similar to what it has built at the MacArthur Station (which remains two-thirds empty a year after leasing began!). YOU have the power! Please remember that.

Best,
Miranda Ewell

Horner, Justin

From: Pierre Palancade <pierre.palancade@gmail.com>
Sent: Sunday, December 13, 2020 1:04 PM
To: Shen, Alisa
Subject: north Berkeley Bart development

WARNING: This email originated outside of City of Berkeley.

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To who it may concern:

I support this statement below:

Pierre Palancade, home owner at north Berkeley Bart.

- I live in North Berkeley- this is my neighborhood, and I want the housing at the BART site to be no more than 4 stories in the middle, 2 at the perimeter- appropriate for this low rise residential community.
- North Berkeley BART is not the only place to build housing in Berkeley. There's lots of market rate housing in Berkeley already, and more going up. This is public land and should be used for the public good- not for enriching BART and developers. Let's build a trueparadise: contextual (low rise), affordable, and green (energy-efficient) housing.
-

Horner, Justin

From: Justin Kao <justin@dicatek.com>
Sent: Sunday, December 13, 2020 12:09 PM
To: bartplanning
Subject: North Berkeley BART development

WARNING: This email originated outside of City of Berkeley.

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Hello--

I'm a homeowner on Rose St. just two blocks away from the north Berkeley BART. I am writing to express my support for development on the station parking lot. Having viewed the "Building Form and Density" video, I have a few opinions and preferences to share:

- The majority of units should be on the larger end, 3-4 bedrooms, to increase density while supporting affordability for families and students. I believe that 1-2 bedroom units would attract too many well-paid young tech employees from San Francisco or elsewhere in the Bay Area, which would defeat the point of building more housing in the first place.
- Coffee shops and smaller restaurants with outdoor seating would enhance the streetscape and provide more walkable options for the neighborhood than our current options of driving out to San Pablo or Shattuck.
- This is not an appropriate neighborhood for chainstore retail, nor the high-end boutiques that dominate 4th St. and Rockridge's College Ave.

Thank you,
Justin

Horner, Justin

From: Toni Casal <tonic59@gmail.com>
Sent: Sunday, December 13, 2020 11:01 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley Housing at BART station

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Greetings,

I am a North Berkeley resident and I am for building more affordable housing in Berkeley. I object to having a high rise building at North Berkeley BART.

We have designated commerce corridors for high rise buildings and they are San Pablo Ave and University Avenue, or downtown. Certainly not in single family neighborhoods. You all know this and yet you are continuing to go along with a proposal that makes no sense to you or me.

We could build hundreds of low income units at North Berkeley Bart without going over 4 stories, with 2 stories on the perimeter. Low rise is more contextual, cheaper to build, and does not ruin the character of the neighborhood.

The neighborhood association is united behind low income housing that is contextual and energy efficient. How about housing for teachers, librarians and others who work in essential jobs and currently commute from Vallejo, Antioch and Concord? Many have been displaced due to high rents here. It is amazing to me that a full time BUSD teacher has to commute from San Pablo and is categorized as poor.

BART Ridership. Do we really believe that BART ridership will return to pre-pandemic levels now that the pandemic has shown us the benefits of working at home? Most white collar employers say employees will be working from home at least 2 days per week. This means BART ridership will be down. (a rise in ridership is a requirement, I'm told)

Housing. Do we believe that the international students who make up nearly 20% of UC Berkeley's student body will be returning anytime soon? They have a voracious appetite for housing but they certainly won't be selecting the US as much for their higher education needs in the future. Their absence will increase vacancy rates, as will distance learning.

The Economy. Retail and office space is available in Berkeley now. Are we looking at converting any of this to housing? The walls are already up and utilities installed. NYC developers already have proposals to do these conversions.

Thank you for your time,
Toni Casal

ps: It is disrespectful to ask for community comment at meetings and then keep people waiting till 11pm at night to comment for 2 minutes. This is disingenuous. Not very democratic or inclusive, and kinda shameful behavior--We can do better.

Horner, Justin

From: Jodi Ravel <jodi.ravel@gmail.com>
Sent: Sunday, December 13, 2020 10:04 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Urgent: Uphold policy agreements and Respect the Context - No more than 4 stories at North Berkeley BART.

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hello Berkeley Leaders,

I am a resident of North Berkeley and I live 3 blocks from the North Berkeley BART station. While I'm not particularly joyful about it, I do understand the need to reclaim some of the BART parking lot to accommodate housing, and that AB 2923 requires the area to be zoned for 7 stories. That said, and as I'm sure you completely know in your heart and mind, actually allowing building that high, in the middle of this completely residential neighborhood, is WAY out of scale. This is not a downtown shopping area, nor a major street/boulevard throughfare like San Pablo or University, and it is a completely different type of location than the Ashby BART station.

So - I am writing to encourage/plead/beg city leaders to have an open mind, humility and vision, and to listen to the recommendations of well-respected, Berkeley citizens who have studied the requirements, and offer a compromise to limit the building height to no more more than 4 stories with step down to 2 stories on the perimeter. This is a decent compromise that provides for many additional units, and ALSO respects the aesthetics and emotional feeling of this small neighborhood in Berkeley as much as possible.

To address the need for maximizing housing in Berkeley, please remember this is not the only place to build or zone housing in Berkeley. In fact, market rate housing is already going up and a lot more are planned/underway. For example, I have attached 2 photos of huge rental buildings on San Pablo that are not even full. Please note that these are 3 and 4 story buildings and you can see how overwhelming they already feel, so you can only imagine how a 7 story building would look and feel like tucked into a residential area.

The BART station is public land, and should be used and considered for the public good for ALL. I want affordable, contextual, energy-efficient, green, 21st century development that will enhance this neighborhood and the city, and not turn it into a reminiscent 1960s era Soviet-style looking neighborhood.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents **ALL commit to respecting the context in developing the North Berkeley BART site**. These current policy agreements must not be ignored. Contextual development for this neighborhood is **no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences**.

Thank you for listening to tax paying, voting, neighbors of the North Berkeley BART.

Jodi Ravel
1272 Francisco Street.

Photos are from San Pablo Avenue - between University and Gilman.



Horner, Justin

From: Eileen Hughes <jnyahsgrandma@gmail.com>
Sent: Sunday, December 13, 2020 9:29 AM
To: Berkeley Mayor's Office; All Council; bartplanning; Shen, Alisa
Subject: Fwd: Reminder: important call to action: send emails, speak up at tomorrow's CAG meeting!

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I am fully in support of the NBNA positions cited below. I am strongly opposed to high-rise development at the site.

N Berk BART development should be consistent with the neighborhood (2 stories outside, no more than 4 stories inside).

Parking sufficient for the new residents and for BART customers should be provided on the BART property. Residential parking permits should not be provided to new residents. The RPP should not be changed to allow new residents to park on the street, taking away parking from existing residents.

It's disturbing to see for-profit interests be considered at the expense of existing residents.

Public land for public good!

Sincerely
Eileen Hughes
1721 Sacramento Street
Berkeley CA 94702

Begin forwarded message:

From: North Berkeley Neighborhood Alliance <nbneighborhoodalliance@gmail.com>
Date: December 13, 2020 at 9:02:56 AM PST
To: North Berkeley Neighborhood Alliance <nbneighborhoodalliance@gmail.com>
Subject: **Reminder: important call to action: send emails, speak up at tomorrow's CAG meeting!**

Dear neighbors,

Please take these two important actions!

1. Attend and speak at the Community Advisory Board (CAG) meeting tomorrow! (Monday, December 14th, 6-9PM) This meeting will address the height and size of the development at N. Berkeley BART, so it's a crucial one. To ensure that you get to speak, join no later than 8PM, and "raise your hand" as soon as public comment begins. You will probably have 1-2 minutes. Our

community has only one representative (Tony Corman) on the 15 member committee, so we must make our voices heard! Access the meeting agenda [here](#).

Meeting details:

To join from a computer or smartphone: <https://zoom.us/j/95548545979?pwd=NGF4RTNjMjE1UVJzZExsYDNzNnhGdz09>.

To request to speak, use the “raise hand” icon by rolling over the bottom of the screen.

To join by phone: Dial (669) 900-6833 and enter Meeting ID: 955 4854 5979. The Meeting Passcode is 716555 If you wish to comment during the public comment portion of the agenda, Press *9 and wait to be recognized by the Chair.

Talking points:

- I live in North Berkeley- this is my neighborhood, and I want the housing at the BART site to be no more than 4 stories in the middle, 2 at the perimeter- appropriate for this low rise residential community.
- North Berkeley BART is not the only place to build housing in Berkeley. There's lots of market rate housing in Berkeley already, and more going up. This is public land and should be used for the public good- not for enriching BART and developers. Let's build a true paradise: contextual (low rise), affordable, and green (energy-efficient) housing.

2. Email the BART planners, Mayor and City Council. Copy and paste this message, or write your own, and send it to: ashen@cityofberkeley.info, council@cityofberkeley.info, mayor@cityofberkeley.info

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at

the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

(Your name and address)

Please spread the word: attached to this email is a pdf to print out & give to neighbors that are in agreement with these points. Bring three new people to tomorrow's meeting-our strength is our numbers!

Many thanks to everyone who came to the two membership meetings this week-great to see & hear all of you!

Your neighbor,
Laura

<NBNAhandout.pdf>

Horner, Justin

From: Joel Resnikoff <socialwks@hotmail.com>
Sent: Saturday, December 12, 2020 8:51 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Cc: Basak Altan
Subject: North Berkeley BART development

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

We live at 1660 Short St, directly north of the North Berkeley BART station. The housing project there should be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but we understand that under AB2923, it must be zoned for at least that).

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter -- this fits in with the surrounding residences. Remarkably, we have looked around Berkeley and **cannot find a single housing development which is 7 stories high**, let alone higher. We do not want high-rise housing at the site.

A major problem with this development is the **issue of parking**. If there is not a parking place for every apartment **and** for the BART riders who, pre-pandemic, filled the parking lots daily at N. Berkeley BART, the surrounding neighborhoods will be overrun with cars. We have lived in or tried to visit friends in cities with inadequate parking (San Francisco, Tel Aviv, Buenos Aires, Jerusalem, and even U.C.'s Albany Village) and it is a nightmare. Commuters from Grizzly Peak, Euclid, or Spruce will not suddenly begin riding bicycles or skateboards to the BART station in the morning if there is inadequate parking. They will either park on surrounding streets or skip BART and go back to commuting to work in their own cars -- not the direction we want to go in this age of global warming. The same is true for the thousand new neighbors who will be moving in across the street. They will still own cars and we, the existing neighbors and our guests coming to our homes, will be living in a traffic and parking nightmare. This may sound melodramatic, but we are only reporting on the reality which we and our friends have experienced elsewhere where there is inadequate parking.

Solar energy - We have invested \$20,000 in solar panels on our house. Highrise development at the BART site will block the southern sun and relegate our solar panels to the status of "useless". I would have never have expected such a situation in Berkeley, of all places, when we decided four years ago to invest in solar. The shadow of this housing will also impact many other residences which already have, or may want to invest in, solar power. In this age of global warming, this is, very simply, terrible planning.

This is not the only place in Berkeley to build housing. There is plenty of available market rate housing, and much more going up. The station is public land, and should be used for the public good. We want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Joel and Irene Resnikoff
1660 Short St.

Horner, Justin

From: Maud Engel <engel1883@gmail.com>
Sent: Saturday, December 12, 2020 6:43 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Proposed North Berkeley BART Construction

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

To whom it may concern,

I have lived in my Berkeley home a block away from the North Berkeley BART station for the past 34 years. The area is lovely, typically Berkeley style and is a quiet diverse residential location. I am very concerned about the proposed North Berkeley BART Station retail and residential construction and how it would diminish and change the neighborhood from a peaceful tranquil part of the city to a much busier urban setting by increasing traffic, litter, noise and the number of residents.

I request the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Sincerely,

Patricia Maud Engel, LCSW
1420 Lincoln Street
Berkeley, CA 94702

Horner, Justin

From: Vicki <vickisommer@gmail.com>
Sent: Friday, December 11, 2020 2:51 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: CAG meeting #4

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear BART planners, Mayor and City Council,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

Development height should not exceed four (4) stories, with step downs to two (2) stories along the periphery as well as setbacks from the sidewalks. The buildings should be grouped, not presented as large solid masses, so as to blend visually with the surrounding residential neighborhoods on all four sides. The trees need to be replaced, again to allow the development to blend in with its surroundings.

This site should be used exclusively for the green construction of 100% affordable living units that ideally will accommodate families with children enrolled in Berkeley schools, as well as Berkeley workers whose incomes do not allow for "market rate" rents. It would be ideal if a path to ownership could be devised, allowing these Berkeley residents to build wealth. University and San Pablo avenues are major commercial corridors and are easy walking distance from the site, obviating the need for commerce on site.

The Mayor of Berkeley has repeatedly promised the community that any development at North Berkeley would be contextual. Considering the neighborhoods surrounding this property, contextual development is no more than four stories, stepping down to two at the perimeter - this fits in with the surrounding residences.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site.

North Berkeley is not a "city center". We are a Neighborhood which welcomes new neighbors - while remaining a Neighborhood.

This is not the only place in Berkeley to build housing. There is plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want Berkeley and BART to agree to build an affordable, contextual, energy-efficient development.

I have observed that several pro-growth political groups have encouraged their membership to write and call in favor of over-developing the North Berkeley BART lot. There is no way to ensure that these people even live in Berkeley! I trust that you, and our elected representatives, understand that Berkeley has a surplus of (under-rented) market rate apartments, and so will choose to advocate for contextual, wood frame, 100% affordable construction in North Berkeley that will blend seamlessly into our North Berkeley Neighborhood.

Thank you.
Vicki Sommer
Resident of Delaware st, between California and Sacramento

Horner, Justin

From: tom reilly <tom.reilly46@gmail.com>
Sent: Friday, December 11, 2020 12:18 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Cc: Kevin James
Subject: Development at the North Berkeley BART Station

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am a resident of North Berkeley and I live about 2 blocks from the North Berkeley BART Station. I do not want the BART Station area to be zoned for 7 stories or 6 stories or 5 stories. I think the maximum it should be zoned for is 4 stories. This BART station sits in the middle of an entirely residential, non-commercial area of one and two story buildings. Dumping a 7-story apartment complex into the middle of this area will do great violence to the character of our neighborhood. Jones Berkeley, a huge new apartment complex has recently been completed at Cedar Street and San Pablo Avenue, on the outskirts of our neighborhood. Even though it is situated on a busy commercial street on the edge (not in the center) of a residential neighborhood, this complex appears to be 4 stories high, no higher. It is insane to imagine placing a significantly higher complex of buildings in the middle of the neighborhood at the location of the present BART parking lot.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development means no more than four stories, and stepping down to two at the perimeter. This would fit in with the surrounding residences. High-rise housing would not. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There is currently plenty of available market rate housing, and lots more is going up. The BART Station land is public land, and it should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city, not a housing behemoth designed to maximize the

profits of BART and private developers at the cost of Berkeley residents who have lived in this neighborhood for decades.

If you believe that state law requires you to zone this area for a 7-story building, I suggest you defy the state law and invite BART to sue you.

Thank you.

Thomas P. Reilly

1450 Keoncrest Drive

Berkeley CA 94702

Horner, Justin

From: Dorit Resnikoff <doritresnikoff@yahoo.com>
Sent: Friday, December 11, 2020 12:12 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART building proposal

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Hello,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I grew up in the area, and I have been priced out by "market-rate" housing prices. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Dorit Resnikoff
1364 Francisco St.

Horner, Justin

From: Elana Naftalin-Kelman <elanank@gmail.com>
Sent: Friday, December 11, 2020 11:49 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Good Afternoon,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Elana Naftalin-Kelman (1680 Short St.)

Horner, Justin

From: Basak Altan <basak.alt@gmail.com>
Sent: Friday, December 11, 2020 9:21 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Preserve the North Berkeley BART Neighborhood

WARNING: This email originated outside of City of Berkeley.

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Hello,

I am a resident of North Berkeley for over 18 years and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Basak Altan
1661 Short Street
Berkeley, CA 94702

Horner, Justin

From: J & J Schroeder <janicejimschroeder@gmail.com>
Sent: Thursday, December 10, 2020 5:00 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Re: Community Advisory Board meeting

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Mayor Arreguin, BART planners, City Council members,

I have lived in North Berkeley in a 480 square foot house for the past 42 years with my late husband and son. I remember Berkeley as a city with a much more diverse population and truly affordable housing/rental options. My neighborhood consisted of folks: of various cultures and many ethnicities, some people with disabilities, people of all ages, and many from the working class. There was a real sense of community.

I am writing to you because I want the North Berkeley BART to be zoned for a *maximum* of 7 stories, no more. We need truly affordable housing, energy-efficient units and units accessible for people with disabilities on fixed incomes.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter. This kind of development fits in with the surrounding residences. I do not want high-rise housing at the site.

There are a number of available market rate housing units, and lots more going up in Berkeley. Importantly, the North Berkeley BART station is public land. I strongly believe it should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city. Let us remember housing is a right, not a privilege!

Sincerely,
Janice Schroeder
1610 Curtis St.

Horner, Justin

From: Leonard Mudrock <lmudrock@icloud.com>
Sent: Thursday, December 10, 2020 3:39 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Cc: Leonard Mudrock
Subject: North Berkeley BART planners

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear City of Berkeley BART planners,

I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 4 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Please think about comparing to maximum of 4 to 5 stories along busy University Ave between San Pablo Ave and Martin Luther King Jr. Way. It's fair to the height maximum in the neighborhoods in a distance radius. Delaware Street should not be busy and shows stepping down to two at the perimeter-this fits in with the surrounding residences. Also, “^” shaped roof is appropriate to match with the surrounding residences' homes (not flat roof at the top).

Thank you.
Leonard Mudrock

1408 Delaware Street
Berkeley, CA 94702
(Across the street - North Berkeley BART parking lot)

Horner, Justin

From: Mary Lai <mary@bigtoad.com>
Sent: Thursday, December 10, 2020 1:58 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Cc: North Berkeley Neighborhood Alliance
Subject: Keep North Berkeley development to 4 stories maximum!

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Please - no high rise building at this site! And why, with the unknowns of how the virus will mutate and how long we will need to isolate, would we want to build a building where people would have to squeeze into an elevator to leave their apartments?

We need light and air to stay healthy, and a high rise is NOT going to provide that. And the neighbors will lose their light and air as well.

YES, the politicians in Sacramento have mandated 7 stories, but do we have to knuckle under? Let's build housing that serves people, not housing that someone (who isn't a planning professional) tells us to build.

Respectfully yours,

Mary Lai
Age 78, resident of California & Delaware since 1963

Horner, Justin

From: Carol Hirth <chirth@mac.com>
Sent: Thursday, December 10, 2020 1:51 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Building at North Berkeley BART

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I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.). **Any building over 4 stories is way above what is appropriate for the neighborhood.**

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. **I do not want high-rise housing at the site.**

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Just because those of us in this area live in a slightly more affordable area of Berkeley is not a reason to impose unreasonable and unsightly housing in our area. **"High rise", condo/apartment housing would not be considered, or built, in "the hills".**

Thank you.

Carol Hirth
1309 Cornell
94702

Horner, Justin

From: Jason Warriner <jason.jaywar@gmail.com>
Sent: Thursday, December 10, 2020 12:13 PM
To: Shen, Alisa
Subject: North Berkeley BART development

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I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

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This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Jason

Horner, Justin

From: Lois Cantor <locando@comcast.net>
Sent: Thursday, December 10, 2020 11:58 AM
To: Shen, Alisa
Subject: BART

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I am a resident of North Berkeley and want the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.
Lois Cantor
1629 Sacramento St.



*A Collaboration Between BORP and the EBSHC**

November 16, 2020

TO: City of Berkeley Community Advisory Group (CAG)

FROM: Ashby Recreation & Community Housing

RE: Input to Final CAG Recommendations

ARCH (Ashby Recreation & Community Housing) is a project of Bay Area Outreach & Recreation Program (BORP) and the East Bay Supportive Housing Collaborative (EBSHC). We are collaborating to build a world-class adaptive recreational facility coupled with urgently needed affordable housing on the east parking lot of the Ashby BART (behind the Ed Roberts Campus). Situated next to BART and the Ed Roberts Campus, ARCH will be built using universal design and green building principles. The facility will leverage public transit and existing services to provide broad recreational access to the disability and underserved community. Our goal for the housing component is 100% affordable to the deepest degree possible, with the ability to enable residents to return to their neighborhood if they were displaced.

BORP has more than 45 years of providing adaptive sports and recreation programming to people with physical disabilities in the East Bay.

EBSHC supports and advocates for permanent supportive housing for persons with serious mental illness (SMI), many of whom can live independently with appropriate services.

Members

Rick Smith,
*Executive
Director, BORP*

John Ormsby,
*Board Chair,
BORP*

Kathleen Sikora,
Chair, EBSHC

Margot Dashiell,
*Vice Chair,
EBSHC*

Linder Allen

Tom Bates,
*Fmr. Mayor,
Assemblymember*

Dmitri Belser,
*Executive Director,
Ctr. for Accessible
Technology*

Steve Bischoff

Laurie Capitelli
*Fmr.
Councilmember*

Michael Godoy

Loni Hancock,
*Fmr. Mayor,
State Senator*

Lois Heaney

Linda Maio,
Fmr. Vice Mayor

Liz Rebensdorf,
*President, NAMI
East Bay*

Toni Veglia



The Housing Component

Our goal is **100% affordable homes** to the deepest degree possible and **100% accessible** using universal design principles, as demonstrated by the Ed Roberts Campus.

A significant number of units would be set aside for **persons at the extremely low-income level** and services would be provided on-site for those residents who need permanent support. There will be housing, with support services, for **people with mental illness many of whom are able to live independently with appropriate services**. Housing for **persons with physical disabilities**, and for those who have been displaced from South Berkeley, would have a place here. This will truly be an integrated facility.

The goal of helping fill the desperate need for permanent supportive housing for persons with mental illness is fully compatible with the values shared by the Ed Roberts Campus, BART's TOD Development Guidelines, and the City of Berkeley. Integrated housing has already demonstrated how persons with mental illness can be part of a larger community when they have a permanent home and the support they need.

Adaptive Sports, Fitness & Recreation Center

For individuals without disabilities there are numerous opportunities to engage in physical fitness and recreation activities every day. For **people with disabilities**, however, access to sports, fitness and recreation is severely limited or non-existent, making it almost impossible for them to enjoy the well-documented health and quality-of-life benefits that come from these activities. The envisioned complex will be more than an athletic facility or recreation center; it will be a **community hub**, providing an accessible environment for individuals with disabilities, offering regular opportunities for fitness, wellness, recreation, enjoyment and competition. The center will be **available for use by everyone**, not just people with disabilities, and will have widespread community benefit. EBSHC and BORP look forward to taking the first steps to turn this vision into a reality.



ARCH'S REQUEST TO THE CAG:

Our recommendation is simple. Our joint complex will meet the critical needs for an adaptive recreational facility, provide a world-class recreational asset for the community, and combine that with the creation of urgently needed affordable housing. We respectfully request that the CAG's recommendations to the Planning Commission's zoning process for the BART property east of the Ed Roberts Campus include specific language enabling an innovative project such as ARCH with *both* housing and recreation uses, and indeed that such language actually facilitates the creation of such uses.

We thank the CAG for its interest and look forward to realizing this exciting opportunity.

Sincerely,

Rick Smith, Executive Director
Bay Area Outreach & Recreation Program

Kathleen Sikora, Chair
East Bay Supportive Housing Collaborative

Lapira, Katrina

From: Andrea Altschuler <andreaaltschuler@gmail.com>
Sent: Monday, November 30, 2020 5:56 PM
To: Shen, Alisa <AShen@cityofberkeley.info>; bartplanning@cityofberkeley.info <bartplanning@cityofberkeley.info>
Subject: Fwd: North Berkeley BART housing - bldg height, affordability, and parking

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----- Forwarded message -----

From: **Andrea Altschuler** <andreaaltschuler@gmail.com>
Date: Mon, Nov 30, 2020 at 5:49 PM
Subject: North Berkeley BART housing - bldg height, affordability, and parking
To: <bartplanning@cityofberkeley.info>, <athorne@bart.gov>
Cc: <mayor@cityofberkeley.info>, <council@cityofberkeley.info>

Greetings - thank you for all the work you are putting into this massive project. As an across the street neighbor to the North Berkeley BART station I strongly support housing on the site that is livable for both new and current neighborhood residents. To sum it up, just because we can doesn't mean we should.

As we all know this is primarily a neighborhood of single story single family homes. As I regularly drive along Broadway in Oakland, I see new 5-6 story residential buildings that fit in perfectly with the main artery, commercial boulevard. That type of building, let alone ones that are taller, does not seem aligned with the North Berkeley BART neighborhood.

What does seem aligned is reasonable height and bulk, going from 2 stories at the street level with landscaping setbacks up to 4-5 stories in the center, totaling about 400-500 units of housing. North Berkeley is not downtown and shouldn't be the site of a massive high rise development - that's against the City of Berkeley's General Plan overall goals. And of course, the housing shortage is both a very local and regional problem that we can fix by building in-fill housing in ways suitable for each area.

We should be focusing on affordability in the housing that is built, which would mean nonprofit developers and cost-effective construction (best achieved with 4-5 story wood-frame development) - and that BART provide near-complete land subsidy instead of just 40% (since BART proposed North Berkeley station as 100% affordable housing).

We also should have an upfront plan that guarantees access to the station beyond those who can walk to it and without relying on parking in the surrounding neighborhood. Not having any parking planned for hundreds of new residents seems like planning for ongoing parking chaos in the neighborhood, even with preferential street

parking.

Overall, planning for the North Berkeley site is compromised by the poorly developed AB 2923 that mandates the station as a more urban/dense station than those such as Daly City and Walnut Creek that are fully in the midst of commercial development with little to no surrounding residential neighborhood. BART never did proper analysis to justify the Urban Town Center designation for North Berkeley and never justified the 7-story minimum height that went with it, all of which were then codified in law by 2923. To have this bizarrely-written law define the future of the North Berkeley neighborhood is just wrong - on top of which is the fact that North Berkeley is the ONLY station in the entire system surrounded on all four sides by a residential neighborhood that extends for blocks and blocks. To mandate 7 story minimum development in such an area is simply egregious.

Thank you for your consideration.

Sincerely,
Andrea Altschuler
1417 Virginia Street
Berkeley, 94702



December 21, 2020

Alisa Shen
Planning and Development Department
1947 Center Street
Second Floor
Berkeley, CA 94704

SUBJECT: Response to the Notice of Preparation of a Draft Environmental Impact Report and Scoping Meetings for the Proposed Ashby BART Station and North Berkeley BART Station TOD Zoning Standards Project

Dear Ms. Shen,

Thank you for the opportunity to comment on the Notice of Preparation (NOP) of the Draft Environmental Impact Report (DEIR) for the Ashby BART Station and North Berkeley BART Station Transit-Oriented Development (TOD) Zoning Standards Project. The proposed project would amend the City of Berkeley's General Plan and possibly the Adeline Corridor Specific Plan. The EIR would allow up to 1,200 new residential units and up to 50,000 sqft of non-residential space at the Ashby BART station and 1,200 residential units and 25,000 sqft of non-residential space at the North Berkeley BART station. New development would replace existing surface parking at both locations.

The Alameda County Transportation Commission (Alameda CTC) respectfully submits the following comments:

Basis for Congestion Management Program (CMP) Review

- It appears that the proposed project may generate at least 100 p.m. peak hour trips over existing conditions, and therefore the CMP Land Use Analysis Program requires the City to conduct a transportation impact analysis of the project. For information on the CMP, please visit: <https://www.alamedactc.org/planning/congestion-management-program/>.

Use of Countywide Travel Demand Model

- The Alameda Countywide Travel Demand Model should be used for CMP Land Use Analysis purposes. The CMP requires local jurisdictions to conduct travel model runs themselves or through a consultant. Before the model can be used for this project, a letter must be submitted to the Alameda CTC requesting use of the model and describing the project. A copy of a sample letter agreement is available upon request. The most current version of the Alameda CTC Countywide Travel Demand Model was updated in June 2018 to be consistent with the assumptions of Plan Bay Area 2040.

Impacts

- The DEIR should address all potential impacts of the project on the Metropolitan Transportation System (MTS) roadway network.
 - o MTS roadway facilities in the project area include I-80/I-580, SR-13 Ashby, SR-123 San Pablo Ave, Adeline Street, MLK Jr. Way, and Shattuck Ave.
 - o For the purposes of CMP Land Use Analysis, the Highway Capacity Manual 2010 freeway and urban streets methodologies are the preferred methodologies to study vehicle delay impacts. Note that automobile delay cannot be deemed a significant environmental impact under current CEQA guidelines, however this analysis is required pursuant to the 2019 CMP. This impacts analysis may be included in an EIR appendix or separate document provided to Alameda CTC.
 - o The Alameda CTC has *not* adopted any policy for determining a threshold of significance for Level of Service for the Land Use Analysis Program of the CMP. Professional judgment should be applied to determine the significance of project impacts (Please see Chapter 6 of the 2019 CMP for more information).
 - o Please see the changes made to the CMP Land Use Analysis Program made in response to SB743 here: https://www.alamedactc.org/wp-content/uploads/2020/07/Amendment_Land_Use_Analysis_Program_SB743.pdf
- The DEIR should address potential impacts, including both capacity and performance of the project on Metropolitan Transportation System (MTS) transit operators.
 - o MTS transit operators potentially affected by the project include: BART and AC Transit
 - o Transit impacts for consideration include the effects of project vehicle traffic on mixed flow transit operations, transit capacity, transit access/egress, need for future transit service, and consistency with adopted plans. See Appendix J of the 2019 CMP document for more details.
- The DEIR should address potential impacts of the project to people biking and walking in and near the project area, especially nearby roads included in the Countywide High-injury Network and major barriers identified in the [Countywide Active Transportation Plan](#).
 - o Impacts to consider on conditions for cyclists include effects of vehicle traffic on cyclist safety and performance, site development and roadway improvements, and consistency with adopted plans. See Appendix J of the 2019 CMP document for more details.

Mitigation Measures

- Alameda CTC's policy regarding mitigation measures is that to be considered adequate they must be:
 - o Adequate to sustain CMP roadway and transit service standards;
 - o Fully funded; and
 - o Consistent with project funding priorities established in the Capital Improvement Program of the CMP, the Countywide Transportation Plan (CTP), and the Regional Transportation Plan (RTP) or the Federal Transportation Improvement Program, if the agency relies on state or federal funds programmed by Alameda CTC.
- The DEIR should discuss the adequacy of proposed mitigation measure according to the criteria above. In particular, the DEIR should detail when proposed roadway or transit route improvements

are expected to be completed, how they will be funded, and the effect on service standards if only the funded portions of these mitigation measures are built prior to Project completion. The DEIR should also address the issue of transit funding as a mitigation measure in the context of the Alameda CTC mitigation measure criteria discussed above.

- Jurisdictions are encouraged to discuss multimodal tradeoffs associated with mitigation measures that involve changes in roadway geometry, intersection control, or other changes to the transportation network. This analysis should identify impacts to automobiles, transit, bicyclists, and pedestrians. The HCM 2010 MMLOS methodology is encouraged as a tool to evaluate these tradeoffs, but project sponsors may use other methodologies as appropriate for particular contexts or types of mitigations.
- The DEIR should consider the use of TDM measures, in conjunction with roadway and transit improvements, as a means of attaining acceptable levels of service. Whenever possible, mechanisms that encourage ridesharing, flextime, transit, bicycling, telecommuting and other means of reducing peak hour traffic trips should be considered. The Alameda CTC CMP Menu of TDM Measures and TDM Checklist may be useful during the review of the development proposal and analysis of TDM mitigation measures (See Appendices F and G of the 2019 CMP).

Thank you for the opportunity to comment on this NOP. Please contact me or Chris G. Marks, Associate Transportation Planner at (510) 208-7453, if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Cathleen", with a long horizontal flourish extending to the right.

Cathleen Sullivan
Director of Planning

cc: Chris G. Marks, Associate Transportation Planner

December 14, 2020

Alisa Shen, Principal Planner
Planning and Development Department
1947 Center Street, 2nd floor
Berkeley, CA 94704

Re: Notice of Preparation of a Draft Environmental Impact Report for the Proposed
Ashby BART Station and North Berkeley BART Station Transit-Oriented
Development Zoning Standards, Berkeley

Dear Ms. Shen:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Ashby BART Station and North Berkeley BART Station Transit-Oriented Development Zoning Standards Project located at the Ashby BART Station and North Berkeley BART Station in the City of Berkeley (City). EBMUD has the following comments.

WATER SERVICE

Pursuant to Section 15155 of the California Environmental Quality Act Guidelines and Sections 10910-10915 of the California Water Code, the project meets the threshold requirement for a Water Supply Assessment (WSA), because the entire scope of the project includes at least 500 dwelling units. Please submit a written request to EBMUD to prepare a WSA. EBMUD requires the lead agency to provide future water demand data and estimates for the project site for the analysis of the WSA. Please be aware that the WSA can take up to 90 days to complete from the day on which the request is received.

Effective January 1, 2018, water service for new multi-unit structures shall be individually metered or sub-metered in compliance with State Senate Bill 7 (SB-7). SB-7 encourages conservation of water in multi-family residential and mixed-use multi-family and commercial buildings through metering infrastructure for each dwelling unit, including appropriate water billing safeguards for both tenants and landlords. EBMUD water services shall be conditioned for all development projects that are subject to SB-7 requirements and will be released only after the project sponsor has satisfied all requirements and provided evidence of conformance with SB-7.

EBMUD's Central Pressure Zone, with a service elevation range between 0 and 100 feet, or Aqueduct Pressure Zone, with a service elevation range between 100 and 200 feet, or Claremont Pressure Zone, with a service elevation range between 100 and 200 feet, will

serve the proposed transit-oriented development zone. A water main extension, at the project sponsor's expense, may be required to serve the properties within the transit-oriented development zone area depending on EBMUD's metering requirements and fire flow requirements set by the local fire department. Off-site pipeline improvements, also at the project sponsor's expense, may be required. Off-site pipeline improvements include, but are not limited to, replacement and/or relocation of existing water mains serving the proposed development areas. The project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine the costs and conditions of providing water service to proposed developments within the transit-oriented development zone. Engineering and installation of water mains, off-site pipeline improvements, and services require substantial lead time, which should be provided for in the project sponsor's development schedule.

A minimum 20-foot wide right-of-way is required for installation of new and replacement water mains. Utilities to be installed in the right-of-way with the water mains must be located such that the new water mains meet the minimum horizontal and vertical separation distances with other utilities as set forth in the California (Waterworks Standards) Code of Regulations, Title 22, Section 64572 (Water Main Separation) and EBMUD requirements for placement of water mains within a right-of-way. These minimum horizontal separation distance requirements include, but are not limited to, 10 feet between the water main and sewer, 5 feet between the water main and storm drain, 7 feet from the face of curb, and 5 feet from the edge of the right-of-way. In addition, water mains must be vertically located a minimum of one foot above sewers and storm drains.

EBMUD's Standard Site Assessment Report indicates the potential for contaminated soils or groundwater to be present within the project site boundaries. The project sponsor should be aware that EBMUD will not install piping or services in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste or that may be hazardous to the health and safety of construction and maintenance personnel wearing Level D personal protective equipment. Nor will EBMUD install piping or services in areas where groundwater contaminant concentrations exceed specified limits for discharge to the sanitary sewer system and sewage treatment plants. The project sponsor must submit copies to EBMUD of all known information regarding soil and groundwater quality within or adjacent to the project boundary and a legally sufficient, complete, and specific written remediation plan establishing the methodology, planning, and design of all necessary systems for the removal, treatment, and disposal of contaminated soil and groundwater.

EBMUD will not design pipelines or services until soil and groundwater quality data and remediation plans have been received and reviewed and will not start underground work until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists, or the information supplied by the project sponsor is insufficient, EBMUD may require the project sponsor to perform sampling and analysis to characterize the soil and groundwater that may be encountered during excavation, or EBMUD may perform such sampling and

analysis at the project sponsor's expense. If evidence of contamination is discovered during EBMUD work on the project site, work may be suspended until such contamination is adequately characterized and remediated to EBMUD standards.

WASTEWATER SERVICE

EBMUD's Main Wastewater Treatment Plant (MWWTP) and interceptor system are anticipated to have adequate dry weather capacity to accommodate the proposed wastewater flows from this project and to treat such flows provided that the wastewater generated by the project meets the requirements of the EBMUD Wastewater Control Ordinance. However, wet weather flows are a concern. The East Bay regional wastewater collection system experiences exceptionally high peak flows during storms due to excessive infiltration and inflow (I/I) that enters the system through cracks and misconnections in both public and private sewer lines. EBMUD has historically operated three Wet Weather Facilities (WWFs) to provide primary treatment and disinfection for peak wet weather flows that exceed the treatment capacity of the MWWTP. Due to reinterpretation of applicable law, EBMUD's National Pollutant Discharge Elimination System (NPDES) permit now prohibits discharges from EBMUD's WWFs. Additionally, the seven wastewater collection system agencies that discharge to the EBMUD wastewater interceptor system ("Satellite Agencies") hold NPDES permits that prohibit them from causing or contributing to WWF discharges. These NPDES permits have removed the regulatory coverage the East Bay wastewater agencies once relied upon to manage peak wet weather flows.

A federal consent decree, negotiated among EBMUD, the Satellite Agencies, the Environmental Protection Agency (EPA), the State Water Resources Control Board (SWRCB), and the Regional Water Quality Control Board (RWQCB), requires EBMUD and the Satellite Agencies to eliminate WWF discharges by 2036. To meet this requirement, actions will need to be taken over time to reduce I/I in the system. The consent decree requires EBMUD to continue implementation of its Regional Private Sewer Lateral Ordinance (www.eastbaypsl.com), construct various improvements to its interceptor system, and identify key areas of inflow and rapid infiltration over a 22-year period. Over the same time period, the consent decree requires the Satellite Agencies to perform I/I reduction work including sewer main rehabilitation and elimination of inflow sources. EBMUD and the Satellite Agencies must jointly demonstrate at specified intervals that this work has resulted in a sufficient, pre-determined level of reduction in WWF discharges. If sufficient I/I reductions are not achieved, additional investment into the region's wastewater infrastructure would be required, which may result in significant financial implications for East Bay residents.

To ensure that the proposed project contributes to these legally required I/I reductions, the lead agency should require the project sponsor to comply with EBMUD's Regional Private Sewer Lateral Ordinance. Additionally, it would be prudent for the lead agency to require the following mitigation measures for the proposed project: (1) replace or rehabilitate any existing sanitary sewer collection systems, including sewer lateral lines to ensure that such

systems and lines are free from defects or, alternatively, disconnected from the sanitary sewer system, and (2) ensure any new wastewater collection systems, including sewer lateral lines, for the project are constructed to prevent I/I to the maximum extent feasible while meeting all requirements contained in the Regional Private Sewer Lateral Ordinance and applicable municipal codes or Satellite Agency ordinances.

WATER RECYCLING

EBMUD's Policy 9.05 requires that customers use non-potable water, including recycled water, for non-domestic purposes when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health, and not injurious to plant, fish and wildlife to offset demand on EBMUD's limited potable water supply. Appropriate recycled water uses include landscape irrigation, commercial and industrial process uses, toilet and urinal flushing in non-residential buildings, and other applications.

The Project is not currently a candidate for recycled water, however, future recycled water pipeline expansion towards the City could potentially serve proposed developments within the transit-oriented development zone. Recycled water is appropriate for outdoor landscape irrigation and EBMUD is evaluating options of recycled water for in-building and commercial non-potable use. As EBMUD further plans its recycled water program, feasibility of providing recycled water to this region may change. EBMUD encourages the City and its developers to coordinate closely with EBMUD during the planning of the various project components to further explore the options and requirements relating to recycled water use.

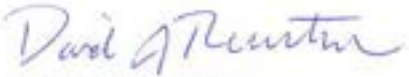
WATER CONSERVATION

The project presents an opportunity to incorporate water conservation measures. EBMUD requests that the City include in its conditions of approval a requirement that the lead agency comply with Assembly Bill 325, "Model Water Efficient Landscape Ordinance," (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495). The lead agency should be aware that Section 31 of EBMUD's Water Service Regulations requires that water service shall not be furnished for new or expanded service unless all the applicable water-efficiency measures described in the regulation are installed at the project sponsor's expense.

Alisa Shen, Principal Planner
December 14, 2020
Page 5

If you have any questions concerning this response, please contact Timothy R. McGowan, Senior Civil Engineer, Major Facilities Planning Section at (510) 287-1981.

Sincerely,



David J. Rehnstrom
Manager of Water Distribution Planning

DJR:JRK:btf
sb20_250.doc

DEPARTMENT OF TRANSPORTATION

DISTRICT 4

OFFICE OF TRANSIT AND COMMUNITY PLANNING

P.O. BOX 23660, MS-10D

OAKLAND, CA 94623-0660

PHONE (510) 286-5528

TTY 711

www.dot.ca.gov



*Making Conservation
a California Way of Life.*

December 21, 2020

SCH #: 2020110320

GTS #: 04-ALA-2020-00568

GTS ID: 21307

Co/Rt/Pm: ALA/13/2.277

Alisha Shen, Principal Planner
City of Berkeley Planning Department
1947 Center Street, 3rd Floor
Berkeley, CA 94704

**Re: Ashby BART Station & North Berkeley BART Station Transit-Oriented
Development Zoning Standards (NOP) of an Environmental Impact Report (EIR)**

Dear Alisha Shen:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for this project. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system. The following comments are based on our review of the November 2020 NOP.

Project Understanding

The project proposes to update the City of Berkeley zoning standards to comply with AB 2923, in order to build mixed-use projects (approximately 2,400 dwelling units total) near the two named BART stations.

Travel Demand Analysis

With the enactment of Senate Bill (SB) 743, Caltrans is focused on maximizing efficient development patterns, innovative travel demand reduction strategies, and multimodal improvements. For more information on how Caltrans assesses

Transportation Impact Studies, please review Caltrans' Transportation Impact Study Guide.

Vehicle Miles Traveled (VMT) Screening: If the project meets the screening criteria established in the City's adopted VMT policy to be presumed to have a less-than-significant VMT impact and exempt from detailed VMT analysis, please provide justification to support the exempt status in align with the City's VMT policy. Projects that do not meet the screening criteria should include a detailed VMT analysis in the DEIR, which should include the following:

- VMT analysis pursuant to the City's guidelines. Projects that result in automobile VMT per capita above the threshold of significance for existing (i.e. baseline) city-wide or regional values for similar land use types may indicate a significant impact. If necessary, mitigation for increasing VMT should be identified. Mitigation should support the use of transit and active transportation modes. Potential mitigation measures that include the requirements of other agencies such as Caltrans are fully enforceable through permit conditions, agreements, or other legally-binding instruments under the control of the City.
- A schematic illustration of walking, biking and auto conditions at the project site and study area roadways. Potential safety issues for all road users should be identified and fully mitigated.
- The project's primary and secondary effects on pedestrians, bicycles, travelers with disabilities and transit performance should be evaluated, including countermeasures and trade-offs resulting from mitigating VMT increases. Access to pedestrians, bicycle, and transit facilities must be maintained.
- Clarification of the intensity of events/receptions to be held at the location and how the associated travel demand and VMT will be mitigated.

Mitigation Strategies

Location efficiency factors, including community design and regional

accessibility, influence a project's impact on the environment. Using Caltrans' *Smart Mobility 2010: A Call to Action for the New Decade*, the proposed project site is identified as a Close-In Compact Community where community design is moderate and regional accessibility is strong.

Given the place, type and size of the project, the DEIR should include a robust Transportation Demand Management (TDM) Program to reduce VMT and greenhouse gas emissions from future development in this area. The measures listed below have been quantified by California Air Pollution Control Officers Association (CAPCOA) and shown to have different efficiencies reducing regional VMT:

- Increase in number of affordable housing units in project;
- Orientation of project towards non-auto corridor;
- Pedestrian network improvements;
- Bicycle network improvements or Fair Share contribution to such measures;
- Traffic calming measures;
- Implementation of a neighborhood electric vehicle (EV) network, including designated parking spaces for EVs;
- Limiting parking supply;
- Unbundled parking from property costs;
- Transit and trip planning resources such as a commute information kiosk;
- Real-time transit information system;
- Transit access supporting infrastructure (including bus shelter improvements and sidewalk/ crosswalk safety facilities);
- VMT Banking and/or Exchange program.

Using a combination of strategies appropriate to the project and the site can reduce VMT, along with related impacts on the environment and State facilities. TDM programs should be documented with annual monitoring reports by a TDM coordinator to demonstrate effectiveness. If the project does not achieve the VMT reduction goals, the reports should also include next steps to take in order to achieve those targets.

Alisha Shen, Principal Planner

December 18, 2020

Page 4

Please reach out to Caltrans for further information about TDM measures and a toolbox for implementing these measures in land use projects. Additionally, Federal Highway Administration's Integrating Demand Management into the Transportation Planning Process: A Desk Reference (Chapter 8). The reference is available online at:

<http://www.ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf>.

Transportation Impact Fees

Please identify project-generated travel demand and estimate the costs of transit and active transportation improvements necessitated by the proposed project; viable funding sources such as development and/or transportation impact fees should also be identified. We encourage a sufficient allocation of fair share contributions toward multi-modal and regional transit improvements to fully mitigate cumulative impacts to regional transportation. We also strongly support measures to increase sustainable mode shares, thereby reducing VMT.

Lead Agency

As the Lead Agency, the City of Berkeley is responsible for all project mitigation, including any needed improvements to the State Transportation Network (STN). The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Laurel Sears at laurel.sears@dot.ca.gov. Additionally, for future notifications and requests for review of new projects, please contact LDIGR-D4@dot.ca.gov.

Sincerely,

Alisha Shen, Principal Planner

December 18, 2020

Page 5

A handwritten signature in black ink that reads "Mark Leong". The signature is fluid and cursive, with a long horizontal stroke extending from the end of the name.

MARK LEONG

District Branch Chief

Local Development - Intergovernmental Review

c: State Clearinghouse

Lapira, Katrina

From: Vicki <vickisommer@gmail.com>

Sent: Wednesday, December 2, 2020 7:51 AM

To: Pearson, Alene <apearson@cityofberkeley.info>

Subject: Message for the Planning Commission re Wednesday Dec. 3rd meeting on scoping North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear Members of the Planning Commission,

Thank you for all your work on this project. I live one block away from the site, and am supportive of housing being built which blends into the surrounding low rise residential North Berkeley neighborhood.

I invite you to look through the images of the 2-5 story developments that BART showed my community when asking us if North Berkeley BART could be a suitable site for housing.

(<https://www.bart.gov/sites/default/files/docs/North%20Berkeley%20TOD%20Town%20Hall%20-%20BART%202018-03-15.pdf>).

Here are my concerns about the environmental impact of the North Berkeley BART station project:

Building a huge development in the middle of a residential neighborhood in and of itself, "significantly affects the quality of the human environment".

75 units/developable acre comes to something like 375 dwelling units. One would hope that many of these dwelling units would be sized to accomodate families with children.

I read with alarm, "At the North Berkeley BART station, the EIR will evaluate the impact of up to **1,200 dwelling units**, as well as 25,000 square feet of non-residential space, located on the main 8.1 acre station site."

1200 units to be built on the 4-5 *developable* acres would be outlandishly out of context in our low rise residential neighborhood!

I then continued to read, "These buildout assumptions are based on a reasonable maximum building envelope." **1200 dwelling units** at North Berkeley is beyond unreasonable, it is unthinkable. We are not "downtown", we are a neighborhood with a train station. A development of this scale would have a drastic effect on the surrounding community. This is not in keeping with The City of Berkeley's General Plan support for maintaining character of the neighborhoods.

I support 4 stories maximum height with step downs to 2 stories along the periphery. At the Visioning Event, held by the city, you can see that the majority of respondents favor modest development in North Berkeley. The City posted these figures at its 1-15-19 council meeting:

Review of input from the October 13 ,2018 Visioning Event

Summary of input on Development Height:

From the 75 written submissions and the 14 drawings , 51 clearly indicated height

Summary:

17 indicated a maximum of 3 stories (11:1-2, 6:2-3) = (11 favored 1-2 stories, 6 favored 2-3 stories) 35 respondents want 4 stories or less

18 indicated a maximum of 4 stories (3:4, 2:2-4, 13:3-4)

9 indicated a maximum of 5 stories (4:3-5, 3: 4-5, 1:5)

9 respondents want 5 stories or less

2 indicated a maximum of 6 stories (1:4-6, 1:3-6)

4 indicated a maximum of 7 stories
to 6 stories

2 respondents would go up

1 indicated a maximum of 12 stories (1:2-12)
stories

4 respondents want , or go up to 7

wants 2-12 stories

1 respondent

86% of respondents do not want to see anything over 5 stories, and of these, the majority do not want development to exceed 4 stories !

(the majority of ideas that were 4+stories, favored a stepped up design with lower heights on the periphery)

Non residential, "commercial" development is unnecessary as the proposed development is a block away from University avenue, a commercial street. The development should be 100% residential.

The North Berkeley neighborhood consists of mostly one-to-two story homes, with a few low rise apartment buildings. It has the infrastructure to support low density housing. Has a study been done to evaluate the area's capacity to handle a high density development as has been

proposed by BART? Can our neighborhood handle the sewer, water, traffic? Can the power grid support this?

As regards water, we are currently experiencing moderate drought (<https://www.drought.gov/drought/states/california>). An outsize development will use a tremendous amount of water. Does Berkeley have the capacity to provide or will an oversized project cause the rest of the community to suffer more stringent water restrictions?

As regards traffic, I am very concerned about the environmental impact of the many BART TOD residents who can not park on site, coupled with the 800+ commuters who will no longer have a place to park, and therefore will be cruising the neighborhood looking for parking (if not simply driving to work). This will cause increased emissions, noise, traffic and congestion.

BART TOD residents without cars will need deliveries (groceries etc) and the use of cars (child pick up, elderly transport, disabled, women after dark). Berkeley does not require delivery or ride share companies to use electric vehicles, so in addition to the increased traffic congestion, we will have increased emissions on top of increased pedestrian risk (there are many children in our neighborhood!), with this increase in vehicular traffic.

The increased noise is an environmental pollutant that will further impact the surrounding neighborhood.

The development is supposed to include an extension of the Ohlone greenway. A development that is out of context with the surrounding neighborhood in terms of height, will throw excessive shade. Plants need sunlight in order to keep the Greenway green.

Shading can impact the health of residents living in the homes surrounding the proposed development. Light is an essential quality of life element. Seasonal Affective Disorder, or SAD, is a form of depression triggered by a lack of sunlight. Surrounding home dwellers would be at risk were the development to restrict sunlight entry into their homes.

The lot currently has many trees which support urban wildlife. Any development must also continue to provide habitat and food sources for urban wildlife and bees.

I'd like to see this be a **green** development-an inspiring example of truly environmental building, with solar power, grey water recycling, and other state of the art energy efficiency measures.

Thank you,
Vicki Sommer
94703

Lapira, Katrina

From: Tony Corman [mailto:anthonyjaycorman@gmail.com]
Sent: Tuesday, December 1, 2020 7:49 PM
To: Pearson, Alene <apearson@cityofberkeley.info>
Subject: North Berkeley BART EIR

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

I am stunned to read that the EIR scope extends to the impact of 1200 units on this site given that perhaps 2/3 of the 4 square blocks is unbuildable due to the tunnel that bisects it. I hope the scope will include the impact of commuter parking on the surrounding neighborhood when all commuter parking is deleted from the site. Likewise, the shadowing incurred by the required 7- to 11-story height and the impact of all the additional residents on City infrastructure - water, sewer, fire, police and EMT access, and, new to all of us, the use issues imposed by COVID and the next pandemic, when it comes.

Karly Kaufman

From: Toni Casal <tonic59@gmail.com>
Sent: Sunday, December 13, 2020 11:01 AM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: North Berkeley Housing at BART station

WARNING: This email originated outside of City of Berkeley.

DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Greetings,

I am a North Berkeley resident and I am for building more affordable housing in Berkeley. I object to having a high rise building at North Berkeley BART.

We have designated commerce corridors for high rise buildings and they are San Pablo Ave and University Avenue, or downtown. Certainly not in single family neighborhoods. You all know this and yet you are continuing to go along with a proposal that makes no sense to you or me.

We could build hundreds of low income units at North Berkeley Bart without going over 4 stories, with 2 stories on the perimeter. Low rise is more contextual, cheaper to build, and does not ruin the character of the neighborhood.

The neighborhood association is united behind low income housing that is contextual and energy efficient. How about housing for teachers, librarians and others who work in essential jobs and currently commute from Vallejo, Antioch and Concord? Many have been displaced due to high rents here. It is amazing to me that a full time BUSD teacher has to commute from San Pablo and is categorized as poor.

BART Ridership. Do we really believe that BART ridership will return to pre-pandemic levels now that the pandemic has shown us the benefits of working at home? Most white collar employers say employees will be working from home at least 2 days per week. This means BART ridership will be down. (a rise in ridership is a requirement, I'm told)

Housing. Do we believe that the international students who make up nearly 20% of UC Berkeley's student body will be returning anytime soon? They have a voracious appetite for housing but they certainly won't be selecting the US as much for their higher education needs in the future. Their absence will increase vacancy rates, as will distance learning.

The Economy. Retail and office space is available in Berkeley now. Are we looking at converting any of this to housing? The walls are already up and utilities installed. NYC developers already have proposals to do these conversions.

Thank you for your time,
Toni Casal

ps: It is disrespectful to ask for community comment at meetings and then keep people waiting till 11pm at night to comment for 2 minutes. This is disingenuous. Not very democratic or inclusive, and kinda shameful behavior--We can do better.

Karly Kaufman

From: tom reilly <tom.reilly46@gmail.com>
Sent: Friday, December 11, 2020 12:18 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Cc: Kevin James
Subject: Development at the North Berkeley BART Station

WARNING: This email originated outside of City of Berkeley.

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I am a resident of North Berkeley and I live about 2 blocks from the North Berkeley BART Station. I do not want the BART Station area to be zoned for 7 stories or 6 stories or 5 stories. I think the maximum it should be zoned for is 4 stories. This BART station sits in the middle of an entirely residential, non-commercial area of one and two story buildings. Dumping a 7-story apartment complex into the middle of this area will do great violence to the character of our neighborhood. Jones Berkeley, a huge new apartment complex has recently been completed at Cedar Street and San Pablo Avenue, on the outskirts of our neighborhood. Even though it is situated on a busy commercial street on the edge (not in the center) of a residential neighborhood, this complex appears to be 4 stories high, no higher. It is insane to imagine placing a significantly higher complex of buildings in the middle of the neighborhood at the location of the present BART parking lot.

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development means no more than four stories, and stepping down to two at the perimeter. This would fit in with the surrounding residences. High-rise housing would not. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There is currently plenty of available market rate housing, and lots more is going up. The BART Station land is public land, and it should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city, not a housing behemoth designed to maximize the profits of BART and private developers at the cost of Berkeley residents who have lived in this neighborhood for decades.

If you believe that state law requires you to zone this area for a 7-story building, I suggest you defy the state law and invite BART to sue you.

Thank you.

Thomas P. Reilly

1450 Keoncrest Drive

Berkeley CA 94702

Karly Kaufman

From: Pierre Palancade <pierre.palancade@gmail.com>
Sent: Sunday, December 13, 2020 1:04 PM
To: Shen, Alisa
Subject: north Berkeley Bart development

WARNING: This email originated outside of City of Berkeley.

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To who it may concern:

I support this statement below:

Pierre Palancade, home owner at north Berkeley Bart.

- I live in North Berkeley- this is my neighborhood, and I want the housing at the BART site to be no more than 4 stories in the middle, 2 at the perimeter- appropriate for this low rise residential community.
- North Berkeley BART is not the only place to build housing in Berkeley. There's lots of market rate housing in Berkeley already, and more going up. This is public land and should be used for the public good- not for enriching BART and developers. Let's build a trueparadise: contextual (low rise), affordable, and green (energy-efficient) housing.
-

Karly Kaufman

From: Maud Engel <engel1883@gmail.com>
Sent: Saturday, December 12, 2020 6:43 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Subject: Proposed North Berkeley BART Construction

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

To whom it may concern,

I have lived in my Berkeley home a block away from the North Berkeley BART station for the past 34 years. The area is lovely, typically Berkeley style and is a quiet diverse residential location. I am very concerned about the proposed North Berkeley BART Station retail and residential construction and how it would diminish and change the neighborhood from a peaceful tranquil part of the city to a much busier urban setting by increasing traffic, litter, noise and the number of residents.

I request the North Berkeley BART to be zoned for a maximum of 7 stories, no more. (7 stories is way out of scale for this neighborhood, but I understand that under AB2923 it must be zoned for at least that.)

The City of Berkeley's General Plan, the MOU between Berkeley and BART, and BART's own documents all commit to respecting the context in developing the North Berkeley BART site. Contextual development is no more than four stories, stepping down to two at the perimeter-this fits in with the surrounding residences. I do not want high-rise housing at the site.

This is not the only place in Berkeley to build housing. There plenty of available market rate housing, and lots more going up. The station is public land, and should be used for the public good. I want affordable, contextual, energy-efficient development that will enhance the neighborhood and the city.

Thank you.

Sincerely,

Patricia Maud Engel, LCSW
1420 Lincoln Street
Berkeley, CA 94702

--

Karly Kaufman

From: Miranda Ewell <mirandaewell@gmail.com>
Sent: Sunday, December 13, 2020 1:13 PM
To: Shen, Alisa; All Council; Berkeley Mayor's Office
Cc: nbneighborhoodalliance@gmail.com
Subject: Housing at North Berkeley BART

WARNING: This email originated outside of City of Berkeley.

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I am increasingly alarmed at the prospect of BART development of housing at the North Berkeley BART station. The facts show that BART has repeatedly shown itself to be an incompetent, mis-managed, bad faith actor. It cannot be trusted with public funds, much less the development of scarce public land.

If you have not already, please read this recent November editorial from the Mercury News:

<http://www.mercurynews.com/2020/11/28/editorial-vta-bart-the-voters-who-approve-their-tax-increases/>

There is a wrongheaded push for housing at any cost by powerful developers and their political allies in Sacramento, who have tried to wrest away local control over local planning, using specious slogans of environmental stewardship. Please do not let this happen!

Berkeley is a highly desirable city, with an educated and well-to-do, liberal population. Private developers, guided by local officials, will always want to develop luxury housing here. That is happening all over town already. The task for public officials in a society which has seen a frightening acceleration of wealth in the hands of a tiny minority is to protect the integrity of the city's historic promise for equity, justice and equality: we need housing for what I will call essential citizens: middle income workers like school teachers and small business employees and low income families, including minorities, refugees and the homeless.

BART has shown its true colors again and again - with its own excessive salary and benefit costs - to be riddled with classic public corruption. The agency thumbs its nose at any attempts to hold it to legal agreements regarding the use and spending of public monies. This has been well documented.

Can BART be trusted at this very important moment? Surely not. As city officials, you cannot ignore - or later claim you did not know - BART's miserable record of broken promises.

Public land for public good! Only a complete failure of duty on your part would allow you to permit BART to build a multi-story, out-of-context monstrosity similar to what it has built at the MacArthur Station (which remains two-thirds empty a year after leasing began!). YOU have the power! Please remember that.

Best,
Miranda Ewell

Lapira, Katrina

From: Pearson, Alene
Sent: Wednesday, December 2, 2020 9:14 AM
To: Lapira, Katrina
Subject: FW: Dec. 2 meeting: (North) BART EIR Scoping

From: Michael Katz [mailto:mqkatz@gmail.com]
Sent: Wednesday, December 2, 2020 9:10 AM
To: Pearson, Alene <apearson@cityofberkeley.info>
Subject: Dec. 2 meeting: (North) BART EIR Scoping

WARNING: This email originated outside of City of Berkeley.
DO NOT CLICK ON links or attachments unless you trust the sender and know the content is safe.

Dear Planning Commission Members and Staff,

Please accept these scoping comments on the proposed EIR, regarding the North Berkeley BART station. I'm writing as a North Berkeley resident who relies on this station for access to the BART system.

I believe the EIR's scope should be altered to address the following environmental impacts from new development at North Berkeley BART:

1. Scale: **The proposed study of 1,200 housing units at this site is outrageously out of scale**, and would be a huge violation of trust with the community. Every significant document in this planning process so far has emphasized "contextual" development in this residential neighborhood of 1- and 2-story homes. **Therefore, 400 units would be a reasonable maximum project to study at this site.** The City's General Plan calls for "maintaining character of [Berkeley's] neighborhoods." AB2923's misclassification of this residential package as "City Center" (identically with Ashby) was utterly inappropriate. High-rise buildings are completely out of place here, and would impose significant detriments. These include shadowing of surrounding properties, and vehicle trips generated by residents (who, regardless of vehicle ownership, will have the same rights as everyone else to travel by taxi or ride-hailing services).
2. Height: The EIR should study a project envelope no larger than **4 stories at the center, 2 stories at the perimeter**. This would conform to the controlling City and BART planning documents cited above, while still allowing a significant number of housing units.
3. The EIR should study – and mitigate – the **excess vehicle miles traveled (VMT) by 800+ commuters who will no longer have onsite parking at North Berkeley BART. Many of these affluent "choice" commuters will likely bypass transit altogether, and will become single-occupant drivers to distant workplaces in San Francisco and the Dublin/Pleasanton tech corridor.** This would increase pollutant and CO2 emissions, undermining the City's climate goals. A responsible EIR will carefully model the likely mode shift from transit to driving, under a range of post-pandemic commuting

scenarios. Further, a responsible EIR will study mitigating these detriments by replacing the BART station's existing commuter parking at 100%.

Thank you for considering these comments. And thank you for designing a project EIR that identifies, and promotes, net environmental impacts that are positive rather than negative.

Respectfully yours,
Michael Katz
2117 Rose Street, Berkeley 94709

20 DECEMBER 2020

TO: ALISA SHEN
PRINCIPAL PLANNER
PLANNING and DEVELOPMENT DEPT.
1947 CENTER ST. 2nd FLOOR
BERKELEY CA 94704

RECEIVED
JAN 05 2021
LAND USE PLANNING

COMMENTS ON
THE NOTICE OF PREPARATION
of the ENVIRONMENTAL IMPACT REPORT
on TRANSIT-ORIENTED DEVELOPMENT and ZONING

submitted by
BARBARA ROBBEN
1964 EL DORADO
BERKELEY CA 94707
510-524-2383

BART STATION HOUSING

J.

ON THE CONCEPT OF REFIGURING THE TWO TRANSIT STATIONS IN BERKELEY THAT PRESENTLY OFFER A PARKING AREA ADJACENT TO THE BAY AREA RAPID TRANSIT "BART" STATIONS.

MATTERS OF CONCERN:

HISTORICAL. THE DEMOLITION OF PRIVATE HOMES IN ZONED RESIDENTIAL DISTRICTS: WAS THIS BROUGHT ABOUT BY THE PROCESS OF EMINENT DOMAIN?

IN ADDITION TO THE DISPLACEMENT OF FAMILIES WHOSE LAND WAS TAKEN FROM THEM, AND WHOSE BUILDINGS WERE REMOVED, THERE WAS THE ADDED DETRIMENT TO THE NEIGHBORHOODS THAT LOST THEIR COHESIVENESS, AND THAT HAD TO ENDURE THE TOXIC EFFECTS OF DEMOLITION OVER A SIGNIFICANT TIME PERIOD — THE CONSTRUCTION DUST, NOISE, CONGESTION, HEAVY EQUIPMENT, TRAFFIC.

EVEN WHEN COMPLETED, BART STATION NEIGHBORS CONTINUED TO HAVE THE BURDEN OF ADDITIONAL TRAFFIC FROM USERS OF THE BART SYSTEM.

FOR STATE OFFICIALS AND CITY OFFICIALS NOT LIVING IN THE ASHBY AND NORTH BERKELEY NEIGHBORHOODS TO SUGGEST THAT THESE TWO NEIGHBORHOODS SHOULD AGAIN BE PLACED IN THE CENTER OF A DEMOLITION-AND-CONSTRUCTION AREA SHOWS A SERIOUS LACK OF COMPASSION.

POLLUTION, INCLUDING CLIMATE CHANGE.

THE BART SYSTEM WAS DESIGNED TO REDUCE THE NEED FOR PRIVATE, GASOLINE-POWERED AUTOMOBILES. THE DREAM WAS TO PROVIDE CLEAN, EFFICIENT OPTIONS FOR TRANSPORTATION TO EVERYONE; A SYSTEM THAT WOULD REDUCE THE USE OF FOSSIL-FUELS AND BE LESS POLLUTING.

SO IN THAT SENSE, THERE SHOULD BE NO PARKING LOTS FOR PRIVATE VEHICLES. DURING THE PERIOD SINCE THE OPENING OF BART, THERE HAVE BEEN MANY CHANGES. THE 'AMERICANS WITH DISABILITIES ACT' HAS IMPROVED THE TRAVEL OPTIONS FOR MANY PEOPLE. WHEELCHAIR ACCESS AND KNEELING BUSES IMPROVE LIVES.

WHAT ABOUT TAX-PAYERS WHO HAVE SUPPORTED THE BART SYSTEM FROM THE BEGINNING, BUT WHO LIVE, OR NEED TO TRAVEL TO A LOCATION FAR FROM THE BART TRACKS. MAYBE THEY ARE OLD OR INFIRM, OR WITH YOUNG CHILDREN; PERHAPS THERE ARE STEEP HILLS. THEY MAY HAVE A VEHICLE IN THEIR GARAGE THAT COULD BE USEFUL. AT BART, THE PARKING LOTS CAN SOLVE THIS PROBLEM. PARKING LOTS BUILT INTO THE BART PLANNING WERE INTENDED TO ACCOMMODATE THE NEEDS OF ALL PEOPLE, AS WELL AS TO ENHANCE TRAVEL. PRIVATE VEHICLES EXIST. THEY ARE A PART OF OUR MODERN TRANSPORTATION SYSTEM. SOMETIMES THEY NEED TO BE PARKED, WAITING FOR THEIR PEOPLE TO RETURN.

WHY CHANGE PARKING LOTS INTO SOMETHING ELSE?
WHAT IS MORE IMPORTANT THAN TO LEAVE A VEHICLE BEHIND, AND TO INSTEAD TRAVEL TOGETHER WITH MANY OTHERS ON THE BART TRAINS?

IT NEEDS TO BE EXPLAINED TO LEGISLATORS IN SACRAMENTO THAT THEIR GOAL OF HOUSING ALL THE PEOPLE WHO NEED OR WANT AFFORDABLE HOUSING IN THE BAY AREA IS HUMANITARIAN —
BUT UNWORKABLE.

LEGISLATORS COME FROM ALL SECTIONS OF CALIFORNIA, AND THE IDEA THAT THESE DIVERSE LEGISLATORS ARE QUALIFIED TO DECIDE THE FATES OF THE RESIDENTS OF THE BAY AREA IS THE WRONG APPROACH TO TAKE.

THERE ARE MULTIPLE RISKS AND DETRIMENTS LYING IN WAIT IN THE AB2923 APPROACH:

1. THE COSTS OF CONSTRUCTION FOR BUILDING SEVEN STORIES HIGH OR HIGHER WILL BE GREAT.
2. THE SEISMIC REALITIES OF THE SAN ANDREAS FAULT, THE HAYWARD FAULT, THE CALAVERAS FAULT WILL ONLY ADD TO THE REQUIRED SAFEGUARDS AND THE CONSTRUCTION COSTS.
3. OTHER CONSTRUCTION COSTS WILL BE FOR LABOR AND MATERIAL - ALL EXPENSIVE HERE.

IT'S HARD TO IMAGINE THAT THE BUILDINGS WOULD EVER BE AFFORDABLE, GIVEN THESE REALITIES.

QUESTIONS REGARDING THE EXPENSES OF THE UNITS OF HOUSING MUST BE ADDRESSED IN THE FORTH-COMING DOCUMENTS. IF WE'RE TO DISRUPT OUR COMMUNITIES BECAUSE OF MANDATES FROM SACRAMENTO, WE MUST NOT FOCUS ON ZONING CHANGES WHEN THE ENTIRE PROJECT MAY BE UNWORKABLE. PLEASE BE SPECIFIC ABOUT COSTS IN YOUR COMMUNICATIONS.

COMMENTS,

4.

IF WE CITIZENS ARE LIMITED, BY THE NOTICE OF PREPARATION, TO COMMENT ONLY UPON MATTERS OF ZONING AT THIS TIME, THEN WE ARE PERHAPS BEING SENT ON A FOOL'S ERRAND.

THE LARGER PROBLEM IS NOT WHETHER THE BERKELEY BART AREAS OF ONE CIRCULAR MILE IN DIAMETER SHOULD UNDERGO A RE-ZONING SO THAT WE, AS A COMMUNITY CAN ACCOMMODATE AN INCREASING NUMBER OF PROSPECTIVE RESIDENTS.

THESE ARE HOPED TO BE GOOD PEOPLE, BUT SOMEHOW THOSE WHO CANNOT REALISTICALLY AFFORD THE SKY-HIGH COST OF BUYING OR RENTING PROPERTY IN THE BERKELEY AREA AT THIS TIME.

THE PLAN IS TO PUT THESE PEOPLE IN SKY-HIGH LIVING UNITS, AND TO HOPE THAT THEY CAN THRIVE THERE, AND CONTRIBUTE TO THE COMMUNITY WITH THEIR JOBS.

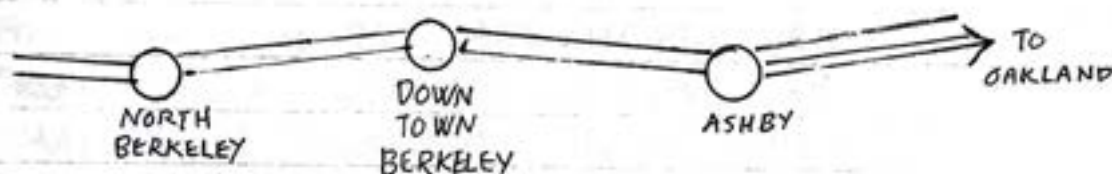
THE ACTUAL ISSUES WHICH COULD WELL UTILIZE OUR COMMENTS AND INSIGHT, ARE MORE ABOUT HUMAN DENSITY, AND CROWDING; AND IN ADDITION, THE ABILITY OF OUR AREA OF THE STATE OF CALIFORNIA TO SUPPORT AN EVER-INCREASING POPULATION.

IF THIS IS TRUE, THEN WE SHOULD BE ALLOWED TO COMMENT ON ASSEMBLY BILL #2923 ITSELF.

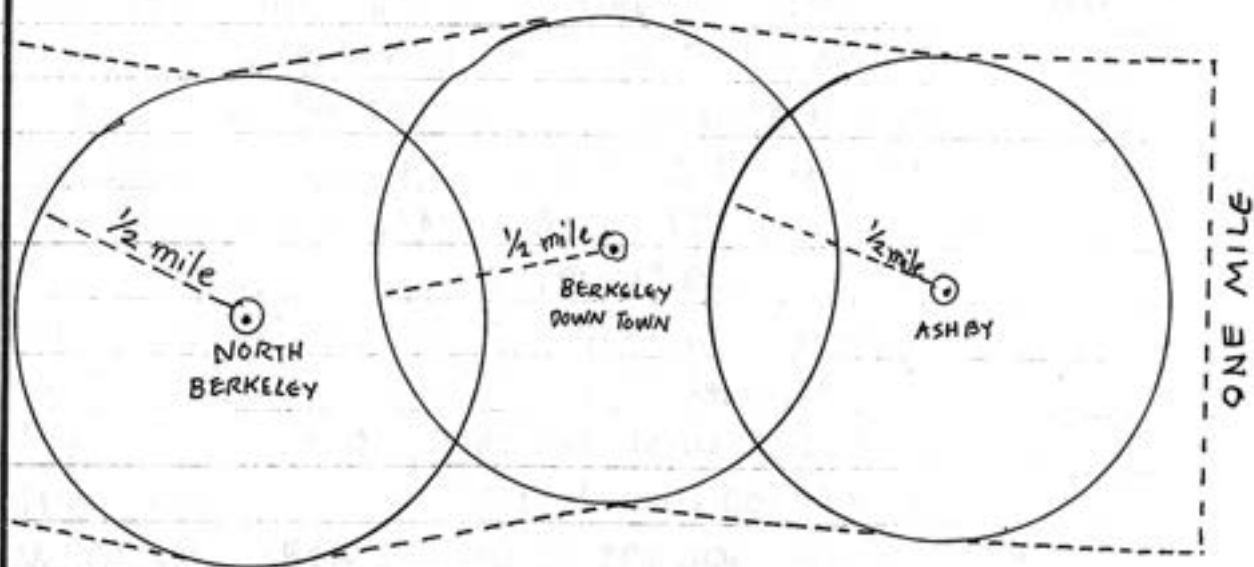
AND SEND IT BACK TO COMMITTEE.

COMMENTS ON ZONING, STRICTLY SPEAKING, CAN ONLY TANGENTIALLY ADDRESS THE LARGER COMPELLING MATTERS.

THE BART SYSTEM DOES NOT ACCOMMODATE AN AUTOMOBILE PARK AT ITS MAIN CITY CENTER STATIONS, BUT THERE IS PARKING AT THE SUBURBAN STATIONS, THOSE NOT ALWAYS WELL-SERVED BY BUS LINES AND OTHER MEANS. PARKING LOTS HAVE BEEN BUILT INTO THE SYSTEM, AND THOSE ARE NEEDED BY THOSE WHO ARE FAR FROM THE STATIONS OR HAVE HEAVY LOADS TO CARRY. THESE PARKING LOTS HAVE BEEN BUILT AND PAID FOR. TO REMOVE THEM WHEN THEY ARE NEEDED DIMINISHES THE VALUE OF THE ENTIRE TRANSIT SYSTEM.



THE BART SYSTEM IS A RIBBON OF TRANSIT CONNECTING THE BAY AREA COMMUNITIES - AN AMENITY TAKEN FROM ONE STATION AFFECTS THE ENTIRE TRANSIT SYSTEM.



A CHANGE OF ZONING RADIATING $\frac{1}{2}$ mile FROM EACH BART STATION WOULD CREATE A LARGE SWATH THROUGH THE MIDDLE OF EACH COMMUNITY SERVED BY A BART STATION.

THE DOWNTOWN BERKELEY BART STATION IS IN A ZONED COMMERCIAL AREA. IT HAS NO PRIVATE VEHICLE LOT AND EVEN FOR BUSES THERE IS LIMITED CURB SPACE. TAXI-CAB PARKING SPACE DOES NOT SEEM TO EXIST BUT SEEMS TO HAVE BEEN ACCOMMODATED IN CLUMSY FASHION BY HAVING A LINE-UP OF TAXIS WAITING ON A SIDE STREET, THEREBY BLOCKING ACCESS FOR OTHER USERS. NO DROP-OFF AREA SEEMS TO HAVE BEEN CREATED OR EVEN THOUGHT OF.

BICYCLES AND BICYCLE PARKING SPACE IS MENTIONED IN THE NOTICE OF PREPARATION FOR THE PROPOSED NEW HOUSING UNITS. WHAT ABOUT BICYCLE SPACE ALLOWED FOR TRANSIT USERS? ARE THE PLANNERS WORKING WITH ORGANIZATIONS SUCH AS "BIKE EAST BAY" TO ENSURE THAT THE ARRANGEMENTS WILL BE SATISFACTORY TO THE ACTUAL USERS OF NON-MOTORIZED TRANSPORTATION, SUCH AS SCOOTERS, RECUMBENT CYCLES, BICYCLES THAT PULL TRAILERS?

BART, IN THE BEGINNING DID NOT EVEN ALLOW BICYCLES ON BART TRAINS, AND MANY HALF-MEASURES HAVE BEEN ADOPTED OVER THE TIME PERIOD OF BART'S EXISTENCE; AND ONLY AS AN ACCOMMODATION UNDER DURESS, FOR THE NEEDS OF TRAVELERS. WHO WILL BE RESPONSIBLE FOR THE SAFE OPERATION OF MANY CONFLICTING MEANS OF ACCESS NEAR STATIONS, IF INDEED ZONING WILL BE CHANGED TO ALLOW FOR SEVERAL THOUSAND RESIDENTS IN AN AREA ALREADY OVER-BALANCED BY USERS. PLEASE BE SPECIFIC ABOUT HOW THE AFFORDABLE HOUSING UNITS CAN SAFELY AND COMFORTABLY CO-EXIST, WITH CHILDREN GOING TO SCHOOL, AMIDST ARRIVING BUSES, TAXIS, COMMUTER DROP-OFFS, DELIVERY VANS, AND THE PRIVATE VEHICLES ALLOWED BY ZONING STANDARDS.

THE BART SYSTEM WAS CREATED FIFTY YEARS AGO, MODELED AFTER WORKING SYSTEMS IN OTHER CITIES. IT WAS DESIGNED ORIGINALLY TO SERVE THE GREATER BAY AREA METROPOLITAN USERS. EACH POPULATION AREA WAS ALLOWED TO VOTE ON THE CONCEPT, AND SOME AREAS OPTED OUT, SUCH AS THE SOUTH BAY. FOR AREAS THAT DID VOTE FOR HAVING THE BART SYSTEM, THERE WAS A SIGNIFICANT MONETARY CONTRIBUTION INVOLVED. WITH ONLY PART OF THE BAY AREA ACCEPTING TRACKS, UNFORTUNATELY TRAVELS WERE MORE LIMITED THAN ORIGINALLY PLANNED. THIS SITUATION IS BEING REMEDIED AT THIS TIME, WITH MORE TRACKS AND STATIONS BEING ADDED EVEN IF FIFTY YEARS LATE. OF COURSE THE BAY AREA HAS EXPERIENCED EXTREME GROWTH OVER THIS PERIOD, SO THERE ARE ADDITIONAL PLANNING AND ACQUISITIONS AND FINANCING BURDENS THAT MIGHT BETTER HAVE BEEN INCORPORATED IN THE INITIAL STAGES.

THE QUESTIONS THAT SHOULD BE ANSWERED ARE THOSE ABOUT OWNERSHIP AND CONTROL OF THE BART SYSTEM; AIR RIGHTS TO BUILD ABOVE BART PARKING LOTS; THE WILLINGNESS OR OTHERWISE OF BART ITSELF TO HAVE THE STATE LAWMAKERS COMMANDEER ITS PARKING SPACES; OBLIGATION TO PROPERTY OWNERS NEAR THE STATIONS; FINANCIAL INFORMATION OF ALL KINDS INCLUDING THE INITIAL PUBLIC CONTRIBUTIONS; ON-GOING COSTS OF MAINTENANCE; VARIOUS RISKS TO THE TRANSIT SYSTEM IN CASES SUCH AS COVID-19 RIDERSHIP AND HOW ANY SHORT-FALL WILL BE DEALT WITH; LIABILITIES REGARDING BUILDING OVER TRANSIT TUNNELS; THAT SHOULD ALL BE CONSCIENTIOUSLY DISCUSSED. RESPONSIBILITIES OF THE STATE OF CALIFORNIA FOR MANDATING AB2923 STANDARDS AND ZONING SHOULD BE INCLUDED.

IMPORTANT ISSUES.

MATTERS THAT MORE URGENTLY NEED OUR ATTENTION INCLUDE THE MORE IMMEDIATE POSSIBILITY OF AN EARTHQUAKE ALONG THE HAYWARD FAULT, WHICH PASSES THRU BERKELEY; THE CONTINUING NEED FOR CLEAN WATER, AND THE IMPORTANCE OF CARING FOR ITS SOURCES. ALSO WE NEED TO ALLOW FOR EXPANSION OF OUR WASTE-WATER TREATMENT FACILITIES IF WE ARE TO WELCOME MORE RESIDENTS, SUCH AS THE PROJECTED BART UNITS. THESE ARE BROAD ISSUES THAT MUST BE CONFRONTED IF WE ARE TO INCREASE THE NUMBER OF HUMANS LIVING IN THE SAME RESTRICTING FOOTPRINT OF LAND.

COMMENTS ON ZONING CAN ONLY TANGENTIALLY ADDRESS THESE LARGER COMPELLING MATTERS.

IF I KNOW AND UNDERSTAND THE LARGER ISSUES, BUT LIMIT MY COMMENTS TO THE ARTIFICE OF ZONING, THEN I AM COMPLICIT IN ALLOWING AND OVERLOOKING THE REAL ISSUES.

I ASK THE CITY TO SEND ME A COMPLETE PAPER COPY OF THE FORTH-COMING DOCUMENTS ON THIS SUBJECT AS THEY APPEAR, SO AS TO BE AWARE OF THE PROJECT STATUS. PLEASE SEND ALL NOTICES BY UNITED STATES POSTAL SERVICE AT THE ADDRESS PROVIDED. I WILL EXPECT TO PAY A REASONABLE COST FOR THESE COPIES. THIS IS THE BEST AND ONLY WAY THAT I CAN ACCESS THE DOCUMENTS, AS I DO NOT HAVE ACCESS NOR KNOWLEDGE OF COMPUTER SYSTEMS.

BARBARA ROBBEN
1964 EL DORADO
BERKELEY CA 94707

Appendix B

August 2021 Draft R-BMU Development Standards and Joint Vision and Priorities Document

August 2021 Draft Zoning and General Plan Amendments

Summary of Existing and Proposed Zoning and General Plan for the Ashby and North Berkeley BART Station Areas				
BART Sites	Zoning		General Plan	
	Existing	Proposed	Existing	Proposed
Ashby BART (east and west parcels)	C-Adeline Corridor ¹	R-BART Mixed Use	Adeline Mixed Use Corridor	Ashby/North Berkeley BART Transit Oriented Development (TOD)
North Berkeley • Main Site	Unclassified ²		Institutional	
• Auxiliary Lots	R-1 Single Family Residential ³ R-2 Restricted Two Family Residential ⁴		Low Density Residential Institutional	

This document includes the following:

1. Zoning

- Chapter 23.202.150 Residential – BART Mixed Use District
- Table 23.202.020-1: ALLOWED LAND USES IN RESIDENTIAL DISTRICTS
- Zoning Maps:
 - Ashby BART Site: Existing and Proposed
 - North Berkeley BART Site: Existing and Proposed

2. General Plan

- Draft Ashby/North Berkeley BART General Plan Land Use Classification
- General Plan Maps
 - Ashby BART Site: Existing and Proposed
 - North Berkeley BART Site: Existing and Proposed

¹ BMC Section 23E.70.

² BMC Section 23E.92.

³ BMC Section 23C.16.

⁴ BMC Section 23D.28.

DRAFT - Chapter 23.202.150

R-BMU Residential BART Mixed-Use District Provisions

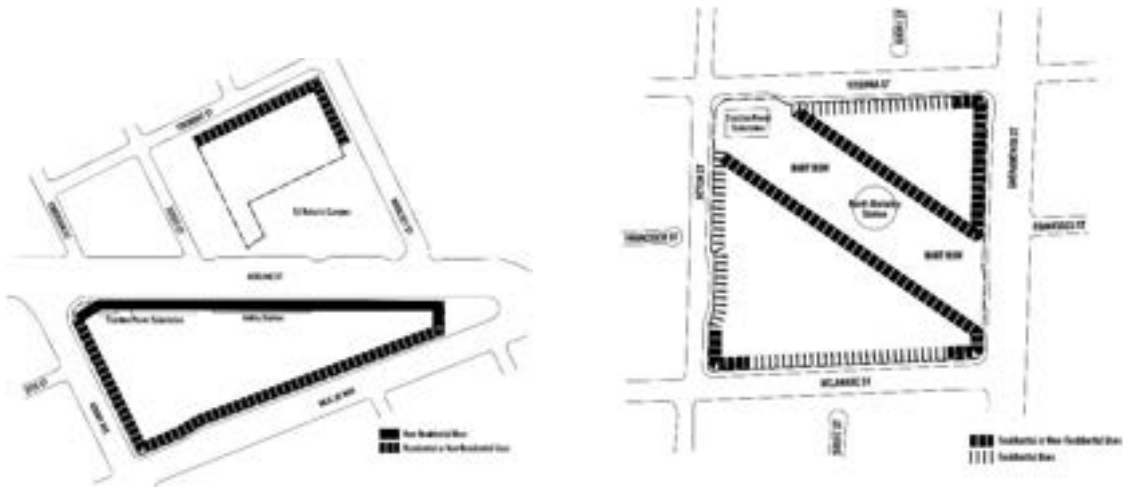
- A. **District Purpose.** The purpose of the BART Mixed-Use (R-BMU) district is to address City of Berkeley priorities such as affordable housing, civic and public space, multi-modal transportation and site access, high-quality building design and architecture, and a mix of land uses that contributes positively to the community, and to establish zoning standards in compliance with AB 2923.a
- B. **Definitions.** For the purpose of this Chapter, the following definitions apply:
1. **Lot Area.** The total horizontal area within a lot's boundary lines, minus the square footage of any buildings, facilities or equipment that are, or shall be, under the control of the San Francisco Bay Area Rapid Transit District (BART).
 2. **Floor Area Ratio (FAR).** The quotient resulting from division of the Gross Floor Area of all buildings on a lot by the Lot Area. In a single integrated development on contiguous lots, the permitted Floor Area Ratio shall be computed upon the basis of the total area of all such lots.
 3. **Dwelling Units per Acre.** The quotient resulting from the total number of dwelling units on a site by the Lot Area.
- C. **Allowed Land Uses. General.** See Section 23.202.020 (Allowed Land Uses), which indicates identifies allowed land uses and which are prohibited.
1. The initial establishment of a land use in a new building will follow the R-BMU Master Development Plan process outlined in Section 23.202.150D. below.
 2. The change of use of an existing building or portion of a building will require the permits indicated in Section 23.202.020 and Table 23.202-1 for the R-BMU District.
 3. Any use not listed in Table 23.202-1 for the R-BMU District can be approved through the Master Development Plan process outlined in Section 23.202.150D below for the initial establishment of a land use in a new building.
 4. Uses subject to supplemental regulations are shown in in Table 23.202-1 with an asterisk (*) following the permit requirement (e.g., ZC*). The Use-Specific Regulations column in Table 23.204-1 identifies the location of these regulations in the Zoning Ordinance.

D. **Ground-floor Uses.** See Table 23.202.150-1.

TABLE 23.202.150-1: PERMITTED STREET-FACING GROUND FLOOR USES

Frontage Locations	Permitted Street-Facing Ground Floor Uses
Along Ashby and MLK	Non-Residential Uses or non-residential accessory spaces to residential buildings, such as community rooms. At least 50% of the combined frontage of MLK and Ashby must include active ground -floor uses. Active uses at corner locations are encouraged.
Along Adeline	Non-Residential Uses or non-residential accessory spaces to residential buildings, such as community rooms
Along Woolsey, Tremont[1], or fronting interior public spaces	Residential or Non-Residential Uses
Along Sacramento, along the Ohlone Greenway, or within 50 feet of any street corner	Residential or Non-Residential Uses
Along Delaware, Acton, or Virginia	Residential Uses
[1] Public entrances for non-residential uses fronting Tremont Street must be located on Woolsey Street.	

FIGURE 23.202.150-1 PERMITTED STREET-FACING GROUND FLOOR USES



1. Ashby BART Station Site

b. North Berkeley BART Station Site

E. **Additional Permit Requirements.** See Section 23.202.030 (Additional Permit Requirements).

F. **Development Standards.**

1. **Basic Standards.** See Table 23.202.150-2.

2. **Supplemental Standards.** Supplemental standards that apply in the R-BMU district are noted in Table 23.202.150-2.

TABLE 23.202.150-2: R-BMU DEVELOPMENT STANDARDS

		Supplemental Standards
Lot Area, Minimum	No minimum	23.304.020
Floor Area Ratio (FAR), Maximum	4.2	
Main Building Height, Maximum ¹	80 ft. and 7 stories	23.304.050
Residential Density, Minimum	75 dwelling units per acre	
Residential Parking	None required Maximum of 0.5 spaces per dwelling unit	
Non-residential Parking (new construction)	None required 1.5 spaces per 1,000 sf maximum	
Bicycle Parking	Minimum of 1 space per unit, 50% of which shall be covered and secure and 1 space per 1000 sf of commercial use.	
Private Usable Open Space, Minimum ²		23.302.090
Per Dwelling Unit	40 sf/DU	23.302.090
Per Group Living Accommodation Resident	15 sf/resident	23.302.090
Public Open Space, Minimum		
Per Dwelling Unit	35 sf/unit	
Per Group Living Accommodation Resident	18 sf/resident	

¹ Building Height Measurement: In the case of a roof with a parapet wall, building height shall be measured to the top of the roof and parapets may exceed the height limits by up to five feet by right.

² Private Usable Open Space may be provided as any combination of personal and common private space.

³ Additional public space may substitute for up to 50% of required Private Usable Open Space.

3. Additional Open Space Requirements.

a. Definitions

- i. **Private Usable Open Space:** Outdoor space, including natural and landscaped ground areas, pools, patios, decks and balconies designed for active or passive recreational use and which is accessible to the occupants of a building on the same lot. See also 23.304.090 (Usable Open Space) for standards.
- ii. **Public Open Space:** Outdoor space, including natural and landscaped ground areas, pools, patios, decks designed for active or passive recreational use and which is accessible to the general public. Minimum dimensions for Public Open Spaces shall be 20' in any direction and 400 square feet minimum.

b. Public Space Design.

- i. Land area made available for public access to and through the station, and on-site public amenities, may be offered as dedication to the City or may be owned and maintained by another party with dedication of a public access easement. Public Open Space must be accessible to the public during daylight hours and include signage indicating public access.
 - ii. Public spaces shall include site furnishings and design elements to encourage active or passive use.
 - iii. Public spaces shall have a direct, accessible connection to the public circulation network.
 - iv. Adjacent publicly owned space may contribute to the minimum public space requirement for the project, if it is designed, integrated and maintained as part of the project and complies with all other requirements for public space design identified in this section (23.202.150(D)3(b)).
- c. **Rooftop Open Space.** Rooftops may be utilized as Private Usable Open Space or Public Open Space meeting the requirements of 23.202.150.A.3 (Additional Open Space Requirements – Definitions). Rooftop space designated Public Open Space must also meet the requirements of 23.202.150.A.3.B (Public Space Design). No more than 25% of Public Open Space requirements can be met with Rooftop Open Space.

4. Front Setbacks.

- a. Setbacks are not required at Martin Luther King Jr. Way, Adeline Street, Sacramento Street.
 - b. Setbacks along all other frontages along public rights-of-way and internal publicly accessible pathways shall range from 5 feet (minimum) to 15 feet (maximum) for at least 50 percent of any building's linear street frontage, including all frontages within 50 lineal feet of an intersecting corner. See Section 23.304.030 (Setbacks) for supplemental standards.
5. **Front Upper-Story Step-backs.** Any street-facing building frontage above four stories in height that is not within 100 linear feet of Sacramento Street, Adeline Street, Ashby Avenue,

or Martin Luther King Jr. Way, shall step back 15 feet from the front property line for portions of the building above four stories.

6. **Ground-floor Residential Frontage.** For ground-floor residential uses, outward facing building entrances may include any of the following: stoops, front doors, courtyard and forecourt entrances, ramped or at-grade universally accessible entries, outward-facing and visually permeable lobby entrances, or other outward-facing residential entrance, with transition spaces from private frontages to public spaces.
7. **Ground-floor Non-Residential Frontage.** For ground-floor non-residential uses, outward-facing building entrances and activation strategies may include outdoor seating, dining, display spaces, performance spaces, public art, architectural detailing, and extensions of the public sidewalk.
8. **Frontage Improvements.** Any area between a building and the front property line, or any area between a building and on-site public space or the public circulation network, shall be improved as part of a wider sidewalk, outdoor seating area, outdoor dining area, yard area, landscaping, or other usable open space.
9. **On-site Pedestrian Access.** Pedestrian accessways shall be provided for all new construction and for additions of 10,000 square feet or more of gross floor area in accordance with the following standards:
 - a. **Internal Connections.** A system of publicly accessible pedestrian walkways shall connect all buildings on a site to each other, to on-site bicycle and automobile parking areas, to any on-site open space areas or pedestrian amenities, and to the publicly accessible pedestrian circulation network.
 - b. **To the Public Circulation Network.** A publicly accessible on-site walkway shall connect the building lobby entry or entries on each street or on-site pathway frontage to the public pedestrian circulation network. Connections to publicly accessible on-site walkways provided at least every 300 feet along portions of the development site perimeter that are adjacent to public rights-of-way.
 - c. **To Neighbors.** Publicly accessible pedestrian access shall be provided from residential and commercial building entrances and public space to adjoining residential and commercial areas.
 - d. **To Transit.** Publicly accessible pedestrian connections from the public circulation network shall be provided to all transit stops and entrances including elevators outside the station.
 - e. **Illumination.** All publicly accessible pedestrian connections shall include nighttime illumination pursuant to Ordinance N.S.-7424.
10. **Transparency.**
 - a. **Required Openings.** Ground-level exterior walls facing and within 20 feet of a front lot line or publicly accessible pathway or Public Open Space shall run in a continuous plane for no more than 30 feet without a window, door, or other similar building opening.
 - b. **Non-Residential Transparency.** For non-residential ground-floor uses facing a front lot line, publicly accessible pathway or Public Open Space, a minimum of 50% of the building wall area located between three and seven feet above ground level shall be transparent with a visible light transmittance of not less than 80%.

11. Building Entrances.

- a. **Minimum Number of Entrances Required.** There shall be a minimum of at least one building entrance at an average distance of 50 linear feet of ground-floor non-residential building frontage, and at least one building lobby entrance for every 200 feet of ground-floor residential building frontage.
- b. **Ground Floor Residential Entries.** All ground floor residential units shall provide entries to the street in the form of stoops or other exterior entries, or balcony or patio without entrance to the street, with a minimum area of 20 square feet.
- c. **Separate Entrances Required.** Buildings containing a mix of residential and non-residential uses shall provide separate building entrances for each major use category. Amenity areas such as exercise rooms do not require separate building entrances from the primary use.
- d. **Entrance Orientation.** Principal building entrances shall face a public street, publicly accessible pathway, or Public Open Space.
- e. **Illumination.** Building entries and addresses shall be illuminated to provide nighttime visibility from adjacent streets, public accessways, and common areas

12. Ground-Floor Non-Residential Space Dimensions. The minimum ground floor height for non-residential uses is 15 feet, as measured from the ground level floor to the first floor above.

13. Parking Design and Access.

- a. **Unbundled Parking Required.** All parking spaces shall be leased separately from the residential unit or commercial space except where prohibited by affordable housing financing sources.
- b. **Structured Parking Required.** All new off-street parking shall be located within an enclosed structure, with the exception of curb-side pickup and drop-off, curb-side metered parking, ADA parking, or small-scale surface parking for security and station operations and maintenance purposes only.
- c. **Structured Parking Design.** Parking garages shall be located underground or located behind conditioned building space at any adjacent street, sidewalk, or other publicly accessible accessway or open space. Conditioned building space is not required along shared interior lot lines of abutting parcels.
- d. **Vehicular Entry.** Parking garage vehicular entrances facing the street shall be no more than 20 feet wide.
- e. **Pedestrian Entry.** Parking garage pedestrian entrances shall be provided at-grade, connecting directly to the public pedestrian circulation network, on each street-facing frontage.
- f. **Light Screening.** Parking garages shall be designed such that interior lighting is fully shielded and automobile headlamps are not visible from adjacent buildings, parcels, streets, public parks, publicly accessible outdoor space or designated open space area.

14. Objective Design Standards. Objective design standards, including, but not limited to, BART station functionality, public realm, building form and massing (e.g. vertical and horizontal articulation) building facade design, and open space shall be developed prior to

the acceptance of any Preliminary Development Plan or Final Development Plan.

G. BART Mixed Use District Master Development Permit (MDP)

1. Purpose of the R-BART Mixed Use District Master Development Permit (MDP) process. The purpose of these provisions is to prescribe the procedure for the review of development on parcels in the R-BART Mixed Use District, in order to allow for the predictable buildout of the sites over time and achieve a high standard of site and building design that fulfills the City and BART Joint Vision and Priorities for the Ashby and North Berkeley BART Station Areas relating to:
 - Affordable Housing
 - Public and Civic Space
 - Land Use
 - Building Form and;
 - Station Access.
2. Applicability of the Ashby and North Berkeley BART Master Development Permit (MDP). These provisions shall apply to all land within the R-BART Mixed Use District.
3. Preliminary Development Plan. The preliminary development plan shall include, at a minimum, the following:
 - a. A plan of the entire development, defined as either the North Berkeley BART Station Area or Ashby BART Station Area, showing the items listed below. Such development plan shall include maps and information on the surrounding area within one hundred (100) feet of the development. All elements listed in this paragraph shall be characterized as existing or proposed, and sufficiently detailed to indicate intent and impact.
 - Streets, driveways, sidewalks and pedestrian ways, and off-street parking and loading areas;
 - Location and approximate dimensions of structures;
 - Utilization of structures, including activities and the number of living units;
 - Estimated population;
 - Reservations for public uses, including schools, parks, playgrounds, and other open spaces;
 - Major landscaping features;
 - Relevant operational data; and
 - Drawings and elevations clearly establishing the scale, character, and relationship of buildings, streets, and open spaces.
 - b. A table demonstrating that the plan meets the development standards set forth in Section 202.23.150C and the other requirements of this Chapter, including compliance with any Objective Development Standards.
 - c. A development phasing plan describing the order in which various portions of the development will be built, along with a proposed schedule for such phases.
4. Notice of Application and Public Hearing for Preliminary Development Plan.
 - a. Preliminary Development Plans shall be reviewed by the Zoning Adjustments Board, the decisions of which are appealable to the City Council.
 - b. The public notice and hearing process for a Master Development Plan shall be the same as

for Use Permits as defined in BMC Section 23B.32, except that notice shall be mailed or delivered to all businesses, residents and owners of property located within five hundred (500) feet of the subject property.

- c. The Board shall determine whether the proposal conforms to the permit criteria set forth in Section 23.202.150.D8, and may approve or disapprove the application and the accompanying Preliminary Development Plan or require such changes therein or impose such reasonable conditions of approval as are in its judgment necessary to ensure conformity to said criteria and regulations. In so doing, the Board may, in its discretion, authorize submission of the Final Development Plan in stages corresponding to different units or elements of the development. It may do so only upon evidence assuring completion of the entire development in accordance with the Preliminary Development Plan and staged development schedule.

5. Final Development Plan

The applicant shall file with the Planning and Development Department a Final Development Plan for one or more of the phases identified in the Preliminary Development Plan.

- a. The Final Development Plan shall conform in all major respects with the approved Preliminary Development Plan and shall include the following additional information:
 - Location of water, sewerage, and drainage facilities;
 - Detailed building and landscaping plans and elevations;
 - Character and location of signs;
 - Plans for street improvements; and
 - Grading or earth-moving plans.

The Final Development Plan shall be sufficiently detailed to indicate the ultimate operation and appearance of the development, including compliance with the Objective Development Standards. Final Development Plans shall be reviewed by the Zoning Adjustments Board.

- b. The public notice and hearing process for a Final Development Plan shall be the same as for Use Permits as defined in BMC Section 23B.32, except that notice shall be mailed or delivered to all businesses, residents and owners of property located within five hundred (500) feet of the subject property.

6. City Engineer's Report

Within thirty (30) days after the filing of the Final Development Plan, the Zoning Officer shall forward it to the City Engineer for review of public improvements, including streets, sewers, and drainage. The Zoning Adjustments Board shall not act on a Final Development Plan until it has first received a report from the City Engineer or until more than thirty (30) days have elapsed since the plan and application were sent to the City Engineer, whichever is the shorter period.

7. Appeal to Council

The process for appeal to Council for a Master Development Plan, Preliminary Development Plan and/or Final Development Plan shall be the same as for Use Permits as defined in BMC Section 23B.32.

1. Findings

- a. That the location, design, size, and uses are consistent with the General Plan and with any other applicable plan, development control map, design guidelines, or ordinance adopted by the City Council or Planning Commission;
- b. That the location, design, and size are consistent with the City of Berkeley and San Francisco Bay Area Rapid Transit District (BART) Joint Vision and Priorities document for the Ashby and North Berkeley BART Station Areas adopted by the City Council and the BART Board of Directors.

2. Adherence to the Approved Plan and Modification.

Variations of up to ten percent (10%) from any numerical or non-numerical standard set forth on the Master Development Plan may be authorized by the Zoning Officer through an Administrative Use Permit. Variations of more than ten percent (10%) may be authorized by a Master Development Plan permit modification by the Zoning Adjustments Board.

3. Revocation of Permits

If a Final Development Plan for an initial portion of a site has not been submitted within 10 years after approval of the applicable Master Development Plan for all or a majority portion of the site, the City Council may revoke the approval of the remainder of the Master Development Permit. If Final Development Plans for the entirety of a site have not been submitted within 20 years after approval of the applicable Master Development Plan permit, the City Council may revoke the remainder of the Master Development Plan permit.

TABLE 23.202.020-1: ALLOWED LAND USES IN RESIDENTIAL DISTRICTS

ZC = Zoning Certificate AUP = Administrative Use Permit UP(PH) = Use Permit – = Prohibited Use * Use-Specific Regulations Apply ** Required permits for specific uses are set forth in the R- BART Mixed Use District Master Development Permit.(MDP) See B.M.C. Section 23.202.150.A and 23.202.150.D.	Residential Districts											Use-Specific Regulations Applies to uses with an asterisk following the permit requirement (e.g., ZC*)
	R-1	R-1A	ES-R	R-2	R-2A	R-3	R-4	R-5	R-S	R-SMU	R-BMU**	
Residential Uses												
Accessory Dwelling Unit	See 23.306		–	See 23.306								
Dwellings												
Single-Family	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	–	
Two-Family	–	UP(PH)	–	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	–	
Multi-Family	–	–	–	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	
Group Living Accommodation	–	–	–	–	–	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	
Mixed Use Residential	–	–	–	–	–	–	–	–	–	UP(PH)	UP(PH)	
Senior Congregate Housing	–	–	–	–	See 23.302.070.H							
Public and Quasi-Public Uses												
Child Care Center	UP(PH)	UP(PH)	–	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	
Club/Lodge	UP(PH)	UP(PH)	–	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	
Columbaria	AUP*	AUP*	–	AUP*	AUP*	AUP*	AUP*	AUP*	AUP*	AUP*	=	23.302.070.C
Community Care Facility	See 23.202.040.A											
Community Center	UP(PH)	UP(PH)	–	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	
Emergency Shelter	–	–	–	–	–	–	See 23.308					
Family Day Care Home, Large	AUP	AUP	–	AUP	AUP	AUP	AUP	AUP	AUP	AUP	AUP	
Family Day Care Home, Small	ZC	ZC	ZC	ZC	ZC	ZC	ZC	ZC	ZC	ZC	ZC	
Hospital	–	–	–	–	–	UP(PH)	UP(PH)	UP(PH)	–	UP(PH)	=	
Library	UP(PH)	UP(PH)	–	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	
Nursing Home	–	–	–	–	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	=	
Park/Playground	ZC	ZC	UP	ZC	ZC	ZC	ZC	ZC	ZC	ZC	ZC	
Public Safety and Emergency Service	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	
Public Utility Substation/Tank	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	
Religious Assembly	UP(PH)	UP(PH)	–	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	

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	R-1	R-1A	ES-R	R-2	R-2A	R-3	R-4	R-5	R-S	R-SMU	R-BMU**	
School	UP(PH)	UP(PH)	–	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	
Commercial Uses												
Alcoholic Beverage Service	–	–	–	–	–	–	–	–	–	UP(PH)*	UP(PH)*	23.310
Food Products Store	–	–	–	–	–	–	–	–	–	UP(PH)*	UP(PH)*	23.202.140.B.3
Food Service Establishment	–	–	–	–	–	–	–	–	–	UP(PH)*	UP(PH)*	23.302.070.E
Group Class Instruction	–	–	–	–	–	–	–	–	–	–	UP(PH)	
Gym/Health Club	–	–	–	–	–	–	–	–	–	–	UP(PH)	
Hotel, Tourist	–	–	–	–	–	–	UP(PH)	UP(PH)	UP(PH)	UP(PH)	–	
Laundromat and Cleaner	–	–	–	–	–	–	–	–	–	UP(PH)	UP(PH)	
Office	–	–	–	–	–	–	UP(PH)	UP(PH)	–	UP(PH)	UP(PH)	
Parking Lot/Structure	UP(PH) *	UP(PH) *	UP(PH) *	UP(PH) *	UP(PH) *	UP(PH) *	UP(PH) *	UP(PH) *	UP(PH) *	UP(PH)*	UP(PH)*	23.302.070.G 23.322.100
Personal and Household Service, General	–	–	–	–	–	–	–	–	–	ZC*	ZC*	23.202.140.B.2
Retail, General	–	–	–	–	–	–	UP(PH) *	UP(PH) *	UP(PH) *	UP(PH)*	UP(PH)*	23.202.040.B
Theater	–	–	–	–	–	–	–	–	–	–	UP(PH)	
Veterinary Clinic	–	–	–	–	–	–	–	–	–	UP(PH)	UP(PH)	
Video Tape/Disk Rental	–	–	–	–	–	–	–	–	–	UP(PH)	–	
Industrial and Heavy Commercial Uses												
Commercial Excavation	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	UP(PH)	
Other Uses												
Accessory Uses	See 23.302.020.A											
Art/Craft Studio	–	–	–	–	–	–	–	–	–	–	ZC	
ATM: Exterior and Attached to Bank or Interior or Exterior and Not With Bank	–	–	–	–	–	–	–	–	–	–	AUP	

TABLE 23.202.020-1: ALLOWED LAND USES IN RESIDENTIAL DISTRICTS

ZC = Zoning Certificate AUP = Administrative Use Permit UP(PH) = Use Permit — = Prohibited Use * Use-Specific Regulations Apply ** Required permits for specific uses are set forth in the R- BART Mixed Use District Master Development Plan permit.(MDP) See B.M.C. Section 23.202.150.A and 23.202.150.D.	Residential Districts											Use-Specific Regulations Applies to uses with an asterisk following the permit requirement (e.g., ZC*)
	R-1	R-1A	ES-R	R-2	R-2A	R-3	R-4	R-5	R-S	R-SMU	R-BMU**	
Home Occupations	See 23.302.040											
Live/Work	—	—	—	—	—	—	—	—	—	—	UP(PH)*	
Public Market, Open Air	—	—	—	—	—	—	—	—	—	—	AUP	
Public Market, Enclosed	—	—	—	—	—	—	—	—	—	—	AUP	
Short-Term Rental	ZC*	ZC*	—	ZC*	ZC*	ZC*	ZC*	ZC*	ZC*	ZC*	ZC*	23.314
Temporary Uses	See 23.302.030											
Urban Agriculture, Low-Impact	ZC*	ZC*	—	ZC*	ZC*	ZC*	ZC*	ZC*	ZC*	ZC*	ZC*	23.318
Urban Agriculture, High-Impact	AUP*	AUP*	—	AUP*	AUP*	AUP*	AUP*	AUP*	AUP*	AUP*	AUP*	23.318
Wireless Telecommunication Facility	See 23.332											

Zoning Maps: Ashby BART Station Area

Existing Zoning: C-Adeline Corridor



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Land use data provided by City of Berkeley, 2018.

Proposed Zoning: R-BART Mixed Use



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Land use data provided by City of Berkeley, 2018.

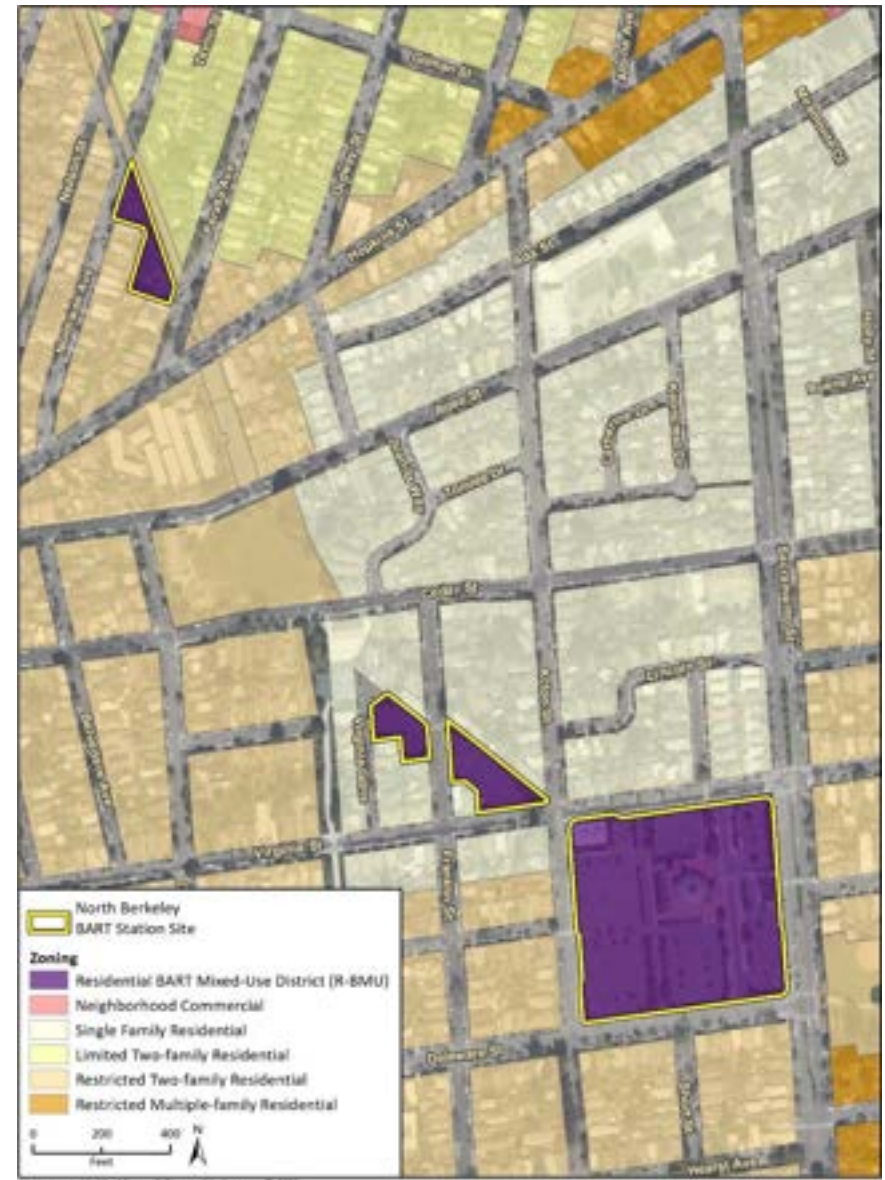
Zoning Maps: North Berkeley BART Site

Existing Zoning: Unclassified, R-1 and R-2



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Land use data provided by City of Berkeley, 2019.

Proposed Zoning: R-BART Mixed Use



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Land use data provided by City of Berkeley, 2019.

Proposed GP Land Use Classification

I A new General Plan Land Use Classification is proposed for both BART sites: the Ashby and North Berkeley BART Transit Oriented Development (TOD) classification.

Ashby and North Berkeley BART Transit Oriented Development (TOD)

These areas leverage their location and the proximity of the BART stations to provide high-quality transit-oriented development, affordable housing, civic and public space, multi-modal transportation and site access, high-quality building design and architecture, and a mix of land uses that contributes positively to the community. Building intensity will permit a Floor Area Ratio (FAR) of at least 4.2, development at a height of at least 7 stories, and a development density of at least 75 dwelling units per acre.

General Plan Land Use Maps: Ashby BART Site

Existing: Adeline Corridor Mixed Use



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Land use data provided by City of Berkeley, 2020.

Proposed: Ashby/North Berkeley-BART TOD



Imagery provided by Microsoft Bing and its licensors © 2023.
Land use data provided by City of Berkeley, 2020.

General Plan Land Use Maps: North Berkeley BART Site

Existing: Institutional, Low Density Residential



Proposed: Ashby/North Berkeley-BART TOD



Joint Vision & Priorities for Transit-Oriented Development for Ashby and North Berkeley BART Stations AUGUST 2021

Background

The December 10, 2019 Memorandum of Understanding (MOU) between BART and the City of Berkeley calls for the City and BART, with input from the City's Community Advisory Group (CAG) to establish a "joint vision and priorities" document. The goal of this document is to provide a concise statement of the City and BART's shared, high-level expectations for future development of both the Ashby and North Berkeley BART properties.

Per the MOU, this "joint vision and priorities" document will be incorporated into future Request(s) for Qualifications (RFQs) for development of both the Ashby and North Berkeley Station development, and will help guide the process from developer selection through project construction. This City-BART Joint Vision and Priorities document will be one of three key outcomes of the CAG process for both North Berkeley and Ashby BART development (along with updated zoning consistent with AB 2923, and the RFQs for developers).

Affordable Housing

VISION

New housing at a variety of income levels at both the Ashby and North Berkeley BART Stations will address the City's housing crisis, stem the displacement of residents—especially of the African American community in Berkeley—and support more equitable access to housing for lower-income families and individuals. New housing must also be created quickly to reflect the urgency of the climate crisis, capturing the inherent environmental benefits of walkable, transit-oriented housing in Berkeley's most transit-rich areas. North Berkeley and Ashby will provide a new model for delivering affordable housing in neighborhoods that are rich in infrastructure and strategically located to make regional transit, economic opportunity, and community amenities more broadly and equitably accessible.

Shared Priorities

- A. **Housing Priorities.** Maximize the number of new homes, and especially permanently affordable, deed-restricted homes. We anticipate a range of 500-1200 units at each station with a variety of unit sizes.
- B. **Urgency.** Deliver new housing within 10 years, by 2031, to reflect the urgency of the climate and housing crises.
- C. **Affordable Housing Goal.** The City and BART will strive to maximize the number of permanently affordable, deed-restricted housing units within the funding that can be identified.

1. Affordable housing may be developed in multiple phases over a number of years.
2. The amount of affordable housing which can be provided at each site within the 10-year time frame will depend on many outside factors including the availability of state and federal housing resources.
3. At a minimum, at least 35% of the new units at each site will be restricted affordable housing. It is anticipated that each site could achieve at least 50% affordable housing, subject to the timely availability of financing.
4. The City and BART will work together to support selected developers in proactively assembling affordable housing subsidies in order to exceed the minimum.
5. If both sites are able to provide at least 50% affordable housing in a way that is financially feasible, and if additional funding becomes available, the priority for that additional funding would be to maximize the number of affordable units at Ashby station in recognition of the ongoing threat of displacement to the historic community of South Berkeley.

D. Income Targets: At least 35% of new housing at each site must be affordable to households earning less than 60% of Area Median Income (AMI). Of that, at least 20% (or 7% of total units at each site) must be affordable to Extremely Low-income households, those earning up to 30% of AMI. Additional affordable units should prioritize Very Low Income (up to 50% of AMI) households and Low Income (up to 80%) households but may include some housing restricted with households with incomes up to 120% of AMI.

E. Sequencing. Affordable housing should be built prior to, or along with, any market rate housing.

F. Displacement Prevention. Affordable housing should provide a preference for residents of Berkeley who are facing displacement, or who have been displaced from Berkeley in the past due to economic or discriminatory reasons.

G. Developer Selection. In the developer selection process, prioritize a nonprofit master developer or a partnership between a private developer and one or more community-based organizations who have experience showing accountability towards equity goals in the City of Berkeley.

H. Developer Accountability. The selected developers must have a demonstrated commitment and feasible plans to produce affordable housing and be willing to be held accountable for making affordability the first priority. Selecting a developer who merely pledges a best effort to provide affordable units would not be sufficient.

I. Funding. BART and the City of Berkeley should proactively seek new, innovative funding solutions to help achieve two truly visionary, equitable, and sustainable projects.

- J. **Clustering and Integration.** Affordable units may be clustered into one or more 100% affordable housing buildings on the BART sites but must be designed in a way that integrates with the larger project and shares the same design standards and quality.
- K. **Inclusive Housing Design.** The selected developer will prioritize affordable housing for renters with various needs, including but not limited to families, people with physical or mental disabilities, and formerly homeless people.

Priorities for Ashby

- A. **Adeline Corridor Affordable Housing Goal.** Consistent with the Adeline Corridor Specific Plan, the City and BART should strive for a goal of 100% deed-restricted affordable housing, prioritizing extremely low, very-low and low-income affordable housing.
- B. **Residents with Disabilities.** Ashby BART should be developed in a way that prioritizes the inclusion of residents with disabilities, who are likely to benefit from proximity to the Ed Roberts Campus.
- C. **South Berkeley Preference.** To address past and current displacement, the development should provide a preference to applicants who either currently live in South Berkeley or have been displaced from the community. This preference must be implemented in a way which is consistent with the City's Fair Housing goals and federal law.

Public and Civic Space

VISION

New public and civic space at both Ashby and North Berkeley BART will provide a community anchor, open space amenity, and memorable neighborhood gathering space that is accessible to all. It will be available for programmed community uses and activities, as well as for informal, unprogrammed public use by residents, visitors, and transit riders alike. New public space will enhance the ability of all community members to walk, roll, and take transit, supporting better station access and healthy, climate-friendly active transportation. North Berkeley will be a nexus of active transportation centered along a major new connection of the Ohlone Greenway. Ashby will be anchored by a market and oriented along a street built for people and multiple modes of transportation.

Shared Priorities

- A. **Maintenance Costs.** New civic space should be designed in a way that minimizes the ongoing cost of operations and maintenance to BART and the City.
- B. **New Public Space.** Pursue new public space design in a way that delivers on the vision while maximizing the number of on-site affordable housing units.
- C. **Station Access.** Design the public realm to support priorities in the Access section of this document.

DRAFT - AUGUST 2021

Priorities for Ashby

- A. **Hub for African American Life.** Reinforce South Berkeley's historic role as a hub for African American culture and life in the Bay Area.
- B. **Flea Market.** Provide a permanent, viable home for the Berkeley Community Flea Market – offering supportive amenities such as public restrooms, limited office/storage space, electrical and water access and weather protection - in a prominent location.
- C. **Stakeholder Input.** Public space will be designed with input from the Flea Market, Lorin Business Association, neighborhood residents, representatives from the disability community, and other neighborhood stakeholders. Facilities for the Flea Market will be designed in collaboration with the vendors and Community Services United.
- D. **Adeline Design.** Reconfigure Adeline Street to transform a four-lane arterial into a safer space for all modes of transportation, creating a more walkable, vibrant place. Flea Market and/or other public activities may occur on some or all of this portion of Adeline Street.
- E. **Green Space.** Expand the availability of green space for the neighborhood.

Priorities for North Berkeley

- A. **Ohlone Greenway Connection.** The development should include a protected bikeway that connects the disjointed ends of the Ohlone Greenway to each other and to BART, providing a primary access route and orientation of the development that enables a prioritized pedestrian and bicycle connection from approximately the southeast corner of the site to the northwest corner of the site and across the streets.
- B. **Public Space Use.** Public space should provide opportunities for both active and passive public use, with strong connections to the station entrance, the Ohlone Greenway, or other public spaces and pedestrian facilities.
- C. **Street Design.** The design of surrounding streets should be considered as a strategy to accommodate public space needs, and improve safety for pedestrians and bicycles.

Land Use

VISION

Land uses at Ashby and North Berkeley Stations will serve community needs; provide significant amounts of new housing; complement neighborhood businesses, services, and institutions; create a welcoming environment for all; support BART ridership; and

improve quality of life for current and future residents. Ground-floor uses should be pedestrian-oriented and contribute positively to public space and the pedestrian experience.

Shared Priorities

- A. **Overall Mix of Uses.** At both stations, the predominant use will be transit-oriented housing and transit uses, complemented by public space and appropriate non-residential uses. Additional priorities for these uses are found in the Affordable Housing, Public and Civic Space, and Station Access and Parking Management sections of this document.
- B. **Non-residential Spaces.** Curate and program any non-residential spaces to provide interest and character, encourage community gathering, support social interactions, and provide unique neighborhood activities and services. Any non-residential uses should be customized to meet the unique needs of each station and neighborhood.

Priorities for Ashby

- A. **Role of Non-residential Uses.** Non-residential uses at Ashby should reinforce the area's historic role as a center of neighborhood commerce, cultural expression, social connection, and economic empowerment.
- B. **Non-Residential Active Frontages.** Non-residential uses should have active frontages oriented towards Adeline Street, Ashby Avenue, and the future Flea Market public space. Ground-floor uses should activate public space and complement the Flea Market, while promoting everyday activities when the Flea Market isn't occurring.
- C. **Prioritized Non-residential Uses.** The following types of potential non-residential uses should be prioritized, though not all are anticipated to be present in any one development project¹:
 - 1. The Berkeley Flea Market, and indoor or outdoor spaces related to the Flea Market
 - 2. Businesses and organizations that reinforce the neighborhood's historic role as a center of Black culture and identity
 - 3. Businesses, organizations, or services that are oriented towards, or provide economic opportunity for people in the neighborhood or their descendants who were involuntarily displaced, interned, or historically disenfranchised on the basis of race
 - 4. New uses that expand and complement the role and mission of the Ed Roberts Campus and empower those living with disabilities
 - 5. Spaces for cultural activities, performance, display, community activities, or other uses and amenities that support the area's role as an arts and culture district.

¹ Specific permitted and prohibited uses for Ashby Station will be identified in the zoning code.

Priorities for North Berkeley

- A. **Role of Non-residential Uses.** Non-residential uses such as retail, services, or indoor community spaces is anticipated to have a limited role at North Berkeley.
- B. **Non-residential Active Frontages.** Non-residential uses that do occur should be oriented with active frontages towards the station entry and/or Sacramento Street.
- C. **Respect Neighborhood Needs.** Non-residential uses that do occur should be focused towards meeting neighborhood needs and complementing the existing range of businesses and services already available nearby.
- D. **Potential Non-Residential Uses.** Non-residential uses may include the following²:
 - 1. Uses that help reduce the need for driving in North Berkeley, such as commuter-focused amenities, childcare, community services, or satellite locations for existing community businesses or organizations
 - 2. Small-scale walkable retail or café type uses
 - 3. Space for activities, gatherings, or events.

Building Form

VISION

New buildings at Ashby and North Berkeley Stations will be beautiful, creatively designed, well-proportioned, create visual and physical connections with the neighborhood through its architectural design and contribute positively to the physical fabric and long-term quality of life of the neighborhood. They will provide elements that neighborhood residents currently enjoy – such as natural light, air, direct outdoor access, variety, quirkiness, walkability, and sociability – in a denser, transit-oriented format that supports BART ridership. Buildings should exhibit a level of architectural diversity that expresses the social, racial, economic, and design diversity that is desired at both stations. Ground-floor spaces and building frontages should activate public space, while providing a sense of place and character to the stations and the surrounding neighborhood.

Shared Priorities

- A. **Height Variation.** AB 2923 does not permit the City's zoning controls to restrict building height below seven stories on the station sites. The City and BART will support variations in building height and form at both stations. It is anticipated that some buildings and some portions of buildings will be shorter than the maximum height in keeping with good urban design practice.
- B. **Context.** Building design should consider the scale and character of the surrounding built environment.

² Specific permitted and prohibited uses for North Berkeley Station will be identified in the zoning code.

- C. **Location and Orientation.** Locate and design new buildings to enhance public spaces while mitigating impacts on existing neighbors through site orientation, setbacks, lines of sight between buildings, landscape and topography.
- D. **Equitable Design Quality.** Design affordable housing units in a way that integrates with the larger project and shares the same design standards and quality.
- E. **Small Blocks.** Prioritize site designs with smaller blocks and building footprints instead of larger blocks.
- F. **Architectural Variety.** Design buildings to provide visual interest with variation in height, scale, massing, rooflines, materials, and architectural styles.
- G. **Building Scale.** Provide regular breaks in building forms, as well as both horizontal and vertical detail to respond to the existing neighborhood context and character, particularly at the edges of the site.
- H. **Unit Diversity.** Encourage building forms that allow a diversity of unit sizes, types, and configurations.
- I. **Sunlight.** Seek to configure buildings and include design strategies that allow sunlight to reach public spaces, and design outdoor spaces, outdoor seating and active retail frontages, if provided, to maximize southern, western, and/or eastern exposure.
- J. **Outward-facing Entrances.** For ground-floor housing units, encourage outward-facing entrances with a range of design treatments and access strategies. These could include stoops, front doors, courtyard and forecourt entrances, ramped or at-grade universally accessible entries, outward-facing and visually permeable lobby entrances, and transition spaces from private frontages to public spaces.
- K. **Ground-floor Non-residential Frontages.** For ground-floor non-residential uses, provide frequent windows and doors, visual connection between indoors and outdoors, frontage onto public space, direct access to the pedestrian circulation network, and activation strategies such as outdoor seating, dining, display spaces, public art, and architectural detailing.
- L. **Universal Accessibility.** Preference building designs with universally accessible units and elevator redundancy to promote accessibility for seniors and those with disabilities.
- M. **BART Entrances.** Ensure that BART entrances are featured prominently and integrated into the overall site plan.
- N. **Integrated Green Space.** Integrate gardens, courtyards, roof terraces, trees, native landscaping, and other green spaces into building architecture and site design.

Priorities for Ashby

- A. **Massing and Height Focus.** Focus density, larger building forms and height towards Adeline Street and Ashby Avenue on the west parking lot parcel, and towards the rear of the Ed Roberts Campus on the east parking lot parcel.
- B. **Active Frontages.** Connect new buildings to Adeline Street and Ashby Avenue with direct pedestrian access, minimal setbacks, and active frontages to complement the existing active uses across the street.
- C. **Site Design.** Ensure that building form, scale, and the overall site plan provide sufficient space for the Flea Market and other civic and community uses.

Priorities for North Berkeley

- A. **Massing and Height Focus.** Focus density, larger building forms and height towards the Ohlone Greenway and the center of the site, as well as towards Sacramento Street.
- B. **Massing Breaks and Step-downs.** Provide massing breaks, step-downs in height, and frequent pedestrian building entrances along Delaware Street, Acton Street, and Virginia Street, with building forms and frontages that create a residential character and scale.
- C. **Active Frontages.** Prioritize active frontages, public space programming, and car-free activities along the Ohlone Greenway.

Station Access

Vision

Station access investments in and around the stations will enhance community vibrancy, safety, equity, and health while improving the quality of the public space and pedestrian experience, both within and beyond the station areas. Priority access investments are those that encourage people to walk, bike, roll, ride transit, and use shared micro-mobility options, while still providing flexibility for changing technologies and trends. Access investments will be distributed equitably to improve the experience for people of all ages, all abilities, and all income levels getting to and moving through the stations.

Shared Priorities

- A. **Housing and Community Benefits.** Favor affordable housing and other community benefits over BART rider parking and TOD resident parking in any physical or financial decision-making.
- B. **Non-Automobile Access.** Increase the share of BART riders who access the stations via modes other than driving alone and parking. Prioritize access

improvements in the surrounding neighborhoods and within the station areas that offer safe, comfortable, affordable, cost-effective alternatives for all BART customers, particularly those with mobility challenges. Future access planning should consider the rapid evolution for mobility trends and technologies and consider the adaptability of the station access plans to future foreseeable and unforeseeable mobility patterns and their ability to handle ridership growth without running into capacity constraints.

- C. **Equitable Access.** Provide safe and secure station access options for people of all ages, abilities, races and ethnicities, genders, and income levels.
- D. **Parking Options.** Minimize the need for new structured on-site BART customer parking by maximizing the use of available parking capacity along the corridor (such as Center Street parking garage, shared parking with the TOD or with other sites, and on-street parking management).
- E. **Transportation Demand Management.** Any future development must include aggressive and innovative Transportation Demand Management strategies to reduce the vehicle miles traveled (VMT) and greenhouse gas (GHG) emissions by residents, visitors, and employees by 20% by complying with BART's Transportation Demand Management program.
- F. **Parking and Traffic Impacts.** Limit the impacts of parking and driving on residents of the developments and surrounding neighborhoods (such as noise, air quality, GHG, and collisions) through transportation demand management, multi-modal circulation and access planning, infrastructure improvements, parking management, and other best practices.
- G. **Market Rate Pricing for Parking.** Explore parking pricing that is better aligned with market demand as a possible strategy to promote BART rider and on-street parking availability, with consideration of the impacts of parking pricing on low income residents and BART riders.
- H. **Prioritize Curb Space.** Buses and shuttles will be located to prioritize people with disabilities, active loading of passengers (over waiting vehicles), services available to the public, and the number of people transferring to BART. Different types of passenger loading zones will be incorporated for quick pick-ups and drop-offs, those that need to wait for their passenger, accessible loading areas, ride apps and taxis.
- I. **Wayfinding and Signage.** Provide clear, accessible, adaptable station access signage and wayfinding to facilitate how people get to/from and through the station area consistent with the Metropolitan Transportation Commission's standards.

Priorities for Ashby

- A. **Pedestrian & Bicycle Connections.** Provide high-quality, safe pedestrian and bicycle connections to and through the site, including an off-street protected bicycle facility extending along Adeline Street, at least between

Ashby Avenue and the intersection with MLK Way, with the potential to extend further through related Adeline improvement efforts.

- B. **Adeline Design.** Reconfigure Adeline Street to transform a four-lane arterial into a safer space for all modes of transportation, creating a more walkable, vibrant place..

Priorities for North Berkeley

- A. **Adjacent Streets.** Consider the role and design of adjacent streets – including Sacramento Street, Delaware Street, Virginia Street, and Acton Street – in multi-modal access planning for the North Berkeley Station.
- B. **Commuter Parking Priority.** Where parking would be provided, maximize parking for commuters over parking for residential and/or potential community, non-profit, or retail uses.

DRAFT

Appendix C

Historical Resources Evaluations



Rincon Consultants, Inc.

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August 12, 2021
Project No: 21-11599

Alisa Shen, Principal Planner
City of Berkeley
1947 Center Street
Berkeley, California 94704
Via email: ashen@cityofberkeley.info

**Subject: Historical Resources Evaluations for the Ashby and North Berkeley BART Stations
Transit-Oriented Development Zoning Project,
City of Berkeley, Alameda County, California**

Dear Ms. Shen:

The City of Berkeley (City) retained Rincon Consultants, Inc. (Rincon) to prepare historical resources evaluations of the Ashby and North Berkeley Bay Area Rapid Transit (BART) stations, located in Berkeley California. The historical resource evaluations are being completed to support the Ashby and North Berkeley BART stations Transit-Oriented Development Zoning Project and the project's compliance with the California Environmental Quality Act (CEQA); the City is acting as the lead agency under CEQA for the project. The historical resource evaluations included site visits, archival and background research, application of federal, state, and local historical resources designation criteria, and preparation of this memorandum. This study was prepared pursuant to CEQA Guidelines, guidance from the California Office of Historic Preservation, and applicable federal, state, and local guidelines and regulations.

Senior Architectural Historian JulieAnn Murphy, MA, conducted the architectural field survey and was co-author of this study. Architectural Historian James Williams, MA, conducted archival research and interested party outreach and was co-author of this study. Senior Architectural Steven Treffers, M.H.P., provided project oversight. Quality assurance/quality control was completed by Principal and Architectural Historian Shannon Carmack. Ms. Murphy, Mr. Williams, Mr. Treffers, and Ms. Carmack meet the Secretary of the Interior's Professional Qualification Standards (PQS) for history and architectural history (36 CFR Part 61).

Project Location

The proposed Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Project is comprised of two sites: the North Berkeley BART Station and the Ashby BART Station (Attachment A, Figure 5). The North Berkeley BART Station site encompasses four discrete lots. The largest lot comprises the BART station and immediately adjacent parking lots and measures 8.1 acres across four discrete lots (Lot A: APN 58-2146-16-5, 58-2149-19-4, 58-2147-18-5, and 58-2148-17-4; Lot B: 58-2144-24-1; Lot C: 58-2139-18-3; and Lot D: 60-2417-67-4; Attachment A, Figure 6). Lot A centers on the BART station building and is bound by Sacramento Street, Delaware Street, Acton Street, and Virginia Street in north Berkeley. The approximately 6.27-acre property is comprised of the station entrance building, surface parking, and a BART operations building. The site is relatively flat, and the site contains landscaping



vegetation and mature trees, and is located in the northwest area of Berkeley, which is generally characterized by residential development. Northwest across Virginia Street from Lot A are Lots B and C, each consisting of a surface parking lot. The former is bounded by Franklin Street, Virginia Street, and private property, while the latter is situated between Franklin Street and Virginia Gardens, with private property located to the immediate north and south. Lot D comprises the current sites of the Peralta and Northside Community Gardens. It is bounded by Peralta Avenue, Northside Avenue, the BART right of way, and private property.

The Ashby BART Station project site consists of two distinct parcels, separated by Adeline Street. The BART Station and its associated parking lot is located west of Adeline Street on a 4.4-acre parcel (APN 53-1597-39-4; Attachment A, Figure 7). This parcel makes up the block surrounded by Adeline Street, Ashby Avenue and Martin Luther King Jr. Way. There is an additional 1.9-acre surface parking lot located on the east side of Adeline Street (APN 53-1703-9) on the block surrounded by Woolsey Street, Tremont Street, Adeline Street and Essex Street that is not associated with the historic development of the Ashby BART Station site but is included as part of the proposed project. Adeline Street and the Ed Roberts Campus are located between the two parcels and the northern portion of the 4.4-acre parcel is used by the Berkeley Flea Market on weekends. The Ashby BART Station site is located along the Adeline Street corridor, which is a commercial/ mixed-use corridor that runs through south Berkeley. The site is surrounded by a mix of uses, including residential, commercial, educational, and institutional uses. The 4.4-acre parcel west of Adeline Street contains a BART station entrance and surface parking totaling 348 spaces. The area generally has a high volume of station-bound pedestrian, bicycle, and bus traffic.

Regulatory Setting

This section includes a discussion of the applicable state and local laws, ordinances, regulations, and standards governing cultural resources, which must be adhered to before and during implementation of the proposed project.

California Environmental Quality Act

California Public Resources Code (PRC) Section 21804.1 requires lead agencies determine if a project could have a significant impact on historical or unique archaeological resources. As defined in PRC Section 21084.1, a historical resource is a resource listed in, or determined eligible for listing in, the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources or identified in a historical resources survey pursuant to PRC Section 5024.1(g), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant. PRC Section 21084.1 also states resources meeting the above criteria are presumed to be historically or cultural significant unless the preponderance of evidence demonstrates otherwise. Resources listed in the National Register of Historic Places (NRHP) are automatically listed in the CRHR and are, therefore, historical resources under CEQA. Historical resources may include eligible built-environment resources and archaeological resources of the precontact or historic periods.

Three categories of historical resources have been established through previous legal precedent.¹ These include:

¹ See *Valley Advocates v. City of Fresno* (2008) No. F050952 and *League for Protection of Oakland's Architectural and Historic Resources v. City of Oakland et al.* (1997) No. A074348.



- *Mandatory historical resource.* A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources.
- *Presumptive historical resource.* A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements in section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- *Discretionary historical resource.* Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources.

According to CEQA, an impact that results in a substantial adverse change in the significance of a historical resource is considered a significant impact on the environment. A substantial adverse change could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired (CEQA Guidelines §15064.5 [b][1]). Material impairment is defined as demolition or alteration in an adverse manner [of] those characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR or a local register (CEQA Guidelines §15064.5[b][2][A]).

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC §21083.2[a], [b]).

Section 15126.4 of the CEQA Guidelines stipulates an EIR shall describe feasible measures to minimize significant adverse impacts. In addition to being fully enforceable, mitigation measures must be completed within a defined time period and be roughly proportional to the impacts of the project. Generally, a project which is found to comply with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (the Standards) is considered to be mitigated below a level of significance (CEQA Guidelines Section 15126.4 [b][1]). For historical resources of an archaeological nature, lead agencies should also seek to avoid damaging effects where feasible. Preservation in place is the preferred manner to mitigate impacts to archaeological sites; however, data recovery through excavation may be the only option in certain instances (CEQA Guidelines Section 15126.4[b][3]).

National Register of Historic Places

Although the project does not have a federal nexus, properties which are listed in or have been formally determined eligible for listing in the NRHP are automatically listed in the CRHR. The following is therefore presented to provide applicable regulatory context. The NRHP was authorized by Section 101 of the National Historic Preservation Act and is the nation's official list of cultural resources worthy of



preservation. The NRHP recognizes the quality of significance in American, state, and local history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects. Per 36 CFR Part 60.4, a property is eligible for listing in the NRHP if it meets one or more of the following criteria:

- Criterion A** Are associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B** Are associated with the lives of persons significant in our past.
- Criterion C** Embody the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D** Have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting at least one of the above designation criteria, resources must also retain integrity. The National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, defined as follows:

- Location** The place where the historic property was constructed or the place where the historic event occurred.
- Design** The combination of elements that create the form, plan, space, structure, and style of a property.
- Setting** The physical environment of a historic property.
- Materials** The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- Workmanship** The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- Feeling** A property's expression of the aesthetic or historic sense of a particular period of time.
- Association** The direct link between an important historic event or person and a historic property.

California Register of Historical Resources

The CRHR was established in 1992 and codified by PRC §§5024.1 and 4852. The CRHR is an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change (Public Resources Code, 5024.1(a)). The criteria for eligibility for the CRHR are consistent with the NRHP criteria but have been modified for state use in order to include a range of historical resources that better reflect the history of California (Public Resources Code, 5024.1(b)). Unlike the NRHP however, the CRHR does not have a defined age threshold for eligibility; rather, a resource may be eligible for the CRHR if it can be demonstrated sufficient time has passed to understand its historical or architectural significance (California Office of Historic Preservation 2006). Further, resources may still be eligible for listing in the CRHR even if they do not retain sufficient integrity for NRHP eligibility (California Office of Historic Preservation 2006). Generally, the California Office of Historic Preservation recommends resources over 45 years of age be recorded and evaluated for historical resources eligibility (California Office of Historic Preservation 1995:2).



Properties are eligible for listing in the CRHR if they meet one or more of the following criteria:

- Criterion 1** It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Criterion 2** It is associated with the lives of persons important in our past.
- Criterion 3** It embodies the distinctive characteristics of a type, period, region or method of installation, or represents the work of an important creative individual, or possesses high artistic values.
- Criterion 4** It has yielded or may be likely to yield information important in prehistory or history.

City of Berkeley

Chapter 3.24 of the City of Berkeley Municipal Code, also known as the Landmarks Preservation Ordinance, establishes the Landmarks Preservation Commission (LPC). The LPC maintains a list of structures, sites and areas, including landmarks and historic districts, having a special historical, architectural, or aesthetic interest or value. Criteria for designation are as follows.

- A. Landmarks and historic districts. General criteria which the commission shall use when considering structures, sites, and areas for landmark or historic district designation are:
 - 1. Architectural merit:
 - a) Property that is the first, last, only or most significant architectural property of its type in the region;
 - b) Properties that are prototypes of or outstanding examples of periods, styles, architectural movements or construction, or examples of the more notable works of the best surviving work in a region of an architect, designer or master builder;
 - c) or Architectural examples worth preserving for the exceptional values they add as part of the neighborhood fabric.
 - 2. Cultural value: Structures, sites and areas associated with the movement or evolution of religious, cultural, governmental, social and economic developments of the city;
 - 3. Educational value: Structures worth preserving for their usefulness as an educational force;
 - 4. Historic value: Preservation and enhancement of structures, sites and areas that embody and express the history of Berkeley/Alameda County/California/United States. History may be social, cultural, economic, political, religious or military;
 - 5. Any property which is listed on the National Register described in Section 470A of Title 16 of the United States Code.
- B. Structures of merit. Criteria which the commission shall use when considering a structure for structure of merit designation are as follows:
 - 1. General criteria shall be architectural merit and/or cultural, educational, or historic interest or value. If upon assessment of a structure, the commission finds that the structure does not currently meet the criteria as set out for a landmark, but it is worthy of preservation as part of a neighborhood, a block or a street frontage, or as part of a group of buildings which includes landmarks, that structure may be designated a structure of merit.
 - 2. Specific criteria include, but are not limited to one or more of the following:



- a) The age of the structure is contemporary with (1) a designated landmark within its neighborhood, block, street frontage, or group of buildings, or (2) an historic period or event of significance to the city, or to the structure's neighborhood, block, street frontage, or group of buildings.
- b) The structure is compatible in size, scale, style, materials or design with a designated landmark structure within its neighborhood, block, street frontage, or group of buildings.
- c) The structure is a good example of architectural design.
- d) The structure has historical significance to the city and/or to the structure's neighborhood, block, street frontage, or group of buildings. (Ord. 5686-NS Section 1 (part), 1985; Ord. 4694-NS Section 3.1, 1974)

The LPC is also responsible for reviewing and deciding on permit applications for alterations to such structures and sites. According to Section 3.24.200, "No person shall carry out or cause to be carried out on a designated landmark, in a designated historic district or structure of merit, any construction, alteration, or demolition for which a City permit is required, without approval by the commission." To allow demolition of a landmark, the LPC must find that it "is in such condition that it is not feasible to preserve or restore it, taking into consideration the economic feasibility of alternatives to the proposal, and balancing the interest of the public in preserving the designated landmark, historic district or structure of merit or portion thereof and the interest of the owner of the landmark site, historic district, or structure of merit site in its utilization.

Methodology

Background and Archival Research

Background and archival research for this study was completed throughout June and July 2021. Research methodology focused on the review of a variety of primary and secondary source materials relating to the history and development of the area surrounding the APE. Sources included, but were not limited to, historic maps, aerial photographs, and written histories of the area. Due to the COVID-19 pandemic, the background and archival research was limited to digital sources and other materials available via online archives and repositories. In addition to those identified in the references section of this study, below is a list of resources and repositories that were consulted as part of this effort.

- *Cultural Resources Technical Report, Adeline Corridor Specific Plan* (Archaeological/Historical Consultants with JRP Historical Consulting, 2018)
- *City of Berkeley Downtown Area Plan Historic Resource Evaluation* (Architectural Resources Group, 2008)
- Shattuck Avenue Commercial Corridor Historic Context and Survey (Archives & Architecture, 2015)
- Historic aerial photos accessed via University of California, Santa Barbara Map & Imagery Lab and NETRonline
- Historic topographic maps accessed via United States Geological Survey
- Sanborn Fire Insurance Company Maps accessed digitally via Los Angeles Public Library
- Historical newspaper articles and advertisements accessed online at newspapers.com



- *BART: The Dramatic History of the Bay Area Rapid Transit System* (Healy 2016)
- *A History of the Key Decisions in the Development of Bay Area Rapid Transit* (Grefe and Smart 1975)
- Original architectural and engineering drawings of the Ashby and North Berkeley BART stations

Recent social history such as associated with the subject BART stations is generally best understood from first-person accounts and other primary sources. As such, Rincon contacted interested parties identified both by the City of Berkeley and Rincon who may have direct knowledge relating to the cultural and social history of the BART stations. However, due to the COVID-19 pandemic, these efforts were largely limited to email correspondence. Rincon requested information pertinent to the historic context in which the subject BART stations were developed and operated and the potential significance of the Ashby BART Station to Berkeley's African American community. None of the individuals or institutions contacted provided information of consequence that related to the project. Below is a list of individuals and institutions Rincon contacted during outreach.

- Stephanie Johnson, Commissioner, Berkeley Landmarks Preservation Commission
- Donna Graves, Consulting Historian
- Berkeley Architectural Heritage Association
- Berkeley Historical Society
- African American Museum and Library at Oakland
- Susan D. Anderson, History Curator and Program Manager, California African American Museum

Built-Environment Field Survey

Architectural Historian JulieAnn Murphy, MA, conducted an historical resources survey of the Ashby and North Berkeley BART stations and their respective surroundings on June 30, 2021. Ms. Murphy visually inspected all the built-environment features at each site to assess overall condition and integrity and to identify and document any potential character-defining features. All built-environment features were documented with digital photographs and detailed notes. Copies of the digital photographs are maintained at the Rincon Ventura office. To confirm the historical resources eligibility of the North Berkeley and Ashby BART stations, both stations were recorded and evaluated for listing in the NRHP, CRHR, and local listing on California Department of Parks and Recreation (DPR) 523 forms, which are included in Appendix B and summarized below.

Focused Historical Context

The following narrative is presented to provide a focused historical context in which to understand the potential significance of the Ashby and North Berkeley BART stations.

Development of Transit in the Bay Area: The Horsecar Era to the Electric Streetcar (1861-1946)

The development pattern of the San Francisco Bay Area largely reflects the transit development patterns of the greater United States. Sparsely populated until the Gold Rush in 1849, by the mid nineteenth century the area was growing rapidly and emerging as a metropolitan region with transportation between cities. By 1850 there was a stage line between San Francisco and San Jose as well as ferry service between San Francisco and Oakland (Callwell 1999). The first omnibus began to



service San Francisco in 1851. Rail service between San Francisco and San Jose began in 1863, with stops along the Peninsula. In 1872 Hallidie's cable car began running and soon thereafter cable car and rail service expanded through San Francisco's expanding boundary (Caldwell 1999). The cable car service would eventually become San Francisco Municipal Railway (Muni) and was good but limited to intra-city service (Healy 2016).

In the East Bay, there were parallel transportation developments. In addition to ferry service to San Francisco, there was rail service extending from Oakland to surrounding communities including Berkeley. The first electric streetcars began to appear on both sides of the San Francisco Bay in the 1890s. By the turn of the twentieth century, San Francisco was the largest city on the West Coast and the region's transit was growing to accommodate the population and growing economy. The San Francisco, Oakland, and San Jose Railway began running in 1903 and provided electric rail service in the East Bay to ferries that continued to San Francisco (Healy 2016). By 1916 the rail was comprised of 250 miles of track. Then known as the Key System because its track configuration resembled a skeleton, it was the region's dominant transit system.

After World War I, the Bay Area saw another period of significant growth and the need for improved cross-bay transit became imperative. The Oakland - San Francisco Bay Bridge opened in 1936 and its lower deck accommodated the Key System streetcars, supplanting the previous ferry service (Figure 1). The Golden Gate Bridge opened the following year (Healy 2016).

Figure 1 1940s Image of Key System Streetcar crossing Bay Bridge



Source: foundsf.org

In the years leading up to World War II, several studies were conducted to investigate possibilities improve cross bay transit with additional bridges. During the post-World War II years, the nine counties of the Bay Area doubled in size, with most development occurring in the suburbs while San Francisco and Oakland remained the primary employment centers. The Key System was suffering from deferred maintenance during the war and the new owners (a holding company for General Motors) cut service. That, along with the popularity of the automobile caused ridership to fall from 22 million in 1946 to 9.8 million by 1952 (Healy 2016). By 1948 Key System trains were replaced by busses (Healy 2016).

Planning for BART (1946-1962)

The need for a more robust regional transit system was clear as early as 1946 when the state legislature passed a bill for a Joint Army Navy Board to study the possibilities of cross-bay transit. In 1947 the Board recommended that an “adequate system of rapid mass transit be a component of the overall general scheme to solve the Bay Area transportation problems over an extended period of years” (Healy 2016). In 1951 San Francisco Board of Supervisor, Marvin Lewis drafted an amendment to 1949 transit legislation and the San Francisco Bay Area Transit Commission was signed into law by the state legislature (Healy 2016). In 1953 the Commission awarded a contract to Parsons, Brinkerhoff, Hall, and MacDonald (PBHM) to author the land use and transit report, which after studying the area’s travel



patterns proposed that a high-speed, grade separated regional rapid transit was critical as complementary to the highway system.

The San Francisco Bay Area Rapid Transit District (BARTD) was signed into law in September 1957. The District was comprised of five core counties: Alameda, Contra Costa, Marin, San Francisco, and San Mateo (Healy 2016). BARTD viewed the initiative as imperative, witnessing regional growth that was expected to continue and further stress existing freeways and bridges. They decided to get the initiative on the November 6, 1962 general election ballot and spend the 2 years approaching the election running an information campaign to encourage people to vote for a tax to build the project (Healy 2016). PBHM recruited the Bechtel Corporation and Tudor Engineering (PBTB) to form a joint venture to launch a number of studies and refine engineering considerations.

By early 1962, Marin County and San Mateo County withdrew from the project (Grefe and Smart, 1975; Healy 2016). In May 1962, PBTB revised the Composite Report to include the three remaining counties – Alameda, Contra Costa, and San Francisco. The initiative went on ballot on November 6, 1962 and passed with just over 61 percent of the vote (Healy 2016). The vote approved rapid transit bond funding and the use of state bridge tolls to fund the construction of the transbay tube.

Designing BART and Community Participation (1962-1964)

The Composite Report was just a selling tool and not the definitive design. After the passage of the bond measure in 1962, the system had to be planned in detail, engineered, and designed. BART would be the first new transit designed in whole since the Philadelphia transit system was designed in 1907 (Healy 2016: 62). The final route design would be an askew “X” with Oakland as the East Bay hub with a third of the track at grade, a third aerial, and a third underground. Parking would be provided at all suburban stations. Systemwide, 20,000 spaces were constructed (Healy 2016).

After the engineering contract was awarded in 1962 and defended from a lawsuit arguing the bond referendum was invalid because the public had not been given the true scope of the project in 1963, BARTD had to negotiate the right of way agreements with communities and purchase parcels to build the track and stations. The engineers assumed that lines and stations identified in the initial reports and again in the Composite Report would be accepted and the process for acquiring land would be routine. Communities, however, began to demand a participatory process (Healy 2016). PBHM met with City Councils and Boards of Supervisors in all jurisdictions through which the travel corridors passed in 1953-1955 (Grefe and Smart, 1975). Many jurisdictions, however, did not have planners at the time. While the general requirements of the cities were initially met, when acquiring right of way permissions after the passage of the bond issue in 1962, BART was faced with accommodating extensive local requirements that initial cost estimates failed to include (Grefe and Smart 1975). BARTD’s policy was to accommodate local demand within their financial capabilities (Grefe and Smart 1975).

BARTD sought popular acceptance by the communities. At the same time, communities, growing from local activist movements were asking for a participatory process to discuss station locations, designs, color schemes, landscaping, route tracking, and noise abatement (Healy 2016). BARTD continued the pursuit of acceptance until the expense of meeting local demand was overbearing. The most intense disagreements were in response to BARTD’s plans to construct track on a viaduct, above ground within the city limits of Berkeley. In 1963, Berkeley’s incoming mayor Wallace Johnson strongly opposed the above-ground track arguing it would be an eyesore and further divide the city by race, separating the city’s predominately white and black neighborhoods (Grefe and Smart 1975). Despite a public process with hearing and negotiations, the City of Berkeley and BARTD could not reach an acceptable

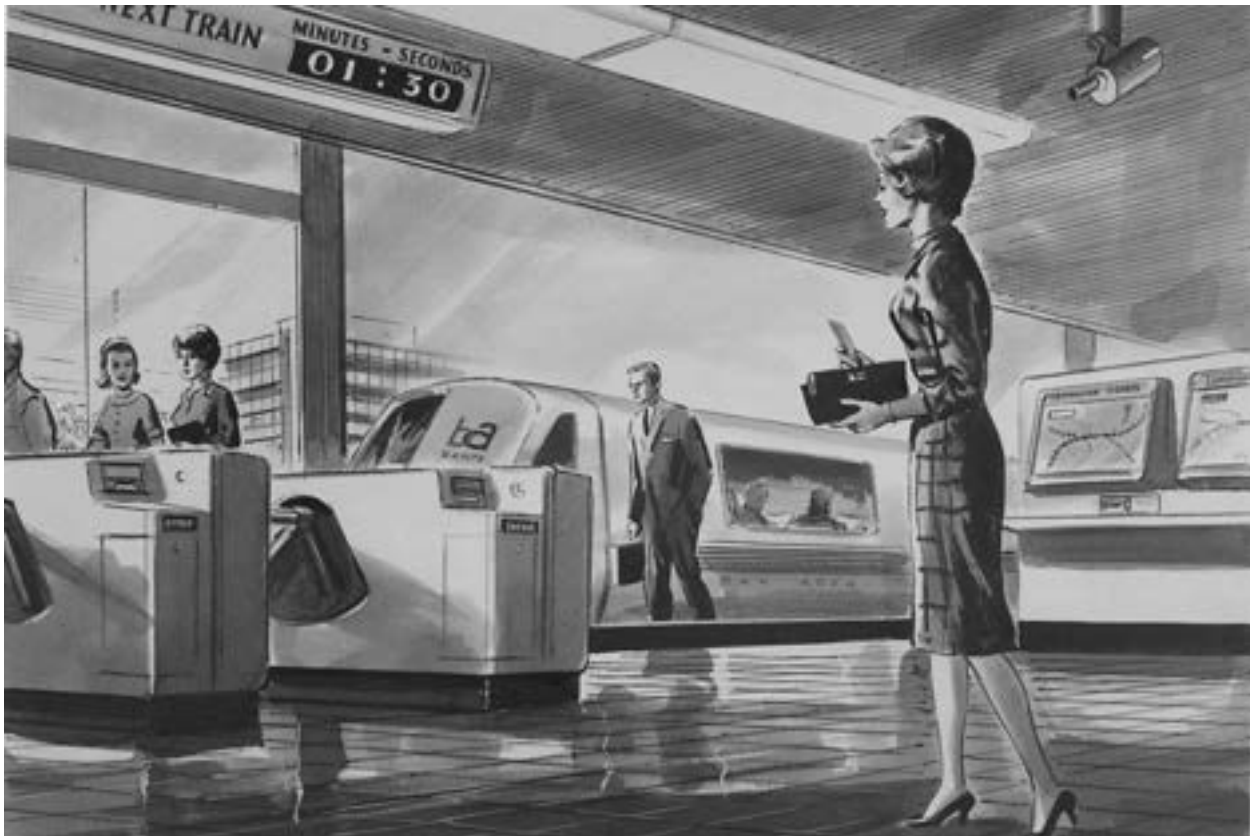
compromise. In 1966, the City of Berkeley voted to establish a special tax district to cover the estimated \$25 million to build a subway through the city, leading to considerable construction delays.

The undergrounding of BART in Berkeley was the most contentious community-led conflict with BARTD, but it was not the only one. In Oakland, the line would require the demolition of the city's major hardware store, Simon's Hardware, Inc. BARTD altered the track configuration, leading to a permanent requirement for trains slow to 25 miles per hour at the newly designed wye. In Albany, the city was concerned with a proposed station that would take property off the tax rolls, leading BARTD to move the station to El Cerrito. In San Francisco, neighborhoods in the western region feared impacts of the system, leading BARTD to remove a segment beyond West Portal from its plans. An additional station was added at Embarcadero to serve the emerging commercial and hotel district resulting from the ongoing redevelopment in the area (Healy 2016).

BART's Architecture and Expansion (1964 – Present)

In designing the stations, BARTD knew as General Manager BR Stokes described that in order to “attract drivers out of their cars it must be sleek, comfortable, convenient, and cheap,” (Healy 2016). The system would naturally adhere to modern architectural design, landscape architecture, graphic design, and industrial design, thereby reflecting its technological achievements (Figure 2). The Composite Report included renderings reflecting the modernistic aesthetic.

Figure 2 1965 Rendering of BART Station Design



Source: BART



The scope of the architectural design was increased substantially over what was described in the Composite Report which envisioned designs based on standardized features. Instead BARTD made use of separate architectural firms to design stations with individual design elements (Grefe and Smart 1975). PBTB hired Donn Emmons, partner at Wurster, Benardi & Emmons (WBE) to be the project's consulting architect. The work of the consulting architects resulted in the development of the *Manual for Architectural Standards* for BART (Grefe and Smart 1975). The manual, completed in 1965, provided for elements that should be included in each station design, including ticket kiosk locations, vertical circulation, acoustic requirements, site layout requirements, and the number of entrances (Architectural Forum 1966). The information in the manual was largely functional, providing minimum design standards and physical requirements and did not include guidance for architectural style. In tandem with the Manual for Architectural Standards, landscape architect, Lawrence Halprin, was hired as chief landscape architect and authored a corresponding landscape guide, *The Landscape Design Criteria and Standard Landscape Elements*. It established a list of acceptable plants and standard elements for station plazas (Architectural Forum 1966).

Project architects were given latitude with stations design but were constrained by the manual and the site plan, frustrating some architects. Ultimately, stations were designed by 14 Bay Area firms, selected from a list compiled by Emmons. The result was a variety of station designs, ranging from utilitarian to inspired. In addition to constraints from the prescriptions by PBTB in the manual and the development of the site plans, architects were limited by the station type. Designers used finishes and materials to distinguish their work, including the placement of openings, lighting, and artwork. Some architects used more innovative features like rotundas, sunken plazas, or new use of materials (Architectural Record 1974).

Construction was underway in 1965 and by 1968 over half of BART's system construction was complete (Healy 2016). BART opened to public service on Monday, September 11, 1972. However, only a small fleet of trains were available and 12 stations between Fremont and MacArthur were serviced. The transbay tube, allowing trips between San Francisco and Oakland, did not officially open for another two years. In its first 3 months of operation, 1 million passengers used BART. By 1978, BART offered weekend service, proving its viability as a transit option beyond the workweek (Healy 2016). In the following years, BART worked on refining service. During the 1990s three service route extensions were planned – Daly City to SFO to Millbrae, Concord to Antioch, and Bay Fair to Dublin/Pleasanton. Today, BART has expanded to 50 stations and includes 131 miles of track, serving over 400,000 passengers weekly (BART 2021).

Historical Resource Evaluation Findings

As discussed above, the North Berkeley and Ashby BART stations were recorded and evaluated to establish if they qualify as historical resources pursuant to CEQA. A physical description, site history, and evaluation for NRHP, CRHR, and local designation eligibility is included below and in the attached California DPR 523 forms. Although the surface parking immediately east of the Ed Roberts Campus is included within the project site for the Ashby BART Station, it was not historically part of the BART station property. It does not possess any built-environment features which warrant consideration as potential historical resources and therefore is not discussed further as part of this study.

North Berkeley BART Station

Constructed between 1969 and 1973, the North Berkeley BART Station is a subway station with an above-ground station building and subterranean tracks and station platform. The roughly 8.1-acre square property is two blocks long on all sides, with the station building located at approximately the center. The remaining area is occupied by an electrical substation building, surface parking lot and internal circulation network, and landscaping. A dual-track underground rail alignment passes diagonally from roughly the intersection of Sacramento and Delaware streets at the southeast corner of the property to the junction of Virginia and Acton streets at the northwest corner.

Situated on a terraced grade, the station building exhibits elements of the New Formalist style of architecture (Figure 3). Its roughly circular footprint is defined primarily by reinforced-concrete exterior walls consisting of two sets of concentric arcs. Cladding is generally aggregate-finish panels, though the extending window structures are flanked by concrete walls. The bi-level conical roof is low-pitched and clad in metal panels that taper as they approach the roof's center point. The lower level of the roof makes up a broad heavy overhang, faced with metal panels. A series of exposed concrete beams lay over the overhang, supporting the upper level of the roof. The upper level of the roof culminates in an oculus filled with a metal-framed skylight. Additional fenestration includes a series of windows situated between the two levels of the roof and the pair of ground-level window structures that extend to the northeast and southwest. Exterior elements suggesting the influence of New Formalism include the building's general symmetry, metal-panel-clad entablature, and oculus penetrating the center of the roof.

Figure 3 North Berkeley BART Station Building, South Elevation, Facing North





Recessed portals on the north side of the station building provide access to the station concourse. Located just past the entrance, the metal-clad information booth is flanked by fare gates. The interior is dominated visually by the exposed concrete roof beams and the central skylight. Interior walls are generally clad with panels of an undetermined material. At the center of the concourse, a large, rectangular opening accommodates a pair of concrete staircases, which descend to the platform level. Escalators are located on opposing sides of the station, beneath the ground-level skylights.

Flanked by the subway tracks, the platform aligns with the adjacent rails, extending in both directions beyond the station building's perimeter. The portion of the ceiling directly above the platform consists of an exposed metal framework, tile cladding, and ceiling-mounted light fixtures. Above the tracks, the ceiling is characterized by exposed metal trusswork. The cross beams of the platform ceiling provided a rhythmic element echoed in the panels lining the walls adjacent to the outer rails. The station building is in fair condition and has incurred minimal alteration.

Hardscaping in the area adjacent to the station building consists chiefly of a brick-lined plaza. Situated on slightly sloping terrain, the brickwork exhibits a common-bond pattern, much of which is laid in concentric arcs that echo the building's circular footprint. The arced courses of brick are interrupted in several places, however, by swaths of brick various divergent patterns. At the north and west sides of the plaza, the terrain slopes more dramatically. At this location, timber retaining walls contain the exposed earth. While the north side consists of a single slope descending from the plaza to the surface parking lot, the retaining structures on the west side form a three-level terrace. The exposed area there is planted with a combination of mature trees, shrubs, and ground-cover vegetation. At opposite ends of the west side, straight concrete steps with metal rails connect the plaza and parking lot levels.

A utility building is located northwest of the station, at the southeast corner of Virginia and Acton streets. Utilitarian in design, the building has a rectangular plan and rises a single story to culminate in a flat roof with rolled composition cladding. Stucco cladding conceals the building's structural system, which may be of concrete-panel construction, as suggested by seams apparent on the exterior. Entrances are located on the north and west elevations and feature solid standard-size wood doors and an equipment or vehicle bay door. While the building is windowless, large louvered vents punctuate the north, south, and east elevations. The area around the building is enclosed by a wall made up of aggregate-finish panels like those on the station building's exterior.

Additional minor structures are located intermittently through the east side of the property. Situated along Sacramento Street, southeast of the station building, is an above-ground station elevator. The elevator shaft is housed in a stucco clad structure with the entrance facing the parking lot to the west. A heavy overhang extends to the north, supported partially by a blade wall. A second wing wall extends to the south.

Just outside the station is an open-air bus shelter consisting of a circular concrete roof supported by a concrete column. Partial walls radiate from the column in four directions. Each wall consists of a pre-cast concrete knee wall with a wood-framed window situated atop. Affixed to the walls are L-shaped metal benches. Another bus stop shelter is located immediately east of the station building. Similar in design to its counterpart, the structure consists chiefly of a concrete rectangular roof and concrete column. The space beneath the roof is similarly spaced by concrete dividers with wood-framed windows. Straight benches are affixed to the walls.

The surface parking lot borders the station building on all four sides. A portion of the area just east of the station is reserved for bus transfer points. Parking areas in the northern two thirds of the facility are



connected by a gridwork of internal roadways. Landscaping in the parking and bus transfer and parking areas consists of mature trees and shrubs planted along circulation routes, in parking lot islands, and along the perimeter of the property.

Additional site photographs of the North Berkeley BART Station are included in Attachment A, Figures 8 through 14.

Property History of the North Berkeley BART Station

By the late 1870s, much of the North Berkeley area, in which the North Berkeley BART Station is located, was subdivided for residential development. The earliest development of the station site followed the opening of the Curtis Tract, a subdivision owned by Michael Curtis, an Irish immigrant who began farming in the area by 1852 (Maley and Watson 2016; Thompson and West 1878). Historical news items indicate the Curtis family began selling portions of the Curtis Tract by the late 1870s (San Francisco Examiner 11/5/1877; Oakland Tribune 3/12/1880). Historical property maps and United States Geological Survey topographical maps show that the existing street grid was planned and possibly developed by 1890, and some development, likely residential, took place by 1900 in the vicinity of all four lots comprising the North Berkeley BART Station site (NETROnline 1900; Bailey 1890).

In the first 3 decades of the twentieth century, development of the station site and its surroundings followed alongside the growth of the nearby West Berkeley industrial district (City of Berkeley n.d.). By 1911, the Santa Fe Railroad was constructed along a north-south alignment through the neighborhood on nearby West Street. This corresponding growth was limited however, consisting mostly of scattered single-family residences (ProQuest 1911). By 1929, Berkeley's continued growth led to substantial residential development in the neighborhood. A sign of this growth, a right-of-way was reserved for the Key System's Westbrae streetcar shuttle, passing through the neighborhood on a northwest-southwest trajectory and meeting with the Santa Fe Railroad right of way near the intersection of West and Cedar streets. Outside the Key System right-of-way, the station site was developed with single-family homes (ProQuest 1929).

In the decades following World War II, there were few notable changes to the built environment of the neighborhood surrounding the North Berkeley BART Station sites. In 1948, the Key System ended local streetcar service, and the Westbrae Shuttle right-of-way was abandoned (ModernTransit.org 2021). Although some sections of the alignment were developed with residential uses, construction of the BART Richmond line through the neighborhood followed segments of the existing Key System and Santa Fe Railroad rights of way (NETROnline 1946; 1958; 1959; 1968; 1990). The site of North Berkeley BART Station retained its residential character until the 1960s, when BART demolished the residential buildings on the site to allow for construction of the station (NETROnline 1959-1986).

PBTB's original design for the Berkeley segment of the BART system called for elevated tracks placed on street medians throughout the city (Healy 2016). City of Berkeley officials objected to the aerial rail design, and in 1960, the Berkeley City Council passed resolution that called for the BART system within Berkeley to be constructed entirely as a subway. Negotiations with the City-led PBTB to propose a compromise by which BART would construct a subway segment in downtown Berkeley (mostly along Shattuck Avenue between Derby Street and the intersection of University and Milvia avenues). The remainder of the Berkeley route, roughly three miles of tracks, would be elevated. These changes were incorporated into the Composite Report, released in Spring 1962 to the various city and county



jurisdictions through which BART would be routed. PBTB believed a lack of official response from the municipalities indicated approval of the designs contained Composite Report (Healy 2016).

In 1963, Wallace Johnson, who had recently been elected mayor, objected. Now known as the “the last Republican mayor of Berkeley,” Johnson graduated from the California Institute of Technology with a background in engineering before entering local politics. Johnson objected to the aerial tracks and stations, believing they were “aesthetically unattractive” and threatened to “divide the city psychologically along racial lines,” in the words of historian Michael C. Healy. Indeed, as Healy notes, for much of its course through Berkeley, the BART line would run parallel to, and just east of, Grove Street (now Martin Luther King, Jr. Way) which historically marked the unofficial boundary between Berkeley’s White and Black neighborhoods (Healy 2016; Lorey 2013).

Led by Johnson, the City pressured BART and PBTB to redesign the Berkeley segment as entirely underground alignment, but BART objected due to the comparatively high price tag of subway construction. In July 1963, the City requested BART release a cost comparison of the elevated and subway alternatives. Meanwhile, Johnson formed a committee to plan for covering part of the excess costs of putting the line underground. The City’s independent study estimated the difference in cost between BART’s proposal and an entirely underground alignment would be approximately \$6 million. In March 1964, BART issued its own cost estimates, which concluded the added cost of placing the tracks and two stations underground would total \$21 million. In subsequent negotiations, neither party was open to renegotiating (Healey 2016).

Johnson and other members of the Berkeley community began campaigning publicly against the aerial segments. Johnson paid to have 30-foot-tall scaffolding erected near the proposed North Berkeley and Ashby BART Station sites to represent the height of the aerial elements. The Berkeley Citizens Committee collected \$14,000 in donations to wage a public information campaign consisting of the placement of large signs reading ‘BURY THE BART TRACKS’ in locations around the city and paid for the airing of advertisements on the local radio station KPFA (Healy 2016).

Negotiations between BARTD and the City resumed in May 1964, with as many as 20 sessions held between May and August. Both parties issued revised cost estimates, with BARTD projecting \$24 to \$30 million in additional expenditures and the City \$11 million. In September 1964, the BARTD board of directors unanimously rejected Berkeley’s request for a subway line, unless Berkeley could come up with the money to cover the difference in cost between the aerial and subway alternatives (Healy 2016).

As a result of behind the scenes talks between Johnson and BARTD president Adrien Falk, BARTD agreed to advertise two sets of bids for the Berkeley alignment—one for aerial construction and the other for a subway—as a means of settling the dueling cost projections at the heart of the standoff. In the interim, the City would work out details of financing the added construction costs. Johnson persuaded the City Council to establish Special District No. 1, a special assessment district comprised of the entire city and throughout which taxpayers would vote on a \$20.4 million bond issue to finance excess construction costs due to the construction of the subway. The issue went to the ballot in October 1966, with 80 percent voting to approve the bond issue. Eventually, the low bid for subway construction (1968) came in at around \$12.4 million, about \$2.4 million more than Berkeley officials estimated and with a price tag that could be covered by Berkeley’s bond issue (Healy 2016). As a result, the Berkeley segment of the BART alignment would be constructed as a subway.

BART hired the architecture firm Kitchen and Hunt to design the North Berkeley BART Station in collaboration with BART engineers PBTB. Further details on the partnership of Kitchen and Hunt are



detailed below. Drafted in 1967, the designs for the North Berkeley BART Station called for the rails and platform to be located underground, with rails throughout the Berkeley segment situated up to 40 feet beneath the street level. Above, a surface-level station building bearing New Formalist-style influences would be surrounded on all four sides by a large surface parking lot. The northwest corner of the site was reserved for a one-story utility building (BART 1967; Oakland Tribune 9/20/1967).

The subway designs developed in 1967 for the North Berkeley BART Station and the nearby Ashby Station both contained above-ground elements and were not, strictly speaking, subways, as called for in the 1966 bond measure. However, the North Berkeley BART Station's design was not subject to the same degree of controversy as that of the Ashby BART Station. South Berkeley neighborhood activists charged that above-ground elements included in the designs for the latter facility amounted to an impassable two-and-a-half-block barrier that traced a portion of the unofficial boundary between Berkeley's Black and White neighborhoods. A 1967-1968 lawsuit that community members filed against BART was resolved in favor of the plaintiffs, forcing BART to redesign the station without many of the offending street-level elements. Although contemporary newspaper reporting suggested the North Berkeley BART Station's above-ground design was implicated in the lawsuit, neither a comparison of the 1967 designs (which predated the court decision) with the station's current appearance nor any information covered by research conducted for this evaluation suggests the designs for any above-ground portions of the North Berkeley BART Station were substantially modified as a result of the court decision (San Francisco Examiner 5/19/1968; BART 1967).

Construction of the station and the adjacent underground tracks was complete by January 29, 1973, when service at North Station commenced with the opening of Oakland-to-Richmond extension on (Anonymous 2009). The station soon grew into a local transportation hub for subway, park-and-ride, and bus services. Few notable changes have been made to the station since its opening. However, in the 1980s, BART developed two parcels located northwest of the station as a satellite parking lots (NETROnline 2021).

Kitchen and Hunt, Architects

Kitchen and Hunt was helmed by partners Robert Sieber Kitchen and Frank Bouldin Hunt, whose best-known project may have been the Main Arena constructed for the 1960 Olympic Winter Games in Squaw Valley, California. Among the firm's other projects from the same period are several educational, commercial, and industrial properties located throughout Northern California, along with four additional BART stations: West Oakland, South Hayward, Union City, and Fremont (PCAD 2021a; Legacy.com 2021).

A native of Dayton, Ohio, Kitchen was born in 1912 in Dayton, Ohio. He attended Cornell University, where he earned his Bachelor of Architecture degree in 1935 and Bachelor of Landscape Architecture the following year. After winning the Prix de Rome, Kitchen continued his studies at the American Academy in Rome. In 1938, Kitchen relocated to New York to work in the offices of Norman Bel Geddes, where he worked as an architect and landscape architect as the firm's designed the General Motors Pavilion at the 1939 New York World's Fair. Kitchen's subsequent professional experience included stints as a draftsman for San Francisco-based architect Gardner A. Dailey (1939-1941), associate project planner for the Federal Public Housing Agency (1941-1942), and designer/landscape architect in the San Francisco offices of architect Albert F. Roller (1945- 1948). In 1948, Kitchen and Hunt formed their partnership. Kitchen was made a fellow of the AIA (FAIA) in 1964 (Legacy.com 2021; Prabook.com 2021; PCAD 2021b).



Hunt was born 1915 and graduated with a Bachelor of Architecture degree from the University of California, Berkeley in 1938. Research for this study uncovered no further details pertaining to Hunt's career prior to the formation of the Kitchen and Hunt partnership in 1948 (PCAD 2021c).

Historical Resources Evaluation of the North Berkeley BART Station

As detailed below, the North Berkeley BART Station is recommended ineligible for inclusion in the NRHP or CRHR or for designation as a City of Berkeley Landmark or Structure of Merit, because it lacks historical or architectural significance. It therefore does not qualify as a historical resource pursuant to CEQA.

National Register of Historic Places and California Register of Historical Resources Eligibility

The North Berkeley BART Station opened in January 1973, when BART initiated service along its Oakland-to-Richmond line. The planning, construction, and operation of the wider BART system arguably constitutes a significant event in the history of transportation in the San Francisco Bay Area region. However, research for this evaluation found no evidence suggesting the North Berkeley BART Station was singularly significant within this larger trend. Rather, all available evidence suggests the station's conception, construction, and operation were typical of other BART stations and public transportation facilities in general. Similarly, although the station is associated with the social activism which led to BART's undergrounding in Berkeley, there is no information to indicate it is individually significant within it. Indeed, a review of local press coverage of the public controversy and legal challenges surrounding the undergrounding of the BART system in Berkeley suggests the station's design engendered significantly less opposition than that of the Ashby BART Station and is less representative of the years-long dispute between Berkeley and BART than its counterpart. Research for this study identified no other context in which the property might possess important historical associations. The North Berkeley BART Station is therefore recommended ineligible for listing under NRHP Criterion A and CRHR Criterion 1.

The most likely candidate for significance under NRHP Criterion B and CRHR Criterion 2 is Berkeley Mayor Wallace Johnson, whose efforts in political negotiations with BART and the promotion of the successful bond Measure C, which helped lead to the undergrounding of the BART system in Berkeley, in lieu of the aerial design preferred by BART engineers. Although Johnson's contributions in this area may be of local significance, they would most likely be better represented by the full segment of the BART alignment in Berkeley than by the North Berkeley BART Station alone. An evaluation of the entire Berkeley segment of the system, however, is beyond the scope of this evaluation and additional research would be required to fully assess these potentially significant associations. Research conducted for this study identified no other individual with potentially significant associations to the North Berkeley BART Station. Therefore, the property is recommended ineligible for listing under NRHP Criterion B and CRHR Criterion 2.

Architecturally, the station is an undistinguished example of transit station featuring elements of the New Formalist style of architecture. Although the building exhibits elements representative of the style, including the strictly symmetrical form, oculus at the peak of the roof, and stylized metal-panel entablature ringing the overhang roof's lower tier, overall, its design lacks the building lacks monumentality and generally quality of design present in better examples of the New Formalist style. While the station's principal designers, the firm of Kitchen and Hunt, are noted for the design of some



prominent buildings in the Northern California region, research for this study found no evidence either partner was considered a master architect or that the station is regarded as one of the partnership's more successful designs. Because it lacks architectural distinction and is not exemplary of the work of a master, the North Berkeley BART Station is recommended ineligible for listing under NRHP Criterion C and CRHR Criterion 3.

A review of available evidence did not indicate that the North Berkeley BART Station may yield important information about prehistory or history. It is therefore recommended ineligible under NRHP Criterion D and CRHR Criterion 4.

Future research may find that the North Berkeley BART Station is eligible for listing in the NRHP or CRHR as a contributor to a historic district comprised of all or part of the BART system. However, a district evaluation of the BART system was beyond the scope of this evaluation.

City of Berkeley Landmark and Structure of Merit Eligibility

The City of Berkeley's Landmarks Preservation Commission Ordinance (Berkeley Municipal Code 3.24.110) establishes criteria for the designation of sites, structures, and areas for designation, either individually or a district basis, as Landmarks and Structures of Merit. An evaluation of the North Berkeley BART Station for local eligibility follows.

Landmark designation Criteria 1a through 1c pertain to architectural merit. Research for this evaluation found the property is not the first, last, only or most significant architectural property of its type in the region. Rather, it is one of many BART stations constructed in the region and one of three completed in Berkeley in the early 1970s (Criterion 1a). As discussed above, the station is an ordinary example of the New Formalist style of architecture as applied to a transit station. It does not qualify as a prototype of or outstanding examples of periods, styles, architectural movements, or construction. Additionally, research for this evaluation found no evidence that its designers, the architecture firm of Kitchen and Hunt, are regarded as masters (Criterion 1b). Finally, because it lacks architectural distinction, it cannot be said to add exceptional value as part of the surrounding neighborhood fabric (Criterion 1c). The property, therefore, does not meet any of the requirements for designation under Landmark Criterion 1.

The North Berkeley BART Station also lacks cultural value, for which a property may be designated under Landmark Criterion 2. Based on research for this evaluation, it should be regarded as an ordinary transit station with no singularly important associations with the movement or evolution of religious, cultural, governmental, social and economic developments of the Berkeley. Although the station is associated with the social activism which led to BART's undergrounding in Berkeley, there is no information to indicate it is individually significant within it or any other historical context. The North Berkeley BART Station is therefore recommended ineligible for designation under Landmark Criterion 2.

Likewise, because the property is an undistinguished public transit station lacking significant historical associations, it does not possess usefulness as an educational force, as required for designation under Landmark Criterion 3, nor does it have historic value that expresses the social, cultural, economic, political, religious or military history of Berkeley, Alameda County, California, United States, as required for listing under Landmark Criterion 4.

Finally, because it is not listed on the NRHP, it is not eligible for designation under Landmark Criterion 5.

A property possessing architectural merit and/or cultural, educational, or historic interest or value may be designated as a City of Berkeley Structure of Merit if it does not currently meet the criteria as set out



for a landmark but is recommended as worthy of preservation as part of a neighborhood, a block or street frontage, or as part of a group of buildings which includes landmarks per the criteria discussed below.

Based on background research for this evaluation, the North Berkeley BART Station is not eligible under Structure of Merit Criterion A, because it is not contemporary in age with any nearby designated landmark, its construction did not coincide with any important historical period or event, and it is not contemporary with the surrounding neighborhood, which was first developed in the late nineteenth and early twentieth centuries.

The property is also not compatible in size, scale, style, materials or design with a designated landmark structure within its neighborhood, block, street frontage, or group of buildings. It is therefore recommended ineligible under Structure of Merit Criterion B.

For reasons discussed above, the North Berkeley BART Station is not considered a good example of architectural design. It is therefore recommended ineligible under Structure of Merit Criterion C.

Finally, the North Berkeley BART Station was an important addition to the surrounding neighborhood in that it provided residents access to improved public transit service. This fact, however, would be true of virtually any comparable transit station, including Berkeley's other BART stations. Therefore, whatever the local importance of the station, it is not distinctive in its role in shaping transit service in the neighborhood or city. Therefore, the North Berkeley BART Station is recommended ineligible under Structure of Merit Criterion D.

Ashby BART Station

The Ashby BART Station consists principally of a below-grade subway station and adjacent surface parking lot located on the 4.4-acre triangular property bounded Adeline Street, Martin Luther King, Jr. Way, and Ashby Avenue. A satellite surface parking lot is located across Adeline Avenue to the southeast, behind the Ed Roberts Campus.

Exhibiting elements of the Brutalist style of architecture, the station building is located mostly beneath the Adeline Street right-of-way (Figure 4). Its upper-level concourse consists of the station entrances, fair gates, and means of egress to the platform level. The lower level features a station platform flanked by two sets of tracks, which within the station, follow the Adeline Street alignment. There is one visible elevation, on the west side of the building, where the main entrance is accessible from the ground level of the adjacent, below-grade surface parking lot. A concrete deck with elaborated concrete facing and supported by a system of heavy reinforced beams and fluted concrete columns shelters the station's deeply recessed, reinforced concrete exterior wall. A central entrance featuring sliding double doors is flanked by series of full-height, metal-sash fixed windows. Spaces between the windows exhibit the same pattern of fluting as do the columns. Affixed to the side of the deck are the vertical metal supporting elements of a non-original shelter structure, which has a glass canopy that extends over the deck adjoining the sidewalk on the west side of Adeline Street. Other features of the street-level exterior include a barrier on the outer edge of the deck consisting of a concrete base elaborated with geometric recesses and a sheet-metal-clad rail, in addition to two sets of concrete steps that descend to the parking lot and exposed west elevation of the station.

Figure 4 Ashby BART Station, West Elevation, Camera Facing Southeast



The west-elevation entry door opens to the concourse-level interior. The concourse interior is characterized by the exposed reinforced concrete structure of the station, which features broad horizontal members supported by square columns with fluting comparable to that found on the exterior. The floor and some wall surfaces are clad in tiles. A series of fare gates, along with an information booth and metal rail fencing, separates the entry and paid areas of the concourse. Beyond the fare gates, paired escalators and straight concrete stairways descend to the station platform.

The platform is characterized by a similar pattern of exposed concrete structural elements and tile floor cladding, in addition to exposed concrete ceiling beams, which are also visible in parts of the concourse. Walls flanking the outsides of the tracks are clad in evenly spaced panels of an undetermined material. Other features of the platform level include concrete benches, electronic reader boards displaying train arrival times and other relevant information, and interior-illuminated directional signage.

The station is in fair condition. Alterations include the installation of street-level canopies and signage and construction of a flat-roof “bike station” addition near the south end of the station proper. The west portion of the satellite parking lot was redeveloped as the Ed Roberts Campus.

Landscaping is confined to the earthen embankments encircling the station entrance and parking area and parking lot islands located throughout the primary parking lot. These planted areas feature several varieties of mature trees and shrubs. Outside the planted areas and station footprint, the property is paved in asphalt for use as parking spaces and internal circulation roadways.

Additional site photographs of the Ashby BART Station are included in Attachment A, Figures 15 through 20.



Property History of the Ashby BART Station

Urban development on and around the site that now comprises the Ashby BART Station began by the late nineteenth century. Since the 1870s, the area had been connected to Berkeley's commercial district by a Central Pacific Railroad spur line. This and subsequent rail improvements shaped development in the coming decades. A USGS map dating from 1895 shows that the street grid surrounding the present BART station was developed, and scattered residences occupied the triangular block that makes up the site (NETROnline 1895). Despite the incipient urbanization of the area, until sometime in the early twentieth century, the area around the Central Pacific's Adeline Street stop remained swampy, perhaps because of a reported "frog pond" in the vicinity (BAHA 2004).

Although the area was subdivided by the late 1880s, development was sluggish until the following decade. Two events in 1891 set the stage for the suburbanization of the area in and around the station site. First, the City of Berkeley annexed the area, bringing the promise of urban services. Next, the Oakland Consolidated Street Railroad extended interurban commuter rail service to the neighborhood. The establishment of two new streetcar lines in the neighborhood, nicknamed the "Shattuck" and the "Lorin," connected the area to a wider East Bay transit network and made commuting from the incipient suburb practicable for those who could not afford a horse and buggy. The local transportation network was expanded further in 1903, when the Key System established a streetcar connecting Berkeley to San Francisco with Adeline Street serving as one of the route's main East Bay corridors (Emmington et al. 2004). In response, members of a newly mobile workforce opted to settle farther from the urban core, and residential development intensified around the new trolley lines. Following the completion of the commercial Webb Block (1985 Ashby Avenue) and the influx of refugees from the San Francisco earthquake and subsequent fires of 1906, many of the Ashby BART Station's lots were quickly developed with residences, and a commercial district developed, filling the four corners of the Ashby Avenue-Adeline Street intersection, immediately northeast of the station site (BAHA 2004; Emmington et al. 2004).

In 1909 and 1911, two new streetcar lines were established through the area. In 1909, the Key System began service on the Ashby Avenue Line, and in 1911, Southern Pacific established the Ellsworth Line. These additions made the area a nexus of local and regional transportation routes (Emmington et al. 2004). By 1911, Sanborn maps show that the station site was almost completely developed. While the area was largely developed with single-family residences, there were scattered multi-family structures and several undeveloped parcels at the southwest corner of Ashby Avenue and Adeline Street. The present site of the adjacent Ed Roberts Campus was similarly characterized by mostly residential development, but also featured a few commercial and industrial properties along and near Adeline Street (ProQuest 1911).

Through the first half of the twentieth century, a combination of banking and real estate industry practices and government policies enforced residential segregation in Berkeley. Grove Street (now Martin Luther King, Jr. Way), which borders the Ashby BART Station on the west, became the unofficial dividing line between White and Non-white Berkeley. By the 1920s, the neighborhood west of the station site was home to a growing number of Black and Japanese-American residents (Archaeological/Historical Consultants and JRP Historical Consultants 2018; Lorey 2013). As documented by the Home Owners' Loan Corporation in the 1930s, the racial division of the area surrounding the Ashby BART Station site was made official when the area west of Grove Street was "redlined," due to its majority-non-white population (Mapping Inequality 2021). As discussed further in the following paragraphs, because the Ashby BART Station was constructed in a segregated neighborhood, this



influenced the perception that its design was discriminatory and would have a deleterious effect on Black residents living near the station site.

As of 1950, the Ashby BART Station site remained largely residential in character, though commercial and auto services were operating at the north and south ends of the block. The Ed Roberts Campus site and its surroundings were by then fully developed with a mix of commercial, light industrial, institutional properties along Adeline and single-family houses on side streets (ProQuest 1950). Mirroring a wider trend in cities across the United States, Key System streetcar service ended in the 1950s and the tracks along Adeline Street were soon removed (Archaeological/Historical Consultants and JRP Historical Consultants 2018). Historical aerial photographs show that, by the late 1960s, BART began clearing the dozens of residences and other buildings from the future station site in anticipation of construction of the Ashby BART Station and its associated parking lots (NETROnline 1958; 1968).

Through much of the 1960s, BART's plans for the Ashby BART Station were mired in the same controversy described above in *Property History of the North Berkeley BART Station*. Following approval of the Bond Measure C, a second design was drafted for the Ashby BART Station, as well as its counterpart in North Berkeley. The redesigned station proved just as controversial as PBTB's original proposal. While the tracks approaching the station would be placed underground, the new plans called for a station located partially above-ground. Specifically, a 700-foot-long, 5-foot-high skylight structure would emanate above ground level to allow natural light into the station. The structure, which would have been located in the Adeline Street median, spanning the approximately two and a half blocks between Ashby Avenue and Woolsey Street, was designed to be enclosed by a an 8-foot-high fence (Healey 2016; Oakland Tribune 3/5/1968; 3/12/1968). That the proposed station was perceived as a multi-block barrier bisecting the adjacent neighborhood was compounded by plans for an impassable segment of "transitional" tracks connecting Oakland's aerial structure to Berkeley's subway to be located immediately south of the station. When Oakland officials refused to allow the construction of the structure on their side of the boundary, BART engineers planned for their placement in Berkeley. Neighborhood activists grew concerned that the combined effect of the proposed station and transitional track structure would be a barrier spanning approximately five city blocks (Oakland Tribune 12/8/1967; 3/12/1968; San Francisco Examiner 5/19/1968).

In late 1967, a group of five local residents filed a lawsuit against BART to halt the construction of the station as proposed by BART. The legal challenge was led by two prominent Black Berkeleyans, labor and civil rights activist Mable Howard, and then-Berkeley City Council member Ronald V. Dellums (see below for brief biographical sketches of Howard and Dellums). Contemporary news articles reported the plaintiffs' main allegations were that construction of the above-ground portions of the station would form a barrier separating the historically white and Black sections of Berkeley, that construction of a surface parking lot on the triangular lot bounded by Adeline Street, Ashby Avenue, and the present Martin Luther King, Jr. Way would remove properties from the tax rolls at a cost to the City, and that extending the station or related facilities beyond the Adeline street right-of-way would incur unnecessary costs associated with the acquisition of private property (Oakland Tribune 12/21/1967). In subsequent oral arguments, BART counsel Fred McNeil characterized the charges that the above-ground elements would constitute a "a traffic or racial barrier" as a "false issue." Paraphrased by the Oakland Tribune, McNeil offered "the triangular gore of Ashby-Grove-Adeline existed as a natural physical block to crosstown traffic and that Negroes lived on both sides of the Adeline site" (Oakland Tribune 3/5/1968). Moreover, it would cost a million dollars to lower the station so that the roof would be at ground level, and that it would make for a "less desirable station" (Oakland Tribune 3/5/1968).



In December 1967, Alameda County Superior Court judge Thomas Caldecott issued an injunction to stop BART's construction of above-ground facilities at the Ashby and North Berkeley BART station sites. According to an article published in the Oakland Tribune, "in granting the injunction, [...] Caldecott held that the district's present plans create a barrier through Berkeley that defeats the purpose of a \$20 million bond [...] passed by taxpayers that put the system underground" (Oakland Tribune 12/21/1967). In May 1968, the case was resolved in favor of the plaintiffs. In a 13-page decision, Alameda County Superior Court Judge Robert L. Bostick found that BART would be required to redesign the Ashby BART Station, because the existing plans were not consistent with the "subway" required by the bond measure Berkeley voters approved in 1966. He said further that the promise of keeping the tracks underground "border to border" and thus preventing the construction of a "Berlin Wall" to divide the city was crucial to the bond measure's approval (San Francisco Examiner 5/19/1968).

Bostick's decision forced BART back to the drawing board. BART selected the San Francisco-based architecture firm Maher and Martens to draw what would be the third and final design of the Ashby BART Station. Helmed by partners Edward John Maher and Henry E. Martens, the partnership also served as architects for the Downtown and McArthur BART station. In 1969, Maher and Martens completed plans for the Ashby BART Station. Designed in with a heavy reinforced concrete construction emblematic of the Brutalist style, the station elements were constructed under Adeline Street, with the exposed west-elevation station entrance facing the adjacent below-grade surface park-and-ride lot (Maher and Martens 1969). A satellite parking lot was constructed across Adeline Street to the southeast. In the early twenty-first century, a large portion of the satellite parking lot was redeveloped as the Ed Roberts Campus.

Service at the Ashby BART Station began with the opening of Oakland-to-Richmond extension on January 29, 1973 (Anonymous 2009). For its first several years of service, the station offered only weekday service.

Berkeley Flea Market

In the late-1970s, the Ashby BART Station was again a source of community activism, this time centered on the use of its adjacent western parking lot as the site of the Berkeley Flea Market. Some sources claim the outdoor market originated in 1973 out of spontaneous efforts by community members to take advantage of otherwise unused public space (Rubalcava-Levinthal 2019, Hicks 2019, Steltzer 2016). As one source explained, "BART originally didn't run trains on the weekends. The parking lot was empty, so people felt they had the right to go in and set up and sell" (Steltzer 2016).

Contemporary sources identify 1976 as the date of the flea market's origins. That year, the event was organized by Community Services United (CSU), who secured a series of temporary lease agreements with BART, under which flea market vendors could sell goods from the parking lot on Saturdays and Sundays (Grassroots 1976; Fernandez 1981; Brom and Amini 1979). Founded in 1976, as "the brainstorm of a coalition of 30 social service agencies that had long competed against each other for city funds." CSU was conceived as a way to raise money to support poorer residents of Berkeley "while avoiding the constant trek to city hall for [funding]" (Brom and Amini 1979). The flea market appears to have served the dual purpose of raising funds for CSU through vendor fees while offering a venue for the same vendors to raise income through the sale of various goods.

During the flea market's early years, the event drew primarily from the neighborhood surrounding Ashby BART Station. One of the event's founders, Pat McClintock, commented on the changing demographics: "At first, both buyers and sellers were primarily poor and black... The stalls would fill up



with sellers, but nobody had much money to buy. Now there's more cash changing hands, more volume, and a higher turnover of goods" (Brom and Amini 1979). The event proved popular as a retail site where customers could find deals on everyday items, such as dishes, clothes, tools, and appliances (Brom and Amini 1979). For many vendors, the flea market was an important source of income. Speaking to the San Francisco Examiner in 1979, Cornelius Thorne, an SFSU maintenance worker who supplemented his regular earnings selling dishes, magazines, and old toasters and waffle irons, explained, "Between inflation and having eight kids, I sell here to have more money... A rabbit's got to have more than one hole to crawl into these days" (Brom and Amini 1979). The event's popularity grew phenomenally in its first 5 years under CSU's management. According to an article published in the North East Bay Independent & Gazette, by 1981, the flea market was so successful it had become "the fifth largest retail business in Berkeley, doing about \$1 million of business per year" (Fernandez 1981).

From its beginning, the Berkeley Flea Market was also an "arena for local politics" (Brom and Amini 1979). CSU reserved ten stalls for community-oriented organizations running. Typical participants ranged from explicitly political left-wing organizations such as Berkeley Citizen's Action and the Black Panther Party to the more conservative Boy Scouts of America (Brom and Amini 1979).

In mid-1978, the lease agreement between BART and CSU became the subject of a prolonged dispute that would eventually end in a court ruling in CSU and the flea market vendors' favor. In the view of the BART Board of Directors, the agency and CSU had entered into an agreement providing that CSU could lease the parking as the site the Berkeley Flea Market until weekend service began at Ashby BART Station. In 1978, as BART first prepared to run trains at Ashby BART Station and the rest of the Oakland-to-Richmond round, BART ordered CSU to cease holding the event on the Ashby BART Station parking lot (Healey 2016). Flea market vendors pressured BART to renew the lease, and the agency relented, offering a series of temporary agreements that reinstated the flea market. The dispute came to a head in July 1981, however, when an administrative report proposed once again revoking the flea market's permission to use the site, due to associated with policing and supposed damage to landscaping, in addition to the apparent "inconvenience" to BART posed by the flea market's use of the parking lot (Fernandez 1981; Buel 1981a). BART soon announced the flea market's lease agreement would not be renewed. Several vendors vowed to fight BART's decision. Following the lapse of the lease agreement, the weekly event continued without BART's sanction (North East Bay Independent & Gazette 7/28/1981, Buel 1981b, Kruger 1981).

By October 1981, noted Berkeley-based civil rights attorney Donald Jelinek was hired to represent the vendors in a lawsuit aimed at reinstating the Berkeley Flea Market's right to continue operations in the Ashby BART Station parking lot (Kruger 1981). A native of New York, Jelinek got his start in civil rights activism in the 1960s working on a Mississippi civil rights campaign organized by the Student Non-Violent Coordinating Committee. In 1969, following a stint advocating on behalf of the economic rights Black Alabama farmers, Jelinek moved to Berkeley to practice law. He represented defendants in high-profile civil rights cases, including those of a group of Native American activists charged with trespassing following their well-publicized occupation of Alcatraz Island in 1969 and several inmates charged with offenses related to the Attica Prison uprising of 1971. Following the resolution of flea market vendor's suit against BART, Jelinek served on the Berkeley City Council and twice ran unsuccessfully for mayor of Berkeley (Scherr 2016; Quian 2016).

Filed in Alameda County Superior Court in October 1981, CSU's lawsuit against BART was settled in 1983. Described by historian Michael C. Healey as a "'he-said-she-said' situation," the case revolved around the disputed duration of the lease agreement and whether BART "caused the vendors to believe



that [a particular BART staff member] was authorized to negotiate the agreement” (Burress 1983, Healey 2016). The 19-month trial ended June 1983, when the jury found BART had entered into a contract with the vendors which allowed them “indefinite renewals of the written concession permit until a) BART needed the Ashby parking lot for its own purposes or b) the flea market was not operated according to BART standards” (San Francisco Bay Area Rapid Transit District v. Community Services United, et al. 1983). Judge Julie Conger additionally awarded the vendors \$15,000 in court costs (Healey 2016, Burress 1983, Kruger 1983). Quoted in the Berkeley Gazette, one vendor celebrated the decision: “I’m so happy to go out and be making a living. It’s a victory for people of all races. We fought the system and beat the biggest powers” (Kruger 1983).

Four almost 4 decades after Conger issued her decision, the Berkeley Flea Market has operated consistently at the Ashby BART Station site. Although the demographics of its customers shifted over the years, it remained an important source of income for low-income vendors. Aside from its role as a retail outlet for a variety of second-hand goods, the market has also served as a gathering place for Black residents of the surrounding neighborhood and venue for the arts, including a longstanding weekly drum circle (Steltzer 2016; Rubalcava-Levinthal 2019). In February 2019, CSU announced plans for the flea market’s first temporary closure, during February and March of that year. CSU cited as a reason for the closure the institution’s declining receipts, which a representative attributed to gentrification of the surrounding area (Hicks 2019; Rubalcava-Levinthal 2019). As of the drafting of this evaluation, the Berkeley Flea Market web site indicated the event was still in operation weekly.

Mable Howard

Born in 1905, Howard arrived in the Bay Area in 1942 and moved to Berkeley in 1946. In the 1940s, Howard worked at the Bethlehem Steel shipyards and became the successfully fought to become the first Black woman admitted to the painters’ union. She was active in the International Longshore and Warehouse Union for more than 30 years. Howard is perhaps best remembered for her leading role in the 1967-1968 lawsuit that forced BART to build the Ashby BART Station entirely underground. Howard was also active in the boarder Civil Rights and Antiwar movements and served as a local board member for the federal Model Cities social welfare program. A profile of Howard published in the Oakland Tribune reported that Howard’s home was often the setting of “spirited get-togethers” of community leaders engaged in political discussion. According to a 1995 obituary, Howard earned the nickname “Mama Howard” for “nurtur[ing] so many prominent civic leaders” (Hussain 2018; Race, Poverty & the Environment 1995; Berkeley Gazette 4/11/1973; Oakland Tribune 3/26/1985). The Mable Howard Apartments on Alcatraz Avenue in Berkeley are named in her honor.

Ronald V. Dellums

Dellums was born in Oakland in 1935. After graduating from Oakland Technical High School in 1953, Dellums attended Oakland City College, earning an Associate’s degree in 1958. He transferred to San Francisco State University, from which he graduated with a Bachelor’s degree in psychology. In 1962, Dellums completed his Master’s degree in social work at the University of California, Berkeley (Williams 2021).

Dellums’s began his career as an elected official in Berkeley, serving one term as a member of the City Council from 1967 to 1971. In 1970, while serving on the City Council, Dellums ran for Congress as an antiwar candidate and won a seat U.S. House of Representatives seat representing parts of Berkeley and Oakland. In securing the seat with 57 percent of the vote, Dellums became the first Black candidate to



win in a majority-white House district. In his first term in Congress, Dellums introduced bill to establish economic sanctions against the Apartheid regime of South Africa. The sanctions became a defining issue of his 14-term Congressional career. In 1986, a version of Dellums' oft-introduced bill (the Comprehensive Anti-Apartheid Act) was passed and signed into law, instituting a trade embargo and enforcing divestment from South African companies. Acting as floor manager for the bill, Dellums remarked "This is the highest point of my political life, the most significant and personally rewarding." Dellums retired from the House in 1998, citing personal reasons (United States House of Representatives 2021; Gorman 2018). In 2006, Dellums was elected Mayor of Oakland, serving from 2007 to 2011. He passed away in 2018.

Historical Evaluation of the Ashby BART Station

The Ashby BART Station is recommended locally eligible as a City of Berkeley Landmark for its long-standing associations with social activism and community building from within the historically Black neighborhood in which it is situated. It is not recommended eligible for inclusion in the NRHP or CRHR at this time due to a lack of available information and pending further investigation into a larger historic context of the Black community and environmental justice in Berkeley and California. A detailed evaluation of the property's historical significance follows.

California Register of Historical Resources and National Register of Historic Places Eligibility

As detailed below, the Ashby BART Station is recommended eligible for designation as a City of Berkeley Landmark due to its associations with the history of the Civil Rights Movement in Berkeley; however at this time, there is insufficient context related to its larger association within the BART system or within the African American historic context to make a definitive finding on the property's NRHP or CRHR eligibility at this time. As noted in guidance issued by the California State Office of Historic Preservation, sufficient historical scholarship on relevant topics must exist to properly evaluate a property's potential for historical significance. Further, many of the events have occurred within the past 45 years and do not exceed the NRHP's general 50-year threshold for eligibility. Due to constraints, including those regarding archive closures stemming from COVID 19, the research conducted for this study encountered a dearth of academic analysis of the history civil rights activism in Berkeley. As such the events related to the undergrounding of the BART tracks and Ashby BART Station, the involvement of Mable Howard, Ronald V. Dellums and other individuals, and the lawsuit over use of the adjacent surface parking lot as the Berkeley Flea Market could not be considered within their proper historical context. As such this evaluation is unable to make a recommendation regarding the property's NRHP or CRHR eligibility under Criteria A/1 or B/2 at this time. Further research and analysis would provide for the development of sufficient historical context relating to African Americans and the Civil Rights Movement in Berkeley in which to evaluate the significance of the Ashby BART Station and its NRHP and CRHR eligibility under these themes.

In consideration of other potentially significant associations, the Ashby BART Station also does not appear to meet NRHP or CRHR eligibility requirements. The Ashby BART Station is just one of many stations serving the BART system and one of three in Berkeley, and its design, completion, and operation do not constitute a singularly significant historical event regionally or locally under the theme of transportation



or otherwise. Research for this study did not identify any other historical context in which the Ashby BART Station would be considered historically significant. Allowing for a possible exception based on associations with local civil rights history, the Ashby BART Station is recommended ineligible for listing in the NRHP or CRHR under Criterion A/1.

Architecturally, the Ashby BART Station is a partially exposed subway station exhibiting elements of Brutalist-style architecture. Analysis for this evaluation concluded the station is an unremarkable example of the style and does not embody the distinctive characteristics of a type, period, or method of construction or possess high artistic values. Research for this evaluation found no evidence that the station represents the best work of its designer, the architecture firm Maher and Martens. The Ashby BART Station is therefore recommended ineligible for the NRHP or CRHR under Criterion C/3.

A review of available evidence did not indicate that it may yield important information about prehistory or history. As such, the property is recommended ineligible for the NRHP or CRHR under Criterion D/4.

Finally, while the station may be eligible as a contributor to a potential historic district constituting all or part of the BART system, such a recommendation was beyond the scope of this evaluation.

City of Berkeley Landmark and Structure of Merit Evaluations

The Ashby BART Station is recommended eligible as a City of Berkeley Landmark under Criterion 2, which allows for the designation of properties possessing cultural value. Specifically, the criterion makes eligible for Landmark designation structures, sites, and areas associated with the movement or evolution of religious, cultural, governmental, social and economic developments of the city. The station, including the immediately adjacent surface parking lot, is associated with local civil rights activism related to the undergrounding of the BART tracks and station and the community's use of the station parking lot on weekends for the Berkeley Flea Market. In combination, these two events highlight the role of African-American South Berkeley residents and their allies in ensuring, firstly, in that the BART station was designed in a manner consistent with the community's wishes and, secondly, in that once developed, the facility would continue to serve the community's economic and social needs. Led by Mable Howard and Ronald V. Dellums, among others, the lawsuit to ensure that the entirety of the Ashby BART Station was designed as a subway station was the culmination of a years of political efforts by Berkeleyans to ensure BART engineers designed the portion of the rail system within the city's boundaries according to the preferences of the community. More specifically, the contest over the Ashby BART Station's design highlighted the determination of African-American leaders to prevent the construction of a station whose design was widely perceived as racially discriminatory. The historical record does not suggest there is a direct relationship between, on the one hand, the legal challenge led by Howard, Dellums, and others, and on the other hand, the work of local activists and community members to establish and preserve the Berkeley Flea Market at the Ashby BART Station parking lot, at some times over the objections of the BART Board of Directors. However, the two events are linked thematically by the persistent efforts of activists and members of Berkeley's African-American community to influence the design and use of a prominent public space in the historically African-American South Berkeley neighborhood. In 1981, the market's vendors sued BART to continue their use of the station's surface parking lot as the flea market site. The case was ultimately settled in 1983 with the jury finding BART had entered into a contract with the vendors which allowed them "indefinite renewals of the written concession permit until a) BART needed the Ashby parking lot for its own purposes or b) the flea market was not operated according to BART standards" (*San Francisco Bay Area*



Rapid Transit District v. Community Services United, et al. 1983). As such, the station is notable for its association with the history of activism centered on the Ashby BART station. Since the lawsuit's conclusion, the weekend event has maintained over four decades its role as a Black social and cultural institution. The property may be regarded as important for its longstanding association with South Berkeley's Black community and is therefore recommended eligible for designation as a City of Berkeley Landmark under Criterion 2.

The Landmark's boundaries include the station footprint inclusive of the parking lot located immediately adjacent to the west of the station proper. The satellite parking lot located east the Ed Roberts Campus does not contribute to the property's significance because it was neither the subject of the 1967-1968 lawsuit nor used as a site of the Berkeley Flea Market.

The Ashby BART Station is recommended ineligible under the remaining criteria for City of Berkeley Landmarks and Structure of Merit designation. As an undistinguished Brutalist-style subway station, the property fails to satisfy the requirements of Landmark Criterion 1, which pertains to architectural merit. Research for this study did not find evidence that it is the first, last, only, or most significant architectural property of its type in the region, nor that it is a prototype, or outstanding example, of a period, style, architectural movement, or construction. Moreover, available sources do not suggest it is an example of the more notable works or the best surviving work in a region of its designer, the architecture firm Maher and Martens. It is also not an architectural example worth preserving for the exceptional value it adds as part of the neighborhood fabric.

The station also fails to satisfy the requirements for designation under Landmark Criterion 3, which pertains to educational value. Although the station is significant for its associations with the social activism in Berkeley, these historical associations are not conveyed by the station's design in a manner that would readily express that history to visitors to the site.

The Ashby BART Station is also recommended ineligible under Landmark Criterion 4. Properties eligible under Criterion 4 must possess historical value and embody and express the social, cultural, economic, political, religious or military history of Berkeley, Alameda County, California, or the United States. Although the station property is associated with notable events in the city's history that, taken together, qualify the property for Landmark designation under Criterion 2, research for this study did not find evidence the events are individually important. Rather, the Ashby BART Stations important historical associations satisfied the requirement under Landmark Criterion 2 that a property embody the *evolution* of historic, social, and cultural themes. Because Criterion 4 does not similarly allow for designation based on such thematic grounds, the Ashby BART Station is recommended ineligible under this criterion.

Finally, the property is not listed in the NRHP and, therefore, does not qualify for Landmark designation under Criterion 5.

Per the City of Berkeley's historic preservation ordinance, a property may also be designated as a Structure of Merit. Such designation is generally reserved for properties that, upon assessment, do not currently meet the criteria as set out for a landmark, but are worthy of preservation as part of a neighborhood, a block or street frontage, or as part of a group of buildings which includes landmarks. Because the current evaluation recommends the Ashby BART Station eligible for designation as a Landmark, it was not evaluated for Structure of Merit eligibility.



Conclusion

As detailed above, the Ashby BART Station is recommended eligible for designation as a City of Berkeley Landmark under Criterion 2 due to its associations with an evolving history of social activism and community building originating in Berkeley's Black community, which centered on the "undergrounding" of the Ashby BART Station and use of the station parking lot on weekends as the location of the Berkeley Flea Market. As such, the Ashby BART Station is considered a historical resource under CEQA. The Ashby BART Station is not recommended eligible for listing in the NRHP or CRHR. The North Berkeley BART Station is recommended ineligible for listing in the NRHP and CRHR or for designation as a City of Berkeley Landmark or Structure of Merit, and as such it is not considered a historical resource under CEQA.

Please do not hesitate to contact Rincon with any questions regarding this historical resource evaluation.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in dark ink, appearing to read "J. Murphy".

JulieAnn Murphy
Architectural Historian Project Manager

A handwritten signature in dark ink, appearing to read "James Williams".

James Williams, M.A.
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Steven Treffers, M.H.P.
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Shannon Carmack
Principal/Architectural Historian

Attachments

Attachment A Figures

Attachment B DPR 523 Series Evaluation Forms



References

Anonymous

- n.d. "BART Chronology—January 1947 – March 2009," Archived at Internet Archive Wayback Machine.
<https://web.archive.org/web/20131013054420/http://www.bart.gov/docs/BARThistory.pdf>. Accessed December 21, 2020.

Archaeological/Historical Consultants and JRP Historical Consulting

- 2018 Cultural Resources Technical Report: Adeline Corridor Specific Plan, Berkeley, California. December.

Architectural Forum

- 1966 *BART: The Bay Area Takes a Billion Dollar Ride*. 124(6):38–60.

Architectural Record

- 1974 *Two BART Stations*. November. 113–120

Bailey, Charles A.

- 1890 *Berkeley, Alameda Co., Cal.* [map].
<https://cdn.calisphere.org/data/13030/6h/hb4m3nb36h/files/hb4m3nb36h-FID7.jpg>. Accessed August 11, 2021.

BART Facts

- 2021 *BART: A Bay Area Lifeline During an Unprecedented Challenge*.
https://www.bart.gov/sites/default/files/docs/BARTFacts2021_0.pdf. Accessed July 2021.

Bay Area Rapid Transit (BART)

- 1967 Architectural plans for the North Berkeley BART Station.

Berkeley, City of

- n.d. West Berkeley Strategic Statement
https://www.cityofberkeley.info/Planning_and_Development/Home/West_Berkeley_-_Physical_Form.aspx (accessed February 2021).

Berkeley Architectural Heritage Association (BAHA)

- 2004 Ashby Station Historic Setting and Rudimentary Survey of Historic Properties within the Proposed Ed Roberts Campus APE. January. On file at Rincon Consultants, Ventura, CA.

Berkeley Gazette

- 1973 "Stormy City Council Session," April 11. <https://www.newspapers.com>. Accessed June 22, 2021.

Brom, Thomas and Uzuri Amini

- 1979 "The Berkeley Flea Market," San Francisco Examiner. October 10.
www.newspapers.com/image. Accessed June 21, 2021.



Buel, Stephen

- 1981a "Panel Okays Ending Flea Market Permit," North East Bay Independent & Gazette. July 14. www.newspapers.com/image. Accessed June 21, 2021.
- 1981b "Flea Market Fight Isn't Over," Berkeley Gazette. October 2. www.newspapers.com/image. Accessed June 21, 2021.

Burress, Charles

- 1983 "Flea Marketers Whoop It Up after Beating BART in Berkeley," San Francisco Examiner. June 25. www.newspapers.com/image. Accessed June 24, 2021.

Callwell, Robert.

- 1999 *Transit in San Francisco, A Selected Chronology, 1850-1995*, San Francisco: San Francisco Municipal Railway.

Emmington, Lesley, Anthony Bruce & Dale Smith

- 2004 "Ashby Station: A Classic American Streetcar Suburb," Berkeley Architectural Heritage Association website. http://www.berkeleyheritage.com/essays/ashby_station.html. Accessed August 11, 2021.

Federal Transit Administration (FTA)

- 2017 *Historic Context Report for Transit Rail System Development*. June. Washington, D.C. Prepared for Federal Transit Administration, Washington, D.C.

Fernandez, Elizabeth

- 1981 "BART Urged to Revoke Permit for Ashby Flea Market," North East Bay Independent & Gazette. July 12. www.newspapers.com/image. Accessed June 21, 2021.

Grassroots

- 1976 "Flea Market Helps Fund Service Agencies." September 22-October 6. Vol. 5 Iss. 6. https://archive.org/details/sim_grassroots_september-22-october-6-1976_5_6/page/4/mode/2up. Accessed June 22, 2021.

Grefe, R. and R. Smart.

- 1975 *A History of the Key Decisions in the Development of Bay Area Rapid Transit*. September. McDonald and Smart, Inc. San Francisco, CA. Prepared for U.S. Department of Transportation and U.S. Department of Housing and Urban Development, Washington, D.C.

Healy, Michael C.

- 2016 *BART: The Dramatic History of Bay Area Rapid Transit System*, Berkeley: Heyday Books.

Hicks, Tony

- 2019 "Ashby Flea Market Shuts Down Temporarily, Considers Relocating," KQED [web site]. February 6. <https://www.kqed.org/news/11723821/ashby-flea-market-shuts-down-temporarily-considers-relocating>. Accessed June 21, 2021.



Hussain, Suhauna

- 2018 "Prominent Black Figures in Berkeley History," The Daily Californian February 2.
<https://www.dailycal.org/2018/02/02/prominent-black-figures-berkeley-history/>.
Accessed June 22, 2021.

Jackson, Kenneth

- 1985 *Crabgrass Frontier: The Suburbanization of the United States*, New York: Oxford University Press.

Kruger, Harold

- 1981 "Vendors Threaten Legal Barrage," Berkeley Gazette. October 15.
www.newspapers.com/image. Accessed June 21, 2021.

Legacy.com

- 2021 "Robert S. Kitchen," Legacy.com [web site].
<https://www.legacy.com/us/obituaries/sfgate/name/robert-kitchen-obituary?pid=89087057>. Accessed June 25, 2021.

Lorey, Maya Tulip

- 2013 "A History of Residential Segregation in Berkeley, California, 1878-1960," Concord Review. Document on file at Rincon Consultants, Ventura, CA.

Maher and Martens, Architects

- 1969 Architectural plans for the Ashby BART Station.

Maley, B. and S. Watson

- 2016 California DPR 523 Series form for 11553-1163 Hearst Avenue.
https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_ZAB/2016-04-26_RESUB_DPR_1155-73%20Hearst.pdf. Accessed February 2021.

Mapping Inequality

- 2021 "Mapping Inequality: Redlining in New Deal America," [web site]. Home Owners' Loan Corporation maps and surveys of South Berkeley.
<https://dsl.richmond.edu/panorama/redlining/#loc=15/37.85/-122.273&city=oakland-ca&area=D4>. Accessed August 10, 2021.

Modern Transit

- 2021 "Traffic Engineers vs. Transit Patrons." <http://moderntransit.org/ctc/ctc03.html>
Accessed February 2021.

NETROnline

- 2021 Historic Aerials. Historic aerial photographs and topographical maps of North Berkeley and Ashby BART stations and vicinity. <https://www.historicaerials.com/viewer>. Accessed July 2021.



North East Bay Independent & Gazette

- 1981 "Flea Market to Oppose Ouster," July 28. www.newspapers.com/image. Accessed June 21, 2021.

Oakland Tribune

- 1967 "BART Transition Plan in Lawsuit," December 8. <https://www.newspapers.com>. Accessed June 22, 2021.
- 1967 "Berkeley Injunction Hits BART," December 21. <https://www.newspapers.com>. Accessed June 22, 2021.
- 1968 "Ashby Station Suit in Court," March 5. <https://www.newspapers.com>. Accessed June 22, 2021.
- 1968 "Ashby Station Suit in Court," March 5. <https://www.newspapers.com>. Accessed June 22, 2021.
- 1985 "She Brings Her Nurturing Nature to Public Service." March 26. Newspaper clipping on file with the City of Berkeley.

Pacific Coast Architecture Database (PCAD)

- 2021a "Kitchen and Hunt, Architects (Partnership)," PCAD web site. <http://pcad.lib.washington.edu/firm/4112/>. Accessed June 25, 2021.
- 2021b "Frank Bouldin Hunt (Architect)," PCAD web site. <http://pcad.lib.washington.edu/person/5544/>. Accessed June 25, 2021.
- 2021c "Robert Sieber Kitchen (Architect)," PCAD web site. <http://pcad.lib.washington.edu/person/5543/>. Accessed June 25, 2021.

Prabook.com

- 2021 "Frank Boudin Hunt, Architect, Water Color Artist," Prabook [web site]. https://prabook.com/web/frank_bouldin.hunt/603932. Accessed June 25, 2021.

ProQuest

- 1911 Sanborn Fire Insurance Maps, Berkeley. <https://digitalsanbornmaps-proquest-com.ezproxy.lapl.org/>. Accessed February 2021.
- 1929 Sanborn Fire Insurance Maps, Berkeley. <https://digitalsanbornmaps-proquest-com.ezproxy.lapl.org/>. Accessed February 2021.
- 1950 Sanborn Fire Insurance Maps, Berkeley. <https://digitalsanbornmaps-proquest-com.ezproxy.lapl.org/>. Accessed February 2021.

Quian, Jessie

- 2016 "Former Berkeley Council Member Donald Jelinek Dies at 82," Daily Californian. July 11. <https://www.dailycal.org/2016/07/11/former-berkeley-council-member-donald-jelinek-dies-82/>. Accessed June 24, 2021.

Race, Poverty & the Environment

- 1995 "Mable Daisy Howard, February 3, 1905 – March 29, 1994," <http://urbanhabitat.org/files/6-1%20all.pdf>. Accessed June 22, 2021.



Rubalcava-Levinthal, Naomi

- 2019 "Flea Market at Ashby BART Closes for First Time in Its History," Berkeley High Jacket [web site]. February 15. <https://berkeleyhighjacket.com/2019/news/flea-market-at-ashby-bart-closes-for-first-time-in-its-history/>. Accessed June 21, 2021.

San Francisco Bay Area Rapid Transit District v. Community Services United, et al.

- 1983 Alameda County Superior Court (No. 49349).

San Francisco Examiner

- 1968 "The Week's News in Review," May 19. <https://www.newspapers.com>. Accessed June 22, 2021.

Scherr, Judith

- 2016 "Don Jelinek, Civil Rights Champion and Former Berkeley Councilman, Dies at 82," East Bay Express. July 5. <https://www.eastbaytimes.com/2016/07/05/don-jelinek-civil-rights-champion-and-former-berkeley-councilman-dies-at-82/>. Accessed June 24, 2021.

Steltzer, Andrew

- 2016 "Will the Berkeley Flea Market Survive a Changing Neighborhood?" KQED [web site]. March 17. <https://www.kqed.org/news/10840322/will-the-berkeley-flea-market-survive-neighborhood-improvements>. Accessed June 21, 2021.

United States House of Representatives

- 2021 "Dellums, Ronald V., 1935-2018," United States House of Representatives: History, Art & Archives [web site]. <https://history.house.gov/People/Detail/12109#biography>. Accessed June 28, 2021.

Williams, Dean

- 2021 "Ron Dellums, American Politician," Britannica [web site]. <https://www.britannica.com/biography/Ron-Dellums>. Accessed June 28, 2021.



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Attachment A

Figures

Figure 5 Project Location Map



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Figure 6 Project Boundary Map – North Berkeley BART Station



Figure 7 Project Boundary Map – Ashby BART Station



Figure 8 North Berkeley BART Station, West Elevation, Including Skylight, Facing Northeast



Figure 9 North Berkeley BART Station, Interior View of Paid Area of Concourse Level



Figure 10 North Berkeley BART Station, Interior View of Skylight and Escalator from Concourse Level

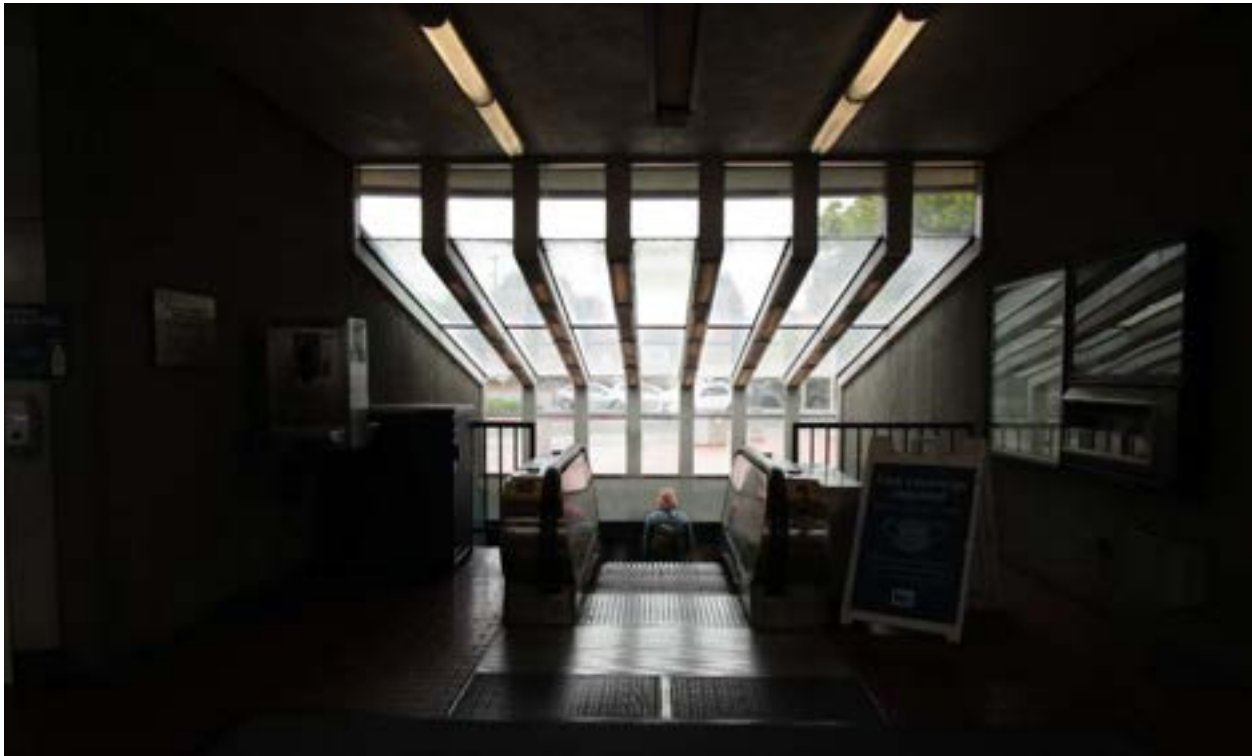


Figure 11 North Berkeley BART Station, interior View of Station Platform



Figure 12 Utility Building at the North Berkeley BART Station, South and East Elevations, Facing Northwest



Figure 13 North Berkeley BART Station Elevator Shaft, West Elevation, Facing East



Figure 14 North Berkeley BART Station Bus Shelter, Facing Southwest



Figure 15 Detail of the Ashby BART Station, West Elevation, Facing South



Figure 16 Ashby BART Station, Street-Level Deck along West Side of Adeline Street, Featuring Non-Original Canopy and Signage, Facing Northwest



Figure 17 Interior View of Entry Area of the Ashby BART Station Concourse Level



Figure 18 Interior View of Paid Area of the Ashby BART Station Concourse Level



Figure 19 Interior View of the Ashby BART Station Platform

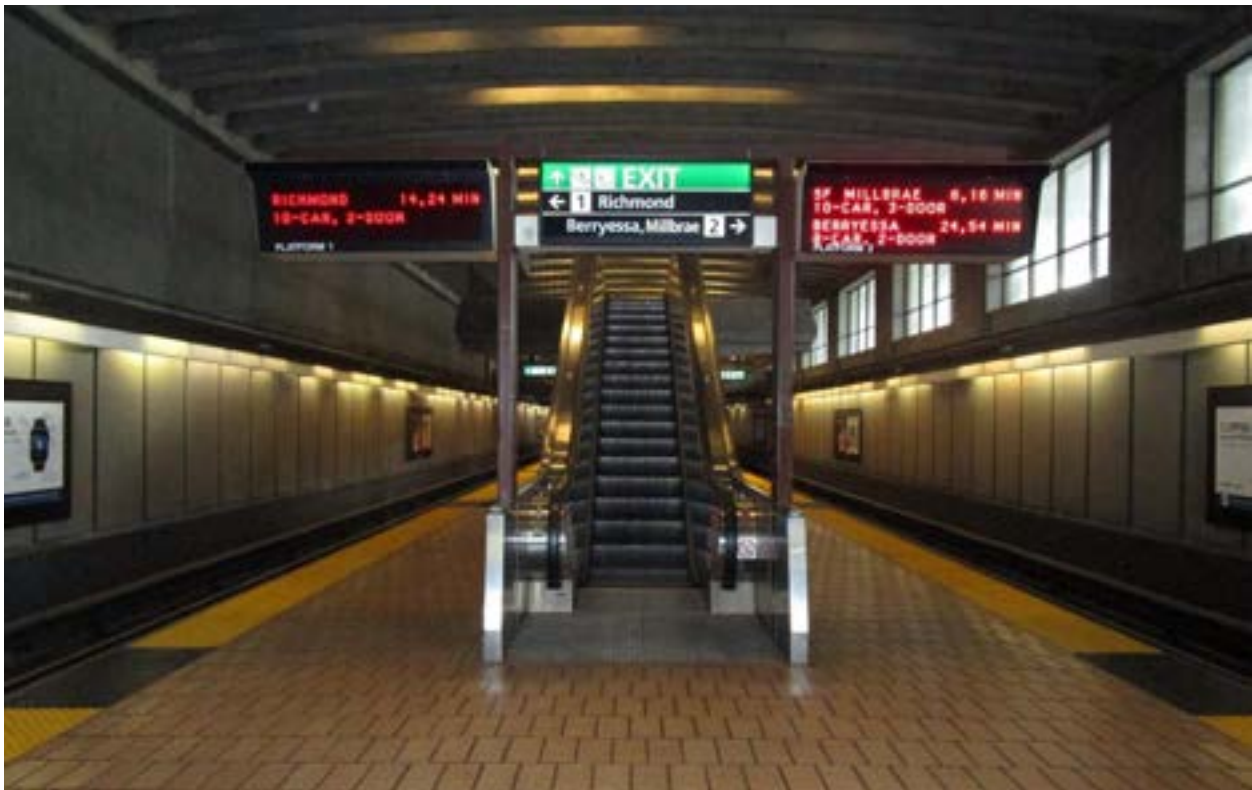


Figure 20 Ashby BART Station Parking Lot near Martin Luther King, Jr. Way, Facing Southeast



Attachment B

DPR 523 Series Evaluation Forms

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code

Reviewer

Date

Page 1 of 12

*Resource Name or #: North Berkeley BART Station

P1. Other Identifier:

*P2. Location: ☐ Not for Publication ☒ Unrestricted *a. County: Alameda
*b. USGS 7.5' Quad: Oakland West Date: 1993 Township Range Section M.D.B.M.
c. Address: 1750 Sacramento Street City: Berkeley Zip: 94702
d. UTM: Zone: mE/ mN (G.P.S.)
e. Other Locational Data: APNs 58-2146-16-5, 58-2149-19-4, 58-2147-18-5, and 58-2148-17-4

***P3a. Description:**

The subject property is the North Berkeley Station of the Bay Area Rapid Transit (BART) system. Constructed between 1969 and 1973, the North Berkeley BART Station is a subway station with an above-ground station building and subterranean tracks and station platform. The roughly 8.1-acre square property is two blocks long on all sides, with the station building located at approximately the center. The remaining area is occupied by an electrical substation building, surface parking lot and internal circulation network, and landscaping. A dual-track underground rail alignment passes diagonally from roughly the intersection of Sacramento and Delaware streets at the southeast corner of the property to the junction of Virginia and Acton streets at the northwest corner.

Situated on a terraced grade, the station building exhibits elements of the New Formalist style of architecture. Its roughly circular footprint is defined primarily by reinforced-concrete exterior walls consisting of two sets of concentric arcs. Cladding is generally aggregate-finish panels, though the extending window structures are flanked by concrete walls. The bi-level conical roof is low-pitched and clad in metal panels that taper as they approach the roof's center point. The lower level of the roof makes up a broad heavy overhang, faced with metal panels. A series of exposed concrete beams lay over the overhang, supporting the upper level of the roof. The upper level of the roof culminates in an oculus filled with a metal-framed skylight. Additional fenestration includes a series of windows situated between the two levels of the roof and the pair of ground-level window structures that extend to the northeast and southwest. Exterior elements suggesting the influence of New Formalism include the building's general symmetry, metal-panel-clad entablature, and oculus penetrating the center of the roof.

See continuation sheet, p. 4.

*P3b. Resource Attributes: HP39. Other (Subway station)

*P4. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing



P5b. Description of Photo:

North Berkeley BART Station building, south elevation, facing north.

***P6. Date Constructed/Age and Sources:**

☒ Historic ☐ Prehistoric ☐ Both

1969-1973

***P7. Owner and Address:**

N/A

***P8. Recorded by:**

JulieAnn Murphy
Rincon Consultants
449 15th Street, #303
Oakland, CA 94612

***P9. Date Recorded:**

June 30, 2021

***P10. Survey Type:**

Intensive

***P11. Report Citation:**

Murphy, JulieAnn, James Williams, and Steven Treffers. 2021. Historical Resources Evaluations for the Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Project, City of Berkeley, Alameda County, California. Prepared for City of Berkeley by Rincon Consultants, Inc. August 11.

*Attachments: ☐ NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record

☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record

☐ Artifact Record ☐ Photograph Record ☐ Other (List):

State of California X Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #
HRI#
Trinomial

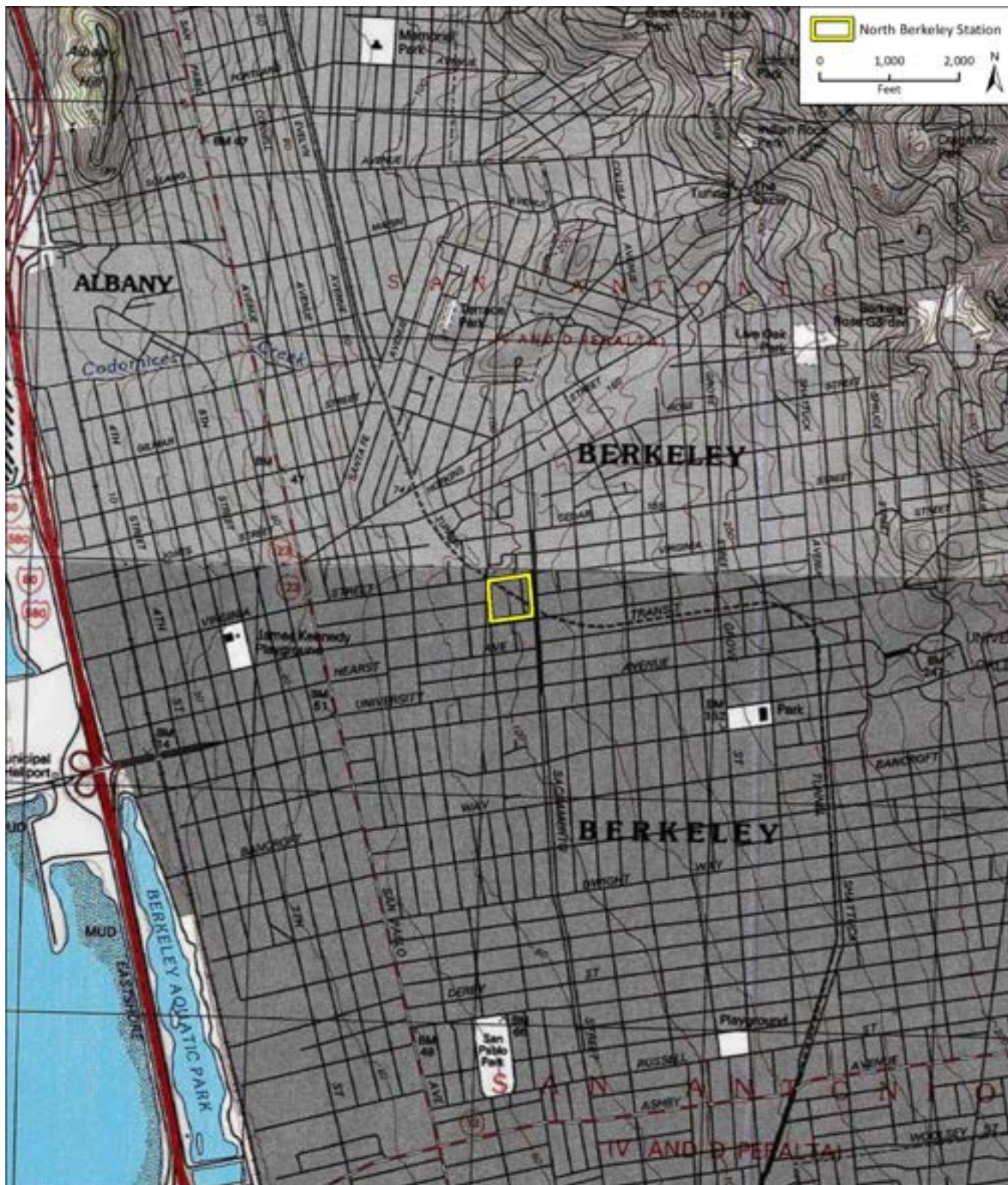
Page 2 of 12

*Map Name: *Oakland West and Richmond*

*Resource Name or # North Berkeley BART Station

*Scale: 1:24,000

*Date of map: 1993



BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # North Berkeley BART Station

*NRHP Status Code 6Z

Page 3 of 12

B1. Historic Name: North Berkeley BART Station

B2. Common Name: North Berkeley BART Station

B3. Original Use: Subway station

B4. Present Use: Subway station

*B5. Architectural Style: New Formalism

***B6. Construction History:**

The station building, utility building, surface parking lot, and other features were constructed between 1969 and 1973. There are no notable alterations to the station.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown

Date: N/A

Original Location: N/A

*B8. Related Features: None

B9a. Architect: Unknown

b. Builder: Unknown

*B10. Significance: Theme N/A

Area N/A

Period of Significance N/A

Property Type N/A

Applicable Criteria N/A

The subject property is the North Berkeley BART Station. It was developed between 1969 and 1973 to serve BART's Oakland to Richmond extension line.

The following narrative is presented to provide a focused historical context in which to understand the potential significance of the North Berkeley BART Stations.

Development of Transit in the Bay Area: The Horsecar Era to the Electric Streetcar (1861-1946)

The development pattern of the San Francisco Bay Area largely reflects the transit development patterns of the greater United States. Sparsely populated until the Gold Rush in 1849, by the mid nineteenth century the area was growing rapidly and emerging as a metropolitan region with transportation between cities. By 1850 there was a stage line between San Francisco and San Jose as well as ferry service between San Francisco and Oakland (Callwell 1999). The first omnibus began to service San Francisco in 1851. Rail service between San Francisco and San Jose began in 1863, with stops along the Peninsula. In 1872 Hallidie's cable car began running and soon thereafter cable car and rail service expanded through San Francisco's expanding boundary (Caldwell 1999). The cable car service would eventually become San Francisco Municipal Railway (Muni) and was good but limited to intra-city service (Healy 2016).

See continuation sheet, p. 4.

B11. Additional Resource Attributes: N/A

***B12. References:**

See continuation sheet, p. 11.

B13. Remarks:

*B14. Evaluator: James Williams, Rincon Consultants

*Date of Evaluation: August 11, 2021

(This space reserved for official comments.)



*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

■ Continuation

□ Update

P3a. Description (continued):

Recessed portals on the north side of the station building provide access to the station concourse. Located just past the entrance, the metal-clad information booth is flanked by fare gates. The interior is dominated visually by the exposed concrete roof beams and the central skylight. Interior walls are generally clad with panels of an undetermined material. At the center of the concourse, a large, rectangular opening accommodates a pair of concrete staircases, which descend to the platform level. Escalators are located on opposing sides of the station, beneath the ground-level skylights.

Flanked by the subway tracks, the platform aligns with the adjacent rails, extending in both directions beyond the station building's perimeter. The portion of the ceiling directly above the platform consists of an exposed metal framework, tile cladding, and ceiling-mounted light fixtures. Above the tracks, the ceiling is characterized by exposed metal trusswork. The cross beams of the platform ceiling provided a rhythmic element echoed in the panels lining the walls adjacent to the outer rails. The station building is in fair condition and has incurred minimal alteration.

Hardscaping in the area adjacent to the station building consists chiefly of a brick-lined plaza. Situated on slightly sloping terrain, the brickwork exhibits a common-bond pattern, much of which is laid in concentric arcs that echo the building's circular footprint. The arced courses of brick are interrupted in several places, however, by swaths of brick various divergent patterns. At the north and west sides of the plaza, the terrain slopes more dramatically. At this location, timber retaining walls contain the exposed earth. While the north side consists of a single slope descending from the plaza to the surface parking lot, the retaining structures on the west side form a three-level terrace. The exposed area there is planted with a combination of mature trees, shrubs, and ground-cover vegetation. At opposite ends of the west side, straight concrete steps with metal rails connect the plaza and parking lot levels.

A utility building is located northwest of the station, at the southeast corner of Virginia and Acton streets. Utilitarian in design, the building has a rectangular plan and rises a single story to culminate in a flat roof with rolled composition cladding. Stucco cladding conceals the building's structural system, which may be of concrete-panel construction, as suggested by seams apparent on the exterior. Entrances are located on the north and west elevations and feature solid standard-size wood doors and an equipment or vehicle bay door. While the building is windowless, large louvered vents punctuate the north, south, and east elevations. The area around the building is enclosed by a wall made up of aggregate-finish panels like those on the station building's exterior.

Additional minor structures are located intermittently through the east side of the property. Situated along Sacramento Street, southeast of the station building, is an above-ground station elevator. The elevator shaft is housed in a stucco clad structure with the entrance facing the parking lot to the west. A heavy overhang extends to the north, supported partially by a blade wall. A second wing wall extends to the south.

Just outside the station is an open-air bus shelter consisting of a circular concrete roof supported by a concrete column. Partial walls radiate from the column in four directions. Each wall consists of a pre-cast concrete knee wall with a wood-framed window situated atop. Affixed to the walls are L-shaped metal benches. Another bus stop shelter is located immediately east of the station building. Similar in design to its counterpart, the structure consists chiefly of a concrete rectangular roof and concrete column. The space beneath the roof is similarly spaced by concrete dividers with wood-framed windows. Straight benches are affixed to the walls.

The surface parking lot borders the station building on all four sides. A portion of the area just east of the station is reserved for bus transfer points. Parking areas in the northern two thirds of the facility are connected by a gridwork of internal roadways. Landscaping in the parking and bus transfer and parking areas consists of mature trees and shrubs planted along circulation routes, in parking lot islands, and along the perimeter of the property.

B10. Significance (continued):

In the East Bay, there were parallel transportation developments. In addition to ferry service to San Francisco, there was rail service extending from Oakland to surrounding communities including Berkeley. The first electric streetcars began to appear on both sides of the San Francisco Bay in the 1890s. By the turn of the twentieth century, San Francisco was the largest city on the West Coast and the region's transit was growing to accommodate the population and growing economy. The San Francisco, Oakland, and San Jose Railway began running in 1903 and provided electric rail service in the East Bay to ferries that continued to San Francisco (Healy 2016). By 1916 the rail was comprised of 250 miles of track. Then known as the Key System because its track configuration resembled a skeleton, it was the region's dominant transit system.

After World War I, the Bay Area saw another period of significant growth and the need for improved cross-bay transit became imperative. The Oakland - San Francisco Bay Bridge opened in 1936 and its lower deck accommodated the Key System streetcars, supplanting the previous ferry service. The Golden Gate Bridge opened the following year (Healy 2016).

In the years leading up to World War II, several studies were conducted to investigate possibilities improve cross bay transit with additional bridges. During the post-World War II years, the nine counties of the Bay Area doubled in size, with most development occurring in the suburbs while San Francisco and Oakland remained the primary employment centers. The Key System was suffering from deferred maintenance during the war and the new owners (a holding company for General Motors) cut service. That, along with the popularity of the automobile caused ridership to fall from 22 million in 1946 to 9.8 million by 1952 (Healy 2016). By 1948 Key System trains were replaced by busses (Healy 2016).

See continuation sheet, p. 5.

*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

■ Continuation

□ Update

B10. Significance (continued):

Planning for BART (1946-1962)

The need for a more robust regional transit system was clear as early as 1946 when the state legislature passed a bill for a Joint Army Navy Board to study the possibilities of cross-bay transit. In 1947 the Board recommended that an “adequate system of rapid mass transit be a component of the overall general scheme to solve the Bay Area transportation problems over an extended period of years” (Healy 2016). In 1951 San Francisco Board of Supervisor, Marvin Lewis drafted an amendment to 1949 transit legislation and the San Francisco Bay Area Transit Commission was signed into law by the state legislature (Healy 2016). In 1953 the Commission awarded a contract to Parsons, Brinkerhoff, Hall, and MacDonald (PBHM) to author the land use and transit report, which after studying the area’s travel patterns proposed that a high-speed, grade separated regional rapid transit was critical as complementary to the highway system.

The San Francisco Bay Area Rapid Transit District (BARTD) was signed into law in September 1957. The District was comprised of five core counties: Alameda, Contra Costa, Marin, San Francisco, and San Mateo (Healy 2016). BARTD viewed the initiative as imperative, witnessing regional growth that was expected to continue and further stress existing freeways and bridges. They decided to get the initiative on the November 6, 1962 general election ballot and spend the 2 years approaching the election running an information campaign to encourage people to vote for a tax to build the project (Healy 2016). PBHM recruited the Bechtel Corporation and Tudor Engineering (PBTB) to form a joint venture to launch a number of studies and refine engineering considerations.

By early 1962, Marin County and San Mateo County withdrew from the project (Grefe and Smart, 1975; Healy 2016). In May 1962, PBTB revised the Composite Report to include the three remaining counties – Alameda, Contra Costa, and San Francisco. The initiative went on ballot on November 6, 1962 and passed with just over 61 percent of the vote (Healy 2016). The vote approved rapid transit bond funding and the use of state bridge tolls to fund the construction of the transbay tube.

Designing BART and Community Participation (1962-1964)

The Composite Report was just a selling tool and not the definitive design. After the passage of the bond measure in 1962, the system had to be planned in detail, engineered, and designed. BART would be the first new transit designed in whole since the Philadelphia transit system was designed in 1907 (Healy 2016: 62). The final route design would be an askew “X” with Oakland as the East Bay hub with a third of the track at grade, a third aerial, and a third underground. Parking would be provided at all suburban stations. Systemwide, 20,000 spaces were constructed (Healy 2016).

After the engineering contract was awarded in 1962 and defended from a lawsuit arguing the bond referendum was invalid because the public had not been given the true scope of the project in 1963, BARTD had to negotiate the right of way agreements with communities and purchase parcels to build the track and stations. The engineers assumed that lines and stations identified in the initial reports and again in the Composite Report would be accepted and the process for acquiring land would be routine. Communities, however, began to demand a participatory process (Healy 2016). PBHM met with City Councils and Boards of Supervisors in all jurisdictions through which the travel corridors passed in 1953-1955 (Grefe and Smart, 1975). Many jurisdictions, however, did not have planners at the time. While the general requirements of the cities were initially met, when acquiring right of way permissions after the passage of the bond issue in 1962, BART was faced with accommodating extensive local requirements that initial cost estimates failed to include (Grefe and Smart 1975). BARTD’s policy was to accommodate local demand within their financial capabilities (Grefe and Smart 1975).

BARTD sought popular acceptance by the communities. At the same time, communities, growing from local activist movements were asking for a participatory process to discuss station locations, designs, color schemes, landscaping, route tracking, and noise abatement (Healy 2016).

BARTD continued the pursuit of acceptance until the expense of meeting local demand was overbearing. The most intense disagreements were in response to BARTD’s plans to construct track on a viaduct, above ground within the city limits of Berkeley. In 1963, Berkeley’s incoming mayor Wallace Johnson strongly opposed the above-ground track arguing it would be an eyesore and further divide the city by race, separating the city’s predominately white and black neighborhoods (Grefe and Smart 1975). Despite a public process with hearing and negotiations, the City of Berkeley and BARTD could not reach an acceptable compromise. In 1966, the City of Berkeley voted to establish a special tax district to cover the estimated \$25 million to build a subway through the city, leading to considerable construction delays.

The undergrounding of BART in Berkeley was the most contentious community-led conflict with BARTD, but it was not the only one. In Oakland, the line would require the demolition of the city’s major hardware store, Simon’s Hardware, Inc. BARTD altered the track configuration, leading to a permanent requirement for trains slow to 25 miles per hour at the newly designed wye. In Albany, the city was concerned with a proposed station that would take property off the tax rolls, leading BARTD to move the station to El Cerrito. In San Francisco, neighborhoods in the western region feared impacts of the system, leading BARTD to remove a segment beyond West Portal from its plans. An additional station was added at Embarcadero to serve the emerging commercial and hotel district resulting from the ongoing redevelopment in the area (Healy 2016).

BART’s Architecture and Expansion (1964 – Present)

In designing the stations, BARTD knew as General Manager BR Stokes described that in order to “attract drivers out of their cars it must be sleek, comfortable, convenient, and cheap,” (Healy 2016). The system would naturally adhere to modern architectural design, landscape architecture, graphic design, and industrial design, thereby reflecting its technological achievements. The Composite Report included renderings reflecting the modernistic aesthetic.

See continuation sheet, p. 6.

*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

■ Continuation

□ Update

B10. Significance (continued):

The scope of the architectural design was increased substantially over what was described in the Composite Report which envisioned designs based on standardized features. Instead BARTD made use of separate architectural firms to design stations with individual design elements (Grefe and Smart 1975). PBTB hired Donn Emmons, partner at Wurster, Benardi & Emmons (WBE) to be the project's consulting architect. The work of the consulting architects resulted in the development of the Manual for Architectural Standards for BART (Grefe and Smart 1975). The manual, completed in 1965, provided for elements that should be included in each station design, including ticket kiosk locations, vertical circulation, acoustic requirements, site layout requirements, and the number of entrances (Architectural Forum 1966). The information in the manual was largely functional, providing minimum design standards and physical requirements and did not include guidance for architectural style. In tandem with the Manual for Architectural Standards, landscape architect, Lawrence Halprin, was hired as chief landscape architect and authored a corresponding landscape guide, The Landscape Design Criteria and Standard Landscape Elements. It established a list of acceptable plants and standard elements for station plazas (Architectural Forum 1966).

Project architects were given latitude with stations design but were constrained by the manual and the site plan, frustrating some architects. Ultimately, stations were designed by 14 Bay Area firms, selected from a list compiled by Emmons. The result was a variety of station designs, ranging from utilitarian to inspired. In addition to constraints from the prescriptions by PBTB in the manual and the development of the site plans, architects were limited by the station type. Designers used finishes and materials to distinguish their work, including the placement of openings, lighting, and artwork. Some architects used more innovative features like rotundas, sunken plazas, or new use of materials (Architectural Record 1974).

Construction was underway in 1965 and by 1968 over half of BART's system construction was complete (Healy 2016). BART opened to public service on Monday, September 11, 1972. However, only a small fleet of trains were available and 12 stations between Fremont and MacArthur were serviced. The transbay tube, allowing trips between San Francisco and Oakland, did not officially open for another two years. In its first 3 months of operation, 1 million passengers used BART. By 1978, BART offered weekend service, proving its viability as a transit option beyond the workweek (Healy 2016). In the following years, BART worked on refining service. During the 1990s three service route extensions were planned – Daly City to SFO to Millbrae, Concord to Antioch, and Bay Fair to Dublin/Pleasanton. Today, BART has expanded to 50 stations and includes 131 miles of track, serving over 400,000 passengers weekly (BART 2021).

Property History of the North Berkeley BART Station

By the late 1870s, much of the North Berkeley area, in which the North Berkeley BART Station is located, was subdivided for residential development. The earliest development of the station site followed the opening of the Curtis Tract, a subdivision owned by Michael Curtis, an Irish immigrant who began farming in the area by 1852 (Maley and Watson 2016; Thompson and West 1878). Historical news items indicate the Curtis family began selling portions of the Curtis Tract by the late 1870s (San Francisco Examiner 11/5/1877; Oakland Tribune 3/12/1880). Historical property maps and United States Geological Survey topographical maps show that the existing street grid was planned and possibly developed by 1890, and some development, likely residential, took place by 1900 in the vicinity of all four lots comprising the North Berkeley BART Station site (NETROnline 1900; Bailey 1890).

In the first 3 decades of the twentieth century, development of the station site and its surroundings followed alongside the growth of the nearby West Berkeley industrial district (City of Berkeley n.d.). By 1911, the Santa Fe Railroad was constructed along a north-south alignment through the neighborhood on nearby West Street. This corresponding growth was limited however, consisting mostly of scattered single-family residences (ProQuest 1911). By 1929, Berkeley's continued growth led to substantial residential development in the neighborhood. A sign of this growth, a right-of-way was reserved for the Key System's Westbrae streetcar shuttle, passing through the neighborhood on a northwest-southwest trajectory and meeting with the Santa Fe Railroad right of way near the intersection of West and Cedar streets. Outside the Key System right-of-way, the station site was developed with single-family homes (ProQuest 1929).

In the decades following World War II, there were few notable changes to the built environment of the neighborhood surrounding the North Berkeley BART Station sites. In 1948, the Key System ended local streetcar service, and the Westbrae Shuttle right-of-way was abandoned (ModernTransit.org 2021). Although some sections of the alignment were developed with residential uses, construction of the BART Richmond line through the neighborhood followed segments of the existing Key System and Santa Fe Railroad rights of way (NETROnline 1946; 1958; 1959; 1968; 1990). The site of North Berkeley BART Station retained its residential character until the 1960s, when BART demolished the residential buildings on the site to allow for construction of the station (NETROnline 1959-1986).

PBTB's original design for the Berkeley segment of the BART system called for elevated tracks placed on street medians throughout the city (Healy 2016). City of Berkeley officials objected to the aerial rail design, and in 1960, the Berkeley City Council passed resolution that called for the BART system within Berkeley to be constructed entirely as a subway. Negotiations with the City-led PBTB to propose a compromise by which BART would construct a subway segment in downtown Berkeley (mostly along Shattuck Avenue between Derby Street and the intersection of University and Milvia avenues). The remainder of the Berkeley route, roughly three miles of tracks, would be elevated. These changes were incorporated into the Composite Report, released in Spring 1962 to the various city and county jurisdictions through which BART would be routed. PBTB believed a lack of official response from the municipalities indicated approval of the designs contained Composite Report (Healy 2016).

See continuation sheet, p. 7.

*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

■ Continuation

□ Update

B10. Significance (continued):

In 1963, Wallace Johnson, who had recently been elected mayor, objected. Now known as the “the last Republican mayor of Berkeley,” Johnson graduated from the California Institute of Technology with a background in engineering before entering local politics. Johnson objected to the aerial tracks and stations, believing they were “aesthetically unattractive” and threatened to “divide the city psychologically along racial lines,” in the words of historian Michael C. Healy. Indeed, as Healy notes, for much of its course through Berkeley, the BART line would run parallel to, and just east of, Grove Street (now Martin Luther King, Jr. Way) which historically marked the unofficial boundary between Berkeley’s White and Black neighborhoods (Healy 2016; Lorey 2013).

Led by Johnson, the City pressured BART and PBTB to redesign the Berkeley segment as entirely underground alignment, but BART objected due to the comparatively high price tag of subway construction. In July 1963, the City requested BART release a cost comparison of the elevated and subway alternatives. Meanwhile, Johnson formed a committee to plan for covering part of the excess costs of putting the line underground. The City’s independent study estimated the difference in cost between BART’s proposal and an entirely underground alignment would be approximately \$6 million. In March 1964, BART issued its own cost estimates, which concluded the added cost of placing the tracks and two stations underground would total \$21 million. In subsequent negotiations, neither party was open to renegotiating (Healey 2016).

Johnson and other members of the Berkeley community began campaigning publicly against the aerial segments. Johnson paid to have 30-foot-tall scaffolding erected near the proposed North Berkeley and Ashby BART Station sites to represent the height of the aerial elements. The Berkeley Citizens Committee collected \$14,000 in donations to wage a public information campaign consisting of the placement of large signs reading ‘BURY THE BART TRACKS’ in locations around the city and paid for the airing of advertisements on the local radio station KPFA (Healy 2016).

Negotiations between BARTD and the City resumed in May 1964, with as many as 20 sessions held between May and August. Both parties issued revised cost estimates, with BARTD projecting \$24 to \$30 million in additional expenditures and the City \$11 million. In September 1964, the BARTD board of directors unanimously rejected Berkeley’s request for a subway line, unless Berkeley could come up with the money to cover the difference in cost between the aerial and subway alternatives (Healy 2016).

As a result of behind the scenes talks between Johnson and BARTD president Adrien Falk, BARTD agreed to advertise two sets of bids for the Berkeley alignment—one for aerial construction and the other for a subway—as a means of settling the dueling cost projections at the heart of the standoff. In the interim, the City would work out details of financing the added construction costs. Johnson persuaded the City Council to establish Special District No. 1, a special assessment district comprised of the entire city and throughout which taxpayers would vote on a \$20.4 million bond issue to finance excess construction costs due to the construction of the subway. The issue went to the ballot in October 1966, with 80 percent voting to approve the bond issue. Eventually, the low bid for subway construction (1968) came in at around \$12.4 million, about \$2.4 million more than Berkeley officials estimated and with a price tag that could be covered by Berkeley’s bond issue (Healy 2016). As a result, the Berkeley segment of the BART alignment would be constructed as a subway.

BART hired the architecture firm Kitchen and Hunt to design the North Berkeley BART Station in collaboration with BART engineers PBTB. Further details on the partnership of Kitchen and Hunt are detailed below. Drafted in 1967, the designs for the North Berkeley BART Station called for the rails and platform to be located underground, with rails throughout the Berkeley segment situated up to 40 feet beneath the street level. Above, a surface-level station building bearing New Formalist-style influences would be surrounded on all four sides by a large surface parking lot. The northwest corner of the site was reserved for a one-story utility building (BART 1967; Oakland Tribune 9/20/1967).

The subway designs developed in 1967 for the North Berkeley BART Station and the nearby Ashby Station both contained above-ground elements and were not, strictly speaking, subways, as called for in the 1966 bond measure. However, the North Berkeley BART Station’s design was not subject to the same degree of controversy as that of the Ashby BART Station. South Berkeley neighborhood activists charged that above-ground elements included in the designs for the latter facility amounted to an impassable two-and-a-half-block barrier that traced a portion of the unofficial boundary between Berkeley’s Black and White neighborhoods. A 1967-1968 lawsuit that community members filed against BART was resolved in favor of the plaintiffs, forcing BART to redesign the station without many of the offending street-level elements. Although contemporary newspaper reporting suggested the North Berkeley BART Station’s above-ground design was implicated in the lawsuit, neither a comparison of the 1967 designs (which predated the court decision) with the station’s current appearance nor any information covered by research conducted for this evaluation suggests the designs for any above-ground portions of the North Berkeley BART Station were substantially modified as a result of the court decision (San Francisco Examiner 5/19/1968; BART 1967).

Construction of the station and the adjacent underground tracks was complete by January 29, 1973, when service at North Station commenced with the opening of Oakland-to-Richmond extension on (Anonymous 2009). The station soon grew into a local transportation hub for subway, park-and-ride, and bus services. Few notable changes have been made to the station since its opening. However, in the 1980s, BART developed two parcels located northwest of the station as a satellite parking lots (NETROnline 2021).

See continuation sheet, p. 8.

*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

■ Continuation

□ Update

B10. Significance (continued):

Kitchen and Hunt, Architects

Kitchen and Hunt was helmed by partners Robert Sieber Kitchen and Frank Bouldin Hunt, whose best-known project may have been the Main Arena constructed for the 1960 Olympic Winter Games in Squaw Valley, California. Among the firm's other projects from the same period are several educational, commercial, and industrial properties located throughout Northern California, along with four additional BART stations: West Oakland, South Hayward, Union City, and Fremont (PCAD 2021a; Legacy.com 2021).

A native of Dayton, Ohio, Kitchen was born in 1912 in Dayton, Ohio. He attended Cornell University, where he earned his Bachelor of Architecture degree in 1935 and Bachelor of Landscape Architecture the following year. After winning the Prix de Rome, Kitchen continued his studies at the American Academy in Rome. In 1938, Kitchen relocated to New York to work in the offices of Norman Bel Geddes, where he worked as an architect and landscape architect as the firm's designed the General Motors Pavilion at the 1939 New York World's Fair. Kitchen's subsequent professional experience included stints as a draftsman for San Francisco-based architect Gardner A. Dailey (1939-1941), associate project planner for the Federal Public Housing Agency (1941-1942), and designer/landscape architect in the San Francisco offices of architect Albert F. Roller (1945- 1948). In 1948, Kitchen and Hunt formed their partnership. Kitchen was made a fellow of the AIA (FAIA) in 1964 (Legacy.com 2021; Prabook.com 2021; PCAD 2021b).

Hunt was born 1915 and graduated with a Bachelor of Architecture degree from the University of California, Berkeley in 1938. Research for this study uncovered no further details pertaining to Hunt's career prior to the formation of the Kitchen and Hunt partnership in 1948 (PCAD 2021c).

Historical Resources Evaluation of the North Berkeley BART Station

As detailed below, the North Berkeley BART Station is recommended ineligible for inclusion in the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR) or for designation as a City of Berkeley Landmark or Structure of Merit, because it lacks historical or architectural significance. It therefore does not qualify as a historical resource pursuant to CEQA.

National Register of Historic Places and California Register of Historical Resources Eligibility

The North Berkeley BART Station opened in January 1973, when BART initiated service along its Oakland-to-Richmond line. The planning, construction, and operation of the wider BART system arguably constitutes a significant event in the history of transportation in the San Francisco Bay Area region. However, research for this evaluation found no evidence suggesting the North Berkeley BART Station was singularly significant within this larger trend. Rather, all available evidence suggests the station's conception, construction, and operation were typical of other BART stations and public transportation facilities in general. Similarly, although the station is associated with the social activism which led to BART's undergrounding in Berkeley, there is no information to indicate it is individually significant within it. Indeed, a review of local press coverage of the public controversy and legal challenges surrounding the undergrounding of the BART system in Berkeley suggests the station's design engendered significantly less opposition than that of the Ashby BART Station and is less representative of the years-long dispute between Berkeley and BART than its counterpart. Research for this study identified no other context in which the property might possess important historical associations. The North Berkeley BART Station is therefore recommended ineligible for listing under NRHP Criterion A and CRHR Criterion 1.

The most likely candidate for significance under NRHP Criterion B and CRHR Criterion 2 is Berkeley Mayor Wallace Johnson, whose efforts in political negotiations with BART and the promotion of the successful bond Measure C, which helped lead to the undergrounding of the BART system in Berkeley, in lieu of the aerial design preferred by BART engineers. Although Johnson's contributions in this area may be of local significance, they would most likely be better represented by the full segment of the BART alignment in Berkeley than by the North Berkeley BART Station alone. An evaluation of the entire Berkeley segment of the system, however, is beyond the scope of this evaluation and additional research would be required to fully assess these potentially significant associations. Research conducted for this study identified no other individual with potentially significant associations to the North Berkeley BART Station. Therefore, the property is recommended ineligible for listing under NRHP Criterion B and CRHR Criterion 2.

Architecturally, the station is an undistinguished example of transit station featuring elements of the New Formalist style of architecture. Although the building exhibits elements representative of the style, including the strictly symmetrical form, oculus at the peak of the roof, and stylized metal-panel entablature ringing the overhang roof's lower tier, overall, its design lacks the building lacks monumentality and generally quality of design present in better examples of the New Formalist style. While the station's principal designers, the firm of Kitchen and Hunt, are noted for the design of some prominent buildings in the Northern California region, research for this study found no evidence either partner was considered a master architect or that the station is regarded as one of the partnership's more successful designs. Because it lacks architectural distinction and is not exemplary of the work of a master, the North Berkeley BART Station is recommended ineligible for listing under NRHP Criterion C and CRHR Criterion 3.

A review of available evidence did not indicate that the North Berkeley BART Station may yield important information about prehistory or history. It is therefore recommended ineligible under NRHP Criterion D and CRHR Criterion 4.

Future research may find that the North Berkeley BART Station is eligible for listing in the NRHP or CRHR as a contributor to a historic district comprised of all or part of the BART system. However, a district evaluation of the BART system was beyond the scope of this evaluation.

See continuation sheet, p. 9.

*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

■ Continuation

□ Update

B10. Significance (continued):

City of Berkeley Landmark and Structure of Merit Eligibility

The City of Berkeley's Landmarks Preservation Commission Ordinance (Berkeley Municipal Code 3.24.110) establishes criteria for the designation of sites, structures, and areas for designation, either individually or a district basis, as Landmarks and Structures of Merit. An evaluation of the North Berkeley BART Station for local eligibility follows.

Landmark designation Criteria 1a through 1c pertain to architectural merit. Research for this evaluation found the property is not the first, last, only or most significant architectural property of its type in the region. Rather, it is one of many BART stations constructed in the region and one of three completed in Berkeley in the early 1970s (Criterion 1a). As discussed above, the station is an ordinary example of the New Formalist style of architecture as applied to a transit station. It does not qualify as a prototype of or outstanding examples of periods, styles, architectural movements, or construction. Additionally, research for this evaluation found no evidence that its designers, the architecture firm of Kitchen and Hunt, are regarded as masters (Criterion 1b). Finally, because it lacks architectural distinction, it cannot be said to add exceptional value as part of the surrounding neighborhood fabric (Criterion 1c). The property, therefore, does not meet any of the requirements for designation under Landmark Criterion 1.

The North Berkeley BART Station also lacks cultural value, for which a property may be designated under Landmark Criterion 2. Based on research for this evaluation, it should be regarded as an ordinary transit station with no singularly important associations with the movement or evolution of religious, cultural, governmental, social and economic developments of the Berkeley. Although the station is associated with the social activism which led to BART's undergrounding in Berkeley, there is no information to indicate it is individually significant within it or any other historical context. The North Berkeley BART Station is therefore recommended ineligible for designation under Landmark Criterion 2.

Likewise, because the property is an undistinguished public transit station lacking significant historical associations, it does not possess usefulness as an educational force, as required for designation under Landmark Criterion 3, nor does it have historic value that expresses the social, cultural, economic, political, religious or military history of Berkeley, Alameda County, California, United States, as required for listing under Landmark Criterion 4.

Finally, because it is not listed on the NRHP, it is not eligible for designation under Landmark Criterion 5.

A property possessing architectural merit and/or cultural, educational, or historic interest or value may be designated as a City of Berkeley Structure of Merit if it does not currently meet the criteria as set out for a landmark but is recommended as worthy of preservation as part of a neighborhood, a block or street frontage, or as part of a group of buildings which includes landmarks per the criteria discussed below.

Based on background research for this evaluation, the North Berkeley BART Station is not eligible under Structure of Merit Criterion A, because it is not contemporary in age with any nearby designated landmark, its construction did not coincide with any important historical period or event, and it is not contemporary with the surrounding neighborhood, which was first developed in the late nineteenth and early twentieth centuries.

The property is also not compatible in size, scale, style, materials or design with a designated landmark structure within its neighborhood, block, street frontage, or group of buildings. It is therefore recommended ineligible under Structure of Merit Criterion B.

For reasons discussed above, the North Berkeley BART Station is not considered a good example of architectural design. It is therefore recommended ineligible under Structure of Merit Criterion C.

Finally, the North Berkeley BART Station was an important addition to the surrounding neighborhood in that it provided residents access to improved public transit service. This fact, however, would be true of virtually any comparable transit station, including Berkeley's other BART stations. Therefore, whatever the local importance of the station, it is not distinctive in its role in shaping transit service in the neighborhood or city. Therefore, the North Berkeley BART Station is recommended ineligible under Structure of Merit Criterion D.

*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

■ Continuation

□ Update



Left: North Berkeley BART Station, West Elevation, Including Skylight, Facing Northeast; Right: North Berkeley BART Station, Interior View of Paid Area of Concourse Level



Left: North Berkeley BART Station, interior View of Station Platform; Right: Utility Building at the North Berkeley BART Station, South and East Elevations, Facing Northwest



Left: North Berkeley BART Station Elevator Shaft, West Elevation, Facing East; Right: North Berkeley BART Station Bus Shelter, Facing Southwest

State of California -- The Resources Agency
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CONTINUATION SHEET

Primary #
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*Resource Name or # North Berkeley BART Station

*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

■ Continuation

□ Update

B12. References (continued):

Anonymous

n.d. "BART Chronology—January 1947 – March 2009," Archived at Internet Archive Wayback Machine.
<https://web.archive.org/web/20131013054420/http://www.bart.gov/docs/BARTHistory.pdf>. Accessed December 21, 2020.

Architectural Forum

1966 BART: The Bay Area Takes a Billion Dollar Ride. 124(6):38–60.

Architectural Record

1974 Two BART Stations. November. 113–120

Bailey, Charles A.

1890 Berkeley, Alameda Co., Cal. [map]. <https://cdn.calisphere.org/data/13030/6h/hb4m3nb36h/files/hb4m3nb36h-FID7.jpg>. Accessed August 11, 2021.

BART Facts

2021 BART: A Bay Area Lifeline During an Unprecedented Challenge.
https://www.bart.gov/sites/default/files/docs/BARTFacts2021_0.pdf. Accessed July 2021.

Bay Area Rapid Transit (BART)

1967 Architectural plans for the North Berkeley BART Station.

Berkeley, City of

n.d. West Berkeley Strategic Statement https://www.cityofberkeley.info/Planning_and_Development/Home/West_Berkeley_-_Physical_Form.aspx (accessed February 2021).

Callwell, Robert.

1999 Transit in San Francisco, A Selected Chronology, 1850-1995, San Francisco: San Francisco Municipal Railway.

Federal Transit Administration (FTA)

2017 Historic Context Report for Transit Rail System Development. June. Washington, D.C. Prepared for Federal Transit Administration, Washington, D.C.

Grefe, R. and R. Smart.

1975 A History of the Key Decisions in the Development of Bay Area Rapid Transit. September. McDonald and Smart, Inc. San Francisco, CA. Prepared for U.S. Department of Transportation and U.S. Department of Housing and Urban Development, Washington, D.C.

Healy, Michael C.

2016 BART: The Dramatic History of Bay Area Rapid Transit System, Berkeley: Heyday Books.

Legacy.com

2021 "Robert S. Kitchen," Legacy.com [web site]. <https://www.legacy.com/us/obituaries/sfgate/name/robert-kitchen-obituary?pid=89087057>. Accessed June 25, 2021.

Lorey, Maya Tulip

2013 "A History of Residential Segregation in Berkeley, California, 1878-1960," Concord Review. Document on file at Rincon Consultants, Ventura, CA.

Maley, B. and S. Watson

2016 California DPR 523 Series form for 11553-1163 Hearst Avenue.
https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_ZAB/2016-04-26_RESUB_DPR_1155-73%20Hearst.pdf. Accessed February 2021.

Modern Transit

2021 "Traffic Engineers vs. Transit Patrons." <http://moderntransit.org/ctc/ctc03.html> Accessed February 2021.

NETROnline

2021 Historic Aerials. Historic aerial photographs and topographical maps of North Berkeley BART Station and vicinity.
<https://www.historicaerials.com/viewer>. Accessed July 2021.

Oakland Tribune

1967 "BART Transition Plan in Lawsuit," December 8. <https://www.newspapers.com>. Accessed June 22, 2021.

1967 "Berkeley Injunction Hits BART," December 21. <https://www.newspapers.com>. Accessed June 22, 2021.

1968 "Ashby Station Suit in Court," March 5. <https://www.newspapers.com>. Accessed June 22, 2021.

1968 "Ashby Station Suit in Court," March 5. <https://www.newspapers.com>. Accessed June 22, 2021.

Pacific Coast Architecture Database (PCAD)

2021a "Kitchen and Hunt, Architects (Partnership)," PCAD web site. <http://pcad.lib.washington.edu/firm/4112/>. Accessed June 25, 2021.

2021b "Frank Bouldin Hunt (Architect)," PCAD web site. <http://pcad.lib.washington.edu/person/5544/>. Accessed June 25, 2021.

2021c "Robert Sieber Kitchen (Architect)," PCAD web site. <http://pcad.lib.washington.edu/person/5543/>. Accessed June 25, 2021.

See continuation sheet, p. 12.

CONTINUATION SHEET

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*Resource Name or # North Berkeley BART Station

*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

☒ Continuation

☐ Update

B12. References (continued):

Prabook.com

2021 "Frank Boudin Hunt, Architect, Water Color Artist," Prabook [web site].
https://prabook.com/web/frank_bouldin.hunt/603932. Accessed June 25, 2021.

ProQuest

1911 Sanborn Fire Insurance Maps, Berkeley. <https://digitalsanbornmaps-proquest-com.ezproxy.lapl.org/>. Accessed February 2021.

1929 Sanborn Fire Insurance Maps, Berkeley. <https://digitalsanbornmaps-proquest-com.ezproxy.lapl.org/>. Accessed February 2021.

1950 Sanborn Fire Insurance Maps, Berkeley. <https://digitalsanbornmaps-proquest-com.ezproxy.lapl.org/>. Accessed February 2021.

San Francisco Examiner

1968 "The Week's News in Review," May 19. <https://www.newspapers.com>. Accessed June 22, 2021.

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 5S3

Other Listings
Review Code

Reviewer

Date

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*Resource Name or #: Ashby BART Station

P1. Other Identifier:

*P2. Location: ☐ Not for Publication ☒ Unrestricted *a. County: Alameda

*b. USGS 7.5' Quad: Oakland West Date: 1993 Township Range Section M.D.B.M.
c. Address: 3100 Adeline Street City: Berkeley Zip: 94703
d. UTM: Zone: mE/ mN (G.P.S.)
e. Other Locational Data: APNs 53-1597-39-4 and 53-1703-9

***P3a. Description:**

The subject property is the Ashby Station of the Bay Area Rapid Transit (BART) system. The station consists principally of a below-grade subway station and adjacent surface parking lot located on the 4.4-acre triangular property bounded Adeline Street, Martin Luther King, Jr. Way, and Ashby Avenue. A satellite surface parking lot is located across Adeline Avenue to the southeast, behind the Ed Roberts Campus.

Exhibiting elements of the Brutalist style of architecture, the station building is located mostly beneath the Adeline Street right-of-way. Its upper-level concourse consists of the station entrances, fair gates, and means of egress to the platform level. The lower level features a station platform flanked by two sets of tracks, which within the station, follow the Adeline Street alignment. There is one visible elevation, on the west side of the building, where the main entrance is accessible from the ground level of the adjacent, below-grade surface parking lot. A concrete deck with elaborated concrete facing and supported by a system of heavy reinforced beams and fluted concrete columns shelters the station's deeply recessed, reinforced concrete exterior wall. A central entrance featuring sliding double doors is flanked by series of full-height, metal-sash fixed windows. Spaces between the windows exhibit the same pattern of fluting as do the columns. Affixed to the side of the deck are the vertical metal supporting elements of a non-original shelter structure, which has a glass canopy that extends over the deck adjoining the sidewalk on the west side of Adeline Street. Other features of the street-level exterior include a barrier on the outer edge of the deck consisting of a concrete base elaborated with geometric recesses and a sheet-metal-clad rail, in addition to two sets of concrete steps that descend to the parking lot and exposed west elevation of the station.

See continuation sheet, p. 4.

***P3b. Resource Attributes:** HP39. Other (Subway station)

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing



P5b. Description of Photo:

Ashby BART Station, West Elevation, Camera Facing Southeast

***P6. Date Constructed/Age and Sources:**

☒ Historic ☐ Prehistoric ☐ Both

1973 (Anonymous 2009)

***P7. Owner and Address:**

N/A

***P8. Recorded by:**

JulieAnn Murphy
Rincon Consultants
449 15th Street, #303
Oakland, CA 94612

***P9. Date Recorded:**

June 30, 2021

***P10. Survey Type:**

Intensive

***P11. Report Citation:**

Murphy, JulieAnn, James Williams, and Steven Treffers. 2021. Historical Resources Evaluations for the Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Project, City of Berkeley, Alameda County, California. Prepared for City of Berkeley by Rincon Consultants, Inc. August 11.

***Attachments:** ☐ NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record

☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record

☐ Artifact Record ☐ Photograph Record ☐ Other (List):

State of California X Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #
HRI#
Trinomial

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*Map Name: *Oakland West*

*Resource Name or # Ashby BART Station
*Scale: 1:24,000
*Date of map: 1993



BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # Ashby BART Station

*NRHP Status Code 5S3

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B1. Historic Name: Ashby BART Station

B2. Common Name: Ashby BART Station

B3. Original Use: Subway station

B4. Present Use: Subway station

*B5. Architectural Style: Brutalism

*B6. Construction History:

The Ashby BART Station was completed in 1973. In recent years, a street-level canopy, signage, and a bike station addition were added to the station. No other notable alterations have been made to the station.

*B7. Moved? ☐ No ☐ Yes ☐ Unknown

Date: N/A

Original Location: N/A

*B8. Related Features: None

B9a. Architect: Unknown

b. Builder: Unknown

*B10. Significance: Theme N/A

Area N/A

Period of Significance N/A

Property Type N/A

Applicable Criteria N/A

The subject property is the Ashby BART Station. It was completed in 1973 to serve BART's Oakland to Richmond extension line.

The following narrative is presented to provide a focused historical context in which to understand the potential significance of the North Berkeley BART Stations.

Development of Transit in the Bay Area: The Horsecar Era to the Electric Streetcar (1861-1946)

The development pattern of the San Francisco Bay Area largely reflects the transit development patterns of the greater United States. Sparsely populated until the Gold Rush in 1849, by the mid nineteenth century the area was growing rapidly and emerging as a metropolitan region with transportation between cities. By 1850 there was a stage line between San Francisco and San Jose as well as ferry service between San Francisco and Oakland (Callwell 1999). The first omnibus began to service San Francisco in 1851. Rail service between San Francisco and San Jose began in 1863, with stops along the Peninsula. In 1872 Hallidie's cable car began running and soon thereafter cable car and rail service expanded through San Francisco's expanding boundary (Caldwell 1999). The cable car service would eventually become San Francisco Municipal Railway (Muni) and was good but limited to intra-city service (Healy 2016).

In the East Bay, there were parallel transportation developments. In addition to ferry service to San Francisco, there was rail service extending from Oakland to surrounding communities including Berkeley. The first electric streetcars began to appear on both sides of the San Francisco Bay in the 1890s. By the turn of the twentieth century, San Francisco was the largest city on the West Coast and the region's transit was growing to accommodate the population and growing economy. The San Francisco, Oakland, and San Jose Railway began running in 1903 and provided electric rail service in the East Bay to ferries that continued to San Francisco (Healy 2016). By 1916 the rail was comprised of 250 miles of track. Then known as the Key System because its track configuration resembled a skeleton, it was the region's dominant transit system.

See continuation sheet, p. 4.

B11. Additional Resource Attributes: N/A

*B12. References:

See continuation sheet, p. 13.

B13. Remarks:

*B14. Evaluator: James Williams, Rincon Consultants

*Date of Evaluation: August 11, 2021

(This space reserved for official comments.)



*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

■ Continuation

□ Update

P3a. Description (continued):

The west-elevation entry door opens to the concourse-level interior. The concourse interior is characterized by the exposed reinforced concrete structure of the station, which features broad horizontal members supported by square columns with fluting comparable to that found on the exterior. The floor and some wall surfaces are clad in tiles. A series of fare gates, along with an information booth and metal rail fencing, separates the entry and paid areas of the concourse. Beyond the fare gates, paired escalators and straight concrete stairways descend to the station platform.

The platform is characterized by a similar pattern of exposed concrete structural elements and tile floor cladding, in addition to exposed concrete ceiling beams, which are also visible in parts of the concourse. Walls flanking the outsides of the tracks are clad in evenly spaced panels of an undetermined material. Other features of the platform level include concrete benches, electronic reader boards displaying train arrival times and other relevant information, and interior-illuminated directional signage.

The station is in fair condition. Alterations include the installation of street-level canopies and signage and construction of a flat-roof "bike station" addition near the south end of the station proper. The west portion of the satellite parking lot was redeveloped as the Ed Roberts Campus.

Landscaping is confined to the earthen embankments encircling the station entrance and parking area and parking lot islands located throughout the primary parking lot. These planted areas feature several varieties of mature trees and shrubs. Outside the planted areas and station footprint, the property is paved in asphalt for use as parking spaces and internal circulation roadways.

B10. Significance (continued):

After World War I, the Bay Area saw another period of significant growth and the need for improved cross-bay transit became imperative. The Oakland - San Francisco Bay Bridge opened in 1936 and its lower deck accommodated the Key System streetcars, supplanting the previous ferry service. The Golden Gate Bridge opened the following year (Healy 2016).

In the years leading up to World War II, several studies were conducted to investigate possibilities improve cross bay transit with additional bridges. During the post-World War II years, the nine counties of the Bay Area doubled in size, with most development occurring in the suburbs while San Francisco and Oakland remained the primary employment centers. The Key System was suffering from deferred maintenance during the war and the new owners (a holding company for General Motors) cut service. That, along with the popularity of the automobile caused ridership to fall from 22 million in 1946 to 9.8 million by 1952 (Healy 2016). By 1948 Key System trains were replaced by busses (Healy 2016).

Planning for BART (1946-1962)

The need for a more robust regional transit system was clear as early as 1946 when the state legislature passed a bill for a Joint Army Navy Board to study the possibilities of cross-bay transit. In 1947 the Board recommended that an "adequate system of rapid mass transit be a component of the overall general scheme to solve the Bay Area transportation problems over an extended period of years" (Healy 2016). In 1951 San Francisco Board of Supervisor, Marvin Lewis drafted an amendment to 1949 transit legislation and the San Francisco Bay Area Transit Commission was signed into law by the state legislature (Healy 2016). In 1953 the Commission awarded a contract to Parsons, Brinkerhoff, Hall, and MacDonald (PBHM) to author the land use and transit report, which after studying the area's travel patterns proposed that a high-speed, grade separated regional rapid transit was critical as complementary to the highway system.

The San Francisco Bay Area Rapid Transit District (BARTD) was signed into law in September 1957. The District was comprised of five core counties: Alameda, Contra Costa, Marin, San Francisco, and San Mateo (Healy 2016). BARTD viewed the initiative as imperative, witnessing regional growth that was expected to continue and further stress existing freeways and bridges. They decided to get the initiative on the November 6, 1962 general election ballot and spend the 2 years approaching the election running an information campaign to encourage people to vote for a tax to build the project (Healy 2016). PBHM recruited the Bechtel Corporation and Tudor Engineering (PBTB) to form a joint venture to launch a number of studies and refine engineering considerations.

By early 1962, Marin County and San Mateo County withdrew from the project (Grefe and Smart, 1975; Healy 2016). In May 1962, PBTB revised the Composite Report to include the three remaining counties – Alameda, Contra Costa, and San Francisco. The initiative went on ballot on November 6, 1962 and passed with just over 61 percent of the vote (Healy 2016). The vote approved rapid transit bond funding and the use of state bridge tolls to fund the construction of the transbay tube.

Designing BART and Community Participation (1962-1964)

The Composite Report was just a selling tool and not the definitive design. After the passage of the bond measure in 1962, the system had to be planned in detail, engineered, and designed. BART would be the first new transit designed in whole since the Philadelphia transit system was designed in 1907 (Healy 2016: 62). The final route design would be an askew "X" with Oakland as the East Bay hub with a third of the track at grade, a third aerial, and a third underground. Parking would be provided at all suburban stations. Systemwide, 20,000 spaces were constructed (Healy 2016).

See continuation sheet, p. 5.

*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

■ Continuation

□ Update

B10. Significance (continued):

After the engineering contract was awarded in 1962 and defended from a lawsuit arguing the bond referendum was invalid because the public had not been given the true scope of the project in 1963, BARTD had to negotiate the right of way agreements with communities and purchase parcels to build the track and stations. The engineers assumed that lines and stations identified in the initial reports and again in the Composite Report would be accepted and the process for acquiring land would be routine. Communities, however, began to demand a participatory process (Healy 2016). PBHM met with City Councils and Boards of Supervisors in all jurisdictions through which the travel corridors passed in 1953-1955 (Grefe and Smart, 1975). Many jurisdictions, however, did not have planners at the time. While the general requirements of the cities were initially met, when acquiring right of way permissions after the passage of the bond issue in 1962, BART was faced with accommodating extensive local requirements that initial cost estimates failed to include (Grefe and Smart 1975). BARTD's policy was to accommodate local demand within their financial capabilities (Grefe and Smart 1975).

BARTD sought popular acceptance by the communities. At the same time, communities, growing from local activist movements were asking for a participatory process to discuss station locations, designs, color schemes, landscaping, route tracking, and noise abatement (Healy 2016). BARTD continued the pursuit of acceptance until the expense of meeting local demand was overbearing. The most intense disagreements were in response to BARTD's plans to construct track on a viaduct, above ground within the city limits of Berkeley. In 1963, Berkeley's incoming mayor Wallace Johnson strongly opposed the above-ground track arguing it would be an eyesore and further divide the city by race, separating the city's predominately white and black neighborhoods (Grefe and Smart 1975). Despite a public process with hearing and negotiations, the City of Berkeley and BARTD could not reach an acceptable compromise. In 1966, the City of Berkeley voted to establish a special tax district to cover the estimated \$25 million to build a subway through the city, leading to considerable construction delays.

The undergrounding of BART in Berkeley was the most contentious community-led conflict with BARTD, but it was not the only one. In Oakland, the line would require the demolition of the city's major hardware store, Simon's Hardware, Inc. BARTD altered the track configuration, leading to a permanent requirement for trains slow to 25 miles per hour at the newly designed wye. In Albany, the city was concerned with a proposed station that would take property off the tax rolls, leading BARTD to move the station to El Cerrito. In San Francisco, neighborhoods in the western region feared impacts of the system, leading BARTD to remove a segment beyond West Portal from its plans. An additional station was added at Embarcadero to serve the emerging commercial and hotel district resulting from the ongoing redevelopment in the area (Healy 2016).

BART's Architecture and Expansion (1964 – Present)

In designing the stations, BARTD knew as General Manager BR Stokes described that in order to "attract drivers out of their cars it must be sleek, comfortable, convenient, and cheap," (Healy 2016). The system would naturally adhere to modern architectural design, landscape architecture, graphic design, and industrial design, thereby reflecting its technological achievements (Figure 2). The Composite Report included renderings reflecting the modernistic aesthetic.

The scope of the architectural design was increased substantially over what was described in the Composite Report which envisioned designs based on standardized features. Instead BARTD made use of separate architectural firms to design stations with individual design elements (Grefe and Smart 1975). PBTB hired Donn Emmons, partner at Wurster, Benardi & Emmons (WBE) to be the project's consulting architect. The work of the consulting architects resulted in the development of the Manual for Architectural Standards for BART (Grefe and Smart 1975). The manual, completed in 1965, provided for elements that should be included in each station design, including ticket kiosk locations, vertical circulation, acoustic requirements, site layout requirements, and the number of entrances (Architectural Forum 1966). The information in the manual was largely functional, providing minimum design standards and physical requirements and did not include guidance for architectural style. In tandem with the Manual for Architectural Standards, landscape architect, Lawrence Halprin, was hired as chief landscape architect and authored a corresponding landscape guide, The Landscape Design Criteria and Standard Landscape Elements. It established a list of acceptable plants and standard elements for station plazas (Architectural Forum 1966).

Project architects were given latitude with stations design but were constrained by the manual and the site plan, frustrating some architects. Ultimately, stations were designed by 14 Bay Area firms, selected from a list compiled by Emmons. The result was a variety of station designs, ranging from utilitarian to inspired. In addition to constraints from the prescriptions by PBTB in the manual and the development of the site plans, architects were limited by the station type. Designers used finishes and materials to distinguish their work, including the placement of openings, lighting, and artwork. Some architects used more innovative features like rotundas, sunken plazas, or new use of materials (Architectural Record 1974).

Construction was underway in 1965 and by 1968 over half of BART's system construction was complete (Healy 2016). BART opened to public service on Monday, September 11, 1972. However, only a small fleet of trains were available and 12 stations between Fremont and MacArthur were serviced. The transbay tube, allowing trips between San Francisco and Oakland, did not officially open for another two years. In its first 3 months of operation, 1 million passengers used BART. By 1978, BART offered weekend service, proving its viability as a transit option beyond the workweek (Healy 2016). In the following years, BART worked on refining service. During the 1990s three service route extensions were planned – Daly City to SFO to Millbrae, Concord to Antioch, and Bay Fair to Dublin/Pleasanton. Today, BART has expanded to 50 stations and includes 131 miles of track, serving over 400,000 passengers weekly (BART 2021).

See continuation sheet, p. 6.

*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

■ Continuation

□ Update

B10. Significance (continued):

Property History of the Ashby BART Station

Urban development on and around the site that now comprises the Ashby BART Station began by the late nineteenth century. Since the 1870s, the area had been connected to Berkeley's commercial district by a Central Pacific Railroad spur line. This and subsequent rail improvements shaped development in the coming decades. A USGS map dating from 1895 shows that the street grid surrounding the present BART station was developed, and scattered residences occupied the triangular block that makes up the site (NETROnline 1895). Despite the incipient urbanization of the area, until sometime in the early twentieth century, the area around the Central Pacific's Adeline Street stop remained swampy, perhaps because of a reported "frog pond" in the vicinity (BAHA 2004).

Although the area was subdivided by the late 1880s, development was sluggish until the following decade. Two events in 1891 set the stage for the suburbanization of the area in and around the station site. First, the City of Berkeley annexed the area, bringing the promise of urban services. Next, the Oakland Consolidated Street Railroad extended interurban commuter rail service to the neighborhood. The establishment of two new streetcar lines in the neighborhood, nicknamed the "Shattuck" and the "Lorin," connected the area to a wider East Bay transit network and made commuting from the incipient suburb practicable for those who could not afford a horse and buggy. The local transportation network was expanded further in 1903, when the Key System established a streetcar connecting Berkeley to San Francisco with Adeline Street serving as a one of the route's main East Bay corridors (Emmington et al. 2004). In response, members of a newly mobile workforce opted to settle farther from the urban core, and residential development intensified around the new trolley lines. Following the completion of the commercial Webb Block (1885 Ashby Avenue) and the influx of refugees from the San Francisco earthquake and subsequent fires of 1906, many of the Ashby BART Station's lots were quickly developed with residences, and a commercial district developed, filling the four corners of the Ashby Avenue-Adeline Street intersection, immediately northeast of the station site (BAHA 2004; Emmington et al. 2004).

In 1909 and 1911, two new streetcar lines were established through the area. In 1909, the Key System began service on the Ashby Avenue Line, and in 1911, Southern Pacific established the Ellsworth Line. These additions made the area a nexus of local and regional transportation routes (Emmington et al. 2004). By 1911, Sanborn maps show that the station site was almost completely developed. While the area was largely developed with single-family residences, there were scattered multi-family structures and several undeveloped parcels at the southwest corner of Ashby Avenue and Adeline Street. The present site of the adjacent Ed Roberts Campus was similarly characterized by mostly residential development, but also featured a few commercial and industrial properties along and near Adeline Street (ProQuest 1911).

Through the first half of the twentieth century, a combination of banking and real estate industry practices and government policies enforced residential segregation in Berkeley. Grove Street (now Martin Luther King, Jr. Way), which borders the Ashby BART Station on the west, became the unofficial dividing line between White and Non-white Berkeley. By the 1920s, the neighborhood west of the station site was home to a growing number of Black and Japanese-American residents (Archaeological/Historical Consultants and JRP Historical Consultants 2018; Lorey 2013). As documented by the Home Owners' Loan Corporation in the 1930s, the racial division of the area surrounding the Ashby BART Station site was made official when the area west of Grove Street was "redlined," due to its majority-non-white population (Mapping Inequality 2021). As discussed further in the following paragraphs, because the Ashby BART Station was constructed in a segregated neighborhood, this influenced the perception that its design was discriminatory and would have a deleterious effect on Black residents living near the station site.

As of 1950, the Ashby BART Station site remained largely residential in character, though commercial and auto services were operating at the north and south ends of the block. The Ed Roberts Campus site and its surroundings were by then fully developed with a mix of commercial, light industrial, institutional properties along Adeline and single-family houses on side streets (ProQuest 1950). Mirroring a wider trend in cities across the United States, Key System streetcar service ended in the 1950s and the tracks along Adeline Street were soon removed (Archaeological/Historical Consultants and JRP Historical Consultants 2018). Historical aerial photographs show that, by the late 1960s, BART began clearing the dozens of residences and other buildings from the future station site in anticipation of construction of the Ashby BART Station and its associated parking lots (NETROnline 1958; 1968).

PBTB's original design for the Berkeley segment of the BART system called for elevated tracks placed on street medians throughout the city (Healy 2016). City of Berkeley officials objected to the aerial rail design, and in 1960, the Berkeley City Council passed resolution that called for the BART system within Berkeley to be constructed entirely as a subway. Negotiations with the City-led PBTB to propose a compromise by which BART would construct a subway segment in downtown Berkeley (mostly along Shattuck Avenue between Derby Street and the intersection of University and Milvia avenues). The remainder of the Berkeley route, roughly three miles of tracks, would be elevated. These changes were incorporated into the Composite Report, released in Spring 1962 to the various city and county jurisdictions through which BART would be routed. PBTB believed a lack of official response from the municipalities indicated approval of the designs contained Composite Report (Healy 2016).

In 1963, Wallace Johnson, who had recently been elected mayor, objected. Now known as the "the last Republican mayor of Berkeley," Johnson graduated from the California Institute of Technology with a background in engineering before entering local politics. Johnson objected to the aerial tracks and stations, believing they were "aesthetically unattractive" and threatened to "divide the city psychologically along racial lines," in the words of historian Michael C. Healy. Indeed, as Healy notes, for much of its course through Berkeley, the BART line would run parallel to, and just east of, Grove Street (now Martin Luther King, Jr. Way) which historically marked the unofficial boundary between Berkeley's White and Black neighborhoods (Healy 2016; Lorey 2013). Led by Johnson, the City pressured BART and PBTB to redesign the Berkeley segment as entirely underground alignment, but BART objected due to the comparatively high price tag of subway construction. In July 1963, the City requested BART release a cost comparison of the elevated and subway alternatives. Meanwhile, Johnson formed a committee to plan for covering part of the excess costs of putting the line underground. The City's independent study estimated the difference in cost between BART's proposal and an entirely underground alignment would be approximately \$6 million. In March 1964, BART issued its own cost estimates, which concluded the added cost of placing the tracks and two stations underground would total \$21 million. In subsequent negotiations, neither party was open to renegotiating (Healey 2016). See continuation sheet, p. 7.

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■ Continuation

□ Update

B10. Significance (continued):

Johnson and other members of the Berkeley community began campaigning publicly against the aerial segments. Johnson paid to have 30-foot-tall scaffolding erected near the proposed North Berkeley and Ashby BART Station sites to represent the height of the aerial elements. The Berkeley Citizens Committee collected \$14,000 in donations to wage a public information campaign consisting of the placement of large signs reading 'BURY THE BART TRACKS' in locations around the city and paid for the airing of advertisements on the local radio station KPFA (Healy 2016).

Negotiations between BARTD and the City resumed in May 1964, with as many as 20 sessions held between May and August. Both parties issued revised cost estimates, with BARTD projecting \$24 to \$30 million in additional expenditures and the City \$11 million. In September 1964, the BARTD board of directors unanimously rejected Berkeley's request for a subway line, unless Berkeley could come up with the money to cover the difference in cost between the aerial and subway alternatives (Healy 2016).

As a result of behind the scenes talks between Johnson and BARTD president Adrien Falk, BARTD agreed to advertise two sets of bids for the Berkeley alignment—one for aerial construction and the other for a subway—as a means of settling the dueling cost projections at the heart of the standoff. In the interim, the City would work out details of financing the added construction costs. Johnson persuaded the City Council to establish Special District No. 1, a special assessment district comprised of the entire city and throughout which taxpayers would vote on a \$20.4 million bond issue to finance excess construction costs due to the construction of the subway. The issue went to the ballot in October 1966, with 80 percent voting to approve the bond issue. Eventually, the low bid for subway construction (1968) came in at around \$12.4 million, about \$2.4 million more than Berkeley officials estimated and with a price tag that could be covered by Berkeley's bond issue (Healy 2016). As a result, the Berkeley segment of the BART alignment would be constructed as a subway.

Following approval of the Bond Measure C, a second design was drafted for the Ashby BART Station, as well as its counterpart in North Berkeley. The redesigned station proved just as controversial as PBTB's original proposal. While the tracks approaching the station would be placed underground, the new plans called for a station located partially above-ground. Specifically, a 700-foot-long, 5-foot-high skylight structure would emanate above ground level to allow natural light into the station. The structure, which would have been located in the Adeline Street median, spanning the approximately two and a half blocks between Ashby Avenue and Woolsey Street, was designed to be enclosed by an 8-foot-high fence (Healey 2016; Oakland Tribune 3/5/1968; 3/12/1968). That the proposed station was perceived as a multi-block barrier bisecting the adjacent neighborhood was compounded by plans for an impassable segment of "transitional" tracks connecting Oakland's aerial structure to Berkeley's subway to be located immediately south of the station. When Oakland officials refused to allow the construction of the structure on their side of the boundary, BART engineers planned for their placement in Berkeley. Neighborhood activists grew concerned that the combined effect of the proposed station and transitional track structure would be a barrier spanning approximately five city blocks (Oakland Tribune 12/8/1967; 3/12/1968; San Francisco Examiner 5/19/1968).

In late 1967, a group of five local residents filed a lawsuit against BART to halt the construction of the station as proposed by BART. The legal challenge was led by two prominent Black Berkeleyans, labor and civil rights activist Mable Howard, and then-Berkeley City Council member Ronald V. Dellums (see below for brief biographical sketches of Howard and Dellums). Contemporary news articles reported the plaintiffs' main allegations were that construction of the above-ground portions of the station would form a barrier separating the historically white and Black sections of Berkeley, that construction of a surface parking lot on the triangular lot bounded by Adeline Street, Ashby Avenue, and the present Martin Luther King, Jr. Way would remove properties from the tax rolls at a cost to the City, and that extending the station or related facilities beyond the Adeline street right-of-way would incur unnecessary costs associated with the acquisition of private property (Oakland Tribune 12/21/1967). In subsequent oral arguments, BART counsel Fred McNeil characterized the charges that the above-ground elements would constitute a "a traffic or racial barrier" as a "false issue." Paraphrased by the Oakland Tribune, McNeil offered "the triangular gore of Ashby-Grove-Adeline existed as a natural physical block to crosstown traffic and that Negroes lived on both sides of the Adeline site" (Oakland Tribune 3/5/1968). Moreover, it would cost a million dollars to lower the station so that the roof would be at ground level, and that it would make for a "less desirable station" (Oakland Tribune 3/5/1968).

In December 1967, Alameda County Superior Court judge Thomas Caldecott issued an injunction to stop BART's construction of above-ground facilities at the Ashby and North Berkeley BART station sites. According to an article published in the Oakland Tribune, "in granting the injunction, [...] Caldecott held that the district's present plans create a barrier through Berkeley that defeats the purpose of a \$20 million bond [...] passed by taxpayers that put the system underground" (Oakland Tribune 12/21/1967). In May 1968, the case was resolved in favor of the plaintiffs. In a 13-page decision, Alameda County Superior Court Judge Robert L. Bostick found that BART would be required to redesign the Ashby BART Station, because the existing plans were not consistent with the "subway" required by the bond measure Berkeley voters approved in 1966. He said further that the promise of keeping the tracks underground "border to border" and thus preventing the construction of a "Berlin Wall" to divide the city was crucial to the bond measure's approval (San Francisco Examiner 5/19/1968).

Bostick's decision forced BART back to the drawing board. BART selected the San Francisco-based architecture firm Maher and Martens to draw what would be the third and final design of the Ashby BART Station. Helmed by partners Edward John Maher and Henry E. Martens, the partnership also served as architects for the Downtown and McArthur BART station. In 1969, Maher and Martens completed plans for the Ashby BART Station. Designed in with a heavy reinforced concrete construction emblematic of the Brutalist style, the station elements were constructed under Adeline Street, with the exposed west-elevation station entrance facing the adjacent below-grade surface park-and-ride lot (Maher and Martens 1969). A satellite parking lot was constructed across Adeline Street to the southeast. In the early twenty-first century, a large portion of the satellite parking lot was redeveloped as the Ed Roberts Campus.

See continuation sheet, p. 8.

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*Date: June 30, 2021

■ Continuation

□ Update

B10. Significance (continued):

Service at the Ashby BART Station began with the opening of Oakland-to-Richmond extension on January 29, 1973 (Anonymous 2009). For its first several years of service, the station offered only weekday service.

Berkeley Flea Market

In the late-1970s, the Ashby BART Station was again a source of community activism, this time centered on the use of its adjacent western parking lot on weekends as the site of the Berkeley Flea Market. Some sources claim the outdoor market originated in 1973 out of spontaneous efforts by community members to take advantage of otherwise unused public space (Rubalcava-Levinthal 2019, Hicks 2019, Steltzer 2016). As one source explained, "BART originally didn't run trains on the weekends. The parking lot was empty, so people felt they had the right to go in and set up and sell" (Steltzer 2016).

Contemporary sources identify 1976 as the date of the flea market's origins. That year, the event was organized by Community Services United (CSU), who secured a series of temporary lease agreements with BART, under which flea market vendors could sell goods from the parking lot on Saturdays and Sundays (Grassroots 1976; Fernandez 1981; Brom and Amini 1979). Founded in 1976, as "the brainstorm of a coalition of 30 social service agencies that had long competed against each other for city funds." CSU was conceived as a way to raise money to support poorer residents of Berkeley "while avoiding the constant trek to city hall for [funding]" (Brom and Amini 1979). The flea market appears to have served the dual purpose of raising funds for CSU through vendor fees while offering a venue for the same vendors to raise income through the sale of various goods.

During the flea market's early years, the event drew primarily from the neighborhood surrounding Ashby BART Station. One of the event's founders, Pat McClintock, commented on the changing demographics: "At first, both buyers and sellers were primarily poor and black... The stalls would fill up with sellers, but nobody had much money to buy. Now there's more cash changing hands, more volume, and a higher turnover of goods" (Brom and Amini 1979). The event proved popular as a retail site where customers could find deals on everyday items, such as dishes, clothes, tools, and appliances (Brom and Amini 1979). For many vendors, the flea market was an important source of income. Speaking to the San Francisco Examiner in 1979, Cornelius Thorne, an SFSU maintenance worker who supplemented his regular earnings selling dishes, magazines, and old toasters and waffle irons, explained, "Between inflation and having eight kids, I sell here to have more money... A rabbit's got to have more than one hole to crawl into these days" (Brom and Amini 1979). The event's popularity grew phenomenally in its first 5 years under CSU's management. According to an article published in the North East Bay Independent & Gazette, by 1981, the flea market was so successful it had become "the fifth largest retail business in Berkeley, doing about \$1 million of business per year" (Fernandez 1981).

From its beginning, the Berkeley Flea Market was also an "arena for local politics" (Brom and Amini 1979). CSU reserved ten stalls for community-oriented organizations running. Typical participants ranged from explicitly political left-wing organizations such as Berkeley Citizen's Action and the Black Panther Party to the more conservative Boy Scouts of America (Brom and Amini 1979).

In mid-1978, the lease agreement between BART and CSU became the subject of a prolonged dispute that would eventually end in a court ruling in CSU and the flea market vendors' favor. In the view of the BART Board of Directors, the agency and CSU had entered into an agreement providing that CSU could lease the parking as the site the Berkeley Flea Market until weekend service began at Ashby BART Station. In 1978, as BART first prepared to run trains at Ashby BART Station and the rest of the Oakland-to-Richmond round, BART ordered CSU to cease holding the event on the Ashby BART Station parking lot (Healey 2016). Flea market vendors pressured BART to renew the lease, and the agency relented, offering a series of temporary agreements that reinstated the flea market. The dispute came to a head in July 1981, however, when an administrative report proposed once again revoking the flea market's permission to use the site, due to associated with policing and supposed damage to landscaping, in addition to the apparent "inconvenience" to BART posed by the flea market's use of the parking lot (Fernandez 1981; Buel 1981a). BART soon announced the flea market's lease agreement would not be renewed. Several vendors vowed to fight BART's decision. Following the lapse of the lease agreement, the weekly event continued without BART's sanction (North East Bay Independent & Gazette 7/28/1981, Buel 1981b, Kruger 1981).

By October 1981, noted Berkeley-based civil rights attorney Donald Jelinek was hired to represent the vendors in a lawsuit aimed at reinstating the Berkeley Flea Market's right to continue operations in the Ashby BART Station parking lot on weekends (Kruger 1981). A native of New York, Jelinek got his start in civil rights activism in the 1960s working on a Mississippi civil rights campaign organized by the Student Non-Violent Coordinating Committee. In 1969, following a stint advocating on behalf of the economic rights Black Alabama farmers, Jelinek moved to Berkeley to practice law. He represented defendants in high-profile civil rights cases, including those of a group of Native American activists charged with trespassing following their well-publicized occupation of Alcatraz Island in 1969 and several inmates charged with offenses related to the Attica Prison uprising of 1971. Following the resolution of flea market vendor's suit against BART, Jelinek served on the Berkeley City Council and twice ran unsuccessfully for mayor of Berkeley (Scherr 2016; Quian 2016).

See continuation sheet, p. 9.

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*Date: June 30, 2021

■ Continuation

□ Update

B10. Significance (continued):

Filed in Alameda County Superior Court in October 1981, CSU's lawsuit against BART was settled in 1983. Described by historian Michael C. Healey as a "'he-said-she-said' situation," the case revolved around the disputed duration of the lease agreement and whether BART "caused the vendors to believe that [a particular BART staff member] was authorized to negotiate the agreement" (Burruss 1983, Healey 2016). The 19-month trial ended June 1983, when the jury found BART had entered into a contract with the vendors which allowed them "indefinite renewals of the written concession permit until a) BART needed the Ashby parking lot for its own purposes or b) the flea market was not operated according to BART standards" (*San Francisco Bay Area Rapid Transit District v. Community Services United, et al.* 1983). Conger additionally awarded the vendors \$15,000 in court (Healey 2016, Burruss 1983, Kruger 1983). Quoted in the Berkeley Gazette, one vendor celebrated the decision: "I'm so happy to go out and be making a living. It's a victory for people of all races. We fought the system and beat the biggest powers" (Kruger 1983).

Four almost 4 decades after Conger issued her decision, the Berkeley Flea Market has operated consistently at the Ashby BART Station site. Although the demographics of its customers shifted over the years, it remained an important source of income for low-income vendors. Aside from its role as a retail outlet for a variety of second-hand goods, the market has also served as a gathering place for Black residents of the surrounding neighborhood and venue for the arts, including a longstanding weekly drum circle (Steltzer 2016; Rubalcava-Levinthal 2019). In February 2019, CSU announced plans for the flea market's first temporary closure, during February and March of that year. CSU cited as a reason for the closure the institution's declining receipts, which a representative attributed to gentrification of the surrounding area (Hicks 2019; Rubalcava-Levinthal 2019). As of the drafting of this evaluation, the Berkeley Flea Market web site indicated the event was still in operation weekly.

Mable Howard

Born in 1905, Howard arrived in the Bay Area in 1942 and moved to Berkeley in 1946. In the 1940s, Howard worked at the Bethlehem Steel shipyards and became the successfully fought to become the first Black woman admitted to the painters' union. She was active in the International Longshore and Warehouse Union for more than 30 years. Howard is perhaps best remembered for her leading role in the 1967-1968 lawsuit that forced BART to build the Ashby BART Station entirely underground. Howard was also active in the boarder Civil Rights and Antiwar movements and served as a local board member for the federal Model Cities social welfare program. A profile of Howard published in the Oakland Tribune reported that Howard's home was often the setting of "spirited get-togethers" of community leaders engaged in political discussion. According to a 1995 obituary, Howard earned the nickname "Mama Howard" for "nurtur[ing] so many prominent civic leaders" (Hussain 2018; Race, Poverty & the Environment 1995; Berkeley Gazette 4/11/1973; Oakland Tribune 3/26/1985). The Mable Howard Apartments on Alcatraz Avenue in Berkeley are named in her honor.

Ronald V. Dellums

Dellums was born in Oakland in 1935. After graduating from Oakland Technical High School in 1953, Dellums attended Oakland City College, earning an Associate's degree in 1958. He transferred to San Francisco State University, from which he graduated with a Bachelor's degree in psychology. In 1962, Dellums completed his Master's degree in social work at the University of California, Berkeley (Williams 2021).

Dellums's began his career as an elected official in Berkeley, serving one term as a member of the City Council from 1967 to 1971. In 1970, while serving on the City Council, Dellums ran for Congress as an antiwar candidate and won a seat U.S. House of Representatives seat representing parts of Berkeley and Oakland. In securing the seat with 57 percent of the vote, Dellums became the first Black candidate to win in a majority-white House district. In his first term in Congress, Dellums introduced bill to establish economic sanctions against the Apartheid regime of South Africa. The sanctions became a defining issue of his 14-term Congressional career. In 1986, a version of Dellums' oft-introduced bill (the Comprehensive Anti-Apartheid Act) was passed and signed into law, instituting a trade embargo and enforcing divestment from South African companies. Acting as floor manager for the bill, Dellums remarked "This is the highest point of my political life, the most significant and personally rewarding." Dellums retired from the House in 1998, citing personal reasons (United States House of Representatives 2021; Gorman 2018). In 2006, Dellums was elected Mayor of Oakland, serving from 2007 to 2011. He passed away in 2018.

Historical Evaluation of the Ashby BART Station

The Ashby BART Station is recommended locally eligible as a City of Berkeley Landmark for its long-standing associations with social activism and community building from within the historically Black neighborhood in which it is situated. It is not recommended eligible for inclusion in the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR) at this time due to a lack of available information and pending further investigation into a larger historic context of the Black community and environmental justice in Berkeley and California. A detailed evaluation of the property's historical significance follows.

See continuation sheet, p. 10.

*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

■ Continuation

□ Update

B10. Significance (continued):

California Register of Historical Resources and National Register of Historic Places Eligibility

As detailed below, the Ashby BART Station is recommended eligible for designation as a City of Berkeley Landmark due to its associations with the history of the Civil Rights Movement in Berkeley; however at this time, there is insufficient context related to its larger association within the BART system or within the African American historic context to make a definitive finding on the property's NRHP or CRHR eligibility at this time. As noted in guidance issued by the California State Office of Historic Preservation, sufficient historical scholarship on relevant topics must exist to properly evaluate a property's potential for historical significance. Further, many of the events have occurred within the past 45 years and do not exceed the NRHP's general 50-year threshold for eligibility. Due to constraints, including those regarding archive closures stemming from COVID 19, the research conducted for this study encountered a dearth of academic analysis of the history civil rights activism in Berkeley. As such the events related to the undergrounding of the BART tracks and Ashby BART Station, the involvement of Mable Howard, Ronald V. Dellums and other individuals, and the lawsuit over use of the adjacent surface parking lot on weekends as the Berkeley Flea Market could not be considered within their proper historical context. As such this evaluation is unable to make a recommendation regarding the property's NRHP or CRHR eligibility under Criteria A/1 or B/2 at this time. Further research and analysis would provide for the development of sufficient historical context relating to African Americans and the Civil Rights Movement in Berkeley in which to evaluate the significance of the Ashby BART Station and its NRHP and CRHR eligibility under these themes.

In consideration of other potentially significant associations, the Ashby BART Station also does not appear to meet NRHP or CRHR eligibility requirements. The Ashby BART Station is just one of many stations serving the BART system and one of three in Berkeley, and its design, completion, and operation do not constitute a singularly significant historical event regionally or locally under the theme of transportation or otherwise. Research for this study did not identify any other historical context in which the Ashby BART Station would be considered historically significant. Allowing for a possible exception based on associations with local civil rights history, the Ashby BART Station is recommended ineligible for listing in the NRHP or CRHR under Criterion A/1.

Architecturally, the Ashby BART Station is a partially exposed subway station exhibiting elements of Brutalist-style architecture. Analysis for this evaluation concluded the station is an unremarkable example of the style and does not embody the distinctive characteristics of a type, period, or method of construction or possess high artistic values. Research for this evaluation found no evidence that the station represents the best work of its designer, the architecture firm Maher and Martens. The Ashby BART Station is therefore recommended ineligible for the NRHP or CRHR under Criterion C/3.

A review of available evidence did not indicate that it may yield important information about prehistory or history. As such, the property is recommended ineligible for the NRHP or CRHR under Criterion D/4.

Finally, while the station may be eligible as a contributor to a potential historic district constituting all or part of the BART system, such a recommendation was beyond the scope of this evaluation.

City of Berkeley Landmark and Structure of Merit Evaluations

The Ashby BART Station is recommended eligible as a City of Berkeley Landmark under Criterion 2, which allows for the designation of properties possessing cultural value. Specifically, the criterion makes eligible for Landmark designation structures, sites, and areas associated with the movement or evolution of religious, cultural, governmental, social and economic developments of the city. The station, including the immediately adjacent surface parking lot, is associated with local civil rights activism related to the undergrounding of the BART tracks and station and the community's use of the station parking lot on weekends for the Berkeley Flea Market. In combination, these two events highlight the role of African-American South Berkeley residents and their allies in ensuring, firstly, in that the BART station was designed in a manner consistent with the community's wishes and, secondly, in that once developed, the facility would continue to serve the community's economic and social needs. Led by Mable Howard and Ronald V. Dellums, among others, the lawsuit to ensure that the entirety of the Ashby BART Station was designed as a subway station was the culmination of a years of political efforts by Berkeleyans to ensure BART engineers designed the portion of the rail system within the city's boundaries according to the preferences of the community. More specifically, the contest over the Ashby BART Station's design highlighted the determination of African-American leaders to prevent the construction of a station whose design was widely perceived as racially discriminatory. The historical record does not suggest there is a direct relationship between, on the one hand, the legal challenge led by Howard, Dellums, and others, and on the other hand, the work of local activists and community members to establish and preserve the Berkeley Flea Market at the Ashby BART Station parking lot, at some times over the objections of the BART Board of Directors. However, the two events are linked thematically by the persistent efforts of activists and members of Berkeley's African-American community to influence the design and use of a prominent public space in the historically African-American South Berkeley neighborhood. The Berkeley Flea Market began as an economic institution that hosted a predominantly Black group of vendors and patrons. In 1981, the market's vendors successfully sued BART to continue their use of the station's surface parking lot as the flea market site. The case was ultimately settled in 1983 with the jury finding BART had entered into a contract with the vendors which allowed them "indefinite renewals of the written concession permit until a) BART needed the Ashby parking lot for its own purposes or b) the flea market was not operated according to BART standards" (*San Francisco Bay Area Rapid Transit District v. Community Services United, et al.* 1983). As such, the station is notable for its association with the history of activism centered on the Ashby BART station. Since the lawsuit's conclusion, the weekend event has maintained over four decades its role as a Black social and cultural institution. The property may be regarded as important for its longstanding association with South Berkeley's Black community and is therefore recommended eligible for designation as a City of Berkeley Landmark under Criterion 2.

The Landmark's boundaries include the station footprint inclusive of the parking lot located immediately adjacent to the west of the station proper. The satellite parking lot located east the Ed Roberts Campus does not contribute to the property's significance because it was neither the subject of the 1967-1968 lawsuit nor used as a site of the Berkeley Flea Market. See continuation sheet, p. 11.

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*Date: June 30, 2021

■ Continuation

□ Update

B10. Significance (continued):

The Ashby BART Station is recommended ineligible under the remaining criteria for City of Berkeley Landmarks and Structure of Merit designation. As an undistinguished Brutalist-style subway station, the property fails to satisfy the requirements of Landmark Criterion 1, which pertains to architectural merit. Research for this study did not find evidence that it is the first, last, only, or most significant architectural property of its type in the region, nor that it is a prototype, or outstanding example, of a period, style, architectural movement, or construction. Moreover, available sources do not suggest it is an example of the more notable works or the best surviving work in a region of its designer, the architecture firm Maher and Martens. It is also not an architectural example worth preserving for the exceptional value it adds as part of the neighborhood fabric.

The station also fails to satisfy the requirements for designation under Landmark Criterion 3, which pertains to educational value. Although the station is significant for its associations with the social activism in Berkeley, these historical associations are not conveyed by the station's design in a manner that would readily express that history to visitors to the site.

The Ashby BART Station is also recommended ineligible under Landmark Criterion 4. Properties eligible under Criterion 4 must possess historical value and embody and express the social, cultural, economic, political, religious or military history of Berkeley, Alameda County, California, or the United States. Although the station property is associated with notable events in the city's history that, taken together, qualify the property for Landmark designation under Criterion 2, research for this study did not find evidence the events are individually important. Rather, the Ashby BART Stations important historical associations satisfied the requirement under Landmark Criterion 2 that a property embody the evolution of historic, social, and cultural themes. Because Criterion 4 does not similarly allow for designation based on such thematic grounds, the Ashby BART Station is recommended ineligible under this criterion.

Finally, the property is not listed in the NRHP and, therefore, does not qualify for Landmark designation under Criterion 5.

Per the City of Berkeley's historic preservation ordinance, a property may also be designated as a Structure of Merit. Such designation is generally reserved for properties that, upon assessment, do not currently meet the criteria as set out for a landmark, but are worthy of preservation as part of a neighborhood, a block or street frontage, or as part of a group of buildings which includes landmarks. Because the current evaluation recommends the Ashby BART Station eligible for designation as a Landmark, it was not evaluated for Structure of Merit eligibility.

Photographs:



Left: Detail of the Ashby BART Station, West Elevation, Facing South; Right: Ashby BART Station, Street-Level Deck along West Side of Adeline Street, Featuring Non-Original Canopy and Signage, Facing Northwest

See continuation sheet, p. 12.

*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

☒ Continuation

☐ Update

Photographs (continued):



Left: Interior View of Entry Area of the Ashby BART Station Concourse Level; Right: Interior View of Paid Area of the Ashby BART Station Concourse Level



Left: Interior View of the Ashby BART Station Platform; Right: Ashby BART Station Parking Lot near Martin Luther King, Jr. Way, Facing Southeast

State of California -- The Resources Agency
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CONTINUATION SHEET

Primary #
HRI#
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*Resource Name or # Ashby BART Station

*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

■ Continuation

□ Update

B12. References (continued):

Anonymous

n.d. "BART Chronology—January 1947 – March 2009," Archived at Internet Archive Wayback Machine.
<https://web.archive.org/web/20131013054420/http://www.bart.gov/docs/BARThistory.pdf>. Accessed December 21, 2020.

Archaeological/Historical Consultants and JRP Historical Consulting

2018 Cultural Resources Technical Report: Adeline Corridor Specific Plan, Berkeley, California. December.

Architectural Forum

1966 BART: The Bay Area Takes a Billion Dollar Ride. 124(6):38–60.

Architectural Record

1974 Two BART Stations. November. 113–120

BART Facts

2021 BART: A Bay Area Lifeline During an Unprecedented Challenge.
https://www.bart.gov/sites/default/files/docs/BARTFacts2021_0.pdf. Accessed July 2021.

Berkeley Architectural Heritage Association (BAHA)

2004 Ashby Station Historic Setting and Rudimentary Survey of Historic Properties within the Proposed Ed Roberts Campus APE. January. On file at Rincon Consultants, Ventura, CA.

Berkeley Gazette

1973 "Stormy City Council Session," April 11. <https://www.newspapers.com>. Accessed June 22, 2021.

Brom, Thomas and Uzuri Amini

1979 "The Berkeley Flea Market," San Francisco Examiner. October 10. www.newspapers.com/image. Accessed June 21, 2021.

Buel, Stephen

1981a "Panel Okays Ending Flea Market Permit," North East Bay Independent & Gazette. July 14. www.newspapers.com/image. Accessed June 21, 2021.

1981b "Flea Market Fight Isn't Over," Berkeley Gazette. October 2. www.newspapers.com/image. Accessed June 21, 2021.

Burrell, Charles

1983 "Flea Marketers Whoop It Up after Beating BART in Berkeley," San Francisco Examiner. June 25.
www.newspapers.com/image. Accessed June 24, 2021.

Callwell, Robert.

1999 Transit in San Francisco, A Selected Chronology, 1850-1995, San Francisco: San Francisco Municipal Railway.

Emmington, Lesley, Anthony Bruce & Dale Smith

2004 "Ashby Station: A Classic American Streetcar Suburb," Berkeley Architectural Heritage Association website.
http://www.berkeleyheritage.com/essays/ashby_station.html. Accessed August 11, 2021.

Federal Transit Administration (FTA)

2017 Historic Context Report for Transit Rail System Development. June. Washington, D.C. Prepared for Federal Transit Administration, Washington, D.C.

Fernandez, Elizabeth

1981 "BART Urged to Revoke Permit for Ashby Flea Market," North East Bay Independent & Gazette. July 12.
www.newspapers.com/image. Accessed June 21, 2021.

Grassroots

1976 "Flea Market Helps Fund Service Agencies." September 22-October 6. Vol. 5 Iss. 6.
https://archive.org/details/sim_grassroots_september-22-october-6-1976_5_6/page/4/mode/2up. Accessed June 22, 2021.

Grefe, R. and R. Smart.

1975 A History of the Key Decisions in the Development of Bay Area Rapid Transit. September. McDonald and Smart, Inc. San Francisco, CA. Prepared for U.S. Department of Transportation and U.S. Department of Housing and Urban Development, Washington, D.C.

Healy, Michael C.

2016 BART: The Dramatic History of Bay Area Rapid Transit System, Berkeley: Heyday Books.

Hicks, Tony

2019 "Ashby Flea Market Shuts Down Temporarily, Considers Relocating," KQED [web site]. February 6.
<https://www.kqed.org/news/11723821/ashby-flea-market-shuts-down-temporarily-considers-relocating>. Accessed June 21, 2021.

Hussain, Suhauna

2018 "Prominent Black Figures in Berkeley History," The Daily Californian February 2.
<https://www.dailycal.org/2018/02/02/prominent-black-figures-berkeley-history/>. Accessed June 22, 2021.

Kruger, Harold

1981 "Vendors Threaten Legal Barrage," Berkeley Gazette. October 15. www.newspapers.com/image. Accessed June 21, 2021

See continuation sheet, p. 14.

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
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*Resource Name or # Ashby BART Station

*Recorded by: JulieAnn Murphy, Rincon Consultants

*Date: June 30, 2021

■ Continuation

□ Update

B12. References (continued):

- Lorey, Maya Tulip
 2013 "A History of Residential Segregation in Berkeley, California, 1878-1960," Concord Review. Document on file at Rincon Consultants, Ventura, CA.
- Maher and Martens, Architects
 1969 Architectural plans for the Ashby BART Station.
- Mapping Inequality
 2021 "Mapping Inequality: Redlining in New Deal America," [web site]. Home Owners' Loan Corporation maps and surveys of South Berkeley. <https://dsl.richmond.edu/panorama/redlining/#loc=15/37.85/-122.273&city=oakland-ca&area=D4>. Accessed August 10, 2021.
- NETROnline
 2021 Historic Aerials. Historic aerial photographs and topographical maps of the Ashby BART Station and vicinity. <https://www.historicaerials.com/viewer>. Accessed July 2021.
- North East Bay Independent & Gazette
 1981 "Flea Market to Oppose Ouster," July 28. www.newspapers.com/image. Accessed June 21, 2021.
- Oakland Tribune
 1967 "BART Transition Plan in Lawsuit," December 8. [https://www.newspapers.com](http://www.newspapers.com). Accessed June 22, 2021.
 1967 "Berkeley Injunction Hits BART," December 21. [https://www.newspapers.com](http://www.newspapers.com). Accessed June 22, 2021.
 1968 "Ashby Station Suit in Court," March 5. [https://www.newspapers.com](http://www.newspapers.com). Accessed June 22, 2021.
 1968 "Ashby Station Suit in Court," March 5. [https://www.newspapers.com](http://www.newspapers.com). Accessed June 22, 2021.
 1985 "She Brings Her Nurturing Nature to Public Service," March 26. New clipping on file with the City of Berkeley.
- ProQuest
 1911 Sanborn Fire Insurance Maps, Berkeley. <https://digitalsanbornmaps-proquest-com.ezproxy.lapl.org/>. Accessed February 2021.
 1929 Sanborn Fire Insurance Maps, Berkeley. <https://digitalsanbornmaps-proquest-com.ezproxy.lapl.org/>. Accessed February 2021.
 1950 Sanborn Fire Insurance Maps, Berkeley. <https://digitalsanbornmaps-proquest-com.ezproxy.lapl.org/>. Accessed February 2021.
- Quian, Jessie
 2016 "Former Berkeley Council Member Donald Jelinek Dies at 82," Daily Californian. July 11. <https://www.dailycal.org/2016/07/11/former-berkeley-council-member-donald-jelinek-dies-82/>. Accessed June 24, 2021.
- Race, Poverty & the Environment
 1995 "Mable Daisy Howard, February 3, 1905 – March 29, 1994," <http://urbanhabitat.org/files/6-1%20all.pdf>. Accessed June 22, 2021.
- Rubalcava-Levinthal, Naomi
 2019 "Flea Market at Ashby BART Closes for First Time in Its History," Berkeley High Jacket [web site]. February 15. <https://berkeleyhighjacket.com/2019/news/flea-market-at-ashby-bart-closes-for-first-time-in-its-history/>. Accessed June 21, 2021.
- San Francisco Bay Area Rapid Transit District v. Community Services United, et al.
 1983 Alameda County Superior Court (No. 49349).
- San Francisco Examiner
 1968 "The Week's News in Review," May 19. [https://www.newspapers.com](http://www.newspapers.com). Accessed June 22, 2021.
- Scherr, Judith
 2016 "Don Jelinek, Civil Rights Champion and Former Berkeley Councilman, Dies at 82," East Bay Express. July 5. <https://www.eastbaytimes.com/2016/07/05/don-jelinek-civil-rights-champion-and-former-berkeley-councilman-dies-at-82/>. Accessed June 24, 2021.
- Steltzer, Andrew
 2016 "Will the Berkeley Flea Market Survive a Changing Neighborhood?" KQED [web site]. March 17. <https://www.kqed.org/news/10840322/will-the-berkeley-flea-market-survive-neighborhood-improvements>. Accessed June 21, 2021.
- United States House of Representatives
 2021 "Dellums, Ronald V., 1935-2018," United States House of Representatives: History, Art & Archives [web site]. <https://history.house.gov/People/Detail/12109#biography>. Accessed June 28, 2021.
- Williams, Dean
 2021 "Ron Dellums, American Politician," Britannica [web site]. <https://www.britannica.com/biography/Ron-Dellums>. Accessed June 28, 2021.

Appendix D

Adeline Corridor Specific Plan Cultural Resources Technical Report

CULTURAL RESOURCES TECHNICAL REPORT
Adeline Corridor Specific Plan
Berkeley, California

Prepared by

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609 Aileen Street, Oakland, CA 94609

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Prepared for

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December, 2018

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INTRODUCTION AND SUMMARY OF FINDINGS

The Adeline Corridor Plan (Plan) will be the blueprint to guide future improvements and enhancements in the plan area, which extends approximately 1.3 miles north from the Berkeley/Oakland border along Adeline Street and Shattuck Avenue in the City of Berkeley (Figures 1 and 2). The plan area contains a wide range of commercial, civic, cultural and residential land uses as well as the Ashby BART Station, a regional transit facility, located in the central/southern portion of the plan area. The planning process will identify community goals and priorities related to job opportunities, affordable housing, urban design, historic and cultural resources, multi-modal transportation options, open space and other amenities.

This Cultural Resources Technical Report (CRTR) presents an overview of cultural resources in the plan area, including an updated record search, a historic context statement, results of Native American consultation, archaeological survey results, archaeological sensitivity analysis, and mitigation recommendations.

Twenty-five built environment resources within the plan area have been determined eligible for the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), and/or Berkeley Landmark or Structure of Merit status. These buildings are historical resources as defined in the California Environmental Quality Act (CEQA) Guidelines (§15064.5). In addition, five more buildings appear to have the potential to be eligible, but have not been formally evaluated.

No archaeological sites are known in the plan area, which had no recorded Native American settlements at contact with Spanish explorers. The area has low sensitivity for buried prehistoric archaeological resources. The extensive disturbance of Adeline Street and Shattuck Avenue for the construction of the BART Berkeley subway gives the public right-of-way a very low archaeological sensitivity within the plan area. However, the backyards of privately-owned residential parcels developed before 1900 have moderate sensitivity for buried historic archaeological resources.

This report was prepared by Dr. Daniel Shoup of Archaeological/Historical Consultants (A/HC; Oakland, California). The historic context and architectural settings sections are adapted from a previous report prepared by JRP Historical Consultants in early 2018.

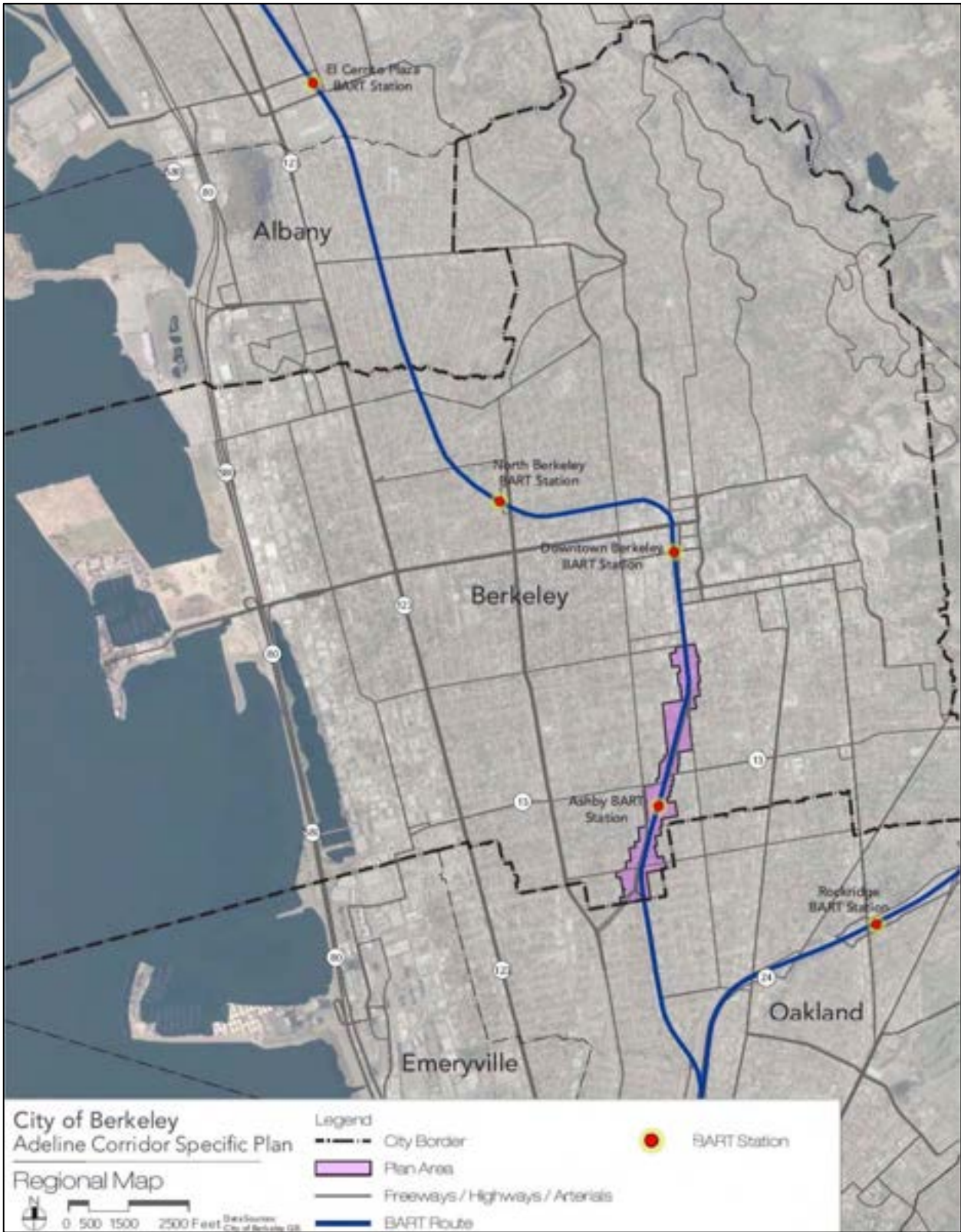


Figure 1: Project Overview Map



Figure 2: Plan Area

RESEARCH SOURCES

The information in this report was derived from field survey, archival research, a record search at the Northwest Information Center, and review of Federal, State and local registers of historic properties. Archival research was undertaken at the Earth Sciences and Map Library of the University of California, Berkeley, the Berkeley Historical Society, the History Room of the Oakland Public Library, and in the corporate archives of A/HC and JRP. For a full list of sources consulted, see the attached bibliography.

On September 11, 2018, Lisa Hagel of the Northwest Information Center, California Historical Resources Information System, completed a record search for the plan area and a 1/8-mile radius around it (NWIC #18-0321). The record search indicated that six historic architectural resources within the plan area had previously been recorded. No archaeological resources were identified within the APE or the search radius. Twenty previous studies have covered portions of the APE, but have not identified archaeological resources. Please see Appendix A for record search results.

Review of the NRHP, the CRHR, California Historical Landmarks, the California Inventory of Historical Resources, City of Berkeley Registers, and the State Office of Historic Preservation Historic Properties Directory identified 25 CEQA historical resources in the plan area, for a total of 25. In addition, field survey by JRP Historical Consultants in 2015 identified five more buildings that might be eligible, but had not been formally evaluated.

NATIVE AMERICAN CONSULTATION

On September 7, 2018, the California Native American Heritage Commission (NAHC) provided the City of Berkeley with a consultation list of tribes in Alameda County, with recommendations for consultation. On September 12, 2018, the City of Berkeley sent consultation letters to the six tribal organizations noted on the NAHC's contact list for Alameda County. The letters communicated the results of the record search and invited the recipients to communicate any information or concerns they might have regarding the plan area.

No responses were received by December 21, 2018. Please see Appendix B for copies of the correspondence noted above.

Table 1.1: Native American Individuals and Groups Consulted			
Name	Organization or Tribe	Location	Replied?
Monica Arellano	Muwekma Ohlone Tribe	Castro Valley, CA	
Tony Cerda	Costanoan Rumsen Carmel Tribe	Pomona, CA	
Ramona Garibay	Trina Marie Ruano Family	Union City, CA	
Charlene Nijmeh	Muwekma Ohlone Tribe	Castro Valley, CA	
Katherine Perez	North Valley Yokuts Tribe	Linden, CA	
Ann-Marie Sayers	Indian Canyon Mutsun Band of Costanoan	Hollister, CA	
Irene Zwierlein	Amah Mutsun Tribal Band of Mission San Juan Bautista	Woodside, CA	
*This table reflects potential significance for architectural merit and retention of integrity based on reconnaissance survey only.			

HISTORIC CONTEXT

Environment

The Adeline Street Corridor lies in the coastal plain between San Francisco Bay and the East Bay hills to the west. Elevation within the plan area ranges from 160 feet at Dwight Way to about 85 feet at Alcatraz Avenue. The USDA soil survey identifies the plan area as Holocene-era alluvial fan terraces of the Tierra Complex (95%) and basin deposits of the Clear Lake Complex (5%; USDA 2018). Today, native soils in the area are intermixed with artificial fill. In prehistory, the plan area was a mosaic of grassland and oak woodland, with the wetlands of the Bay to the west and perhaps riparian vegetation along Derby Creek and its tributaries.

Prehistory

Some of the first significant regional archaeological work was conducted early in the 20th century when N.C. Nelson recorded and/or excavated over 400 bayside shell mounds (Nelson 1909; Moratto 1984). Data from these excavations and successive projects in the San Francisco Bay, delta, and inland sites illuminated regional archaeological sequences and allowed the development of the Central California Taxonomic System (CCTS). The CCTS outlines three main chronological periods (or ‘horizons’) for the Sacramento Delta and San Francisco Bay areas – Early, Middle, and Late, mostly based on evidence from mortuary practices and analysis of stylistic change in burial-associated artifacts. We summarize the Early, Middle, and Late Periods, with the transitions between them, following Hylkema’s (2002) and Milliken *et al.*’s (2007) approaches.

The Early-Middle-Late sequence focuses on the Late Holocene period (after 2000 BC), since little archaeological information from the Early Holocene is known from the San Francisco Bay Area. In other parts of California, the Early Holocene (8000-3500 BC) is characterized by mobile foragers using wide-stemmed and leaf-shaped projectile points and large milling slabs (Milliken *et al.* 2007:114). Given the rise in sea levels in the Middle Holocene, the relatively recent formation of San Francisco Bay, and the presence of constant alluviation in low-lying parts of the Bay Area, most evidence of the earliest human habitation in the area is likely to be underwater or deeply buried. For the Early Holocene period, therefore, most evidence comes from inland sites: deposits dating from ca. 8000 BC and burials dating from 5500-5000 BC were discovered around Los Vaqueros Reservoir in eastern Contra Costa County (Meyer and Rosenthal 1997), and deep deposits from the Metcalf Creek site (CA-SCI-178) in Morgan Hill yielded radiocarbon dates of 8000-6500 years BC (Hildebrandt 1983; Milliken *et al.* 2007:114; Jones *et al.* 2007:130).

More evidence is available from Early Period (4000-500 BC) in the San Francisco Bay Area, with the emergence of the “Windmill pattern” of large stemmed and concave-base obsidian projectile points, rectangular *Olivella* beads, charmstones, extended burials facing toward the west, and the replacement of milling slabs with mortars and pestles. Few high-density shell deposits are found compared to later periods, suggesting a preferential use of terrestrial rather than marine resources; however, semi-sedentary land use, shell mound development, and evidence of regional trade are typical in some areas of the Bay. This cultural pattern appears earlier in the San Joaquin and Sacramento valleys, suggesting an influx of traditions or people from those areas into the Bay Area at some point during the period. In the East Bay, mortars and pestles first appear after 4000 BC and are ubiquitous by 1500 BC (Milliken *et al.* 2007:115; Moratto 1984: 277).

The Lower Middle Period (or Berkeley Pattern, 500 BC to 430 AD) is marked by major cultural disruptions, such as the disappearance of the square *Olivella* bead tradition and the introduction of new bead types, much lower frequency of projectile points, introduction of flexed burials, and introduction of decorative objects that may represent religious or cosmological beliefs. The period also saw the increased use of marine resources throughout the Bay Area and the development of a network of large shellmounds (Lightfoot 1997; Moratto 1984:283; Lightfoot and Luby 2002; Leventhal 1993).

In the Upper Middle Period (430-1050 AD), a major cultural shift seems to have taken place, with the collapse of trade networks, site abandonment, and the introduction of new bead forms and burial patterns. This tradition, known as the Meganos complex, was characterized by extended dorsal burials with elaborate grave goods (Jones et al. 1987).

The Late Period (1050-1550 AD) is characterized by significant social transformations, an increase in social complexity, increased sedentism, and the unification of ceremonial systems around the Bay Area. Changes in material culture include the introduction of the bow and arrow (with accompanying development of arrow-sized projectile points), harpoons, tubular tobacco pipe, clamshell disc beads, and new forms of ornamentation. Socially, increasing intensity of trade relations, increased sedentism, and cremation of high status individuals appeared. The last two centuries before Spanish contact saw a series of changes in shell bead types, mortuary wealth distribution, and the introduction of new technology types such as the hopper mortar, though some of these innovations were slow to arrive in the eastern and southern parts of the Bay Area (Milliken *et al.* 2007:117).

The most significant prehistoric archaeological sites in the East Bay are the shellmounds around the Bay margins (Nelson 1909). Ten of these shellmounds were in Berkeley, Emeryville, and Oakland (ALA-307-314, ALA-314a, and ALA-315), and three others were recorded in nearby Alameda (ALA-316-318). Another prehistoric site is known along Temescal Creek in North Oakland (P-01-010600), and at least seven other prehistoric sites are located west of downtown Oakland and along the Oakland Estuary (see Baker 2005:3-4; 14; Baker 2010:14). However, all these sites are one mile or more from the plan area.

Several of the shellmounds in Berkeley and Emeryville were investigated early in the 20th century. West of the plan area, Max Uhle excavated at the Emeryville shellmound as early as 1902, discerning strata and diachronic change within what was one of the largest shellmounds in the Bay area. Schenck renewed excavations there in 1924 when the shellmound was levelled for industrial development (Moratto 1984:227-230). The Emeryville shellmound was believed largely destroyed until excavations required by extensive redevelopment in 1999 found 2.5 meters of subsurface midden, hundreds of human burials, artifacts, and radiocarbon dates extending to about 5000 B.C. at the bottom of the central mound (Morgan 2005). Another important site, Ala-307 in West Berkeley, was excavated in 1902 and in the mid-1950s before its destruction. The site provided an extensive faunal inventory and information on species change during the life of the site, as well as important temporal and comparative data that has helped construct a regional archaeological sequence (Wallace and Lathrop 1975; Follett 1975; Greengo 1975; Moratto 1984:260-261).

Ethnography and Ethnohistory

The Huchiun people lived near the plan area when Spanish soldiers and missionaries arrived in the Bay Area. Huchiun territory extended “along the East Bay shore from Temescal Creek...north to the lower San Pablo and Wildcat Creek drainages in the present area of Richmond” (Milliken

1995:243). The names of at two Huchiun villages – Genau and Junchaque – are known from Mission records, but their exact location is unknown (Milliken 1995:243). Huchiun presence near Temescal Creek is attested in its Mexican-era name, “Arroyo del Temescal o Los Juchiyunes.”

The Huchiun were one of the groups of the Ohlone people who lived along the east, west, and south shores of San Francisco Bay and in the Santa Cruz Mountains, Salinas Valley, and Monterey Bay area. The Ohlone were successful intensive food collectors and hunters who utilized a wide range of resources in a very favorable environment. Those populations living adjacent to the great bays of the region relied heavily on shellfish and aquatic animals for food. In the interior, plant foods in plentiful variety were gathered on a seasonal basis, with acorns the most important vegetal staple since they could be stored in great quantity. Large game like deer, elk, and antelope were hunted. Game birds, waterfowl, fish, and shellfish were other major food sources that thrived in the nearby sloughs and marshes of San Francisco Bay (Milliken 1995:16-18; Levy 1978).

Ohlone society was organized in local tribes of 200-400 people living in semi-permanent villages, with tribelets controlling fixed territories averaging 10 to 12 miles in diameter (Milliken *et al.* 2007). Shoup and Milliken (1999:8) note that local tribes “were clusters of unrelated family groups that formed cooperative communities for ceremonial festivals, for group harvesting efforts, and – most importantly – for interfamily conflict resolution.” Hereditary village leaders, who could be male or female, played an important role in conflict resolution, receiving guests, directing ceremonies, organizing food-gathering expeditions, and leading war parties but did not otherwise exercise direct authority (Levy 1978:487). Despite their autonomy, intermarriage between tribelets appears to have been frequent (Milliken 1995:22-24).

Ohlone residences were typically round, domed or conical thatch homes on a frame of poles or branches, with a hearth in center of the floor and corresponding smoke hole in the roof (Kroeber 1925:219). Sweathouses, dance enclosures, and assembly houses are also attested. Material culture included complex decorative and utilitarian basketry, shell ornaments, tule boats, feather nets, hair decorations and jackets, and a full suite of bone and stone tools. Tattooing of face, hands, and neck is attested in early ethnographic accounts (Levy 1978:493-493; Byrd *et al.* 2017). Ohlone peoples consumed a varied diet, with acorns from a range of oak species (Coast Live, black, tanbark) a staple food and buckeye, laurel, and hazelnuts playing a secondary role. Seeds including chia, pine nuts, and a range of grass seeds were harvested: soldiers on the 1776 Anza expedition were fed a kind of “tamale” made of seeds at several Ohlone villages (Milliken 1995:33-34). Berries such as blackberries, strawberries, madrone, grapes, and toyon were also eaten, as were a range of roots (Levy 1978:491). For animal resources people looked both to the Bay for fish, shellfish, waterfowl, and sea mammals, and to the plains and foothills for larger animals such as deer and elk.

The Huchiun spoke the Chochenyo dialect of the Ohlone language, which was spoken along the eastern shore of San Francisco Bay prior to 1770. Ohlone dialects formed a continuum from Richmond south to Hollister, where nearby groups could easily understand each other’s speech; communities living near speakers of other language groups, such as Coast Miwok, Bay Miwok, or Yokuts were often bilingual and frequently intermarried (Milliken *et al.* 2007; Golla 2007:75). Ohlone/Costanoan, which is closely related to the Miwok languages, is a branch of the Yok-Utian subfamily of the Penutian languages, which are spoken along the Pacific Coast from Central California to southeast Alaska. Penutian speakers seem to have entered central California from the northern Great Basin around 4000-4500 years ago and arrived in the San Francisco Bay Area about 1500 years ago, displacing speakers of Hokan languages (Golla 2007:74). This movement

may be correlated with the spread of the Windmill pattern of material culture into the Coast Ranges and San Francisco Bay area (Moratto 1984:553; Levy 1978:486).

History

Early History

At the opening of the historic period, the plan area appears to have been sparsely inhabited, with the main Huchiun villages located near Richmond. Crespí, passing through the coastal East Bay in late March of 1772, noted that “neither in this march nor in the preceding one have we seen a single heathen, and very few tracks of them,” though they met with people in the Richmond area to the north (quoted in Milliken 1995:291). Likewise, Font mentions no villages along the East Bay shore in his 1776 diary of the Anza expedition (Font 1776). It is possible, of course, that they simply did not see the nearest villages, especially if they were located at the base of the hills. The Huchiun population in 1790 was likely around 400 people (Milliken 1995:156).

Mission San Francisco was founded in 1776, but only a few Huchiun people moved to the mission in the initial years. In Fall 1794, however, the Huchiun migrated *en masse* to the mission, where 187 Huchiuns were baptized in just two weeks. Dismal conditions at Mission San Francisco caused a massive flight of converts from the mission in 1795, followed by Spanish military reprisals and forced return of converts by soldiers. Growing resistance to missionization and Spanish military reprisals sped the end of voluntary conversions (Milliken 1995:142-146). In 1797, Spanish military actions against native villages in the East Bay included attacks on three Huchiun villages and capture of numerous Huchiun resisters. Resistance was essentially quelled by 1801, as Milliken notes: “by the end of Summer 1801, the flat plains from the Santa Clara Valley north all along the east side of San Francisco Bay to the present Richmond area were devoid of native villages, with the exception of the San Leandro Creek Jalquin (Yrgin) regions” (Milliken 1995:171).

Missionization was a disaster for the native people of the region. Disease, dietary deficiency, declining birth rate, and military conflict resulted in an almost 80% population decline by 1832. This population loss, the mingling of ethnic groups at the missions, and the discouragement of traditional social practices resulted in the almost total disintegration of traditional lifeways. After secularization of the missions in the 1830s, some native people went to work on nearby ranchos, perhaps gravitating to home lands, but there is little information available about Indian life in this period.

Rancho San Antonio

In the late Spanish and Mexican periods, the plan area lay within Rancho San Antonio, which had been granted in 1820 to Luis Maria Peralta, who had come to California in 1776 with the Anza expedition. The rancho stretched over 43,000 acres, from Albany in the north to San Leandro Creek in the south (Beck and Haase 1974:30). In 1842, Luis Peralta divided the ranch among his sons, with José Domingo receiving what is today Berkeley and Albany and José Vicente receiving what is now Emeryville, North and West Oakland, and Piedmont (Figure 3; Hoover et al. 1990:9). The plan area lay almost equidistant between Domingo Peralta’s adobe home on Codornices Creek and Vicente’s home on Temescal Creek. In the wake of the California Gold Rush, the Peralta family was plagued by squatters who overran rancho land, sometimes violently (Hoover et al. 1990:10, 13). Domingo Peralta sought to have his property confirmed in United

States courts, but internal family in-fighting and squatters kept the family in the courts for many years, which “helped to destroy the Peralta patrimony” (Hoover et al. 1990:13).



Figure 3. 1853 Map of Rancho San Antonio, showing subdivision of the Rancho. Temescal Creek is at right, with Strawberry Creek at left (Kellersberger 1853).

Early American Settlement

The US acquired California from Mexico through the Treaty of Guadalupe Hidalgo in 1848. Weeks before the treaty was signed, gold was discovered along the American River, sparking the Gold Rush. Immigrants flooded into the territory and those arriving by sea traveled through the Bay Area and the Central Valley to gold fields in the Sierra Nevada. By the end of 1849, San Francisco’s population had grown from five or six hundred to 25,000. This massive influx of population help push California into statehood in 1850 and had profound impacts upon the East Bay as new arrivals moved across the bay and established the beginnings of future cities like Berkeley.

Although Domingo Peralta’s land was finally confirmed to him in 1877, Francis Kittredge Shattuck (who had failed to strike it rich in the gold fields) and his three business partners William Hillegass, George M. Blake, and James Leonard filed a pre-emptive claim on 640 acres of Peralta’s land in the early 1850s. Shortly thereafter, Domingo Peralta sold off most of his land to four San Franciscans (Hall McAllister, Richard P. Hammond, Lucien Hermann, and Joseph K. Irving) who

eventually subdivided and sold the former rancho land. The land that Shattuck, Hillegass, Blake, and Leonard claimed, and eventually obtained legally, included the area along the Adeline corridor north of Russell Avenue (Ferrier 1933:25-27; Wollenberg 2008:10ff).

James Leonard reportedly farmed most of those 640 acres and established his homestead on Blake Street (between Ellsworth and Dana streets) in the early 1850s, where he grew grain. In 1860, Leonard established an east-west road just north of his home – initially called Leonard road, it became known as Dwight Way by 1874 (Comstock 2013:25). Other early landowners along the Adeline corridor included farmer Mark Ashby, who owned land much of the land fronting the east side of Adeline between Russell and Woolsey by the early 1860s, and Edward Harmon, who purchased a 135-acre tract of farmland adjacent to the Ashby farm east of Adeline (City of Berkeley 1988:254). Located outside the boundaries of the City of Berkeley at the time, much of the land along and around the Adeline corridor remained agricultural during the next thirty years.

Development of the Adeline Corridor : 1870s-1900

The construction of the Central Pacific Railroad (CPRR), the nation's first transcontinental railroad, in 1869 also impacted the growth of Berkeley. Shattuck persuaded CPRR to construct a spur line into Berkeley from the railroad's Oakland Terminal. The Berkeley Branch Railroad organized in 1875 as a subsidiary of the Central Pacific, and laid a single track from the Northern Railroad line in Emory's (now Emeryville) to Lorin (at the present-day intersection of Adeline and Alcatraz), where it continued northeast along Adeline Street to Shattuck Avenue. The line then ran along Shattuck Avenue into northern Berkeley, reaching University Avenue in 1876 (Figure 1). Along Adeline, the train had four stops: between present-day 62nd and 63rd streets, at Alcatraz Avenue (referred to as the Lorin station), between Russell Street and present-day Ashby Avenue (known as Newbury station), and at Dwight Way. The line eventually merged with the Southern Pacific Railroad (SPRR) system in 1898 (Wollenberg 2008; Ford 1977:49; Fernandez-Gray 2002:10).

The construction of the railroad spurred residential development adjacent to and in the immediate vicinity of its alignment, some of which would become Adeline Street (Figure 4). Edward Harmon subdivided his last holdings in the area (approximately 70 acres) just after the railroad was completed and during the next fifteen years constructed more than 50 homes for prospective buyers. Other subdivisions established by 1880 included the Blake Tract No. 2 (near what would be later known as Newbury station); Steel Tract (near the Dwight Way station); Regent Street-Homestead Tract (near the Lorin station); and the McKee Tract (by the 63rd Street station) (Smith 1880; Berkeley History Project 1983).

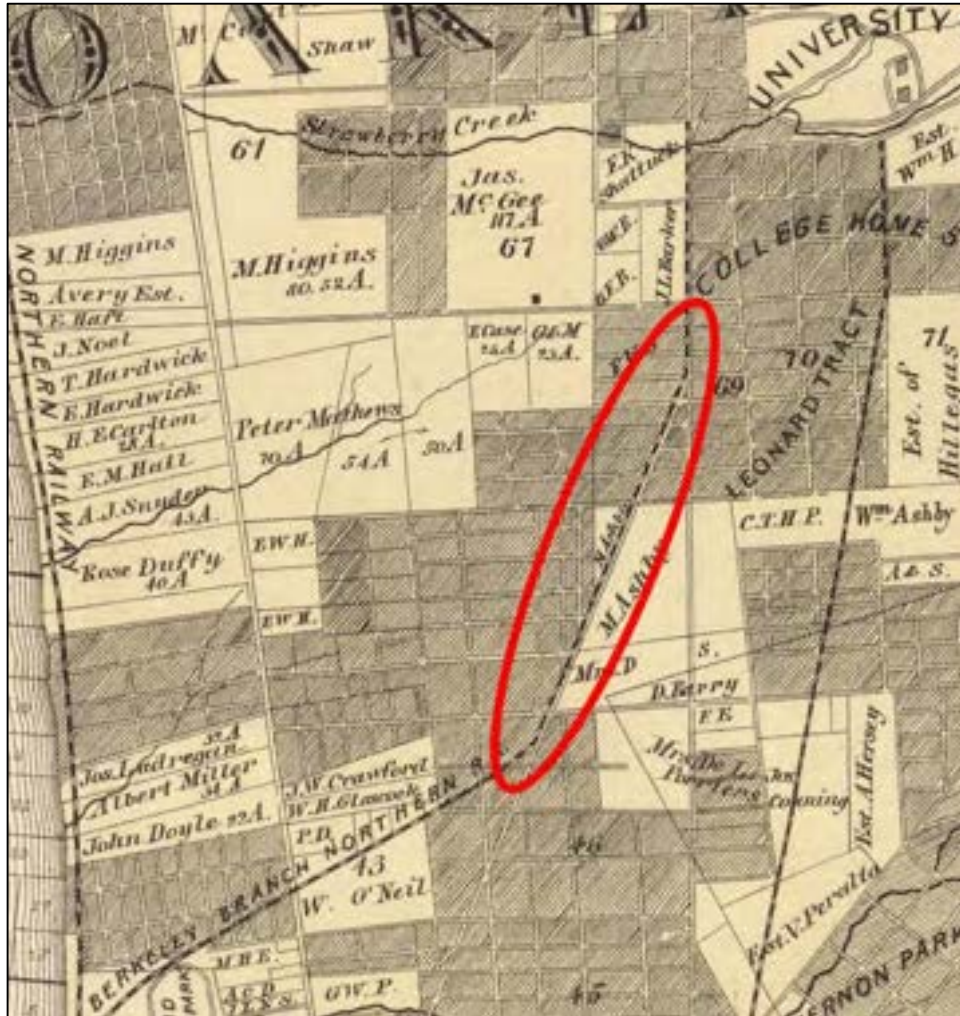


Figure 4. 1878 Thompson and West Map of Berkeley.

Mark Ashby also subdivided his land, creating the Newbury Tract along the east side of Adeline in 1882, which he expanded southward a year later. His land fronting the west side of Adeline became the Central Park subdivision in 1887. Developed by J. B. Whitcomb, the subdivision was touted as the “suburb of San Francisco” with paved streets, shallow wells, and rich soil; however, few lots sold. In contrast, by 1890 small villages had been established around the Newbury and Lorin stations. Lorin was the larger of the two hamlets with a population of approximately 700 people, and included a post office, several stores, a church, school, and approximately 150 dwellings. Many of these homes were one- to two-story wood-frame structures with wood siding that were constructed in the popular architectural styles of the time, such as Queen Anne and Colonial Revival. Berkeley annexed the two communities between 1891 and 1892. Shortly after its annexation, the Newbury station was renamed Ashby station (Thompson and West 1878; Berkeley Architectural Heritage 2004; City of Berkeley 1988:254).

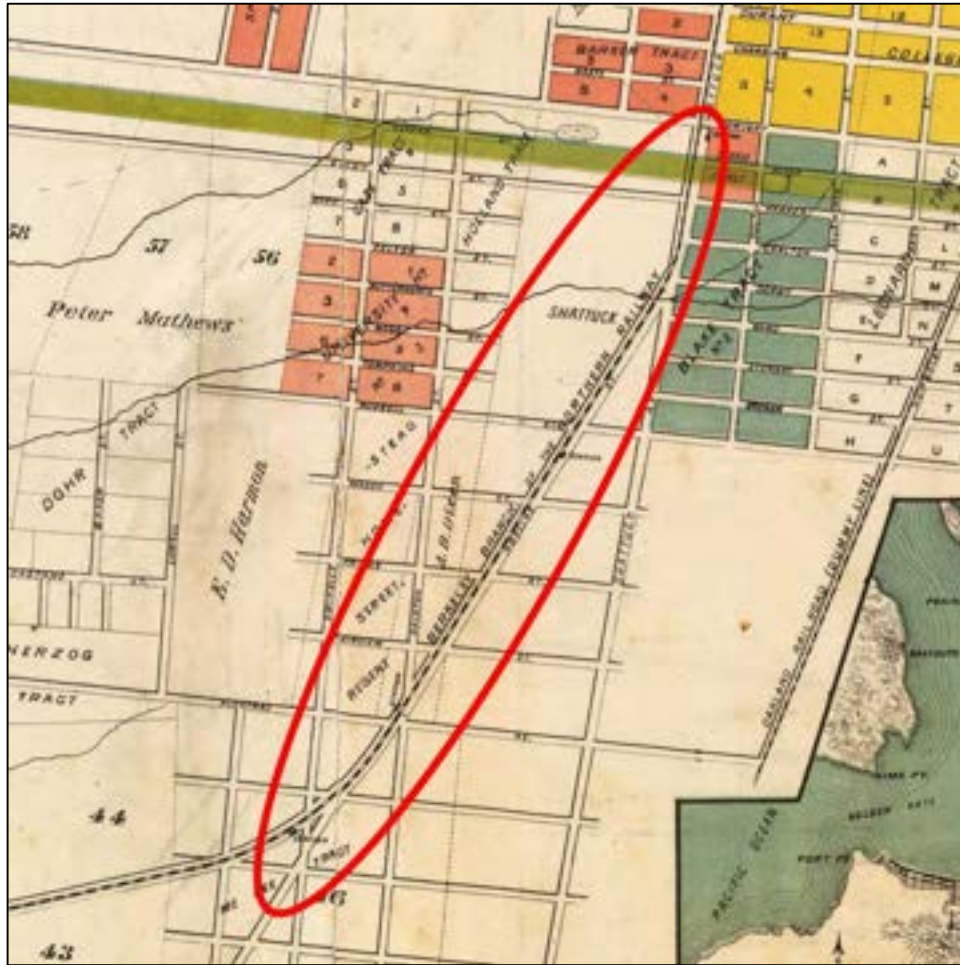


Figure 5. 1880 Carnall & Eyre Map of Berkeley.

Berkeley continued to expand in the latter years of the nineteenth century, encouraged in part by the addition of various infrastructure developments, including the arrival of electric rail transportation. Electric street cars began running on the Oakland Consolidated Street Railway's line that traversed Grove Street (present-day MLK Jr. Way) in 1891, gradually replacing horse-car and steam lines and improving transportation to Oakland. An additional Oakland Consolidated line ran along a portion of Adeline (between its intersection with Shattuck Avenue and Dwight Way) serving the Ashby station area. The Grove Street line's instant success spurred the construction of other electric railways, including what would become the Key System, an interurban railway that linked the cities of the East Bay with San Francisco. In 1903, the Key System's 'F' Line began running along the Adeline corridor (Wollenberg 2008; Berkeley Architectural Heritage 2004.)

Development of the Adeline Corridor : Twentieth Century

The Key System of electric street cars, coupled with the 1906 earthquake and fire that devastated San Francisco, influenced Berkeley's development in the early twentieth century. Like other East Bay communities, refugees from San Francisco and other areas that had sustained major damage inundated Berkeley. Many of these refugees became only temporary residents of the town, but the destruction of houses and businesses in San Francisco forced many of that city's displaced citizens

to establish new lives and residences elsewhere in the Bay Area. Thousands of these people settled in Berkeley. This massive influx had an enormous impact upon the city, and was marked by commercial and residential construction that transformed many of the remaining open areas in Berkeley into bustling neighborhoods and business districts (JRP 2005:45-47).



Figure 6. Adeline Street development as shown on topographic maps dated (from left to right) 1899, 1905, and 1915 (USCGS 1899, 1905; USGS 1915).

Development along the Adeline corridor was typical of the expansion effects throughout Berkeley, as the area transformed into a streetcar suburb during the first three decades of the twentieth century. A 1905 topographic map shows sporadic development along the corridor with building clusters around the community of Lorin, and around Ashby Avenue and Dwight Way (Figure 6). Many of the residential subdivisions, with the exception of those near Lorin and Dwight Way, were still undeveloped. Six years later, Sanborn Fire Insurance maps show the dramatic increase in buildings along the corridor within just a few years of the disaster. Most of the lots fronting Adeline between Dwight Way and Carlton Street included commercial buildings (stores, offices, laundries, liveries, and banks) by this time, with one- and two-story single-family residences along the adjacent blocks. Commercial buildings dominated the intersection of Ashby Avenue and Adeline and the blocks between Fairview and 63rd Streets. The land between Carleton and Russell Streets was still yet undeveloped with the exception of a SPRR freight depot and other railroad-related buildings (between Russell and Stuart Streets) and a handful of residences. Nearly one-third of the extant buildings with the plan study area were constructed during this post-earthquake recovery period. The remaining vacant lots that faced along the corridor were infilled with commercial and residential buildings during the 1920s and 1930s. As in the earlier period, residences still were mostly wood-frame construction but stucco siding was also used to clad these mostly one- and two-story buildings.

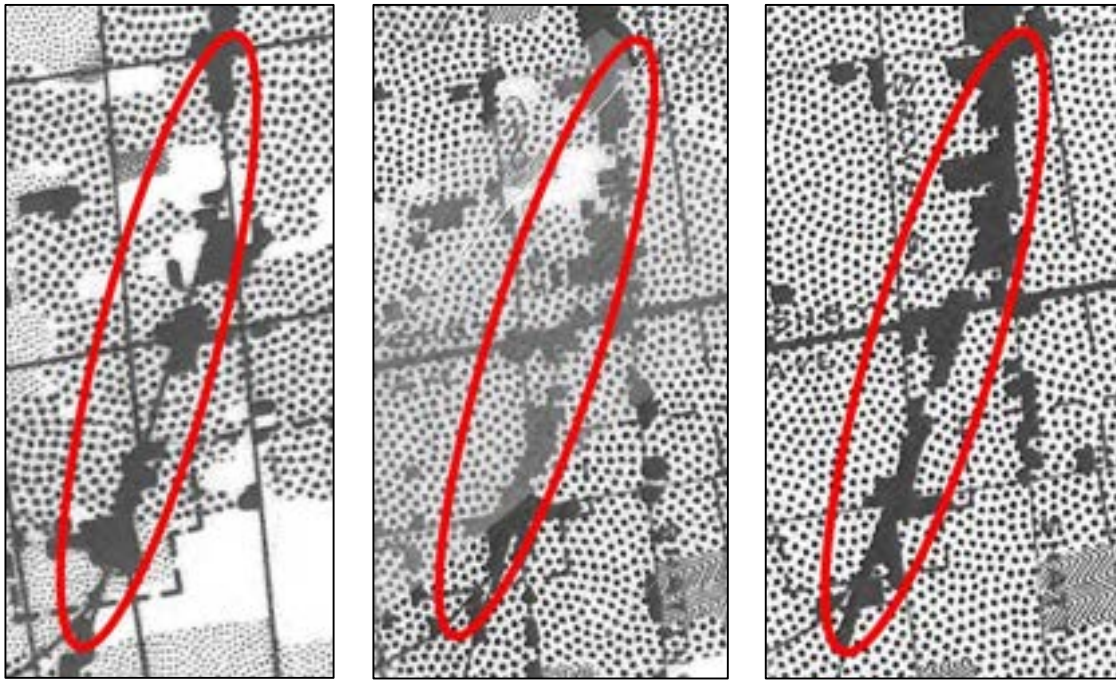


Figure 7. Land Use Pattern Maps showing development for the periods (from left to right) 1910-12, 1928-30, and 1949 (Branaman 1956).

The local street rail system in Berkeley declined significantly during the Great Depression, a result of the weak economy, slower population growth, and the increased popularity of the automobile. The SPRR's electric passenger operations ceased in 1941, leaving the Key System as the only surviving electric interurban transit provider in Berkeley. Around the Adeline corridor, the influx of workers during World War II stimulated a new wave of residential construction and many houses within the adjacent subdivisions were replaced with modest homes. Building along the Adeline corridor in this period reflected the influence of automobile culture. Along with corner service stations (some of which were established in the 1920s and 1930s), numerous auto repair and tire shops and sales showrooms sprang up predominantly between Dwight Way and Stuart Street during and after World War II. Rationing of gasoline during World War II led to a brief revived interest in the Key System, however, after the war the patronage and profits plummeted. The system was eventually phased out in the 1950s and tracks removed from the Adeline corridor in favor of bus service.

From the 1950s through the 2010s, the northern part of the plan area along Shattuck Avenue continued to be characterized by a mix of retail and automotive-related businesses, while the portion of the plan area around Adeline was characterized by mixed commercial, retail, residential, and transportation uses. Most notably, the construction of the BART Ashby Station in 1969-1972 led to the removal of several blocks of buildings in the triangular area between Ashby Avenue, Martin Luther King Jr. Way, and Adeline Street.

ARCHITECTURAL SETTING

The extant built environment resources located within the plan study area reflect a broad spectrum of styles, types, and construction methods that reflect the historical development of the Adeline Corridor. While railroad tracks that once dominated the street between the 1870s through the 1950s have since been removed, and were generally replaced by wide landscaped center medians and/or diagonal street parking, the Adeline corridor generally retains its original width and use as a main thoroughfare. Overall, the built environment of the corridor is predominantly marked by modest one- and two-story commercial or mixed-use (residential over commercial) buildings that were constructed before 1970.



Figure 8. Nineteenth century Queen Anne-style residences at 2820 Adeline Street (left) and 2005 Stuart Street.

More than half of the buildings within the plan study area were constructed between 1880 and 1929, when Adeline Street became a main transportation corridor connecting Berkeley to Oakland and San Francisco via integrated ferry and rail services. Although small commercial and residential neighborhoods developed along Adeline Street during the nineteenth century, only a handful of buildings remain from that period today. Those that are extant are scattered across the plan study area. Most were constructed as relatively modest one to three-story, single-family residences in the Queen Anne style of architecture that was predominant at the time. Typical of Victorian Era residential styles, they have wood-frame construction, wood siding, hip and gable roofs, partial-width porches, and bay windows. While a few retain their Queen Anne ornamentation, such as patterned shingles, spindlework, and half timbering, many have been modified by installation of replacement siding, windows, roofing, and/or removal of some or all architectural ornamentation, or conversion of basement level into apartments. Examples of these buildings include 2820 Adeline Street, constructed in 1895, and 2005 Stuart Street, which was completed in 1895 (Figure 8).



Figure 9. Mission Revival-style residence at 1806 62nd Street (built in 1916) and the mixed-use Webb Block at 1895 Adeline Street (built in 1905).

The vast majority of buildings built prior to 1930 were constructed in the first two decades of the twentieth century as the area became a street car suburb. Structures constructed during this time reflect the new styles and construction materials of the period. Residential buildings display a variety of styles and stylistic influences, including Spanish Colonial Revival, Mission Revival, Craftsman, and Colonial Revival; however, most are modest examples of these types. Typically located along roads intersecting Adeline Street, these buildings still generally utilize wood-frame construction, but modern materials such as stucco also appear. Single-family structures are generally one or two stories, while apartment buildings are two to three stories in height. Extant buildings from this period include both single- and multi-family dwellings, and the predominant property types include commercial and mixed-use buildings, most of which front Adeline Street.

Similar to the residential buildings, many of the extant commercial buildings were built in period revival styles like Mission, Colonial, Spanish Colonial, and also Queen Anne. Those buildings that do not exhibit a specific architectural style often display a few typical Classical Revival details, such as bay windows and cornice modillions, as found on the mixed-use building at 1719-1721 63rd Street (Figure 10). Classical details are often imitated in patterned brick work. Building materials for commercial and mixed-use structures, which generally range in height from one to three stories, include wood-frame construction with wood, brick or stucco siding, brick construction, or hollow clay tile with brick or stucco cladding, and tiled roofs.



Figure 10. Mixed-use building at 1719-1721 63rd Street (built in 1907).

Nearly all of the known or potential historical resources within the plan study area, including buildings within two historic districts, were constructed before 1930, with the majority built in the first decade of the twentieth century. Examples of known historical resources include the Webb Block at 1895 Adeline Street (Figure 9), Clephane Corner Store at 3027 Adeline Street (Figure 11), Hull & Durgin Funeral Chapel and Little Chapel of the Flowers at 3031-3051 Adeline Street (Figure 12), and the Lorin Theater at 3332 Adeline Street.



Figure 11. Colonial Revival-style mixed-use building, 3027 Adeline Street, built in 1905.



Figure 12. Storybook/Tudor Revival style buildings at 3031-3051 Adeline Street, built in 1922.



Figure 13. Example of remnants of Classical Revival details on the heavily modified building at 2655 Shattuck Avenue.



Figure 14. 1920 Spanish Colonial Revival style commercial building at 3350 Adeline Street.

Many of the commercial and mixed-use buildings constructed in the 1930s and 1940s followed the general construction trends of the previous two decades, though other architectural styles like Storybook/Tudor Revival and Streamline Moderne are also found, as well as modern construction materials including concrete and steel. The Streamline Moderne Berkeley Iceland, located at 2727 Milvia Street, is one example of historical resources from this period (Figure 15).



Figure 15. Streamline Moderne Berkeley Iceland, 2727 Milvia Street, constructed in 1940.

Major developments since World War II in the plan area have included the Ashby BART station, opened in 1973, Berkeley Bowl at Oregon and Adeline (formerly Lucky Stores, 1970s), Harriett Tubman Terrace at Adeline and Russell (1970s), the Cooperative Center Federal Credit Union at Ashby and Adeline (1970s), the Ed Roberts Campus at Adeline and Woolsey (2004), and the Parker/Equinox apartment complex on Shattuck between Parker and Carleton (circa 2015).

HISTORICAL RESOURCES IN THE PLAN AREA

Twenty-five buildings within the plan area have been determined eligible for listing in the National Register of Historic Places or California Register of Historic Resources, and therefore are historic resources as defined in CEQA. Of these, only Berkeley Iceland (2727 Milvia Street, constructed 1940) is listed on the NRHP. Eight also have City of Berkeley Landmark status and one is a City of Berkeley Structure of Merit (see Table 1.2).

Most of the historic resources in the plan area are commercial or mixed use buildings constructed between 1900 and 1930. They are located in two major clusters: one near Adeline Street and Avenue, and the other at Adeline Street and Ashby Avenue, with several scattered structures along Adeline Avenue and Shattuck Avenue between Ashby Avenue and Dwight Way (Figure 16).

There are also three areas within the plan area which have been determined eligible as CRHR or NRHP historic districts by the OHP (Figure 17; OHP 2005, 2006). These include:

- The group of commercial buildings at intersection of Ashby Avenue and Adeline Street, including 1979 Ashby Avenue, 1985 Ashby Avenue (the Webb Block), 2970 Adeline Street, 2982 Adeline Street, 2990 Adeline Street (the Hoffman Building), 3021 Adeline Street, 3025 Adeline Street, and 3027 Adeline Street (the William Clephane Corner Store)
- The residential and commercial buildings in a streetcar suburb bounded by the south side of Ashby Avenue, the west side of Shattuck Avenue, the north side of Woolsey Street and east side of Adeline Street (excluding the Ed Roberts campus site). In this district, only the commercial buildings along the east side of Adeline Street between the Ed Roberts Campus and Ashby Avenue are within the plan area; these partly overlap with the district described above.
- 3250-3286 Adeline Street, on the west side of the street between Harmon Street and Alcatraz Avenue. These adjacent buildings include the India Block (3250 Adeline Street) and the South Berkeley Bank (3286 Adeline Street)

The City of Berkeley has not established these areas as City historic districts. However, since these areas have been determined eligible as historic districts, they are considered historical resources under CEQA.

A windshield survey by JRP Historical Consultants in 2015 identified four additional buildings that, if evaluated, might be found eligible for NRHP or CRHR (Table 1.3).

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Adeline Corridor Specific Plan

Table 1.2: Known Historical Resources

APN	Address	Year Built	Name	Status
54-1722-6	2750 Adeline St	1906	Frederick H. Dakin Warehouse	3S, BLM
53-1598-16	2970-2976 Adeline St	1905	Adeline St	3D
53-1598-17	2982 Adeline St	1910		3D
53-1598-18-1	2988-2990 Adeline St	1905	Hoffman Building	3D; BSOM
52-1592-16	3021 Adeline St	1901-02		3D
53-1592-15	3025 Adeline St	ca. 1901		3D
53-1592-14	3027 Adeline St	1905	William Clephane Corner Store	3D; BLM
53-1595-9-3	3031-3051 Adeline St	1922	Hull & Durgin Funeral Chapel & Little Chapel of Flowers	3S
53-1703-7	3061 Adeline St	1910		3D
52-1551-8-1	3192 Adeline St	1909	T.M. Lucks Nickelodeon	3S
52-1530-5	3228 Adeline St	1903	Carlson's Block	3S; BLM
52-1531-1	3250 Adeline St	1903	India Block	3B; BLM
52-1531-2	3258 Adeline St	1923		3D
52-1531-3	3264 Adeline St	1925		3D
52-1531-4-2	3278 Adeline St	1928		3D
52-1531-5	3280 Adeline St	1953		3D
52-1531-6	3286 Adeline St	1906	South Berkeley Bank, Wells Fargo Bank	3B; BLM
52-1532-4-3	3332 Adeline St	1920	Lorin Theater	3S; BLM
53-1598-20	1979-1981 Ashby Ave	1907		3D
53-1598-19	1985 Ashby Ave	1905	Webb Block	3B; BLM
55-1823-13	2120-2122 Dwight Way	1905	Luther M. Williamson Building	3S
53-1703-1	1900 Essex St	1936		3D
52-1531-16	1808 Harmon St	1909	IT Theatre, Haws Plumbing	3S
54-1723-2	2727 Milvia St	1940	Berkeley Iceland	1S; BLM
55-1822-6	2526-2530 Shattuck Ave	1905	Berkeley French Laundry, The Hall, Washing Well	3D

1S: Individually listed in the NRHP & CRHR

3B: Eligible for listing in the NRHP or CRHR as an individual property and as a contributor to a historic district

3D: Eligible for listing in the NRHP or CRHR as a contributor to a historic district

3S: Eligible for listing in the NRHP or CRHR as an individual property

BLM: City of Berkeley Landmark

BSOM: City of Berkeley Structure of Merit

Table 1.3: Potential Historical Resources*		
APN	Address	Year Built
52-1532-7	1719-1721 63rd Street	1907
52-1681-10-1	2820 Adeline Street	1895
52-1524-3	3350 Adeline Street	1920
54-1722-11	2005 Stuart Street	1895
*This table reflects potential significance for architectural merit and retention of integrity based on reconnaissance survey only.		

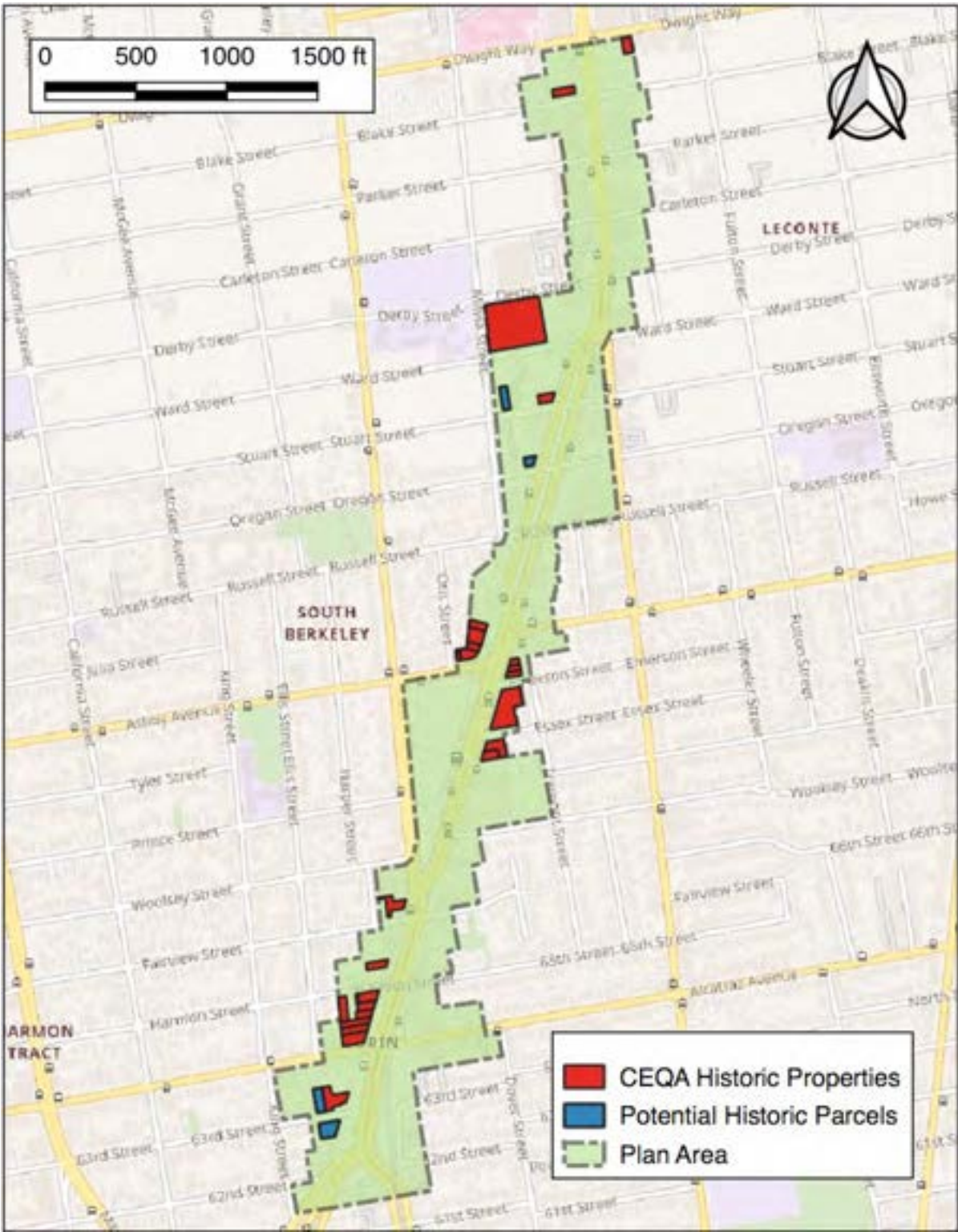


Figure 16. CEQA Historic Resources and Potential Historic Properties in the Plan Area

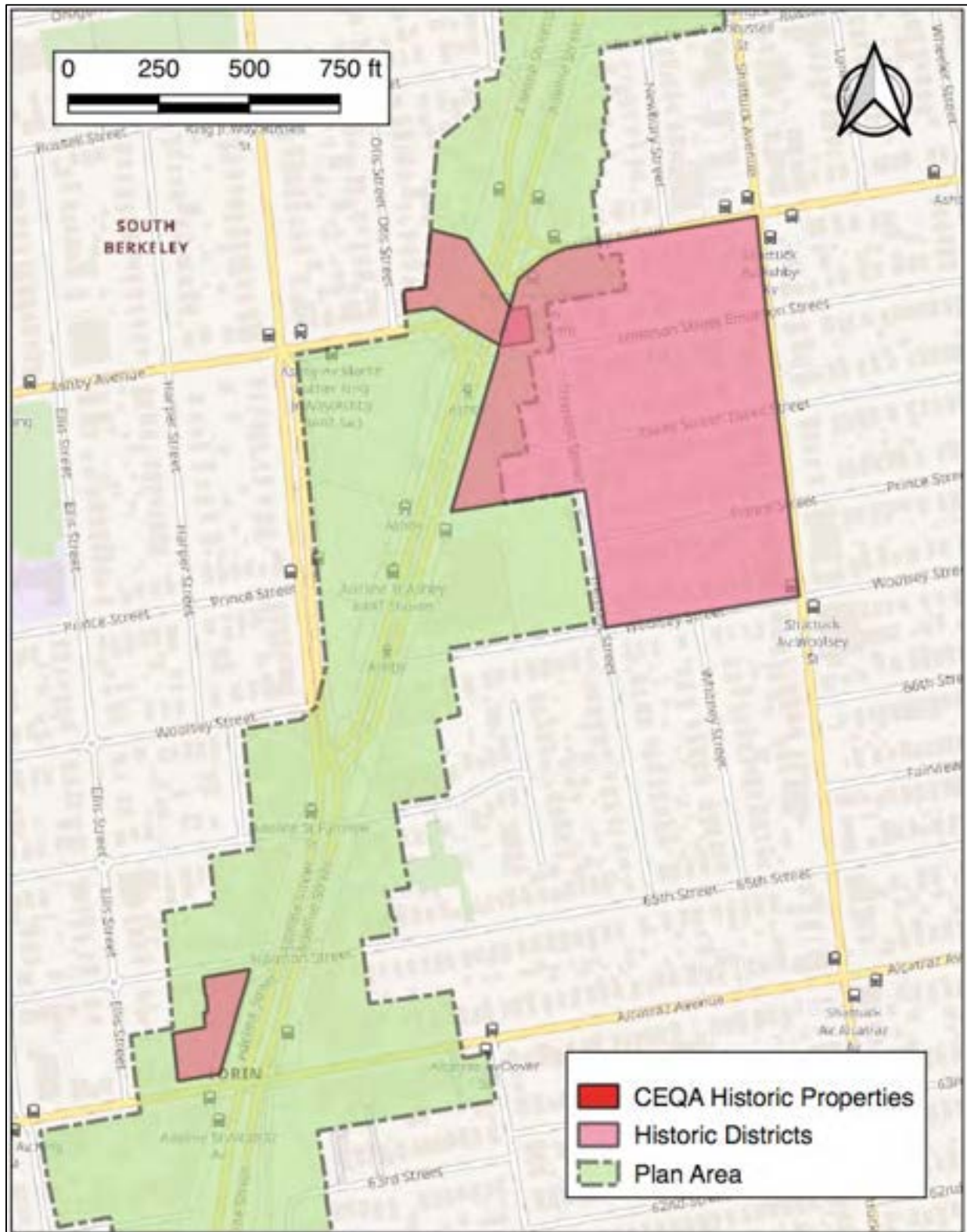


Figure 17. Approximate boundaries of known historic districts within the Adeline Corridor Specific Plan Area.

ARCHAEOLOGICAL SENSITIVITY OF THE PLAN AREA

Archaeological Survey

In August-September, 2018 the plan area was surveyed by an archaeologist meeting the Secretary of the Interior's Standards. All visible soil was inspected for indicators of archaeological deposits such as historic artifacts, prehistoric artifacts, shell, bone, and dark midden soil. No cultural resources were identified on the survey. The project corridor is heavily urbanized and over 95% covered by impervious surfaces. Soil could only be inspected in planters, medians, landscaping, and around the roots of street trees. Where visible, soils in the plan area are clay silts, silty clays, and loams with varying proportions of silt and clay. Soils are dark greyish brown to dark yellowish brown in color (Munsell 10YR 4/2 to 4/4) in color and contain little rock.



Figure 18. Survey Conditions.

Top left: Adeline St and Woolsey St, looking north. Top right: Alcatraz Avenue, looking east toward MLK Jr. Way. Bottom left: Shattuck Ave at Derby St, looking south. Bottom right: Shattuck Ave and Adeline St, looking South

Archaeological Sensitivity Analysis

Since most of the plan area is covered with impervious surfaces, it is hard to identify archaeological sites from surface survey. However, deeply-buried prehistoric sites with no surface indicators are found throughout the San Francisco Bay Area, ranging from 550 to over 8,000 years old. Such sites were often buried by alluviation that accompanied the rapid rise in sea level since the end of the last ice age, and by filling, erosion, and deposition processes in the historic period.

To assess the archaeological sensitivity of the plan area, the attractiveness of the area for prehistoric settlement, the nature of historic activities in the area, and the degree of previous soil disturbance

must be considered. Places that are relatively flat, have easy access to fresh water, and are covered with young Holocene-era soils are more likely to contain prehistoric archaeological deposits than steep slopes or areas far from water (Meyer and Kaijankonski 2017). The plan area is largely flat and covered in late Holocene alluvial soils, and Derby Creek once flowed west-southwest through the plan area at Derby Street (Helley and Graymer 1997; Oakland Museum 2000). However, Derby Creek appears to have been a seasonal drainage rather than a perennial watercourse, as is not shown on early maps (Kellersberger 1853), while Temescal and Strawberry Creeks are clearly delineated. The lack of access to year-round water supplies in the plan area therefore gives the area low sensitivity for buried prehistoric archaeological sites.

Historic activities can also create archaeological deposits. Before the advent of municipal trash collection after 1900, residents disposed of domestic trash in outdoor privies, pits in the backyard, or by burning. These activities often created deposits of historic artifacts. However, such deposits tended to be located behind residential or commercial buildings. The street layout of the plan area was established in the 1870s and largely predates residential or commercial development in the area, making it unlikely that historic archaeological deposits or building foundations would be found within the public right-of-way (that is, streets or sidewalks). However, the long history of rail transportation and infrastructure along Adeline Street and Martin Luther King Junior Way makes it possible that buried elements related to these uses – such as rails, ties, or signal apparatus – might be present underground.



Figure 19. Utility trench at Adeline St and Harmon St. Note presence of trench sand, several layers of asphalt surface, and utilities 3-4 feet below ground surface.

These assessments should bear in mind, however that the Adeline Street corridor was deeply excavated in 1967-1971 to construct the BART Richmond-Warm Springs line, which runs underground beneath Adeline Street and Shattuck Avenue for the whole length of the plan area, with a below-grade station and parking lot between Ashby Avenue, MLK Jr. Way, and Adeline Street. The travel lanes within these areas, therefore have no sensitivity for archaeological deposits. MLK Jr. Way and Adeline Street also house major subterranean utilities, including storm, sewer, water and gas lines (see Figure 19). Given this extensive disturbance, it is likely that few native soils remain under these main thoroughfares.

The low sensitivity of the plan area for buried prehistoric or historic archaeological deposits, combined with the extensive previous disturbance of the plan area, give the plan a low likelihood to affect previously unknown archaeological resources.

IMPACT ANALYSIS AND MITIGATION RECOMMENDATIONS

Regulatory Framework

Under CEQA, local agencies must consider whether projects will cause a substantial adverse change in the significance of a historical resource, which is considered to be a significant effect on the environment (California Public Resources Code §21084.1). A “historical resource” is a resource determined eligible for the NRHP, the CRHR, or local registers by a lead agency (CEQA Guidelines §15064.5), while a “substantial adverse change” can include “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings” that impairs the significance of an historical resource in such a way as to impact its eligibility for Federal, State, or local registers. In most cases, whenever a project adversely impacts historic resources, a Mitigated Negative Declaration or Environmental Impact Report is required by CEQA Guidelines §15064.

The criteria used by the CRHR for determining eligibility are closely based on those developed by the National Park Service for the NRHP. Properties that meet one of four significance criteria are considered eligible for the CRHR:

- 1) association with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
- 2) association with the lives of persons important to local, California, or national history; or
- 3) embodiment of the distinctive characteristics of a type, period, or method of construction, represents the work of a master, or possesses high artistic values; or
- 4) potential to yield, information important to prehistory or history of the local area, California, or the nation.

Potential Impacts to Cultural Resources

The plan area includes 25 built environment resources that are listed on or appear eligible for local, State, or Federal registers. Three historic districts are also present in the plan area. All of these resources are historic resources as defined in the CEQA Guidelines. Five more such properties appear eligible through survey evaluation but have not been evaluated in depth; evaluation may determine that these are resources under CEQA as well.

Under the new Specific Plan, a reasonable and conservative estimate of growth suggests that 1,450 housing units and 65,000 square feet of retail and commercial space could be constructed within the plan area. Since the exact timeline and nature of developments under the plan are uncertain, specific potential impacts to cultural resources cannot be assessed. However, the general types of potential impacts can be identified.

For built environment resources, activities that cause a substantial adverse effect on the significance of a historical resource constitute an effect on the environment. Demolition is the most serious potential impact and would require mitigation efforts. More likely, however, is that projects under the plan might implement historic properties’ integrity of setting, feeling, or association. Integrity of setting refers to the physical environment of a historic property as it relates to the character of a place. Integrity of feeling is the ability to evoke the “aesthetic or historic sense of a past period of time,” while integrity of association is the link between a property and the event or person, event, or trend for which it is significant. For example, projects implemented under the plan might cause

an adverse effect if new buildings with different size, shape, massing, or materials impacted the historic feeling of a block or group of buildings by introducing new and contrasting aesthetics.

Finally, the project might lead to development that discovers previously unknown archaeological deposits.

Mitigation Recommendations

Because the specific impacts of the Specific Plan are yet unknown, it is not possible to provide detailed mitigation recommendations. However, we can recommend general measures to ensure that projects implemented under the Plan minimally affect cultural resources.

Planning guidelines should help new development avoid impacting the integrity of historic properties, landscape features, and districts. Existing themes in the City's Urban Design and Preservation Element may help in this process. These include:

- **Neighborhood Character:** Protect the character of neighborhoods and districts by preserving interesting features, encouraging adaptive reuse of historic and architecturally interesting buildings, and encouraging context sensitive design related to height, massing, materials, color and details (Policy UD-3, 5, 6, 8, 16, and 17).
- **Alterations and New Development:** Ensure architectural, historic, and context compatibility while incorporating features to stimulate the eye and invite interest (Policy UD-20, 21, 24, and 25).

In addition, the City's Landmarks Preservation Commission is given regulatory powers over City-designated historic properties (including Landmarks, Structures of Merit, or Historic Districts) as set forth in Chapter 3.24 of the Berkeley Municipal Code. Finally, the Historic Element of the 1990 South Berkeley Area Plan stresses preservation and enhancement of historically valuable buildings. Implementation of these existing policies and plans is an important first step to mitigate potential impacts on historic resources.

No archaeological resources are known in the plan area. In the event that previously unknown prehistoric and/or historic deposits are encountered during construction, work near the discovery should stop until the resource can be evaluated by a qualified archaeologist, as discussed at CEQA Guidelines section 15064.5(f).

In the event that human remains are found, work will stop and the Alameda County Coroner will be contacted. If remains are determined to be Native American, the California Native American Heritage Commission (NAHC) will be notified to identify the Most Likely Descendent (MLD), in accordance with section 7505.5(c) of the California Health and Safety Code and CEQA Guidelines section 15064.5(e)(1). The MLD will advise the City of Berkeley in the preferred manner of exhumation, exposure, removal, and reburial of all human remains and associated grave goods.

BIBLIOGRAPHY

Baker, Suzanne

2005 *Positive Archaeological Survey Report for the Alameda-Contra Costa Transit District's East Bay Bus Rapid Transit Project in Berkeley, Oakland, and San Leandro*. Report for Parsons, San Francisco, CA.

2010 *Addendum to Positive Archaeological Survey Report for the Alameda County Transit District's East Bay Bus Rapid Transit Project in Berkeley, Oakland, and San Leandro, California*. Report for Kimley-Horn and Associates, Inc., Oakland, CA.

Beck, Warren A. and Ynez D. Haase

1980 *Historical Atlas of California*. Norman, OK: University of Oklahoma Press.

Berkeley Architectural Heritage

2004 "Historic Setting and Rudimentary Survey of Historic Properties within the Proposed Ed Roberts Campus APE." Memorandum prepared for City of Berkeley, January 2004.

The Berkeley History Project

1983 "A History of South Berkeley," September 1983.

Berkeley Historical Society

1984 *Looking Back at Berkeley: A Pictorial History of a Diverse City*. Berkeley: Berkeley Historical Society.

Bowman, J. N.

1951 "The Peraltas and Their Houses." *California Historical Society Quarterly* 30(3). San Francisco.

Branaman, Mary Beth

1956 "Land Use Pattern, Oakland Area." Map set prepared for a research report in UC Berkeley Real Estate Research Program, December 1956. On file, Earth Sciences and Map Library, University of California at Berkeley.

Byrd, Brian, Adrian Whitaker, Patricia J. Mikkelsen, and Jeffrey S. Rosenthal.

2017 *San Francisco Bay-Delta Regional Context and Research Design for Native American Archaeological Resources, Caltrans District 4*. Oakland, CA: Office of Cultural Resources Studies, Caltrans District 4.

California Office of Historic Preservation (OHP)

2017 Directory of Properties in the Historic Property Data File for Berkeley, Alameda County, as of August 2017. On file, California Historic Resources Information System, Sonoma State University, Rohnert Park, CA.

City of Berkeley

1988 *Draft South Berkeley Area Plan*, January 1988.

Comstock, Lyndon

2013 *On Parker Street, the Evolution of a Berkeley Neighborhood, 1855-1965*. CreateSpace Independent Publishing Platform.

Fernandez-Gray, Carlos A.

2002 "Berkeley's Lost Station," *BAHA News* (Berkeley Architectural Heritage Association), Spring/Summer 2002.

Cultural Resources Technical Report
Adeline Corridor Specific Plan

Ferrier, William Warren

1933 *Berkeley, California: the Story of the Evolution of a Hamlet into a City of Culture and Commerce*. Berkeley, CA: the author.

Follett, W. I.

1975 "Fish Remains from the West Berkeley Shellmound (Ca-Ala-307), Alameda County, California." *Contributions of the University of California Archaeological Research Facility* 29:71-98.

Font, Pedro

[1776] 1930 *Font's Complete Diary of the Second Anza Expedition. Anza's California Expeditions*, Volume 4. Herbert E. Bolton, editor. Berkeley: University of California Press.

Ford, Robert S.

1977 *The Red Train in the East Bay*. Glendale, CA: Interurbans Publications.

Golla, Victor

2007 "Linguistic Prehistory", In Terry L. Jones and Kathryn A. Klar, eds., *California Prehistory: Colonization, Culture, and Complexity*. New York: Altamira Press, pp. 71-82.

Greengo, R.E.

1975 "Shellfish at Ala-307." *Contributions of the University of California Archaeological Research Facility* 29:65-69.

Helley, E.J. and R.W. Graymer

1997 *Quaternary geology of Alameda County, and parts of Contra Costa, Santa Clara, San Mateo, San Francisco, Stanislaus, and San Joaquin Counties, California: A digital database*. U.S. Geological Survey Open-File Report 97-97.

Hildebrandt, William R.

1983 *Archaeological Research of the Southern Santa Clara Valley Project: Based on a Data Recovery Program from Sites CA-SCL-54, CA-SCL-163, CA-SCL-178, CA-SCL-237, and CA-SCL-241 Located in the Route 101 Corridor, Santa Clara County, California*. Submitted to California Department of Transportation, District 4, San Francisco.

Hoover, Mildred B., Hero E. Rensch, Ethel G. Rensch, William N. Abeloe, and Douglas E. Kyle

1990 *Historic Spots in California*. Fourth edition. Palo Alto: Stanford University Press.

Hylkema, Mark

2002 "Tidal Marsh, Oak Woodlands, and Cultural Florescence in the Southern San Francisco Bay Region." In Jon M. Erlandson and Terry L. Jones, eds. *Catalysts to Complexity: Late Holocene Societies of the California Coast*. Perspectives in California Archaeology, Volume 6. Los Angeles: Cotsen Institute of Archaeology.

Jones, Terry L., Nathan E. Stevens, Deborah A. Jones, Richard T. Fitzgerald, and Mark G. Hylkema

2007 "The Central Coast: a Midlatitude Milieu." In Terry L. Jones and Kathryn A. Klar, eds., *California Prehistory: Colonization, Culture, and Complexity*. New York: AltaMira Press, pp. 125-146.

JRP Historical Consulting

2005 *Historic Properties Inventory and Evaluation: AC Transit East Bay Bus Rapid Transit Project*. Report for Parsons, San Francisco, CA.

Kellersberger, Julius

1853 *Map of the Ranchos of Vicente and Domingo Peralta, Containing 16970.68 Acres.* Oakland, CA.

Kroeber, A.L.

1925 [1976] *Handbook of the Indians of California.* New York: Dover Publications.

Levy, Richard S.

1978 "Costanoan." In *Handbook of North American Indians*. Volume 8: California. Washington, D.C.: Smithsonian Institution.

Leventhal, Alan

1993 *A Reinterpretation of Some Bay Area Shellmound Sites: A View from the Mortuary Complex from CA-ALA-329, the Ryan Mound.* M.A. Thesis, California State University, San Jose.

Lightfoot, Kent G., and Edward M. Luby

2002 "Late Holocene in the San Francisco Bay Area: Temporal Trends in the Use and Abandonment of Shell Mounds in the East Bay." In *Catalysts to Complexity: Late Holocene Societies of the California Coast*, edited by Jon M. Erlandson and Terry L. Jones, pp. 263-281. Los Angeles: UCLA Cotsen Institute of Archaeology.

Lightfoot, Kent G.

1997 "Cultural Construction of Coastal Landscapes: A Middle Holocene Perspective from San Francisco Bay." In Jon M. Erlandson and Michael A. Glassow, eds., *Archaeology of the California Coast during the Middle Holocene*. Los Angeles: UCLA Cotsen Institute of Archaeology, pp. 129-142.

McArdle, Philip, ed.,

1983 *Exactly Opposite the Golden Gate, Essays on Berkeley's History, 1845 – 1945.* Berkeley, CA: Berkeley Historical Society.

Meyer, Jack and Philip Kaijankowski

2017 "Discovering Sites: Geoarchaeological Approaches to Site Sensitivity and Predictive Modeling." In Brian Byrd et al., *San Francisco Bay-Delta Regional Context and Research Design for Native American Archaeological Resources, Caltrans District 4.* Oakland, CA: Office of Cultural Resources Studies, Caltrans District 4.

Meyer, Jack and Jeffrey Rosenthal

2007 *Geoarchaeological Overview of the Nine Bay Area Counties in Caltrans District 4.* Oakland: California Department of Transportation.

Milliken, Randall T.

1995 *A Time of Little Choice: the Disintegration of Tribal Culture in the San Francisco Bay Area, 1769-1810.* Novato, CA: Ballena Press.

Milliken, Randall, Laurence H. Shoup, and Beverly R. Ortiz

2009 *Ohlone/Costanoan Indians of the San Francisco Peninsula and their Neighbors, Yesterday and Today.* San Francisco: Golden Gate National Recreation Area.

Cultural Resources Technical Report
Adeline Corridor Specific Plan

- Milliken, Randall, Richard T. Fitzgerald, Mark G. Hylkema, Randy Groza, Tom Origer, David G. Bieling, Alan Leventhal, Randy S. Wiberg, Andrew Gottsfield, Donna Gillete, Viviana Bellifemine, Eric Strother, Robert Cartier, and David A. Fredrickson
- 2007 "Punctuated culture change in the San Francisco Bay Area," in Terry L. Jones, and Kathryn A. Klar, eds., *California Prehistory: Colonization, Culture, and Complexity*. New York: Altamira Press, pp. 99–124.
- Moratto, Michael J.
1984 *California Archaeology*. Academic Press, San Francisco.
- Nelson, Nels C.
1909 "Shellmounds of the San Francisco Bay Region." *University of California Publications in American Archaeology and Ethnology* 7(4). Berkeley.
- Oakland Museum of California
2000 *Creek and Watershed Map of Oakland and Berkeley*. Oakland: Oakland Museum of California.
- OHP (California State Office of Historic Preservation
2005 Determination of Eligibility Letter HUD031003A from State Historic Preservation Office to City of Berkeley, April 11, 2005.
- 2006 Determination of Eligibility Letter HUD060519C from State Historic Preservation Office to City of Berkeley, June 26, 2006.
- Shoup, Laurence H. and Randall T. Milliken
1999 *Inigo of Rancho Posolmi: The Life and Times of a Mission Indian*. Novato, CA: Ballena Press.
- Smith, Joseph
1880 *Map of Berkeley*. Oakland: Carnall & Eyre.
- Thompson and West
[1878] 1976 *Official and Historical Atlas Map of Alameda County, California*. Fresno: Valley Publishers.
- U.S. Coast and Geodetic Survey
1899 *Entrance to San Francisco Bay, California*. 1:50,000 map. On file, Earth Sciences and Map Library, University of California, Berkeley, Ca.
- US Geological Survey
1915 *San Francisco 15 minute quadrangle, Scale 1:62,000*. On file, Earth Sciences and Map Library, University of California, Berkeley, Ca.
- Wallace, W.J. and D. W. Lathrap
1975 "West Berkeley (Ca-Ala-307): A Culturally Stratified Shellmound on the East Shore of San Francisco Bay." *Contributions of the University of California Archaeological Research Facility* 29. Berkeley.
- Wollenberg, Charles
2008 *Berkeley, A City in History*. Berkeley: University of California Press.
- Writers' Program of the Work Projects Administration in Northern California
1941 *Berkeley: The First Seventy-Five Years*. Berkeley: James J. Gillick & Co., Inc.

Appendix A: Northwest Information Center Record Search



9/11/2018

NWIC File No.: 18-0321

Daniel Shoup
Archaeological/Historical Consultants
609 Aileen Street
Oakland, CA 94609

re: 18-16 Adeline Street Corridor Specific Plan

The Northwest Information Center received your record search request for the project area referenced above, located on the Oakland West USGS 7.5' quad(s). The following reflects the results of the records search for the project area and a 1/8th mile radius:

Resources within project area:	P-01-011052, 011462, 005144, 005115, 005368, & 010979.
Archaeological resources within 1/8th mile radius:	None
Reports within project area:	S-47747, 39692, 37476, 30243, 47280, 30277, 48161, 33504, 36525, & 43138.

Resource Database Printout (list):

☐ enclosed ☒ not requested ☐ nothing listed

Resource Database Printout (details):

☐ enclosed ☒ not requested ☐ nothing listed

Resource Digital Database Records:

☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (list):

☐ enclosed ☒ not requested ☐ nothing listed

Report Database Printout (details):

☐ enclosed ☒ not requested ☐ nothing listed

Report Digital Database Records:

☒ enclosed ☐ not requested ☐ nothing listed

Resource Record Copies:

☐ enclosed ☒ not requested ☐ nothing listed

Report Copies:

☐ enclosed ☒ not requested ☐ nothing listed

OHP Historic Properties Directory:

☒ enclosed ☐ not requested ☐ nothing listed

Archaeological Determinations of Eligibility:

☐ enclosed ☐ not requested ☒ nothing listed

CA Inventory of Historic Resources (1976):

☐ enclosed ☒ not requested ☐ nothing listed

Caltrans Bridge Survey:

☐ enclosed ☒ not requested ☐ nothing listed

Ethnographic Information:

☐ enclosed ☒ not requested ☐ nothing listed

Historical Literature:

☐ enclosed ☒ not requested ☐ nothing listed

Historical Maps:

☐ enclosed ☒ not requested ☐ nothing listed

Local Inventories:

☐ enclosed ☒ not requested ☐ nothing listed

GLO and/or Rancho Plat Maps:

☐ enclosed ☒ not requested ☐ nothing listed

Shipwreck Inventory:

☐ enclosed ☒ not requested ☐ nothing listed

***Notes:**

****** Current versions of these resources are available on-line:

Caltrans Bridge Survey: <http://www.dot.ca.gov/hq/structur/strmaint/historic.htm>

Soil Survey: <http://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=CA>

Shipwreck Inventory: <http://www.slc.ca.gov/Info/Shipwrecks.html>

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

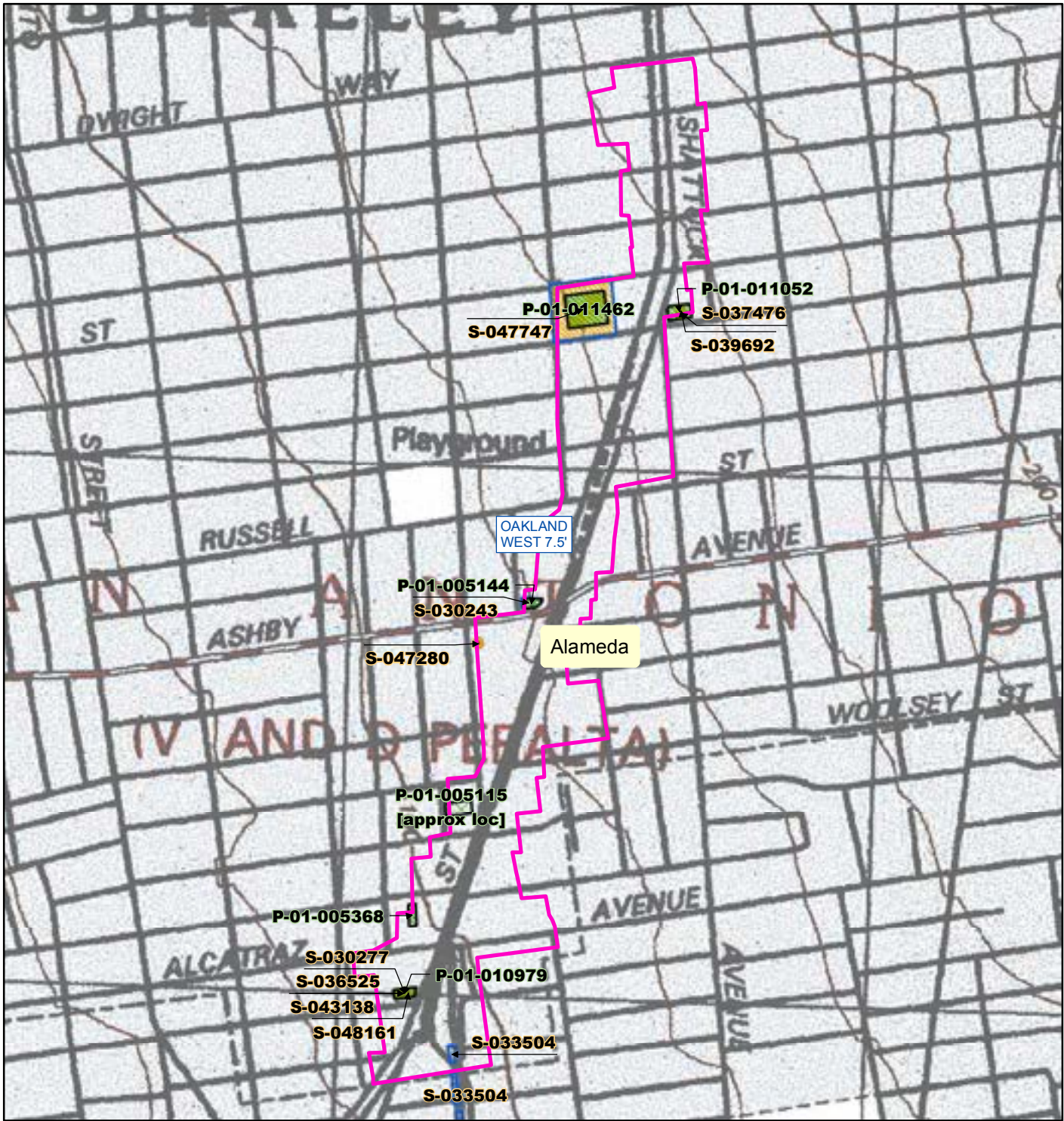
Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Lisa C. Hagel
Researcher

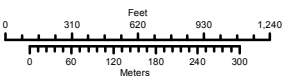
18-16 Adeline Street Corridor Specific Plan



Northwest Information Center

File #18-0321, 7 September 2018, L. Hagel

May depict confidential cultural resource locations.
Do not distribute.



Appendix B: Native American Heritage Commission Consultation

NATIVE AMERICAN HERITAGE COMMISSION

Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX



September 7, 2018

Alisa Shen
City of Berkeley

Email to: ashen@cityofberkeley.info

RE: Adeline Corridor Specific Plan, Alameda County

Dear Ms. Shen:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties. Please note that the intent of the referenced codes is to avoid and or mitigate impacts to tribal cultural resources, as defined, in the California Environmental Quality Act (CEQA).

The law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction. The Native American Heritage Commission (NAHC) believes that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

The NAHC also believes that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the Area of Potential Effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:
 - A listing of any and all known cultural resources that have already been recorded or are adjacent to the APE, such as known archaeological sites;
 - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
 - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the APE; and
 - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.
2. The results of any archaeological inventory survey that was conducted, including:
 - Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code Section 6254.10.

3. The results of the Sacred Lands File (SFL) check conducted through the Native American Heritage Commission had a positive result. For more information about this site, please contact the Northern Valley Yokut tribe.
4. Any ethnographic studies conducted for any area including all or part of the potential APE; and
5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive. A negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we are able to assure that our consultation list remains current.

If you have any questions, please contact me at my email address: frank.lienert@nahc.ca.gov or at 916-5731033.

Sincerely,



Frank Lienert
Associate Governmental Program Analyst

**Native American Heritage Commission
Tribal Consultation List
September 7, 2018**

Coastanoan Rumsen Carmel Tribe

Tony Cerda, Chairperson

244 E. 1st Street

Pomona, CA 91766

rumsen@aol.com

(909) 524-8041 Cell

Ohlone/Costanoan

Indian Canyon Mutsun Band of Costanoan

Ann Marie Savers, Chairperson

P.O. Box 28

Hollister, CA 95024

ams@indiancanyon.org

(831) 637-4238

Ohlone/Costanoan

Amah Mutsun Tribal Band of Mission San Juan Bautista

Irenne Zwierlein, Chairperson

789 Canada Road

Woodside, CA 94062

amahmutsuntribal@gmail.com

(650) 851-7489 Cell

(650) 851-7747 Office

Ohlone/Costanoan

Muwekma Ohlone Indian Tribe of the SF Bay Area

Monica Arellano, Vice Chairwoman

20885 Redwood Road, Suite 2 Ohlone / Costanoan

Castro Valley, CA 94546

marellano@muwekma.org

(408) 205-9714

North Valley Yokuts Tribe

Katherine Erolinda Perez, Chairperson

P.O. Box 717

Linden, CA 95236

canutes@verizon.net

(209) 887-3415

Ohlone/Costanoan

Northern Valley Yokuts

Bay Miwok

Muwekma Ohlone Indian Tribe of the SF Bay Area

Charlene Niimeh, Chairperson

20885 Redwood Road, Suite 2 Ohlone / Costanoan

Castro Valley, CA 94546

cnijmeh@muwekma.org

(408) 464-2892

The Ohlone Indian Tribe

Andrew Galvan

P.O. Box 3388

Fremont, CA 94539

chochenyo@AOL.com

(510) 882-0527 Cell

Ohlone/Costanoan

Bay Miwok

Plains Miwok

Patwin

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Government Code Sections 65352.3 and 65362.4 et seq for the proposed

Adeline Corridor Specific Plan, Alameda County



Planning and Development Department
Land Use Planning Division

September 12, 2018

Amah Mutsun Tribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road
Woodside, CA 94062

Also sent via e-mail: amahmutsuntribal@gmail.com

RE: Assembly Bill 52 and Senate Bill 18 Consultation, Adeline Corridor Specific Plan, City of Berkeley, Alameda County, California

Dear Chairperson Zwierlein,

The City of Berkeley Planning Department is preparing an EIR for the proposed Adeline Corridor Specific Plan. The proposed project is a long-range plan with a planning horizon through the year 2040. The Specific Plan will include goals and policies related to land use, circulation, infra structure, and design to fulfill the vision for the Plan Area. The Specific Plan would also establish uses and development standards for the Plan Area. **For the purposes of the CEQA EIR, a reasonable and conservative estimate of buildout or growth projection associated with the proposed Specific Plan through 2040 includes development of 1,450 housing units and 65,000 square feet of retail or commercial space.**¹ Because this is a plan (and not a development project), the timing, intensity and type of development within the Specific Plan area over the time horizon of the plan are less certain. Future development under the Specific Plan may likely require approval by State, federal and responsible trustee agencies, which may in turn rely on the programmatic EIR for the Specific Plan to render their decisions.

A record search covering the project area and a 1/8-mile radius around it was completed at the Northwest Information Center, California Historical Resources Information System on September 11, 2018 (NWIC #18-0321). The record search showed that no archaeological resources are known within the APE or the search radius. Twenty previous studies have covered portions of the APE, but have not identified archaeological resources.

In August and September, 2018 an intensive archaeological survey of the project area was carried out by an archaeologist meeting the Secretary of the Interior's Standards. No prehistoric cultural resources were identified during the survey. An archaeological sensitivity analysis indicates that the APE in prehistory was over one mile from the nearest perennial watercourse, making it less likely to contain buried archaeological sites. The APE was also extensively disturbed in the 1960s by the construction of the BART tunnel, which runs underground along Adeline Street, by private

¹ Growth projection estimates assume residential upper floor use and non-residential retail/commercial ground-floor uses.
1947 Center Street, Berkeley, CA 94704 Tel: 510.981.7410 TDD: 510.981.7474 Fax: 510.981.7420

September 12, 2018

Page 2

construction, and by underground utilities. Given these factors, there appears to be a low likelihood that previously unknown archaeological sites will be discovered in the project area.

The proposed project must comply with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014), which requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The proposed project includes the adoption of a city specific plan and, therefore, must also comply with California Public Resources Code § 65352.3 – 65352.4 (Senate Bill 18), which requires local governments to conduct meaningful consultation with California Native American tribes on the contact list maintained by the Native American Heritage Commission prior to the adoption or amendment of a city or county specific plan or general plan for the purpose of protecting cultural places on lands affected by the proposal.

Your tribe's input is important to the City of Berkeley's planning process. We request that you advise us as early as possible if you wish to consult on the proposed project. Under AB 52, you have 30 days and under the provisions of SB 18, have 90 days from the date of receipt of this notice to advise the City if you are interested in further consultation.

If you require any additional information or have any questions, please contact me at (510) 981-7409 or via e-mail at ashen@cityofberkeley.info. Thank you for your assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Alisa Shen', written over a horizontal line.

Alisa Shen
Principal Planner
City of Berkeley Planning & Development Department

Enclosed:
Adeline Corridor Specific Plan Notice of Preparation (NOP)

Cc: Aaron Welch, Raimi+Associates
Abe Leider, Rincon Consulting, Inc.
Karly Kaufman, Rincon Consulting, Inc.



Planning and Development Department
Land Use Planning Division

NOTICE OF PREPARATION (NOP) OF A DRAFT ENVIRONMENTAL IMPACT REPORT AND SCOPING SESSION FOR THE PROPOSED ADELINE CORRIDOR SPECIFIC PLAN

The City of Berkeley is preparing a Draft Environmental Impact Report (EIR) for the Adeline Corridor Specific Plan ("Specific Plan"), as identified below, and is requesting comments on the scope and content of the Draft EIR. The Draft EIR will address the potential physical and environmental effects of the Specific Plan for each of the environmental topics outlined in the California Environmental Quality Act (CEQA). The City has not prepared an Initial Study. Under CEQA, a Lead Agency may proceed directly with EIR preparation without an Initial Study if it is clear that an EIR will be required. The City has made such a determination for this project.

The City of Berkeley is the Lead Agency for the Specific Plan. This notice is being sent to the California State Clearinghouse, Alameda County Clerk, adjacent cities, potential responsible agencies, and other interested parties. Responsible agencies are those public agencies, besides the City of Berkeley, that also have a role in approving or carrying out the project. When the Draft EIR is published, a Notice of Availability of a Draft EIR will be sent to Responsible Agencies, other public agencies, and interested parties and individuals who have indicated that they would like to review the Draft EIR.

Responses to this NOP and any questions or comments should be directed in writing to: *Alisa Shen, Principal Planner, Planning and Development Department, 1947 Center Street, 2nd Floor, Berkeley, CA 94704; or ashen@cityofberkeley.info*. Comments on the NOP must be received **on or before August 6, 2018**. In addition, comments may be provided at the EIR Scoping Meeting (see below). Comments should focus on possible impacts on the physical environment, ways in which potential adverse effects might be minimized, and alternatives to the proposed Specific Plan.

EIR PUBLIC SCOPING MEETING: The City of Berkeley Planning Commission will conduct a public scoping session at a Special Meeting/Location on **July 18, 2018**, starting at **7:00 PM at the South Berkeley Senior Center, 2939 Ellis Street, Berkeley, California.**¹

PROJECT TITLE: Adeline Corridor Specific Plan

¹ Visit: https://www.cityofberkeley.info/Clerk/Commissions/Commissions_Planning_Commission_Homepage.aspx for agendas and other meeting information.

PROJECT LOCATION: The Plan Area is located in the southern portion of the City of Berkeley and extends approximately 1.3 miles north from the Berkeley/Oakland border along Adeline Street and Shattuck Avenue to the intersection of Shattuck Avenue and Dwight Way. The Plan Area abuts Downtown Berkeley to the north and extends to the City of Oakland border to the south. Figure 1 shows the Plan Area boundary.

PROJECT SPONSOR: City of Berkeley

EXISTING CONDITIONS: The Plan Area encompasses approximately 86 acres of land. The Plan Area contains a wide range of commercial, civic, cultural and residential land uses as well as the Ashby BART Station, a regional transit facility, located in the central/southern portion of the Plan Area. The Plan Area is characterized by a varied street environment and approximately 38 acres (44 percent) of right-of-way (e.g. streets and sidewalks) used for multiple modes of transportation. Of the remaining area, approximately 19 acres are developed with commercial uses, 11 acres are developed with public, civic, or institutional uses, 9 acres are developed with residential uses, and the remaining area is developed with parking, warehouse or mixed uses, or is vacant. The majority of land surrounding the Plan Area is dedicated to residential uses and is characterized by well-established neighborhoods with a mix of single-family and small multi-family developments.

The Plan Area slopes in a southwesterly direction from an elevation of approximately 167 feet above sea level at the intersection of Shattuck Avenue and Dwight Way to approximately 85 feet above sea level near the Berkeley/Oakland City Limit. With an average slope of approximately 1.2 percent, the Plan Area is conducive to walking and bicycling. Approximately 11 properties in the Plan Area are present on one of the lists of hazardous waste sites enumerated under Section 95962.5 of the Government Code.

PROJECT DESCRIPTION and BACKGROUND: In 2015, the City of Berkeley began a community planning process to develop a long-range plan for the Adeline corridor. A long-range plan provides a blueprint for the future, an opportunity for the community to express its priorities, and serves as a guide for public and private investment in the area. The planning effort is funded in part by a grant from the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) to promote opportunities to plan for transit-oriented development around BART stations and other high-frequency transit and safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

Building on the feedback from series of community events, stakeholder meetings, and working sessions, the vision of the Specific Plan is to:

- Make the Adeline Corridor a “connector” that weaves together healthy, diverse, and vibrant neighborhoods;
- Champion equitable, transit-oriented development, including high-quality affordable housing for a range of income levels, and that supports a thriving business community populated by independent locally-owned business, non-profits and arts organizations;

- Provide safe, “complete streets” and other public spaces that are walkable, bikeable, green, and accessible for persons of all ages and abilities;
- Create a place where history--the experiences and contributions of people, places and institutions that have made South Berkeley what it is today—is recognized and reflected in its future; and,
- Create a place where people have equitable access and opportunity to shared prosperity and quality of life.

The Adeline Corridor Specific Plan will have a horizon year of 2040. The plan will direct changes in land uses and development and right-of-way improvements. The plan's policies and standards will only apply within the Plan Area boundary which includes the street itself, as well as parcels on either side of the street. Although the plan's geographical scope is limited, it will also consider the relationship to the larger South Berkeley neighborhood.

The components of the Specific Plan will include:

- Text and diagrams showing the distribution, location, and extent of all land uses;
- Standards and guidelines for development, including adjustments to allowable building height, density, and use; and
- Program of implementation measures including regulations, programs, public works projects and potential financing recommendations.

For more information about the Specific Plan, please visit the Plan website at:
<https://www.cityofberkeley.info/AdelineCorridor/>

POTENTIAL ENVIRONMENTAL EFFECTS: It is anticipated that the proposed Specific Plan may result in potentially significant environmental effects to the following:

- Air Quality;
- Biological Resources;
- Cultural and Historic Resources;
- Geology and Soils;
- Greenhouse Gas Emissions;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning;
- Noise;
- Population and Housing;
- Public Services and Recreation
- Transportation;
- Tribal Cultural Resources; and
- Utilities and Service Systems.

All of the noted environmental issues will be analyzed in the Draft EIR.

The Specific Plan has no potential for impacts on the following environmental factors and as a result, these environmental factors will not be the subject of the Draft EIR: Aesthetics (per Public Resources Code section 21099(d)(1) regarding infill sites within a transit priority area), Agriculture and Forestry Resources (there are no agricultural and forest land resources in the Plan Area) and Mineral Resources (there are no mineral resources in the Plan Area).

The Draft EIR will also examine a reasonable range of alternatives to the Specific Plan, including the CEQA-mandated No Project Alternative and other potential alternatives that may be capable of reducing or avoiding potential environmental effects while generally meeting the Plan objectives. The Draft EIR will also analyze the cumulative impacts that could result with adoption and development under the Specific Plan.



Alisa Shen, Principal Planner

Date of Distribution: July 6, 2018

Attachment: Figure 1: Project Area Map (Plan Area Boundary)

Figure 1



Appendix E

Energy Modeling Worksheets

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project

Last Updated: 3/3/2021

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors [1]:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529

Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT						
Construction Equipment	#	Hours per		Load		Fuel Used (gallons)
		Day	Horsepower	Factor	Construction Phase	
Rubber Tired Dozers	3	8	247	0.4	Site Preparation Phase	1,253.39
Tractors/Loaders/Backhoes	4	8	97	0.37	Site Preparation Phase	674.90
Graders	1	8	187	0.41	Grading Phase	972.65
Excavators	2	8	158	0.38	Grading Phase	1,523.35
Rubber Tired Dozers	1	8	247	0.4	Grading Phase	1,253.39
Tractors/Loaders/Backhoes	2	8	97	0.37	Grading Phase	1,012.34
Scrapers	2	8	367	0.48	Grading Phase	4,469.59
Cranes	1	7	231	0.29	Building Construction Phase	7,436.15
Forklifts	3	8	89	0.2	Building Construction Phase	7,531.22
Generator Sets	1	8	84	0.74	Building Construction Phase	8,766.68
Tractors/Loaders/Backhoes	3	7	97	0.37	Building Construction Phase	13,287.00
Welders	1	8	46	0.45	Building Construction Phase	2,919.41
Air Compressors	1	6	78	0.48	Architectural Coating Phase	1,188.07
Pavers	2	8	130	0.42	Paving Phase	923.55
Paving Equipment	2	8	132	0.36	Paving Phase	803.80
Rollers	2	8	80	0.38	Paving Phase	571.66
Total Fuel Used						54,587.15 (Gallons)

Construction Phase	Days of Operation
Site Preparation Phase	10
Grading Phase	30
Building Construction Phase	300
Paving Phase	20
Architectural Coating Phase	90
Total Days	450

WORKER TRIPS				
Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Site Preparation Phase	24.4	18	10.8	79.67
Grading Phase	24.4	20	10.8	265.57
Building Construction Phase	24.4	1778	10.8	236095.08
Paving Phase	24.4	15	10.8	132.79
Architectural Coating Phase	24.4	356	10.8	14181.64
Fuel				250,754.75

HAULING AND VENDOR TRIPS				
Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
HAULING TRIPS				

Site Preparation Phase	7.5	0	20.0	0.00
Grading Phase	7.5	3333	20.0	8888.00
Building Construction Phase	7.5	0	20.0	0.00
Paving Phase	7.5	0	20.0	0.00
Architectural Coating Phase	7.5	0	20.0	0.00
			Fuel	8,888.00

VENDOR TRIPS

Site Preparation Phase	7.5	0	7.3	0.00
Grading Phase	7.5	0	7.3	0.00
Building Construction Phase	7.5	277	7.3	80884.00
Paving Phase	7.5	0	7.3	0.00
Architectural Coating Phase	7.5	0	7.3	0.00
			Fuel	80,884.00

Total Gasoline Consumption (gallons)	250,754.75
Total Diesel Consumption (gallons)	144,359.15

Sources:

[1] United States Environmental Protection Agency. 2018. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES2014b*. July 2018. Available at: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100UXEN.pdf>.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2019. *National Transportation Statistics 2019*. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project

Last Updated: 6/2/2021

Populate one of the following tables (Leave the other blank):

Annual VMT	OR	Daily Vehicle Trips
Annual VMT: 16,807,730		Daily Vehicle Trips: Average Trip Distance:

Fleet Class	Fleet Mix	Fuel Economy (MPG) [1]	
Light Duty Auto (LDA)	0.585795	Passenger Vehicles	24.4
Light Duty Truck 1 (LDT1)	0.036515	Light-Med Duty Trucks	17.9
Light Duty Truck 2 (LDT2)	0.193581	Heavy Trucks/Other	7.5
Medium Duty Vehicle (MDV)	0.106455	Motorcycles	44
Light Heavy Duty 1 (LHD1)	0.012789		
Light Heavy Duty 2 (LHD2)	0.005274		
Medium Heavy Duty (MHD)	0.019465		
Heavy Heavy Duty (HHD)	0.028415		
Other Bus (OBUS)	0.002699		
Urban Bus (UBUS)	0.001789		
Motorcycle (MCY)	0.005626		
School Bus (SBUS)	0.000921		
Motorhome (MH)	0.000676		

Fleet Mix					
Vehicle Type	Percent	Fuel Type	Annual VMT:		Fuel Consumption (Gallons)
			VMT	Vehicle Trips: VMT	
Passenger Vehicles	58.58%	Gasoline	9845884	0.00	403519.84
Light-Medium Duty Trucks	33.66%	Gasoline	5656658	0.00	316014.43
Heavy Trucks/Other	7.20%	Diesel	1210627	0.00	161416.96
Motorcycle	0.56%	Gasoline	94560	0.00	2149.10

Total Gasoline Consumption (gallons)	721683.37
Total Diesel Consumption (gallons)	161416.96

Sources:

[1] United States Department of Transportation, Bureau of Transportation Statistics. 2019. National Transportation Statistics 2019. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project

Last Updated: 3/3/2021

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Building Construction Phase	7.5	0	20.0	0.00
Paving Phase	7.5	0	20.0	0.00
Architectural Coating Phase	7.5	0	20.0	0.00
			Fuel	8,888.00

VENDOR TRIPS

Site Preparation Phase	7.5	0	7.3	0.00
Grading Phase	7.5	0	7.3	0.00
Building Construction Phase	7.5	277	7.3	80884.00
Paving Phase	7.5	0	7.3	0.00
Architectural Coating Phase	7.5	0	7.3	0.00
			Fuel	80,884.00

Total Gasoline Consumption (gallons)	250,754.75
Total Diesel Consumption (gallons)	144,359.15

Sources:

[1] United States Environmental Protection Agency. 2018. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES2014b*. July 2018. Available at: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100UXEN.pdf>.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2019. *National Transportation Statistics 2019*. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project

Last Updated: 6/2/2021

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Light Duty Truck 2 (LDT2)	0.193581	Heavy Trucks/Other	7.5
Medium Duty Vehicle (MDV)	0.106455	Motorcycles	44
Light Heavy Duty 1 (LHD1)	0.012789		
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Medium Heavy Duty (MHD)	0.019465		
Heavy Heavy Duty (HHD)	0.028415		
Other Bus (OBUS)	0.002699		
Urban Bus (UBUS)	0.001789		
Motorcycle (MCY)	0.005626		
School Bus (SBUS)	0.000921		
Motorhome (MH)	0.000676		

Fleet Mix					
Vehicle Type	Percent	Fuel Type	Annual VMT:		Fuel Consumption (Gallons)
			VMT	Vehicle Trips: VMT	
Passenger Vehicles	58.58%	Gasoline	9845884	0.00	403519.84
Light-Medium Duty Trucks	33.66%	Gasoline	5656658	0.00	316014.43
Heavy Trucks/Other	7.20%	Diesel	1210627	0.00	161416.96
Motorcycle	0.56%	Gasoline	94560	0.00	2149.10

Total Gasoline Consumption (gallons)	721683.37
Total Diesel Consumption (gallons)	161416.96

Sources:

[1] United States Department of Transportation, Bureau of Transportation Statistics. 2019. National Transportation Statistics 2019. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.

Appendix F

Greenhouse Gas Emissions Modeling Worksheets

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

Ashby and North Berkeley BART: commercial trip reductions

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.00	1000sqft	0.00	15,000.00	0
Day-Care Center	15.00	1000sqft	0.00	15,000.00	0
Fast Food Restaurant w/o Drive Thru	15.00	1000sqft	0.00	15,000.00	0
Health Club	50.00	1000sqft	0.00	50,000.00	0
High Turnover (Sit Down Restaurant)	15.00	1000sqft	0.00	15,000.00	0
Apartments Mid Rise	2,400.00	Dwelling Unit	14.40	2,400,000.00	6864
Convenience Market (24 Hour)	15.00	1000sqft	0.00	15,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2030
Utility Company	User Defined				
CO2 Intensity (lb/MW hr)	135	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

Project Characteristics - RPS for 2030 per SB 100 for EBCE

Land Use - Based on Project Description and Traffic Study

Construction Phase - no demo, arch coating extended to reflect typical construction phasing

Grading - Based on export estimates

Architectural Coating - BAAQMD Regulation 8, Rule 3

Vehicle Trips - Based on trip rate and VMT data provided by traffic consultant

Woodstoves - BAAQMD Regulation 6, Rule 3 and Berkeley Municipal Code 12.80

Area Coating - BAAQMD Regulation 8, Rule 3

Energy Use - 2019 Energy Code, assume 10% natural gas use

Water And Wastewater - All wastewater treated at EBMUD WWTP

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation - Based on density and employment assumptions in PD

Water Mitigation - CALGreen compliance

Waste Mitigation - City of Berkeley solid waste diversion rate of 68% (adjusted to account for 50% diversion already included in CalEEMod)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblAreaCoating	Area_EF_Parking	150	100
tblConstructionPhase	NumDays	20.00	90.00
tblEnergyUse	LightingElect	4.88	3.42
tblEnergyUse	LightingElect	2.51	1.76
tblEnergyUse	LightingElect	5.34	3.74
tblEnergyUse	LightingElect	3.58	2.51
tblEnergyUse	LightingElect	2.99	2.09
tblEnergyUse	LightingElect	5.34	3.74
tblEnergyUse	NT24NG	2,615.00	261.50
tblEnergyUse	NT24NG	0.70	0.07

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

tblEnergyUse	NT24NG	1.62	0.16
tblEnergyUse	NT24NG	128.02	12.80
tblEnergyUse	NT24NG	1.01	0.10
tblEnergyUse	NT24NG	6.90	0.69
tblEnergyUse	NT24NG	128.02	12.80
tblEnergyUse	T24E	2.24	1.57
tblEnergyUse	T24E	0.66	0.46
tblEnergyUse	T24E	2.67	1.87
tblEnergyUse	T24E	4.10	2.87
tblEnergyUse	T24E	1.21	0.85
tblEnergyUse	T24E	2.67	1.87
tblEnergyUse	T24NG	6,115.43	611.54
tblEnergyUse	T24NG	3.90	0.39
tblEnergyUse	T24NG	14.85	1.49
tblEnergyUse	T24NG	39.90	3.99
tblEnergyUse	T24NG	18.32	1.83
tblEnergyUse	T24NG	17.85	1.78
tblEnergyUse	T24NG	39.90	3.99
tblFireplaces	NumberGas	360.00	240.00
tblFireplaces	NumberNoFireplace	96.00	2,160.00
tblFireplaces	NumberWood	408.00	0.00
tblGrading	MaterialExported	0.00	26,666.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	LotAcreage	1.15	0.00
tblLandUse	LotAcreage	0.34	0.00

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

tblLandUse	LotAcreage	63.16	14.40
tblLandUse	LotAcreage	0.34	0.00
tblProjectCharacteristics	CO2IntensityFactor	0	135
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	5.70	4.34
tblVehicleTrips	HS_TL	4.80	4.35
tblVehicleTrips	HW_TL	10.80	4.34
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	6.39	6.46
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	ST_TR	6.21	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	SU_TR	5.86	6.46
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	SU_TR	5.83	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	WD_TR	6.65	6.46
tblVehicleTrips	WD_TR	737.99	0.00
tblVehicleTrips	WD_TR	74.06	0.00
tblVehicleTrips	WD_TR	716.00	0.00

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	156,369,661.49	125,095,729.00
tblWater	IndoorWaterUseRate	1,111,087.82	888,870.26
tblWater	IndoorWaterUseRate	643,343.51	514,674.81
tblWater	IndoorWaterUseRate	4,553,005.69	3,642,404.55
tblWater	IndoorWaterUseRate	2,666,006.22	2,132,804.98
tblWater	IndoorWaterUseRate	2,957,157.20	2,365,725.76
tblWater	IndoorWaterUseRate	4,553,005.69	3,642,404.55
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	48.00	0.00
tblWoodstoves	NumberNoncatalytic	48.00	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.8365	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4501	2,446.4501	0.1534	0.0000	2,450.2856
2024	17.8666	1.6580	2.6415	0.0100	0.7624	0.0372	0.7996	0.2045	0.0349	0.2395	0.0000	917.7705	917.7705	0.0498	0.0000	919.0154
Maximum	17.8666	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4501	2,446.4501	0.1534	0.0000	2,450.2856

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.8365	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4497	2,446.4497	0.1534	0.0000	2,450.2852
2024	17.8666	1.6580	2.6415	0.0100	0.7624	0.0372	0.7996	0.2045	0.0349	0.2395	0.0000	917.7704	917.7704	0.0498	0.0000	919.0152
Maximum	17.8666	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4497	2,446.4497	0.1534	0.0000	2,450.2852

[illegible]

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2023	3-31-2023	1.5735	1.5735
2	4-1-2023	6-30-2023	1.4686	1.4686
3	7-1-2023	9-30-2023	1.4847	1.4847
4	10-1-2023	12-31-2023	1.5208	1.5208
5	1-1-2024	3-31-2024	14.2114	14.2114
6	4-1-2024	6-30-2024	5.0284	5.0284
		Highest	14.2114	14.2114

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	12.1508	0.2308	17.7853	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0283	5.5000e-004	59.9443
Energy	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	857.3405	857.3405	2.8500e-003	2.7200e-003	858.2231
Mobile	2.1800	11.2357	21.0231	0.0884	9.1118	0.0604	9.1722	2.4442	0.0562	2.5004	0.0000	8,167.6560	8,167.6560	0.2798	0.0000	8,174.6499
Waste						0.0000	0.0000		0.0000	0.0000	369.2020	0.0000	369.2020	21.8192	0.0000	914.6823
Water						0.0000	0.0000		0.0000	0.0000	48.9246	68.3107	117.2353	0.1684	0.1064	153.1509
Total	14.3458	11.5968	38.8779	0.0903	9.1118	0.1717	9.2835	2.4442	0.1675	2.6117	418.1266	9,152.3800	9,570.5066	22.2985	0.1097	10,160.6505

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	12.1508	0.2308	17.7853	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0283	5.5000e-004	59.9443
Energy	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	857.3405	857.3405	2.8500e-003	2.7200e-003	858.2231
Mobile	1.9762	10.1388	16.5685	0.0638	6.2507	0.0453	6.2960	1.6767	0.0421	1.7188	0.0000	5,901.501 2	5,901.501 2	0.2224	0.0000	5,907.060 3
Waste						0.0000	0.0000		0.0000	0.0000	236.2893	0.0000	236.2893	13.9643	0.0000	585.3967
Water						0.0000	0.0000		0.0000	0.0000	48.9246	66.9387	115.8633	0.1684	0.1064	151.7789
Total	14.1420	10.4999	34.4232	0.0657	6.2507	0.1566	6.4073	1.6767	0.1534	1.8301	285.2139	6,884.853 2	7,170.067 1	14.3862	0.1097	7,562.403 2

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.42	9.46	11.46	27.23	31.40	8.82	30.98	31.40	8.43	29.93	31.79	24.78	25.08	35.48	0.00	25.57

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	2/24/2023	5	30	
3	Building Construction	Building Construction	2/25/2023	4/19/2024	5	300	
4	Architectural Coating	Architectural Coating	1/1/2024	5/3/2024	5	90	
5	Paving	Paving	4/20/2024	5/17/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 4,860,000; Residential Outdoor: 1,620,000; Non-Residential Indoor: 187,500; Non-Residential Outdoor: 62,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,333.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,778.00	277.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	356.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction**3.2 Site Preparation - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0903	6.3300e-003	0.0967	0.0497	5.8200e-003	0.0555	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572
Total	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572

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3.2 Site Preparation - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0903	6.3300e-003	0.0967	0.0497	5.8200e-003	0.0555	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572
Total	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572

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3.3 Grading - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1316	0.0000	0.1316	0.0542	0.0000	0.0542	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642
Total	0.0498	0.5177	0.4208	9.3000e-004	0.1316	0.0214	0.1530	0.0542	0.0197	0.0738	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4500e-003	0.2765	0.0854	1.2300e-003	0.0282	5.0000e-004	0.0287	7.7400e-003	4.8000e-004	8.2200e-003	0.0000	119.6212	119.6212	5.6600e-003	0.0000	119.7627
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	5.1000e-004	5.6900e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8566	1.8566	4.0000e-005	0.0000	1.8575
Total	9.2500e-003	0.2770	0.0911	1.2500e-003	0.0305	5.1000e-004	0.0310	8.3700e-003	4.9000e-004	8.8600e-003	0.0000	121.4778	121.4778	5.7000e-003	0.0000	121.6201

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3.3 Grading - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1316	0.0000	0.1316	0.0542	0.0000	0.0542	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641
Total	0.0498	0.5177	0.4208	9.3000e-004	0.1316	0.0214	0.1530	0.0542	0.0197	0.0738	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4500e-003	0.2765	0.0854	1.2300e-003	0.0282	5.0000e-004	0.0287	7.7400e-003	4.8000e-004	8.2200e-003	0.0000	119.6212	119.6212	5.6600e-003	0.0000	119.7627
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	5.1000e-004	5.6900e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8566	1.8566	4.0000e-005	0.0000	1.8575
Total	9.2500e-003	0.2770	0.0911	1.2500e-003	0.0305	5.1000e-004	0.0310	8.3700e-003	4.9000e-004	8.8600e-003	0.0000	121.4778	121.4778	5.7000e-003	0.0000	121.6201

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3.4 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9852	254.9852	0.0607	0.0000	256.5017
Total	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9852	254.9852	0.0607	0.0000	256.5017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0677	2.3239	0.6686	7.9000e-003	0.1998	2.6700e-003	0.2025	0.0578	2.5600e-003	0.0604	0.0000	760.5432	760.5432	0.0316	0.0000	761.3343
Worker	0.5232	0.3338	3.7082	0.0134	1.5454	9.6700e-003	1.5551	0.4111	8.9000e-003	0.4200	0.0000	1,210.3588	1,210.3588	0.0236	0.0000	1,210.9475
Total	0.5909	2.6577	4.3768	0.0213	1.7453	0.0123	1.7576	0.4689	0.0115	0.4804	0.0000	1,970.9020	1,970.9020	0.0552	0.0000	1,972.2818

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3.4 Building Construction - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9849	254.9849	0.0607	0.0000	256.5013
Total	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9849	254.9849	0.0607	0.0000	256.5013

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0677	2.3239	0.6686	7.9000e-003	0.1998	2.6700e-003	0.2025	0.0578	2.5600e-003	0.0604	0.0000	760.5432	760.5432	0.0316	0.0000	761.3343
Worker	0.5232	0.3338	3.7082	0.0134	1.5454	9.6700e-003	1.5551	0.4111	8.9000e-003	0.4200	0.0000	1,210.3588	1,210.3588	0.0236	0.0000	1,210.9475
Total	0.5909	2.6577	4.3768	0.0213	1.7453	0.0123	1.7576	0.4689	0.0115	0.4804	0.0000	1,970.9020	1,970.9020	0.0552	0.0000	1,972.2818

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3.4 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7396	92.7396	0.0219	0.0000	93.2879
Total	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7396	92.7396	0.0219	0.0000	93.2879

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0238	0.8356	0.2341	2.8500e-003	0.0727	9.5000e-004	0.0736	0.0210	9.1000e-004	0.0219	0.0000	274.6946	274.6946	0.0113	0.0000	274.9765
Worker	0.1788	0.1096	1.2491	4.6700e-003	0.5620	3.4500e-003	0.5654	0.1495	3.1800e-003	0.1527	0.0000	422.7115	422.7115	7.7100e-003	0.0000	422.9043
Total	0.2026	0.9452	1.4832	7.5200e-003	0.6347	4.4000e-003	0.6391	0.1705	4.0900e-003	0.1746	0.0000	697.4061	697.4061	0.0190	0.0000	697.8807

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3.4 Building Construction - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7395	92.7395	0.0219	0.0000	93.2878
Total	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7395	92.7395	0.0219	0.0000	93.2878

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0238	0.8356	0.2341	2.8500e-003	0.0727	9.5000e-004	0.0736	0.0210	9.1000e-004	0.0219	0.0000	274.6946	274.6946	0.0113	0.0000	274.9765
Worker	0.1788	0.1096	1.2491	4.6700e-003	0.5620	3.4500e-003	0.5654	0.1495	3.1800e-003	0.1527	0.0000	422.7115	422.7115	7.7100e-003	0.0000	422.9043
Total	0.2026	0.9452	1.4832	7.5200e-003	0.6347	4.4000e-003	0.6391	0.1705	4.0900e-003	0.1746	0.0000	697.4061	697.4061	0.0190	0.0000	697.8807

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3.5 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	17.5464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.1300e-003	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058
Total	17.5545	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605
Total	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

3.5 Architectural Coating - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	17.5464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.1300e-003	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058
Total	17.5545	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605
Total	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605

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3.6 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920
Total	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920

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3.6 Paving - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920
Total	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920

4.0 Operational Detail - Mobile

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Integrate Below Market Rate Housing

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.9762	10.1388	16.5685	0.0638	6.2507	0.0453	6.2960	1.6767	0.0421	1.7188	0.0000	5,901.5012	5,901.5012	0.2224	0.0000	5,907.0603
Unmitigated	2.1800	11.2357	21.0231	0.0884	9.1118	0.0604	9.1722	2.4442	0.0562	2.5004	0.0000	8,167.6560	8,167.6560	0.2798	0.0000	8,174.6499

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	15,504.00	15,504.00	15,504.00	24,501,064	16,807,730
Convenience Market (24 Hour)	0.00	0.00	0.00		
Day-Care Center	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Total	15,504.00	15,504.00	15,504.00	24,501,064	16,807,730

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	4.34	4.35	4.34	31.00	15.00	54.00	100	0	0
Convenience Market (24 Hour)	9.50	7.30	7.30	0.90	80.10	19.00	24	15	61
Day-Care Center	9.50	7.30	7.30	12.70	82.30	5.00	28	58	14
Fast Food Restaurant w/o Drive	9.50	7.30	7.30	1.50	79.50	19.00	51	37	12
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Health Club	9.50	7.30	7.30	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676
Convenience Market (24 Hour)	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676
Day-Care Center	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676
Fast Food Restaurant w/o Drive Thru	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676
General Office Building	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676
Health Club	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676
High Turnover (Sit Down Restaurant)	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	708.8239	708.8239	0.0000	0.0000	708.8239
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	708.8239	708.8239	0.0000	0.0000	708.8239
NaturalGas Mitigated	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8500e-003	2.7200e-003	149.3992
NaturalGas Unmitigated	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8500e-003	2.7200e-003	149.3992

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.0953e+006	0.0113	0.0966	0.0411	6.2000e-004		7.8100e-003	7.8100e-003		7.8100e-003	7.8100e-003	0.0000	111.8130	111.8130	2.1400e-003	2.0500e-003	112.4774
Convenience Market (24 Hour)	6900	4.0000e-005	3.4000e-004	2.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3682	0.3682	1.0000e-005	1.0000e-005	0.3704
Day-Care Center	24750	1.3000e-004	1.2100e-003	1.0200e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3208	1.3208	3.0000e-005	2.0000e-005	1.3286
Fast Food Restaurant w/o Drive Thru	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
General Office Building	28950	1.6000e-004	1.4200e-003	1.1900e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5449	1.5449	3.0000e-005	3.0000e-005	1.5541
Health Club	123500	6.7000e-004	6.0500e-003	5.0900e-003	4.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	6.5904	6.5904	1.3000e-004	1.2000e-004	6.6296
High Turnover (Sit Down Restaurant)	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
Total		0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8600e-003	2.7300e-003	149.3992

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.0953e+006	0.0113	0.0966	0.0411	6.2000e-004		7.8100e-003	7.8100e-003		7.8100e-003	7.8100e-003	0.0000	111.8130	111.8130	2.1400e-003	2.0500e-003	112.4774
Convenience Market (24 Hour)	6900	4.0000e-005	3.4000e-004	2.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3682	0.3682	1.0000e-005	1.0000e-005	0.3704
Day-Care Center	24750	1.3000e-004	1.2100e-003	1.0200e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3208	1.3208	3.0000e-005	2.0000e-005	1.3286
Fast Food Restaurant w/o Drive Thru	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
General Office Building	28950	1.6000e-004	1.4200e-003	1.1900e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5449	1.5449	3.0000e-005	3.0000e-005	1.5541
Health Club	123500	6.7000e-004	6.0500e-003	5.0900e-003	4.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	6.5904	6.5904	1.3000e-004	1.2000e-004	6.6296
High Turnover (Sit Down Restaurant)	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
Total		0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8600e-003	2.7300e-003	149.3992

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.01328e+007	620.4802	0.0000	0.0000	620.4802
Convenience Market (24 Hour)	125250	7.6697	0.0000	0.0000	7.6697
Day-Care Center	52350	3.2057	0.0000	0.0000	3.2057
Fast Food Restaurant w/o Drive Thru	398700	24.4144	0.0000	0.0000	24.4144
General Office Building	152700	9.3506	0.0000	0.0000	9.3506
Health Club	315000	19.2890	0.0000	0.0000	19.2890
High Turnover (Sit Down Restaurant)	398700	24.4144	0.0000	0.0000	24.4144
Total		708.8239	0.0000	0.0000	708.8239

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.01328e+007	620.4802	0.0000	0.0000	620.4802
Convenience Market (24 Hour)	125250	7.6697	0.0000	0.0000	7.6697
Day-Care Center	52350	3.2057	0.0000	0.0000	3.2057
Fast Food Restaurant w/o Drive Thru	398700	24.4144	0.0000	0.0000	24.4144
General Office Building	152700	9.3506	0.0000	0.0000	9.3506
Health Club	315000	19.2890	0.0000	0.0000	19.2890
High Turnover (Sit Down Restaurant)	398700	24.4144	0.0000	0.0000	24.4144
Total		708.8239	0.0000	0.0000	708.8239

6.0 Area Detail**6.1 Mitigation Measures Area**

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	12.1508	0.2308	17.7853	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0283	5.5000e-004	59.9443
Unmitigated	12.1508	0.2308	17.7853	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0283	5.5000e-004	59.9443

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.7546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.8614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0300e-003	0.0259	0.0110	1.7000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003	0.0000	29.9614	29.9614	5.7000e-004	5.5000e-004	30.1395
Landscaping	0.5317	0.2049	17.7743	9.4000e-004		0.0988	0.0988		0.0988	0.0988	0.0000	29.1113	29.1113	0.0277	0.0000	29.8048
Total	12.1508	0.2308	17.7853	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0283	5.5000e-004	59.9443

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.7546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.8614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0300e-003	0.0259	0.0110	1.7000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003	0.0000	29.9614	29.9614	5.7000e-004	5.5000e-004	30.1395
Landscaping	0.5317	0.2049	17.7743	9.4000e-004		0.0988	0.0988		0.0988	0.0988	0.0000	29.1113	29.1113	0.0277	0.0000	29.8048
Total	12.1508	0.2308	17.7853	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0283	5.5000e-004	59.9443

7.0 Water Detail**7.1 Mitigation Measures Water**

Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	115.8633	0.1684	0.1064	151.7789
Unmitigated	117.2353	0.1684	0.1064	153.1509

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	125.096 / 98.5809	106.8367	0.1523	0.0963	139.3273
Convenience Market (24 Hour)	0.88887 / 0.680989	0.7550	1.0800e-003	6.8000e-004	0.9858
Day-Care Center	0.514675 / 1.65431	0.7072	6.3000e-004	4.0000e-004	0.8409
Fast Food Restaurant w/o Drive Thru	3.6424 / 0.290617	2.5579	4.4400e-003	2.8000e-003	3.5039
General Office Building	2.1328 / 1.634	1.8115	2.6000e-003	1.6400e-003	2.3654
Health Club	2.36573 / 1.81245	2.0093	2.8800e-003	1.8200e-003	2.6238
High Turnover (Sit Down Restaurant)	3.6424 / 0.290617	2.5579	4.4400e-003	2.8000e-003	3.5039
Total		117.2353	0.1684	0.1064	153.1509

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	125.096 / 92.5674	105.5479	0.1523	0.0963	138.0384
Convenience Market (24 Hour)	0.88887 / 0.639449	0.7461	1.0800e-003	6.8000e-004	0.9769
Day-Care Center	0.514675 / 1.5534	0.6856	6.3000e-004	4.0000e-004	0.8192
Fast Food Restaurant w/o Drive Thru	3.6424 / 0.27289	2.5541	4.4400e-003	2.8000e-003	3.5001
General Office Building	2.1328 / 1.53433	1.7901	2.6000e-003	1.6400e-003	2.3441
Health Club	2.36573 / 1.70189	1.9856	2.8800e-003	1.8200e-003	2.6001
High Turnover (Sit Down Restaurant)	3.6424 / 0.27289	2.5541	4.4400e-003	2.8000e-003	3.5001
Total		115.8633	0.1684	0.1064	151.7789

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	236.2893	13.9643	0.0000	585.3967
Unmitigated	369.2020	21.8192	0.0000	914.6823

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1104	224.1020	13.2441	0.0000	555.2033
Convenience Market (24 Hour)	45.08	9.1508	0.5408	0.0000	22.6708
Day-Care Center	19.5	3.9583	0.2339	0.0000	9.8066
Fast Food Restaurant w/o Drive Thru	172.78	35.0728	2.0727	0.0000	86.8913
General Office Building	13.95	2.8317	0.1674	0.0000	7.0155
Health Club	285	57.8524	3.4190	0.0000	143.3269
High Turnover (Sit Down Restaurant)	178.5	36.2339	2.1414	0.0000	89.7679
Total		369.2020	21.8192	0.0000	914.6823

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	706.56	143.4253	8.4762	0.0000	355.3301
Convenience Market (24 Hour)	28.8512	5.8565	0.3461	0.0000	14.5093
Day-Care Center	12.48	2.5333	0.1497	0.0000	6.2762
Fast Food Restaurant w/o Drive Thru	110.579	22.4466	1.3266	0.0000	55.6105
General Office Building	8.928	1.8123	0.1071	0.0000	4.4899
Health Club	182.4	37.0256	2.1882	0.0000	91.7292
High Turnover (Sit Down Restaurant)	114.24	23.1897	1.3705	0.0000	57.4515
Total		236.2893	13.9643	0.0000	585.3967

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.00	1000sqft	0.00	15,000.00	0
Day-Care Center	15.00	1000sqft	0.00	15,000.00	0
Fast Food Restaurant w/o Drive Thru	15.00	1000sqft	0.00	15,000.00	0
Health Club	50.00	1000sqft	0.00	50,000.00	0
High Turnover (Sit Down Restaurant)	15.00	1000sqft	0.00	15,000.00	0
Apartments Mid Rise	2,400.00	Dwelling Unit	14.40	2,400,000.00	6864
Convenience Market (24 Hour)	15.00	1000sqft	0.00	15,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2029
Utility Company	User Defined				
CO2 Intensity (lb/MW hr)	135	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

Project Characteristics - RPS for 2030 per SB 100 for EBCE

Land Use - Based on Project Description and Traffic Study

Construction Phase - no demo, arch coating extended to reflect typical construction phasing

Grading - Based on export estimates

Architectural Coating - BAAQMD Regulation 8, Rule 3

Vehicle Trips - Based on trip rate and VMT data provided by traffic consultant

Woodstoves - BAAQMD Regulation 6, Rule 3 and Berkeley Municipal Code 12.80

Area Coating - BAAQMD Regulation 8, Rule 3

Energy Use - 2019 Energy Code, assume 10% natural gas use

Water And Wastewater - All wastewater treated at EBMUD WWTP

Mobile Land Use Mitigation - Based on density and employment assumptions in PD

Energy Mitigation - Mitigation Measure GHG-1: Use 100% renewable or solar energy

Water Mitigation - CALGreen compliance

Waste Mitigation - City of Berkeley solid waste diversion rate of 68% (adjusted to account for 50% diversion already included in CalEEMod)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblAreaCoating	Area_EF_Parking	150	100
tblConstructionPhase	NumDays	20.00	90.00
tblEnergyUse	LightingElect	4.88	3.42
tblEnergyUse	LightingElect	2.51	1.76
tblEnergyUse	LightingElect	5.34	3.74
tblEnergyUse	LightingElect	3.58	2.51
tblEnergyUse	LightingElect	2.99	2.09
tblEnergyUse	LightingElect	5.34	3.74
tblEnergyUse	NT24NG	2,615.00	261.50
tblEnergyUse	NT24NG	0.70	0.07

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tblEnergyUse	NT24NG	1.62	0.16
tblEnergyUse	NT24NG	128.02	12.80
tblEnergyUse	NT24NG	1.01	0.10
tblEnergyUse	NT24NG	6.90	0.69
tblEnergyUse	NT24NG	128.02	12.80
tblEnergyUse	T24E	2.24	1.57
tblEnergyUse	T24E	0.66	0.46
tblEnergyUse	T24E	2.67	1.87
tblEnergyUse	T24E	4.10	2.87
tblEnergyUse	T24E	1.21	0.85
tblEnergyUse	T24E	2.67	1.87
tblEnergyUse	T24NG	6,115.43	611.54
tblEnergyUse	T24NG	3.90	0.39
tblEnergyUse	T24NG	14.85	1.49
tblEnergyUse	T24NG	39.90	3.99
tblEnergyUse	T24NG	18.32	1.83
tblEnergyUse	T24NG	17.85	1.78
tblEnergyUse	T24NG	39.90	3.99
tblFireplaces	NumberGas	360.00	240.00
tblFireplaces	NumberNoFireplace	96.00	2,160.00
tblFireplaces	NumberWood	408.00	0.00
tblGrading	MaterialExported	0.00	26,666.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	LotAcreage	1.15	0.00
tblLandUse	LotAcreage	0.34	0.00

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tblLandUse	LotAcreage	63.16	14.40
tblLandUse	LotAcreage	0.34	0.00
tblProjectCharacteristics	CO2IntensityFactor	0	135
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	5.70	2.09
tblVehicleTrips	HS_TL	4.80	2.09
tblVehicleTrips	HW_TL	10.80	2.09
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	6.39	14.80
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	ST_TR	6.21	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	SU_TR	5.86	14.80
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	SU_TR	5.83	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	WD_TR	6.65	14.81
tblVehicleTrips	WD_TR	737.99	0.00
tblVehicleTrips	WD_TR	74.06	0.00
tblVehicleTrips	WD_TR	716.00	0.00

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tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	156,369,661.49	125,095,729.00
tblWater	IndoorWaterUseRate	1,111,087.82	888,870.26
tblWater	IndoorWaterUseRate	643,343.51	514,674.81
tblWater	IndoorWaterUseRate	4,553,005.69	3,642,404.55
tblWater	IndoorWaterUseRate	2,666,006.22	2,132,804.98
tblWater	IndoorWaterUseRate	2,957,157.20	2,365,725.76
tblWater	IndoorWaterUseRate	4,553,005.69	3,642,404.55
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

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tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	48.00	0.00
tblWoodstoves	NumberNoncatalytic	48.00	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.8365	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4501	2,446.4501	0.1534	0.0000	2,450.2856
2024	17.8666	1.6580	2.6415	0.0100	0.7624	0.0372	0.7996	0.2045	0.0349	0.2395	0.0000	917.7705	917.7705	0.0498	0.0000	919.0154
Maximum	17.8666	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4501	2,446.4501	0.1534	0.0000	2,450.2856

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.8365	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4497	2,446.4497	0.1534	0.0000	2,450.2852
2024	17.8666	1.6580	2.6415	0.0100	0.7624	0.0372	0.7996	0.2045	0.0349	0.2395	0.0000	917.7704	917.7704	0.0498	0.0000	919.0152
Maximum	17.8666	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4497	2,446.4497	0.1534	0.0000	2,450.2852

[illegible]

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2023	3-31-2023	1.5735	1.5735
2	4-1-2023	6-30-2023	1.4686	1.4686
3	7-1-2023	9-30-2023	1.4847	1.4847
4	10-1-2023	12-31-2023	1.5208	1.5208
5	1-1-2024	3-31-2024	14.2114	14.2114
6	4-1-2024	6-30-2024	5.0284	5.0284
		Highest	14.2114	14.2114

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	12.1537	0.2310	17.8155	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0285	5.5000e-004	59.9479
Energy	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	857.3405	857.3405	2.8500e-003	2.7200e-003	858.2231
Mobile	4.4369	21.8105	32.7839	0.1114	10.0545	0.0864	10.1409	2.6972	0.0803	2.7775	0.0000	10,307.1951	10,307.1951	0.4361	0.0000	10,318.0983
Waste						0.0000	0.0000		0.0000	0.0000	369.2020	0.0000	369.2020	21.8192	0.0000	914.6823
Water						0.0000	0.0000		0.0000	0.0000	48.9246	68.3107	117.2353	0.1684	0.1064	153.1509
Total	16.6056	22.1717	50.6688	0.1133	10.0545	0.1977	10.2522	2.6972	0.1916	2.8887	418.1266	11,291.9192	11,710.0458	22.4550	0.1097	12,304.1024

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	12.1537	0.2310	17.8155	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0285	5.5000e-004	59.9479
Energy	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8500e-003	2.7200e-003	149.3992
Mobile	4.2160	20.6021	27.8995	0.0849	7.0381	0.0693	7.1075	1.8880	0.0644	1.9524	0.0000	7,873.8014	7,873.8014	0.3740	0.0000	7,883.1525
Waste						0.0000	0.0000		0.0000	0.0000	236.2893	0.0000	236.2893	13.9643	0.0000	585.3967
Water						0.0000	0.0000		0.0000	0.0000	48.9246	66.9387	115.8633	0.1684	0.1064	151.7789
Total	16.3847	20.9633	45.7845	0.0869	7.0381	0.1806	7.2187	1.8880	0.1756	2.0636	285.2139	8,148.3295	8,433.5434	14.5380	0.1097	8,829.6751

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.33	5.45	9.64	23.32	30.00	8.65	29.59	30.00	8.32	28.56	31.79	27.84	27.98	35.26	0.00	28.24

3.0 Construction Detail**Construction Phase**

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	2/24/2023	5	30	
3	Building Construction	Building Construction	2/25/2023	4/19/2024	5	300	
4	Architectural Coating	Architectural Coating	1/1/2024	5/3/2024	5	90	
5	Paving	Paving	4/20/2024	5/17/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 4,860,000; Residential Outdoor: 1,620,000; Non-Residential Indoor: 187,500; Non-Residential Outdoor: 62,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,333.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,778.00	277.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	356.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction**3.2 Site Preparation - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0903	6.3300e-003	0.0967	0.0497	5.8200e-003	0.0555	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572
Total	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572

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3.2 Site Preparation - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0903	6.3300e-003	0.0967	0.0497	5.8200e-003	0.0555	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572
Total	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572

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3.3 Grading - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1316	0.0000	0.1316	0.0542	0.0000	0.0542	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642
Total	0.0498	0.5177	0.4208	9.3000e-004	0.1316	0.0214	0.1530	0.0542	0.0197	0.0738	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4500e-003	0.2765	0.0854	1.2300e-003	0.0282	5.0000e-004	0.0287	7.7400e-003	4.8000e-004	8.2200e-003	0.0000	119.6212	119.6212	5.6600e-003	0.0000	119.7627
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	5.1000e-004	5.6900e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8566	1.8566	4.0000e-005	0.0000	1.8575
Total	9.2500e-003	0.2770	0.0911	1.2500e-003	0.0305	5.1000e-004	0.0310	8.3700e-003	4.9000e-004	8.8600e-003	0.0000	121.4778	121.4778	5.7000e-003	0.0000	121.6201

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3.3 Grading - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1316	0.0000	0.1316	0.0542	0.0000	0.0542	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641
Total	0.0498	0.5177	0.4208	9.3000e-004	0.1316	0.0214	0.1530	0.0542	0.0197	0.0738	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4500e-003	0.2765	0.0854	1.2300e-003	0.0282	5.0000e-004	0.0287	7.7400e-003	4.8000e-004	8.2200e-003	0.0000	119.6212	119.6212	5.6600e-003	0.0000	119.7627
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	5.1000e-004	5.6900e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8566	1.8566	4.0000e-005	0.0000	1.8575
Total	9.2500e-003	0.2770	0.0911	1.2500e-003	0.0305	5.1000e-004	0.0310	8.3700e-003	4.9000e-004	8.8600e-003	0.0000	121.4778	121.4778	5.7000e-003	0.0000	121.6201

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3.4 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9852	254.9852	0.0607	0.0000	256.5017
Total	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9852	254.9852	0.0607	0.0000	256.5017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0677	2.3239	0.6686	7.9000e-003	0.1998	2.6700e-003	0.2025	0.0578	2.5600e-003	0.0604	0.0000	760.5432	760.5432	0.0316	0.0000	761.3343
Worker	0.5232	0.3338	3.7082	0.0134	1.5454	9.6700e-003	1.5551	0.4111	8.9000e-003	0.4200	0.0000	1,210.3588	1,210.3588	0.0236	0.0000	1,210.9475
Total	0.5909	2.6577	4.3768	0.0213	1.7453	0.0123	1.7576	0.4689	0.0115	0.4804	0.0000	1,970.9020	1,970.9020	0.0552	0.0000	1,972.2818

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3.4 Building Construction - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9849	254.9849	0.0607	0.0000	256.5013
Total	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9849	254.9849	0.0607	0.0000	256.5013

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0677	2.3239	0.6686	7.9000e-003	0.1998	2.6700e-003	0.2025	0.0578	2.5600e-003	0.0604	0.0000	760.5432	760.5432	0.0316	0.0000	761.3343
Worker	0.5232	0.3338	3.7082	0.0134	1.5454	9.6700e-003	1.5551	0.4111	8.9000e-003	0.4200	0.0000	1,210.3588	1,210.3588	0.0236	0.0000	1,210.9475
Total	0.5909	2.6577	4.3768	0.0213	1.7453	0.0123	1.7576	0.4689	0.0115	0.4804	0.0000	1,970.9020	1,970.9020	0.0552	0.0000	1,972.2818

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3.4 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7396	92.7396	0.0219	0.0000	93.2879
Total	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7396	92.7396	0.0219	0.0000	93.2879

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0238	0.8356	0.2341	2.8500e-003	0.0727	9.5000e-004	0.0736	0.0210	9.1000e-004	0.0219	0.0000	274.6946	274.6946	0.0113	0.0000	274.9765
Worker	0.1788	0.1096	1.2491	4.6700e-003	0.5620	3.4500e-003	0.5654	0.1495	3.1800e-003	0.1527	0.0000	422.7115	422.7115	7.7100e-003	0.0000	422.9043
Total	0.2026	0.9452	1.4832	7.5200e-003	0.6347	4.4000e-003	0.6391	0.1705	4.0900e-003	0.1746	0.0000	697.4061	697.4061	0.0190	0.0000	697.8807

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3.4 Building Construction - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7395	92.7395	0.0219	0.0000	93.2878
Total	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7395	92.7395	0.0219	0.0000	93.2878

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0238	0.8356	0.2341	2.8500e-003	0.0727	9.5000e-004	0.0736	0.0210	9.1000e-004	0.0219	0.0000	274.6946	274.6946	0.0113	0.0000	274.9765
Worker	0.1788	0.1096	1.2491	4.6700e-003	0.5620	3.4500e-003	0.5654	0.1495	3.1800e-003	0.1527	0.0000	422.7115	422.7115	7.7100e-003	0.0000	422.9043
Total	0.2026	0.9452	1.4832	7.5200e-003	0.6347	4.4000e-003	0.6391	0.1705	4.0900e-003	0.1746	0.0000	697.4061	697.4061	0.0190	0.0000	697.8807

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3.5 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	17.5464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.1300e-003	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058
Total	17.5545	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605
Total	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605

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3.5 Architectural Coating - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	17.5464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.1300e-003	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058
Total	17.5545	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605
Total	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

3.6 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920
Total	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920

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3.6 Paving - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920
Total	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920

4.0 Operational Detail - Mobile

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.2160	20.6021	27.8995	0.0849	7.0381	0.0693	7.1075	1.8880	0.0644	1.9524	0.0000	7,873.8014	7,873.8014	0.3740	0.0000	7,883.1525
Unmitigated	4.4369	21.8105	32.7839	0.1114	10.0545	0.0864	10.1409	2.6972	0.0803	2.7775	0.0000	10,307.1951	10,307.1951	0.4361	0.0000	10,318.0983

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	35,544.00	35,520.00	35,520.00	27,035,237	18,924,666
Convenience Market (24 Hour)	0.00	0.00	0.00		
Day-Care Center	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Total	35,544.00	35,520.00	35,520.00	27,035,237	18,924,666

4.3 Trip Type Information

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	2.09	2.09	2.09	31.00	15.00	54.00	100	0	0
Convenience Market (24 Hour)	9.50	7.30	7.30	0.90	80.10	19.00	24	15	61
Day-Care Center	9.50	7.30	7.30	12.70	82.30	5.00	28	58	14
Fast Food Restaurant w/o Drive	9.50	7.30	7.30	1.50	79.50	19.00	51	37	12
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Health Club	9.50	7.30	7.30	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.585310	0.036704	0.193678	0.106768	0.013058	0.005276	0.019312	0.028136	0.002690	0.001821	0.005648	0.000918	0.000682
Convenience Market (24 Hour)	0.585310	0.036704	0.193678	0.106768	0.013058	0.005276	0.019312	0.028136	0.002690	0.001821	0.005648	0.000918	0.000682
Day-Care Center	0.585310	0.036704	0.193678	0.106768	0.013058	0.005276	0.019312	0.028136	0.002690	0.001821	0.005648	0.000918	0.000682
Fast Food Restaurant w/o Drive Thru	0.585310	0.036704	0.193678	0.106768	0.013058	0.005276	0.019312	0.028136	0.002690	0.001821	0.005648	0.000918	0.000682
General Office Building	0.585310	0.036704	0.193678	0.106768	0.013058	0.005276	0.019312	0.028136	0.002690	0.001821	0.005648	0.000918	0.000682
Health Club	0.585310	0.036704	0.193678	0.106768	0.013058	0.005276	0.019312	0.028136	0.002690	0.001821	0.005648	0.000918	0.000682
High Turnover (Sit Down Restaurant)	0.585310	0.036704	0.193678	0.106768	0.013058	0.005276	0.019312	0.028136	0.002690	0.001821	0.005648	0.000918	0.000682

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	708.8239	708.8239	0.0000	0.0000	708.8239
NaturalGas Mitigated	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8500e-003	2.7200e-003	149.3992
NaturalGas Unmitigated	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8500e-003	2.7200e-003	149.3992

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.0953e+006	0.0113	0.0966	0.0411	6.2000e-004		7.8100e-003	7.8100e-003		7.8100e-003	7.8100e-003	0.0000	111.8130	111.8130	2.1400e-003	2.0500e-003	112.4774
Convenience Market (24 Hour)	6900	4.0000e-005	3.4000e-004	2.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3682	0.3682	1.0000e-005	1.0000e-005	0.3704
Day-Care Center	24750	1.3000e-004	1.2100e-003	1.0200e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3208	1.3208	3.0000e-005	2.0000e-005	1.3286
Fast Food Restaurant w/o Drive Thru	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
General Office Building	28950	1.6000e-004	1.4200e-003	1.1900e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5449	1.5449	3.0000e-005	3.0000e-005	1.5541
Health Club	123500	6.7000e-004	6.0500e-003	5.0900e-003	4.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	6.5904	6.5904	1.3000e-004	1.2000e-004	6.6296
High Turnover (Sit Down Restaurant)	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
Total		0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8600e-003	2.7300e-003	149.3992

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.0953e+006	0.0113	0.0966	0.0411	6.2000e-004		7.8100e-003	7.8100e-003		7.8100e-003	7.8100e-003	0.0000	111.8130	111.8130	2.1400e-003	2.0500e-003	112.4774
Convenience Market (24 Hour)	6900	4.0000e-005	3.4000e-004	2.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3682	0.3682	1.0000e-005	1.0000e-005	0.3704
Day-Care Center	24750	1.3000e-004	1.2100e-003	1.0200e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3208	1.3208	3.0000e-005	2.0000e-005	1.3286
Fast Food Restaurant w/o Drive Thru	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
General Office Building	28950	1.6000e-004	1.4200e-003	1.1900e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5449	1.5449	3.0000e-005	3.0000e-005	1.5541
Health Club	123500	6.7000e-004	6.0500e-003	5.0900e-003	4.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	6.5904	6.5904	1.3000e-004	1.2000e-004	6.6296
High Turnover (Sit Down Restaurant)	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
Total		0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8600e-003	2.7300e-003	149.3992

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.01328e+007	620.4802	0.0000	0.0000	620.4802
Convenience Market (24 Hour)	125250	7.6697	0.0000	0.0000	7.6697
Day-Care Center	52350	3.2057	0.0000	0.0000	3.2057
Fast Food Restaurant w/o Drive Thru	398700	24.4144	0.0000	0.0000	24.4144
General Office Building	152700	9.3506	0.0000	0.0000	9.3506
Health Club	315000	19.2890	0.0000	0.0000	19.2890
High Turnover (Sit Down Restaurant)	398700	24.4144	0.0000	0.0000	24.4144
Total		708.8239	0.0000	0.0000	708.8239

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 Hour)	0	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	12.1537	0.2310	17.8155	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0285	5.5000e-004	59.9479
Unmitigated	12.1537	0.2310	17.8155	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0285	5.5000e-004	59.9479

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.7546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.8614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0300e-003	0.0259	0.0110	1.7000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003	0.0000	29.9614	29.9614	5.7000e-004	5.5000e-004	30.1395
Landscaping	0.5346	0.2051	17.8045	9.4000e-004		0.0988	0.0988		0.0988	0.0988	0.0000	29.1113	29.1113	0.0279	0.0000	29.8084
Total	12.1537	0.2310	17.8155	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0285	5.5000e-004	59.9479

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.7546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.8614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0300e-003	0.0259	0.0110	1.7000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003	0.0000	29.9614	29.9614	5.7000e-004	5.5000e-004	30.1395
Landscaping	0.5346	0.2051	17.8045	9.4000e-004		0.0988	0.0988		0.0988	0.0988	0.0000	29.1113	29.1113	0.0279	0.0000	29.8084
Total	12.1537	0.2310	17.8155	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0285	5.5000e-004	59.9479

7.0 Water Detail**7.1 Mitigation Measures Water**

Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	115.8633	0.1684	0.1064	151.7789
Unmitigated	117.2353	0.1684	0.1064	153.1509

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7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	125.096 / 98.5809	106.8367	0.1523	0.0963	139.3273
Convenience Market (24 Hour)	0.88887 / 0.680989	0.7550	1.0800e-003	6.8000e-004	0.9858
Day-Care Center	0.514675 / 1.65431	0.7072	6.3000e-004	4.0000e-004	0.8409
Fast Food Restaurant w/o Drive Thru	3.6424 / 0.290617	2.5579	4.4400e-003	2.8000e-003	3.5039
General Office Building	2.1328 / 1.634	1.8115	2.6000e-003	1.6400e-003	2.3654
Health Club	2.36573 / 1.81245	2.0093	2.8800e-003	1.8200e-003	2.6238
High Turnover (Sit Down Restaurant)	3.6424 / 0.290617	2.5579	4.4400e-003	2.8000e-003	3.5039
Total		117.2353	0.1684	0.1064	153.1509

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	125.096 / 92.5674	105.5479	0.1523	0.0963	138.0384
Convenience Market (24 Hour)	0.88887 / 0.639449	0.7461	1.0800e-003	6.8000e-004	0.9769
Day-Care Center	0.514675 / 1.5534	0.6856	6.3000e-004	4.0000e-004	0.8192
Fast Food Restaurant w/o Drive Thru	3.6424 / 0.27289	2.5541	4.4400e-003	2.8000e-003	3.5001
General Office Building	2.1328 / 1.53433	1.7901	2.6000e-003	1.6400e-003	2.3441
Health Club	2.36573 / 1.70189	1.9856	2.8800e-003	1.8200e-003	2.6001
High Turnover (Sit Down Restaurant)	3.6424 / 0.27289	2.5541	4.4400e-003	2.8000e-003	3.5001
Total		115.8633	0.1684	0.1064	151.7789

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	236.2893	13.9643	0.0000	585.3967
Unmitigated	369.2020	21.8192	0.0000	914.6823

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1104	224.1020	13.2441	0.0000	555.2033
Convenience Market (24 Hour)	45.08	9.1508	0.5408	0.0000	22.6708
Day-Care Center	19.5	3.9583	0.2339	0.0000	9.8066
Fast Food Restaurant w/o Drive Thru	172.78	35.0728	2.0727	0.0000	86.8913
General Office Building	13.95	2.8317	0.1674	0.0000	7.0155
Health Club	285	57.8524	3.4190	0.0000	143.3269
High Turnover (Sit Down Restaurant)	178.5	36.2339	2.1414	0.0000	89.7679
Total		369.2020	21.8192	0.0000	914.6823

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8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	706.56	143.4253	8.4762	0.0000	355.3301
Convenience Market (24 Hour)	28.8512	5.8565	0.3461	0.0000	14.5093
Day-Care Center	12.48	2.5333	0.1497	0.0000	6.2762
Fast Food Restaurant w/o Drive Thru	110.579	22.4466	1.3266	0.0000	55.6105
General Office Building	8.928	1.8123	0.1071	0.0000	4.4899
Health Club	182.4	37.0256	2.1882	0.0000	91.7292
High Turnover (Sit Down Restaurant)	114.24	23.1897	1.3705	0.0000	57.4515
Total		236.2893	13.9643	0.0000	585.3967

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

N2O Operational GHG Emission Mobile Calculations

Project Code & Title: 19-09047 Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project

Vehicle Population Breakdown*	
4507256	Gasoline vehicles
192354	Diesel vehicles
95.9%	Gasoline vehicle %
4.1%	Diesel vehicle %

VMT per Vehicle Type	
16807730	Project VMT (CalEEMod output)
16119795	Gasoline vehicle VMT
687935	Diesel vehicle VMT

Gasoline Vehicles	
95.9%	Gasoline vehicle %
10.1388	Tons per year mobile NOX emissions (annual output in CalEEMod)
9.72	Gasoline vehicle tons per year NOX emissions
0.2989	Tons per year N2O emissions for gasoline vehicles**
0.2712	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
1.60	grams N2O per gallon of fuel for diesel vehicles**
120654.88	Diesel average miles per gallon*
0.00001	grams per mile N2O for diesel vehicles
9.1	grams per year N2O for diesel vehicles
0.0000091	Metric tons per year N2O emissions for diesel vehicles

CO2e Emissions from N2O	
0.2712	Metric tons per year from gasoline + diesel vehicles
298	GWP of N2O***
80.8	CO2e emissions per year from N2O emissions from gasoline + diesel vehicles

Sources
*Vehicle population source: EMFAC2021 (v1.0.3) Emissions Inventory Region Type: Air District Region: Bay Area AQMD Calendar Year: 2030 Season: Annual Vehicle Classification: EMFAC2011 Categories **Methodology source: EMFAC2017 Volume III - Technical Documentation https://www.arb.ca.gov/msei/emfac2011-faq.htm ***GWP source: Intergovernmental Panel on Climate Change (IPCC). 2007. AR4 Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

Ashby and North Berkeley BART: commercial trip reductions

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.00	1000sqft	0.00	15,000.00	0
Day-Care Center	15.00	1000sqft	0.00	15,000.00	0
Fast Food Restaurant w/o Drive Thru	15.00	1000sqft	0.00	15,000.00	0
Health Club	50.00	1000sqft	0.00	50,000.00	0
High Turnover (Sit Down Restaurant)	15.00	1000sqft	0.00	15,000.00	0
Apartments Mid Rise	2,400.00	Dwelling Unit	14.40	2,400,000.00	6864
Convenience Market (24 Hour)	15.00	1000sqft	0.00	15,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2030
Utility Company	User Defined				
CO2 Intensity (lb/MW hr)	135	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - RPS for 2030 per SB 100 for EBCE

Land Use - Based on Project Description and Traffic Study

Construction Phase - no demo, arch coating extended to reflect typical construction phasing

Grading - Based on export estimates

Architectural Coating - BAAQMD Regulation 8, Rule 3

Vehicle Trips - Based on trip rate and VMT data provided by traffic consultant

Woodstoves - BAAQMD Regulation 6, Rule 3 and Berkeley Municipal Code 12.80

Area Coating - BAAQMD Regulation 8, Rule 3

Energy Use - 2019 Energy Code, assume 10% natural gas use

Water And Wastewater - All wastewater treated at EBMUD WWTP

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation - Based on density and employment assumptions in PD

Water Mitigation - CALGreen compliance

Waste Mitigation - City of Berkeley solid waste diversion rate of 68% (adjusted to account for 50% diversion already included in CalEEMod)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblAreaCoating	Area_EF_Parking	150	100
tblConstructionPhase	NumDays	20.00	90.00
tblEnergyUse	LightingElect	4.88	3.42
tblEnergyUse	LightingElect	2.51	1.76
tblEnergyUse	LightingElect	5.34	3.74
tblEnergyUse	LightingElect	3.58	2.51
tblEnergyUse	LightingElect	2.99	2.09
tblEnergyUse	LightingElect	5.34	3.74
tblEnergyUse	NT24NG	2,615.00	261.50
tblEnergyUse	NT24NG	0.70	0.07

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tblEnergyUse	NT24NG	1.62	0.16
tblEnergyUse	NT24NG	128.02	12.80
tblEnergyUse	NT24NG	1.01	0.10
tblEnergyUse	NT24NG	6.90	0.69
tblEnergyUse	NT24NG	128.02	12.80
tblEnergyUse	T24E	2.24	1.57
tblEnergyUse	T24E	0.66	0.46
tblEnergyUse	T24E	2.67	1.87
tblEnergyUse	T24E	4.10	2.87
tblEnergyUse	T24E	1.21	0.85
tblEnergyUse	T24E	2.67	1.87
tblEnergyUse	T24NG	6,115.43	611.54
tblEnergyUse	T24NG	3.90	0.39
tblEnergyUse	T24NG	14.85	1.49
tblEnergyUse	T24NG	39.90	3.99
tblEnergyUse	T24NG	18.32	1.83
tblEnergyUse	T24NG	17.85	1.78
tblEnergyUse	T24NG	39.90	3.99
tblFireplaces	NumberGas	360.00	240.00
tblFireplaces	NumberNoFireplace	96.00	2,160.00
tblFireplaces	NumberWood	408.00	0.00
tblGrading	MaterialExported	0.00	26,666.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	LotAcreage	1.15	0.00
tblLandUse	LotAcreage	0.34	0.00

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tblLandUse	LotAcreage	63.16	14.40
tblLandUse	LotAcreage	0.34	0.00
tblProjectCharacteristics	CO2IntensityFactor	0	135
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	5.70	4.34
tblVehicleTrips	HS_TL	4.80	4.35
tblVehicleTrips	HW_TL	10.80	4.34
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	6.39	6.46
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	ST_TR	6.21	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	SU_TR	5.86	6.46
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	SU_TR	5.83	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	WD_TR	6.65	6.46
tblVehicleTrips	WD_TR	737.99	0.00
tblVehicleTrips	WD_TR	74.06	0.00
tblVehicleTrips	WD_TR	716.00	0.00

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tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	156,369,661.49	125,095,729.00
tblWater	IndoorWaterUseRate	1,111,087.82	888,870.26
tblWater	IndoorWaterUseRate	643,343.51	514,674.81
tblWater	IndoorWaterUseRate	4,553,005.69	3,642,404.55
tblWater	IndoorWaterUseRate	2,666,006.22	2,132,804.98
tblWater	IndoorWaterUseRate	2,957,157.20	2,365,725.76
tblWater	IndoorWaterUseRate	4,553,005.69	3,642,404.55
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

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tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	48.00	0.00
tblWoodstoves	NumberNoncatalytic	48.00	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.8365	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4501	2,446.4501	0.1534	0.0000	2,450.2856
2024	17.8666	1.6580	2.6415	0.0100	0.7624	0.0372	0.7996	0.2045	0.0349	0.2395	0.0000	917.7705	917.7705	0.0498	0.0000	919.0154
Maximum	17.8666	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4501	2,446.4501	0.1534	0.0000	2,450.2856

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.8365	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4497	2,446.4497	0.1534	0.0000	2,450.2852
2024	17.8666	1.6580	2.6415	0.0100	0.7624	0.0372	0.7996	0.2045	0.0349	0.2395	0.0000	917.7704	917.7704	0.0498	0.0000	919.0152
Maximum	17.8666	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4497	2,446.4497	0.1534	0.0000	2,450.2852

[illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2023	3-31-2023	1.5735	1.5735
2	4-1-2023	6-30-2023	1.4686	1.4686
3	7-1-2023	9-30-2023	1.4847	1.4847
4	10-1-2023	12-31-2023	1.5208	1.5208
5	1-1-2024	3-31-2024	14.2114	14.2114
6	4-1-2024	6-30-2024	5.0284	5.0284
		Highest	14.2114	14.2114

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	12.1508	0.2308	17.7853	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0283	5.5000e-004	59.9443
Energy	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	857.3405	857.3405	2.8500e-003	2.7200e-003	858.2231
Mobile	2.1800	11.2357	21.0231	0.0884	9.1118	0.0604	9.1722	2.4442	0.0562	2.5004	0.0000	8,167.6560	8,167.6560	0.2798	0.0000	8,174.6499
Waste						0.0000	0.0000		0.0000	0.0000	369.2020	0.0000	369.2020	21.8192	0.0000	914.6823
Water						0.0000	0.0000		0.0000	0.0000	48.9246	68.3107	117.2353	0.1684	0.1064	153.1509
Total	14.3458	11.5968	38.8779	0.0903	9.1118	0.1717	9.2835	2.4442	0.1675	2.6117	418.1266	9,152.3800	9,570.5066	22.2985	0.1097	10,160.6505

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	12.1508	0.2308	17.7853	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0283	5.5000e-004	59.9443
Energy	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	857.3405	857.3405	2.8500e-003	2.7200e-003	858.2231
Mobile	1.9762	10.1388	16.5685	0.0638	6.2507	0.0453	6.2960	1.6767	0.0421	1.7188	0.0000	5,901.501 2	5,901.501 2	0.2224	0.0000	5,907.060 3
Waste						0.0000	0.0000		0.0000	0.0000	236.2893	0.0000	236.2893	13.9643	0.0000	585.3967
Water						0.0000	0.0000		0.0000	0.0000	48.9246	66.9387	115.8633	0.1684	0.1064	151.7789
Total	14.1420	10.4999	34.4232	0.0657	6.2507	0.1566	6.4073	1.6767	0.1534	1.8301	285.2139	6,884.853 2	7,170.067 1	14.3862	0.1097	7,562.403 2

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.42	9.46	11.46	27.23	31.40	8.82	30.98	31.40	8.43	29.93	31.79	24.78	25.08	35.48	0.00	25.57

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	2/24/2023	5	30	
3	Building Construction	Building Construction	2/25/2023	4/19/2024	5	300	
4	Architectural Coating	Architectural Coating	1/1/2024	5/3/2024	5	90	
5	Paving	Paving	4/20/2024	5/17/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 4,860,000; Residential Outdoor: 1,620,000; Non-Residential Indoor: 187,500; Non-Residential Outdoor: 62,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,333.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,778.00	277.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	356.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction**3.2 Site Preparation - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0903	6.3300e-003	0.0967	0.0497	5.8200e-003	0.0555	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572
Total	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572

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3.2 Site Preparation - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0903	6.3300e-003	0.0967	0.0497	5.8200e-003	0.0555	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572
Total	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572

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3.3 Grading - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1316	0.0000	0.1316	0.0542	0.0000	0.0542	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642
Total	0.0498	0.5177	0.4208	9.3000e-004	0.1316	0.0214	0.1530	0.0542	0.0197	0.0738	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4500e-003	0.2765	0.0854	1.2300e-003	0.0282	5.0000e-004	0.0287	7.7400e-003	4.8000e-004	8.2200e-003	0.0000	119.6212	119.6212	5.6600e-003	0.0000	119.7627
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	5.1000e-004	5.6900e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8566	1.8566	4.0000e-005	0.0000	1.8575
Total	9.2500e-003	0.2770	0.0911	1.2500e-003	0.0305	5.1000e-004	0.0310	8.3700e-003	4.9000e-004	8.8600e-003	0.0000	121.4778	121.4778	5.7000e-003	0.0000	121.6201

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3.3 Grading - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1316	0.0000	0.1316	0.0542	0.0000	0.0542	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641
Total	0.0498	0.5177	0.4208	9.3000e-004	0.1316	0.0214	0.1530	0.0542	0.0197	0.0738	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4500e-003	0.2765	0.0854	1.2300e-003	0.0282	5.0000e-004	0.0287	7.7400e-003	4.8000e-004	8.2200e-003	0.0000	119.6212	119.6212	5.6600e-003	0.0000	119.7627
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	5.1000e-004	5.6900e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8566	1.8566	4.0000e-005	0.0000	1.8575
Total	9.2500e-003	0.2770	0.0911	1.2500e-003	0.0305	5.1000e-004	0.0310	8.3700e-003	4.9000e-004	8.8600e-003	0.0000	121.4778	121.4778	5.7000e-003	0.0000	121.6201

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3.4 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9852	254.9852	0.0607	0.0000	256.5017
Total	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9852	254.9852	0.0607	0.0000	256.5017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0677	2.3239	0.6686	7.9000e-003	0.1998	2.6700e-003	0.2025	0.0578	2.5600e-003	0.0604	0.0000	760.5432	760.5432	0.0316	0.0000	761.3343
Worker	0.5232	0.3338	3.7082	0.0134	1.5454	9.6700e-003	1.5551	0.4111	8.9000e-003	0.4200	0.0000	1,210.3588	1,210.3588	0.0236	0.0000	1,210.9475
Total	0.5909	2.6577	4.3768	0.0213	1.7453	0.0123	1.7576	0.4689	0.0115	0.4804	0.0000	1,970.9020	1,970.9020	0.0552	0.0000	1,972.2818

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3.4 Building Construction - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9849	254.9849	0.0607	0.0000	256.5013
Total	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9849	254.9849	0.0607	0.0000	256.5013

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0677	2.3239	0.6686	7.9000e-003	0.1998	2.6700e-003	0.2025	0.0578	2.5600e-003	0.0604	0.0000	760.5432	760.5432	0.0316	0.0000	761.3343
Worker	0.5232	0.3338	3.7082	0.0134	1.5454	9.6700e-003	1.5551	0.4111	8.9000e-003	0.4200	0.0000	1,210.3588	1,210.3588	0.0236	0.0000	1,210.9475
Total	0.5909	2.6577	4.3768	0.0213	1.7453	0.0123	1.7576	0.4689	0.0115	0.4804	0.0000	1,970.9020	1,970.9020	0.0552	0.0000	1,972.2818

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3.4 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7396	92.7396	0.0219	0.0000	93.2879
Total	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7396	92.7396	0.0219	0.0000	93.2879

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0238	0.8356	0.2341	2.8500e-003	0.0727	9.5000e-004	0.0736	0.0210	9.1000e-004	0.0219	0.0000	274.6946	274.6946	0.0113	0.0000	274.9765
Worker	0.1788	0.1096	1.2491	4.6700e-003	0.5620	3.4500e-003	0.5654	0.1495	3.1800e-003	0.1527	0.0000	422.7115	422.7115	7.7100e-003	0.0000	422.9043
Total	0.2026	0.9452	1.4832	7.5200e-003	0.6347	4.4000e-003	0.6391	0.1705	4.0900e-003	0.1746	0.0000	697.4061	697.4061	0.0190	0.0000	697.8807

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3.4 Building Construction - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7395	92.7395	0.0219	0.0000	93.2878
Total	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7395	92.7395	0.0219	0.0000	93.2878

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0238	0.8356	0.2341	2.8500e-003	0.0727	9.5000e-004	0.0736	0.0210	9.1000e-004	0.0219	0.0000	274.6946	274.6946	0.0113	0.0000	274.9765
Worker	0.1788	0.1096	1.2491	4.6700e-003	0.5620	3.4500e-003	0.5654	0.1495	3.1800e-003	0.1527	0.0000	422.7115	422.7115	7.7100e-003	0.0000	422.9043
Total	0.2026	0.9452	1.4832	7.5200e-003	0.6347	4.4000e-003	0.6391	0.1705	4.0900e-003	0.1746	0.0000	697.4061	697.4061	0.0190	0.0000	697.8807

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3.5 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	17.5464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.1300e-003	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058
Total	17.5545	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605
Total	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605

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3.5 Architectural Coating - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	17.5464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.1300e-003	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058
Total	17.5545	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605
Total	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605

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3.6 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920
Total	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

3.6 Paving - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920
Total	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920

4.0 Operational Detail - Mobile

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

Integrate Below Market Rate Housing

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.9762	10.1388	16.5685	0.0638	6.2507	0.0453	6.2960	1.6767	0.0421	1.7188	0.0000	5,901.5012	5,901.5012	0.2224	0.0000	5,907.0603
Unmitigated	2.1800	11.2357	21.0231	0.0884	9.1118	0.0604	9.1722	2.4442	0.0562	2.5004	0.0000	8,167.6560	8,167.6560	0.2798	0.0000	8,174.6499

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	15,504.00	15,504.00	15,504.00	24,501,064	16,807,730
Convenience Market (24 Hour)	0.00	0.00	0.00		
Day-Care Center	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Total	15,504.00	15,504.00	15,504.00	24,501,064	16,807,730

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	4.34	4.35	4.34	31.00	15.00	54.00	100	0	0
Convenience Market (24 Hour)	9.50	7.30	7.30	0.90	80.10	19.00	24	15	61
Day-Care Center	9.50	7.30	7.30	12.70	82.30	5.00	28	58	14
Fast Food Restaurant w/o Drive	9.50	7.30	7.30	1.50	79.50	19.00	51	37	12
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Health Club	9.50	7.30	7.30	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676
Convenience Market (24 Hour)	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676
Day-Care Center	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676
Fast Food Restaurant w/o Drive Thru	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676
General Office Building	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676
Health Club	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676
High Turnover (Sit Down Restaurant)	0.585795	0.036515	0.193581	0.106455	0.012789	0.005274	0.019465	0.028415	0.002699	0.001789	0.005626	0.000921	0.000676

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	708.8239	708.8239	0.0000	0.0000	708.8239
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	708.8239	708.8239	0.0000	0.0000	708.8239
NaturalGas Mitigated	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8500e-003	2.7200e-003	149.3992
NaturalGas Unmitigated	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8500e-003	2.7200e-003	149.3992

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.0953e+006	0.0113	0.0966	0.0411	6.2000e-004		7.8100e-003	7.8100e-003		7.8100e-003	7.8100e-003	0.0000	111.8130	111.8130	2.1400e-003	2.0500e-003	112.4774
Convenience Market (24 Hour)	6900	4.0000e-005	3.4000e-004	2.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3682	0.3682	1.0000e-005	1.0000e-005	0.3704
Day-Care Center	24750	1.3000e-004	1.2100e-003	1.0200e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3208	1.3208	3.0000e-005	2.0000e-005	1.3286
Fast Food Restaurant w/o Drive Thru	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
General Office Building	28950	1.6000e-004	1.4200e-003	1.1900e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5449	1.5449	3.0000e-005	3.0000e-005	1.5541
Health Club	123500	6.7000e-004	6.0500e-003	5.0900e-003	4.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	6.5904	6.5904	1.3000e-004	1.2000e-004	6.6296
High Turnover (Sit Down Restaurant)	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
Total		0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8600e-003	2.7300e-003	149.3992

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.0953e+006	0.0113	0.0966	0.0411	6.2000e-004		7.8100e-003	7.8100e-003		7.8100e-003	7.8100e-003	0.0000	111.8130	111.8130	2.1400e-003	2.0500e-003	112.4774
Convenience Market (24 Hour)	6900	4.0000e-005	3.4000e-004	2.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3682	0.3682	1.0000e-005	1.0000e-005	0.3704
Day-Care Center	24750	1.3000e-004	1.2100e-003	1.0200e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3208	1.3208	3.0000e-005	2.0000e-005	1.3286
Fast Food Restaurant w/o Drive Thru	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
General Office Building	28950	1.6000e-004	1.4200e-003	1.1900e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5449	1.5449	3.0000e-005	3.0000e-005	1.5541
Health Club	123500	6.7000e-004	6.0500e-003	5.0900e-003	4.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	6.5904	6.5904	1.3000e-004	1.2000e-004	6.6296
High Turnover (Sit Down Restaurant)	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
Total		0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8600e-003	2.7300e-003	149.3992

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.01328e+007	620.4802	0.0000	0.0000	620.4802
Convenience Market (24 Hour)	125250	7.6697	0.0000	0.0000	7.6697
Day-Care Center	52350	3.2057	0.0000	0.0000	3.2057
Fast Food Restaurant w/o Drive Thru	398700	24.4144	0.0000	0.0000	24.4144
General Office Building	152700	9.3506	0.0000	0.0000	9.3506
Health Club	315000	19.2890	0.0000	0.0000	19.2890
High Turnover (Sit Down Restaurant)	398700	24.4144	0.0000	0.0000	24.4144
Total		708.8239	0.0000	0.0000	708.8239

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.01328e+007	620.4802	0.0000	0.0000	620.4802
Convenience Market (24 Hour)	125250	7.6697	0.0000	0.0000	7.6697
Day-Care Center	52350	3.2057	0.0000	0.0000	3.2057
Fast Food Restaurant w/o Drive Thru	398700	24.4144	0.0000	0.0000	24.4144
General Office Building	152700	9.3506	0.0000	0.0000	9.3506
Health Club	315000	19.2890	0.0000	0.0000	19.2890
High Turnover (Sit Down Restaurant)	398700	24.4144	0.0000	0.0000	24.4144
Total		708.8239	0.0000	0.0000	708.8239

6.0 Area Detail**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	12.1508	0.2308	17.7853	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0283	5.5000e-004	59.9443
Unmitigated	12.1508	0.2308	17.7853	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0283	5.5000e-004	59.9443

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.7546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.8614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0300e-003	0.0259	0.0110	1.7000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003	0.0000	29.9614	29.9614	5.7000e-004	5.5000e-004	30.1395
Landscaping	0.5317	0.2049	17.7743	9.4000e-004		0.0988	0.0988		0.0988	0.0988	0.0000	29.1113	29.1113	0.0277	0.0000	29.8048
Total	12.1508	0.2308	17.7853	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0283	5.5000e-004	59.9443

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.7546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.8614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0300e-003	0.0259	0.0110	1.7000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003	0.0000	29.9614	29.9614	5.7000e-004	5.5000e-004	30.1395
Landscaping	0.5317	0.2049	17.7743	9.4000e-004		0.0988	0.0988		0.0988	0.0988	0.0000	29.1113	29.1113	0.0277	0.0000	29.8048
Total	12.1508	0.2308	17.7853	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0283	5.5000e-004	59.9443

7.0 Water Detail**7.1 Mitigation Measures Water**

Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	115.8633	0.1684	0.1064	151.7789
Unmitigated	117.2353	0.1684	0.1064	153.1509

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	125.096 / 98.5809	106.8367	0.1523	0.0963	139.3273
Convenience Market (24 Hour)	0.88887 / 0.680989	0.7550	1.0800e-003	6.8000e-004	0.9858
Day-Care Center	0.514675 / 1.65431	0.7072	6.3000e-004	4.0000e-004	0.8409
Fast Food Restaurant w/o Drive Thru	3.6424 / 0.290617	2.5579	4.4400e-003	2.8000e-003	3.5039
General Office Building	2.1328 / 1.634	1.8115	2.6000e-003	1.6400e-003	2.3654
Health Club	2.36573 / 1.81245	2.0093	2.8800e-003	1.8200e-003	2.6238
High Turnover (Sit Down Restaurant)	3.6424 / 0.290617	2.5579	4.4400e-003	2.8000e-003	3.5039
Total		117.2353	0.1684	0.1064	153.1509

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	125.096 / 92.5674	105.5479	0.1523	0.0963	138.0384
Convenience Market (24 Hour)	0.88887 / 0.639449	0.7461	1.0800e-003	6.8000e-004	0.9769
Day-Care Center	0.514675 / 1.5534	0.6856	6.3000e-004	4.0000e-004	0.8192
Fast Food Restaurant w/o Drive Thru	3.6424 / 0.27289	2.5541	4.4400e-003	2.8000e-003	3.5001
General Office Building	2.1328 / 1.53433	1.7901	2.6000e-003	1.6400e-003	2.3441
Health Club	2.36573 / 1.70189	1.9856	2.8800e-003	1.8200e-003	2.6001
High Turnover (Sit Down Restaurant)	3.6424 / 0.27289	2.5541	4.4400e-003	2.8000e-003	3.5001
Total		115.8633	0.1684	0.1064	151.7789

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	236.2893	13.9643	0.0000	585.3967
Unmitigated	369.2020	21.8192	0.0000	914.6823

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1104	224.1020	13.2441	0.0000	555.2033
Convenience Market (24 Hour)	45.08	9.1508	0.5408	0.0000	22.6708
Day-Care Center	19.5	3.9583	0.2339	0.0000	9.8066
Fast Food Restaurant w/o Drive Thru	172.78	35.0728	2.0727	0.0000	86.8913
General Office Building	13.95	2.8317	0.1674	0.0000	7.0155
Health Club	285	57.8524	3.4190	0.0000	143.3269
High Turnover (Sit Down Restaurant)	178.5	36.2339	2.1414	0.0000	89.7679
Total		369.2020	21.8192	0.0000	914.6823

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8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	706.56	143.4253	8.4762	0.0000	355.3301
Convenience Market (24 Hour)	28.8512	5.8565	0.3461	0.0000	14.5093
Day-Care Center	12.48	2.5333	0.1497	0.0000	6.2762
Fast Food Restaurant w/o Drive Thru	110.579	22.4466	1.3266	0.0000	55.6105
General Office Building	8.928	1.8123	0.1071	0.0000	4.4899
Health Club	182.4	37.0256	2.1882	0.0000	91.7292
High Turnover (Sit Down Restaurant)	114.24	23.1897	1.3705	0.0000	57.4515
Total		236.2893	13.9643	0.0000	585.3967

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Ashby and North Berkeley BART: commercial trip reductions - Bay Area AQMD Air District, Annual

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	15.00	1000sqft	0.00	15,000.00	0
Day-Care Center	15.00	1000sqft	0.00	15,000.00	0
Fast Food Restaurant w/o Drive Thru	15.00	1000sqft	0.00	15,000.00	0
Health Club	50.00	1000sqft	0.00	50,000.00	0
High Turnover (Sit Down Restaurant)	15.00	1000sqft	0.00	15,000.00	0
Apartments Mid Rise	2,400.00	Dwelling Unit	14.40	2,400,000.00	6864
Convenience Market (24 Hour)	15.00	1000sqft	0.00	15,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2029
Utility Company	User Defined				
CO2 Intensity (lb/MW hr)	135	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

Project Characteristics - RPS for 2030 per SB 100 for EBCE

Land Use - Based on Project Description and Traffic Study

Construction Phase - no demo, arch coating extended to reflect typical construction phasing

Grading - Based on export estimates

Architectural Coating - BAAQMD Regulation 8, Rule 3

Vehicle Trips - Based on trip rate and VMT data provided by traffic consultant

Woodstoves - BAAQMD Regulation 6, Rule 3 and Berkeley Municipal Code 12.80

Area Coating - BAAQMD Regulation 8, Rule 3

Energy Use - 2019 Energy Code, assume 10% natural gas use

Water And Wastewater - All wastewater treated at EBMUD WWTP

Mobile Land Use Mitigation - Based on density and employment assumptions in PD

Energy Mitigation - Mitigation Measure GHG-1: Use 100% renewable or solar energy

Water Mitigation - CALGreen compliance

Waste Mitigation - City of Berkeley solid waste diversion rate of 68% (adjusted to account for 50% diversion already included in CalEEMod)

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblAreaCoating	Area_EF_Parking	150	100
tblConstructionPhase	NumDays	20.00	90.00
tblEnergyUse	LightingElect	4.88	3.42
tblEnergyUse	LightingElect	2.51	1.76
tblEnergyUse	LightingElect	5.34	3.74
tblEnergyUse	LightingElect	3.58	2.51
tblEnergyUse	LightingElect	2.99	2.09
tblEnergyUse	LightingElect	5.34	3.74
tblEnergyUse	NT24NG	2,615.00	261.50
tblEnergyUse	NT24NG	0.70	0.07

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tblEnergyUse	NT24NG	1.62	0.16
tblEnergyUse	NT24NG	128.02	12.80
tblEnergyUse	NT24NG	1.01	0.10
tblEnergyUse	NT24NG	6.90	0.69
tblEnergyUse	NT24NG	128.02	12.80
tblEnergyUse	T24E	2.24	1.57
tblEnergyUse	T24E	0.66	0.46
tblEnergyUse	T24E	2.67	1.87
tblEnergyUse	T24E	4.10	2.87
tblEnergyUse	T24E	1.21	0.85
tblEnergyUse	T24E	2.67	1.87
tblEnergyUse	T24NG	6,115.43	611.54
tblEnergyUse	T24NG	3.90	0.39
tblEnergyUse	T24NG	14.85	1.49
tblEnergyUse	T24NG	39.90	3.99
tblEnergyUse	T24NG	18.32	1.83
tblEnergyUse	T24NG	17.85	1.78
tblEnergyUse	T24NG	39.90	3.99
tblFireplaces	NumberGas	360.00	240.00
tblFireplaces	NumberNoFireplace	96.00	2,160.00
tblFireplaces	NumberWood	408.00	0.00
tblGrading	MaterialExported	0.00	26,666.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	LotAcreage	1.15	0.00
tblLandUse	LotAcreage	0.34	0.00

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tblLandUse	LotAcreage	63.16	14.40
tblLandUse	LotAcreage	0.34	0.00
tblProjectCharacteristics	CO2IntensityFactor	0	135
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	5.70	2.09
tblVehicleTrips	HS_TL	4.80	2.09
tblVehicleTrips	HW_TL	10.80	2.09
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	6.39	14.80
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	ST_TR	6.21	0.00
tblVehicleTrips	ST_TR	696.00	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	SU_TR	5.86	14.80
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	SU_TR	5.83	0.00
tblVehicleTrips	SU_TR	500.00	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	WD_TR	6.65	14.81
tblVehicleTrips	WD_TR	737.99	0.00
tblVehicleTrips	WD_TR	74.06	0.00
tblVehicleTrips	WD_TR	716.00	0.00

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tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	156,369,661.49	125,095,729.00
tblWater	IndoorWaterUseRate	1,111,087.82	888,870.26
tblWater	IndoorWaterUseRate	643,343.51	514,674.81
tblWater	IndoorWaterUseRate	4,553,005.69	3,642,404.55
tblWater	IndoorWaterUseRate	2,666,006.22	2,132,804.98
tblWater	IndoorWaterUseRate	2,957,157.20	2,365,725.76
tblWater	IndoorWaterUseRate	4,553,005.69	3,642,404.55
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

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tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	48.00	0.00
tblWoodstoves	NumberNoncatalytic	48.00	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.8365	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4501	2,446.4501	0.1534	0.0000	2,450.2856
2024	17.8666	1.6580	2.6415	0.0100	0.7624	0.0372	0.7996	0.2045	0.0349	0.2395	0.0000	917.7705	917.7705	0.0498	0.0000	919.0154
Maximum	17.8666	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4501	2,446.4501	0.1534	0.0000	2,450.2856

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.8365	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4497	2,446.4497	0.1534	0.0000	2,450.2852
2024	17.8666	1.6580	2.6415	0.0100	0.7624	0.0372	0.7996	0.2045	0.0349	0.2395	0.0000	917.7704	917.7704	0.0498	0.0000	919.0152
Maximum	17.8666	5.1726	6.7684	0.0266	1.9984	0.1175	2.1160	0.5813	0.1099	0.6912	0.0000	2,446.4497	2,446.4497	0.1534	0.0000	2,450.2852

[illegible]

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2023	3-31-2023	1.5735	1.5735
2	4-1-2023	6-30-2023	1.4686	1.4686
3	7-1-2023	9-30-2023	1.4847	1.4847
4	10-1-2023	12-31-2023	1.5208	1.5208
5	1-1-2024	3-31-2024	14.2114	14.2114
6	4-1-2024	6-30-2024	5.0284	5.0284
		Highest	14.2114	14.2114

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	12.1537	0.2310	17.8155	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0285	5.5000e-004	59.9479
Energy	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	857.3405	857.3405	2.8500e-003	2.7200e-003	858.2231
Mobile	4.4369	21.8105	32.7839	0.1114	10.0545	0.0864	10.1409	2.6972	0.0803	2.7775	0.0000	10,307.1951	10,307.1951	0.4361	0.0000	10,318.0983
Waste						0.0000	0.0000		0.0000	0.0000	369.2020	0.0000	369.2020	21.8192	0.0000	914.6823
Water						0.0000	0.0000		0.0000	0.0000	48.9246	68.3107	117.2353	0.1684	0.1064	153.1509
Total	16.6056	22.1717	50.6688	0.1133	10.0545	0.1977	10.2522	2.6972	0.1916	2.8887	418.1266	11,291.9192	11,710.0458	22.4550	0.1097	12,304.1024

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	12.1537	0.2310	17.8155	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0285	5.5000e-004	59.9479
Energy	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8500e-003	2.7200e-003	149.3992
Mobile	4.2160	20.6021	27.8995	0.0849	7.0381	0.0693	7.1075	1.8880	0.0644	1.9524	0.0000	7,873.8014	7,873.8014	0.3740	0.0000	7,883.1525
Waste						0.0000	0.0000		0.0000	0.0000	236.2893	0.0000	236.2893	13.9643	0.0000	585.3967
Water						0.0000	0.0000		0.0000	0.0000	48.9246	66.9387	115.8633	0.1684	0.1064	151.7789
Total	16.3847	20.9633	45.7845	0.0869	7.0381	0.1806	7.2187	1.8880	0.1756	2.0636	285.2139	8,148.3295	8,433.5434	14.5380	0.1097	8,829.6751

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.33	5.45	9.64	23.32	30.00	8.65	29.59	30.00	8.32	28.56	31.79	27.84	27.98	35.26	0.00	28.24

3.0 Construction Detail**Construction Phase**

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	2/24/2023	5	30	
3	Building Construction	Building Construction	2/25/2023	4/19/2024	5	300	
4	Architectural Coating	Architectural Coating	1/1/2024	5/3/2024	5	90	
5	Paving	Paving	4/20/2024	5/17/2024	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 4,860,000; Residential Outdoor: 1,620,000; Non-Residential Indoor: 187,500; Non-Residential Outdoor: 62,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	3,333.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,778.00	277.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	356.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction**3.2 Site Preparation - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0903	6.3300e-003	0.0967	0.0497	5.8200e-003	0.0555	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572
Total	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572

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3.2 Site Preparation - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	0.0133	0.1376	0.0912	1.9000e-004	0.0903	6.3300e-003	0.0967	0.0497	5.8200e-003	0.0555	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572
Total	2.4000e-004	1.5000e-004	1.7100e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5570	0.5570	1.0000e-005	0.0000	0.5572

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3.3 Grading - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1316	0.0000	0.1316	0.0542	0.0000	0.0542	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642
Total	0.0498	0.5177	0.4208	9.3000e-004	0.1316	0.0214	0.1530	0.0542	0.0197	0.0738	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4500e-003	0.2765	0.0854	1.2300e-003	0.0282	5.0000e-004	0.0287	7.7400e-003	4.8000e-004	8.2200e-003	0.0000	119.6212	119.6212	5.6600e-003	0.0000	119.7627
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	5.1000e-004	5.6900e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8566	1.8566	4.0000e-005	0.0000	1.8575
Total	9.2500e-003	0.2770	0.0911	1.2500e-003	0.0305	5.1000e-004	0.0310	8.3700e-003	4.9000e-004	8.8600e-003	0.0000	121.4778	121.4778	5.7000e-003	0.0000	121.6201

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3.3 Grading - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1316	0.0000	0.1316	0.0542	0.0000	0.0542	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641
Total	0.0498	0.5177	0.4208	9.3000e-004	0.1316	0.0214	0.1530	0.0542	0.0197	0.0738	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4500e-003	0.2765	0.0854	1.2300e-003	0.0282	5.0000e-004	0.0287	7.7400e-003	4.8000e-004	8.2200e-003	0.0000	119.6212	119.6212	5.6600e-003	0.0000	119.7627
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	5.1000e-004	5.6900e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8566	1.8566	4.0000e-005	0.0000	1.8575
Total	9.2500e-003	0.2770	0.0911	1.2500e-003	0.0305	5.1000e-004	0.0310	8.3700e-003	4.9000e-004	8.8600e-003	0.0000	121.4778	121.4778	5.7000e-003	0.0000	121.6201

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3.4 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9852	254.9852	0.0607	0.0000	256.5017
Total	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9852	254.9852	0.0607	0.0000	256.5017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0677	2.3239	0.6686	7.9000e-003	0.1998	2.6700e-003	0.2025	0.0578	2.5600e-003	0.0604	0.0000	760.5432	760.5432	0.0316	0.0000	761.3343
Worker	0.5232	0.3338	3.7082	0.0134	1.5454	9.6700e-003	1.5551	0.4111	8.9000e-003	0.4200	0.0000	1,210.3588	1,210.3588	0.0236	0.0000	1,210.9475
Total	0.5909	2.6577	4.3768	0.0213	1.7453	0.0123	1.7576	0.4689	0.0115	0.4804	0.0000	1,970.9020	1,970.9020	0.0552	0.0000	1,972.2818

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3.4 Building Construction - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9849	254.9849	0.0607	0.0000	256.5013
Total	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9849	254.9849	0.0607	0.0000	256.5013

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0677	2.3239	0.6686	7.9000e-003	0.1998	2.6700e-003	0.2025	0.0578	2.5600e-003	0.0604	0.0000	760.5432	760.5432	0.0316	0.0000	761.3343
Worker	0.5232	0.3338	3.7082	0.0134	1.5454	9.6700e-003	1.5551	0.4111	8.9000e-003	0.4200	0.0000	1,210.3588	1,210.3588	0.0236	0.0000	1,210.9475
Total	0.5909	2.6577	4.3768	0.0213	1.7453	0.0123	1.7576	0.4689	0.0115	0.4804	0.0000	1,970.9020	1,970.9020	0.0552	0.0000	1,972.2818

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3.4 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7396	92.7396	0.0219	0.0000	93.2879
Total	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7396	92.7396	0.0219	0.0000	93.2879

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0238	0.8356	0.2341	2.8500e-003	0.0727	9.5000e-004	0.0736	0.0210	9.1000e-004	0.0219	0.0000	274.6946	274.6946	0.0113	0.0000	274.9765
Worker	0.1788	0.1096	1.2491	4.6700e-003	0.5620	3.4500e-003	0.5654	0.1495	3.1800e-003	0.1527	0.0000	422.7115	422.7115	7.7100e-003	0.0000	422.9043
Total	0.2026	0.9452	1.4832	7.5200e-003	0.6347	4.4000e-003	0.6391	0.1705	4.0900e-003	0.1746	0.0000	697.4061	697.4061	0.0190	0.0000	697.8807

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3.4 Building Construction - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7395	92.7395	0.0219	0.0000	93.2878
Total	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7395	92.7395	0.0219	0.0000	93.2878

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0238	0.8356	0.2341	2.8500e-003	0.0727	9.5000e-004	0.0736	0.0210	9.1000e-004	0.0219	0.0000	274.6946	274.6946	0.0113	0.0000	274.9765
Worker	0.1788	0.1096	1.2491	4.6700e-003	0.5620	3.4500e-003	0.5654	0.1495	3.1800e-003	0.1527	0.0000	422.7115	422.7115	7.7100e-003	0.0000	422.9043
Total	0.2026	0.9452	1.4832	7.5200e-003	0.6347	4.4000e-003	0.6391	0.1705	4.0900e-003	0.1746	0.0000	697.4061	697.4061	0.0190	0.0000	697.8807

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3.5 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	17.5464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.1300e-003	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058
Total	17.5545	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605
Total	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605

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3.5 Architectural Coating - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	17.5464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.1300e-003	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058
Total	17.5545	0.0549	0.0815	1.3000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	11.4896	11.4896	6.5000e-004	0.0000	11.5058

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605
Total	0.0403	0.0247	0.2814	1.0500e-003	0.1266	7.8000e-004	0.1274	0.0337	7.2000e-004	0.0344	0.0000	95.2171	95.2171	1.7400e-003	0.0000	95.2605

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3.6 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920
Total	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920

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3.6 Paving - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920
Total	3.8000e-004	2.3000e-004	2.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8916	0.8916	2.0000e-005	0.0000	0.8920

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

Increase Density

Increase Diversity

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.2160	20.6021	27.8995	0.0849	7.0381	0.0693	7.1075	1.8880	0.0644	1.9524	0.0000	7,873.8014	7,873.8014	0.3740	0.0000	7,883.1525
Unmitigated	4.4369	21.8105	32.7839	0.1114	10.0545	0.0864	10.1409	2.6972	0.0803	2.7775	0.0000	10,307.1951	10,307.1951	0.4361	0.0000	10,318.0983

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	35,544.00	35,520.00	35,520.00	27,035,237	18,924,666
Convenience Market (24 Hour)	0.00	0.00	0.00		
Day-Care Center	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Total	35,544.00	35,520.00	35,520.00	27,035,237	18,924,666

4.3 Trip Type Information

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	2.09	2.09	2.09	31.00	15.00	54.00	100	0	0
Convenience Market (24 Hour)	9.50	7.30	7.30	0.90	80.10	19.00	24	15	61
Day-Care Center	9.50	7.30	7.30	12.70	82.30	5.00	28	58	14
Fast Food Restaurant w/o Drive	9.50	7.30	7.30	1.50	79.50	19.00	51	37	12
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Health Club	9.50	7.30	7.30	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.585310	0.036704	0.193678	0.106768	0.013058	0.005276	0.019312	0.028136	0.002690	0.001821	0.005648	0.000918	0.000682
Convenience Market (24 Hour)	0.585310	0.036704	0.193678	0.106768	0.013058	0.005276	0.019312	0.028136	0.002690	0.001821	0.005648	0.000918	0.000682
Day-Care Center	0.585310	0.036704	0.193678	0.106768	0.013058	0.005276	0.019312	0.028136	0.002690	0.001821	0.005648	0.000918	0.000682
Fast Food Restaurant w/o Drive Thru	0.585310	0.036704	0.193678	0.106768	0.013058	0.005276	0.019312	0.028136	0.002690	0.001821	0.005648	0.000918	0.000682
General Office Building	0.585310	0.036704	0.193678	0.106768	0.013058	0.005276	0.019312	0.028136	0.002690	0.001821	0.005648	0.000918	0.000682
Health Club	0.585310	0.036704	0.193678	0.106768	0.013058	0.005276	0.019312	0.028136	0.002690	0.001821	0.005648	0.000918	0.000682
High Turnover (Sit Down Restaurant)	0.585310	0.036704	0.193678	0.106768	0.013058	0.005276	0.019312	0.028136	0.002690	0.001821	0.005648	0.000918	0.000682

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	708.8239	708.8239	0.0000	0.0000	708.8239
NaturalGas Mitigated	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8500e-003	2.7200e-003	149.3992
NaturalGas Unmitigated	0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8500e-003	2.7200e-003	149.3992

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.0953e+006	0.0113	0.0966	0.0411	6.2000e-004		7.8100e-003	7.8100e-003		7.8100e-003	7.8100e-003	0.0000	111.8130	111.8130	2.1400e-003	2.0500e-003	112.4774
Convenience Market (24 Hour)	6900	4.0000e-005	3.4000e-004	2.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3682	0.3682	1.0000e-005	1.0000e-005	0.3704
Day-Care Center	24750	1.3000e-004	1.2100e-003	1.0200e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3208	1.3208	3.0000e-005	2.0000e-005	1.3286
Fast Food Restaurant w/o Drive Thru	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
General Office Building	28950	1.6000e-004	1.4200e-003	1.1900e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5449	1.5449	3.0000e-005	3.0000e-005	1.5541
Health Club	123500	6.7000e-004	6.0500e-003	5.0900e-003	4.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	6.5904	6.5904	1.3000e-004	1.2000e-004	6.6296
High Turnover (Sit Down Restaurant)	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
Total		0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8600e-003	2.7300e-003	149.3992

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5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.0953e+006	0.0113	0.0966	0.0411	6.2000e-004		7.8100e-003	7.8100e-003		7.8100e-003	7.8100e-003	0.0000	111.8130	111.8130	2.1400e-003	2.0500e-003	112.4774
Convenience Market (24 Hour)	6900	4.0000e-005	3.4000e-004	2.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3682	0.3682	1.0000e-005	1.0000e-005	0.3704
Day-Care Center	24750	1.3000e-004	1.2100e-003	1.0200e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3208	1.3208	3.0000e-005	2.0000e-005	1.3286
Fast Food Restaurant w/o Drive Thru	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
General Office Building	28950	1.6000e-004	1.4200e-003	1.1900e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5449	1.5449	3.0000e-005	3.0000e-005	1.5541
Health Club	123500	6.7000e-004	6.0500e-003	5.0900e-003	4.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	6.5904	6.5904	1.3000e-004	1.2000e-004	6.6296
High Turnover (Sit Down Restaurant)	251850	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4397	13.4397	2.6000e-004	2.5000e-004	13.5195
Total		0.0150	0.1303	0.0694	8.2000e-004		0.0104	0.0104		0.0104	0.0104	0.0000	148.5166	148.5166	2.8600e-003	2.7300e-003	149.3992

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.01328e+007	620.4802	0.0000	0.0000	620.4802
Convenience Market (24 Hour)	125250	7.6697	0.0000	0.0000	7.6697
Day-Care Center	52350	3.2057	0.0000	0.0000	3.2057
Fast Food Restaurant w/o Drive Thru	398700	24.4144	0.0000	0.0000	24.4144
General Office Building	152700	9.3506	0.0000	0.0000	9.3506
Health Club	315000	19.2890	0.0000	0.0000	19.2890
High Turnover (Sit Down Restaurant)	398700	24.4144	0.0000	0.0000	24.4144
Total		708.8239	0.0000	0.0000	708.8239

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
Convenience Market (24 Hour)	0	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	12.1537	0.2310	17.8155	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0285	5.5000e-004	59.9479
Unmitigated	12.1537	0.2310	17.8155	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0285	5.5000e-004	59.9479

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.7546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.8614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0300e-003	0.0259	0.0110	1.7000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003	0.0000	29.9614	29.9614	5.7000e-004	5.5000e-004	30.1395
Landscaping	0.5346	0.2051	17.8045	9.4000e-004		0.0988	0.0988		0.0988	0.0988	0.0000	29.1113	29.1113	0.0279	0.0000	29.8084
Total	12.1537	0.2310	17.8155	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0285	5.5000e-004	59.9479

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.7546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.8614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.0300e-003	0.0259	0.0110	1.7000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003	0.0000	29.9614	29.9614	5.7000e-004	5.5000e-004	30.1395
Landscaping	0.5346	0.2051	17.8045	9.4000e-004		0.0988	0.0988		0.0988	0.0988	0.0000	29.1113	29.1113	0.0279	0.0000	29.8084
Total	12.1537	0.2310	17.8155	1.1100e-003		0.1009	0.1009		0.1009	0.1009	0.0000	59.0728	59.0728	0.0285	5.5000e-004	59.9479

7.0 Water Detail**7.1 Mitigation Measures Water**

Use Water Efficient Irrigation System

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	115.8633	0.1684	0.1064	151.7789
Unmitigated	117.2353	0.1684	0.1064	153.1509

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	125.096 / 98.5809	106.8367	0.1523	0.0963	139.3273
Convenience Market (24 Hour)	0.88887 / 0.680989	0.7550	1.0800e-003	6.8000e-004	0.9858
Day-Care Center	0.514675 / 1.65431	0.7072	6.3000e-004	4.0000e-004	0.8409
Fast Food Restaurant w/o Drive Thru	3.6424 / 0.290617	2.5579	4.4400e-003	2.8000e-003	3.5039
General Office Building	2.1328 / 1.634	1.8115	2.6000e-003	1.6400e-003	2.3654
Health Club	2.36573 / 1.81245	2.0093	2.8800e-003	1.8200e-003	2.6238
High Turnover (Sit Down Restaurant)	3.6424 / 0.290617	2.5579	4.4400e-003	2.8000e-003	3.5039
Total		117.2353	0.1684	0.1064	153.1509

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	125.096 / 92.5674	105.5479	0.1523	0.0963	138.0384
Convenience Market (24 Hour)	0.88887 / 0.639449	0.7461	1.0800e-003	6.8000e-004	0.9769
Day-Care Center	0.514675 / 1.5534	0.6856	6.3000e-004	4.0000e-004	0.8192
Fast Food Restaurant w/o Drive Thru	3.6424 / 0.27289	2.5541	4.4400e-003	2.8000e-003	3.5001
General Office Building	2.1328 / 1.53433	1.7901	2.6000e-003	1.6400e-003	2.3441
Health Club	2.36573 / 1.70189	1.9856	2.8800e-003	1.8200e-003	2.6001
High Turnover (Sit Down Restaurant)	3.6424 / 0.27289	2.5541	4.4400e-003	2.8000e-003	3.5001
Total		115.8633	0.1684	0.1064	151.7789

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	236.2893	13.9643	0.0000	585.3967
Unmitigated	369.2020	21.8192	0.0000	914.6823

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1104	224.1020	13.2441	0.0000	555.2033
Convenience Market (24 Hour)	45.08	9.1508	0.5408	0.0000	22.6708
Day-Care Center	19.5	3.9583	0.2339	0.0000	9.8066
Fast Food Restaurant w/o Drive Thru	172.78	35.0728	2.0727	0.0000	86.8913
General Office Building	13.95	2.8317	0.1674	0.0000	7.0155
Health Club	285	57.8524	3.4190	0.0000	143.3269
High Turnover (Sit Down Restaurant)	178.5	36.2339	2.1414	0.0000	89.7679
Total		369.2020	21.8192	0.0000	914.6823

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project - MM GH - Bay Area AQMD Air District, Annual

8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	706.56	143.4253	8.4762	0.0000	355.3301
Convenience Market (24 Hour)	28.8512	5.8565	0.3461	0.0000	14.5093
Day-Care Center	12.48	2.5333	0.1497	0.0000	6.2762
Fast Food Restaurant w/o Drive Thru	110.579	22.4466	1.3266	0.0000	55.6105
General Office Building	8.928	1.8123	0.1071	0.0000	4.4899
Health Club	182.4	37.0256	2.1882	0.0000	91.7292
High Turnover (Sit Down Restaurant)	114.24	23.1897	1.3705	0.0000	57.4515
Total		236.2893	13.9643	0.0000	585.3967

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

N2O Operational GHG Emission Mobile Calculations

Project Code & Title: 19-09047 Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Standards Project

Vehicle Population Breakdown*	
4507256	Gasoline vehicles
192354	Diesel vehicles
95.9%	Gasoline vehicle %
4.1%	Diesel vehicle %

VMT per Vehicle Type	
16807730	Project VMT (CalEEMod output)
16119795	Gasoline vehicle VMT
687935	Diesel vehicle VMT

Gasoline Vehicles	
95.9%	Gasoline vehicle %
10.1388	Tons per year mobile NOX emissions (annual output in CalEEMod)
9.72	Gasoline vehicle tons per year NOX emissions
0.2989	Tons per year N2O emissions for gasoline vehicles**
0.2712	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
1.60	grams N2O per gallon of fuel for diesel vehicles**
120654.88	Diesel average miles per gallon*
0.00001	grams per mile N2O for diesel vehicles
9.1	grams per year N2O for diesel vehicles
0.0000091	Metric tons per year N2O emissions for diesel vehicles

CO2e Emissions from N2O	
0.2712	Metric tons per year from gasoline + diesel vehicles
298	GWP of N2O***
80.8	CO2e emissions per year from N2O emissions from gasoline + diesel vehicles

Sources
*Vehicle population source: EMFAC2021 (v1.0.3) Emissions Inventory Region Type: Air District Region: Bay Area AQMD Calendar Year: 2030 Season: Annual Vehicle Classification: EMFAC2011 Categories **Methodology source: EMFAC2017 Volume III - Technical Documentation https://www.arb.ca.gov/msei/emfac2011-faq.htm ***GWP source: Intergovernmental Panel on Climate Change (IPCC). 2007. AR4 Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.

Appendix G

Noise Measurement Data and Noise Modeling Worksheets

Ambient Noise Survey Data Sheet

Instructions: Document noise measurement locations with a photo of the site, including the noise meter. Additionally, take notes on general and secondary noise sources, including the instantaneous noise level if possible. As a reminder, A/C weighting should be set to "A", and response time should typically be set to "slow." For additional information, please review the *Noise Measurement Protocols* in the case or on Jive.

Project Name: Berkeley BART Job Number: _____
Date: 2/26/21 Operator Name: Leslie Trejo

Measurement #1

Location: NM 1 - Wodsey Begin time: 10:14AM Finish time: 10:29AM
Measurement No.: 6 Wind (mph): 1.9 mph Direction: E
Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)
Calibration (dB): Start: 94.1 End: 94.3
Primary Noise Sources: Traffic on Wodsey Distance: ~20 ft from centerline
Secondary Noise Sources: _____
Notes: Some activity from residences south of meter, conversations + some generator noise from FEMA event north of meter
Traffic Count: Passenger Cars: 8
Medium Trucks (2 axles, 6 tires): _____ Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

Leq: 53.3 SEL: 82.8 L_{max}: 69.1 L_{min}: 45.0 PK: 91.1
L(05): 58.9 L(10): 55.5 L(50): 48.3 L(90): 46.5 L(95): 46.1
Response: Slow Fast Peak Impulse

Measurement #2

Location: NM 2 - Tremont Begin time: 10:36AM Finish time: 10:57AM
Measurement No.: 7 Wind (mph): 1.0 Direction: N
Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)
Calibration (dB): Start: 94.1 End: 94.4
Primary Noise Sources: Traffic on Tremont Distance: ~15 ft from centerline
Secondary Noise Sources: _____
Notes: 10:42 - dog howl/bark about 5 ft from meter
Traffic Count: Passenger Cars: 4
Medium Trucks (2 axles, 6 tires): _____ Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

Leq: 61.8 SEL: 91.4 L_{max}: 87.1 L_{min}: 43.0 PK: 103.4
L(05): 57.4 L(10): 54.0 L(50): 47.7 L(90): 45.0 L(95): 44.5
Response: Slow Fast Peak Impulse

Ambient Noise Survey Data Sheet

Instructions: Document noise measurement locations with a photo of the site, including the noise meter. Additionally, take notes on general and secondary noise sources, including the instantaneous noise level if possible. As a reminder, A/C weighting should be set to "A", and response time should typically be set to "slow." For additional information, please review the *Noise Measurement Protocols* in the case or on Jive.

Project Name: Berkeley BART **Job Number:** _____
Date: 2/26/21 **Operator Name:** Leslie Trejo

Measurement #1

Location: NM 3 - MLK Way **Begin time:** 11:05 AM **Finish time:** 11:20 AM
Measurement No.: 8 **Wind (mph):** _____ **Direction:** _____
Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)
Calibration (dB): Start: 94.0 End: _____
Primary Noise Sources: Traffic on MLK Way **Distance:** ~ 50 ft from centerline
Secondary Noise Sources: _____
Notes: 11:08 - car alarm, 11:10 - 11:11 AM - motorcycle idling (?), 11:16 - motorcycle start up
Traffic Count: Passenger Cars: 243
Medium Trucks (2 axles, 6 tires): 111 Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

Leq: 65.4 **SEL:** 94.9 **L_{max}:** 80.6 **L_{min}:** 42.1 **PK:** 95.1
L(05): 70.5 **L(10):** 69.3 **L(50):** 62.3 **L(90):** 48.3 **L(95):** 46.9
Response: Slow Fast Peak Impulse

Measurement #2

Location: NM 4 - Delaware **Begin time:** 11:40 AM **Finish time:** 11:55 AM
Measurement No.: 9 **Wind (mph):** 1.4 **Direction:** E
Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)
Calibration (dB): Start: 94.1 End: 94.0
Primary Noise Sources: Traffic on Delaware **Distance:** ~ 50 ft from centerline
Secondary Noise Sources: _____
Notes: 11:44 - motorcycle engine rev, 11:50 - loud music w/ bass on RV camper, 11:51 - fire truck
Traffic Count: Passenger Cars: 57
Medium Trucks (2 axles, 6 tires): 111 Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

Leq: 65.0 **SEL:** 94.6 **L_{max}:** 87.2 **L_{min}:** 41.0 **PK:** 101.0
L(05): 68.0 **L(10):** 65.6 **L(50):** 55.3 **L(90):** 46.2 **L(95):** 44.4
Response: Slow Fast Peak Impulse

Ambient Noise Survey Data Sheet

Instructions: Document noise measurement locations with a photo of the site, including the noise meter. Additionally, take notes on general and secondary noise sources, including the instantaneous noise level if possible. As a reminder, A/C weighting should be set to "A", and response time should typically be set to "slow." For additional information, please review the *Noise Measurement Protocols* in the case or on Jive.

Project Name: Berkeley BART **Job Number:** _____
Date: 2/26/21 **Operator Name:** Leslie Trejo

Measurement #1

Location: NM 5 - Virginia St **Begin time:** 12:06 PM **Finish time:** 12:21 PM
Measurement No.: 10 **Wind (mph):** 1.0 **Direction:** E

Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)

Calibration (dB): Start: 94.0 End: _____

Primary Noise Sources: Traffic on Virginia St **Distance:** ~25 ft from centerline

Secondary Noise Sources: _____

Notes: Tram Neighbor noted it is much quieter than it used to be
12:14 - garbage collection north of meter + honk; 12:21 - garbage collection

Traffic Count: Passenger Cars: 8
Medium Trucks (2 axles, 6 tires): 1 Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

L_{eq}: 57.5 **SEL:** 87.0 **L_{max}:** 80.5 **L_{min}:** 38.4 **PK:** 96.5
L(05): 59.6 **L(10):** 55.9 **L(50):** 44.4 **L(90):** 40.2 **L(95):** 39.8
Response: Slow Fast Peak Impulse

Measurement #2

Location: _____ **Begin time:** _____ **Finish time:** _____

Measurement No.: _____ **Wind (mph):** _____ **Direction:** _____

Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)

Calibration (dB): Start: _____ End: _____

Primary Noise Sources: _____ **Distance:** _____

Secondary Noise Sources: _____

Notes: _____

Traffic Count: Passenger Cars: _____
Medium Trucks (2 axles, 6 tires): _____ Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

L_{eq}: _____ **SEL:** _____ **L_{max}:** _____ **L_{min}:** _____ **PK:** _____
L(05): _____ **L(10):** _____ **L(50):** _____ **L(90):** _____ **L(95):** _____
Response: Slow Fast Peak Impulse

Freq Weight : A
Time Weight : SLOW
Level Range : 40-100
Max dB : 69.1 - 2021/02/26 10:27:45
Level Range : 40-100
SEL : 82.8
Leq : 53.3

No.s	Date Time	(dB)
1	2021/02/26 10:13:48	54.4
2	2021/02/26 10:13:51	66.6
3	2021/02/26 10:13:54	61.0
4	2021/02/26 10:13:57	53.1
5	2021/02/26 10:14:00	50.6
6	2021/02/26 10:14:03	52.5
7	2021/02/26 10:14:06	51.1
8	2021/02/26 10:14:09	48.3
9	2021/02/26 10:14:12	50.0
10	2021/02/26 10:14:15	47.4
11	2021/02/26 10:14:18	46.4
12	2021/02/26 10:14:21	48.8
13	2021/02/26 10:14:24	49.1
14	2021/02/26 10:14:27	53.6
15	2021/02/26 10:14:30	55.1
16	2021/02/26 10:14:33	53.1
17	2021/02/26 10:14:36	49.0
18	2021/02/26 10:14:39	51.6
19	2021/02/26 10:14:42	51.4
20	2021/02/26 10:14:45	49.6
21	2021/02/26 10:14:48	48.4
22	2021/02/26 10:14:51	48.3
23	2021/02/26 10:14:54	49.0
24	2021/02/26 10:14:57	47.3
25	2021/02/26 10:15:00	46.6
26	2021/02/26 10:15:03	46.4
27	2021/02/26 10:15:06	46.7
28	2021/02/26 10:15:09	45.7
29	2021/02/26 10:15:12	48.0
30	2021/02/26 10:15:15	47.2
31	2021/02/26 10:15:18	48.4
32	2021/02/26 10:15:21	48.7
33	2021/02/26 10:15:24	47.0
34	2021/02/26 10:15:27	47.5
35	2021/02/26 10:15:30	47.5
36	2021/02/26 10:15:33	48.0
37	2021/02/26 10:15:36	50.1
38	2021/02/26 10:15:39	49.0
39	2021/02/26 10:15:42	49.8
40	2021/02/26 10:15:45	51.2
41	2021/02/26 10:15:48	51.2
42	2021/02/26 10:15:51	47.5
43	2021/02/26 10:15:54	49.1
44	2021/02/26 10:15:57	52.5
45	2021/02/26 10:16:00	51.0
46	2021/02/26 10:16:03	50.8
47	2021/02/26 10:16:06	54.4
48	2021/02/26 10:16:09	61.0
49	2021/02/26 10:16:12	60.9
50	2021/02/26 10:16:15	55.6
51	2021/02/26 10:16:18	59.1
52	2021/02/26 10:16:21	53.1
53	2021/02/26 10:16:24	51.4
54	2021/02/26 10:16:27	51.3
55	2021/02/26 10:16:30	49.0
56	2021/02/26 10:16:33	50.1
57	2021/02/26 10:16:36	50.3
58	2021/02/26 10:16:39	48.4
59	2021/02/26 10:16:42	49.7
60	2021/02/26 10:16:45	50.1
61	2021/02/26 10:16:48	49.6
62	2021/02/26 10:16:51	51.3
63	2021/02/26 10:16:54	48.3
64	2021/02/26 10:16:57	48.9
65	2021/02/26 10:17:00	48.6
66	2021/02/26 10:17:03	47.7
67	2021/02/26 10:17:06	47.5
68	2021/02/26 10:17:09	47.1
69	2021/02/26 10:17:12	48.3
70	2021/02/26 10:17:15	47.0
71	2021/02/26 10:17:18	49.1
72	2021/02/26 10:17:21	47.2
73	2021/02/26 10:17:24	47.6
74	2021/02/26 10:17:27	48.2
75	2021/02/26 10:17:30	46.7
76	2021/02/26 10:17:33	46.5
77	2021/02/26 10:17:36	47.0
78	2021/02/26 10:17:39	47.7
79	2021/02/26 10:17:42	47.0
80	2021/02/26 10:17:45	49.5
81	2021/02/26 10:17:48	50.7
82	2021/02/26 10:17:51	47.6
83	2021/02/26 10:17:54	46.0
84	2021/02/26 10:17:57	48.5

85	2021/02/26	10:18:20	47.2
86	2021/02/26	10:18:03	47.8
87	2021/02/26	10:18:06	47.9
88	2021/02/26	10:18:09	47.6
89	2021/02/26	10:18:12	47.1
90	2021/02/26	10:18:15	50.5
91	2021/02/26	10:18:18	51.1
92	2021/02/26	10:18:21	49.4
93	2021/02/26	10:18:24	47.9
94	2021/02/26	10:18:27	50.1
95	2021/02/26	10:18:30	54.2
96	2021/02/26	10:18:33	53.7
97	2021/02/26	10:18:36	53.2
98	2021/02/26	10:18:39	49.6
99	2021/02/26	10:18:42	49.6
100	2021/02/26	10:18:45	51.1
101	2021/02/26	10:18:48	50.4
102	2021/02/26	10:18:51	51.8
103	2021/02/26	10:18:54	52.5
104	2021/02/26	10:18:57	56.0
105	2021/02/26	10:19:00	60.9
106	2021/02/26	10:19:03	56.8
107	2021/02/26	10:19:06	53.1
108	2021/02/26	10:19:09	51.5
109	2021/02/26	10:19:12	57.6
110	2021/02/26	10:19:15	63.8
111	2021/02/26	10:19:18	55.0
112	2021/02/26	10:19:21	55.2
113	2021/02/26	10:19:24	55.2
114	2021/02/26	10:19:27	53.9
115	2021/02/26	10:19:30	49.4
116	2021/02/26	10:19:33	47.6
117	2021/02/26	10:19:36	47.7
118	2021/02/26	10:19:39	47.8
119	2021/02/26	10:19:42	47.8
120	2021/02/26	10:19:45	47.3
121	2021/02/26	10:19:48	49.8
122	2021/02/26	10:19:51	50.6
123	2021/02/26	10:19:54	48.2
124	2021/02/26	10:19:57	48.5
125	2021/02/26	10:20:00	46.9
126	2021/02/26	10:20:03	47.2
127	2021/02/26	10:20:06	47.8
128	2021/02/26	10:20:09	47.7
129	2021/02/26	10:20:12	48.3
130	2021/02/26	10:20:15	58.8
131	2021/02/26	10:20:18	58.5
132	2021/02/26	10:20:21	51.3
133	2021/02/26	10:20:24	48.8
134	2021/02/26	10:20:27	53.4
135	2021/02/26	10:20:30	59.5
136	2021/02/26	10:20:33	51.8
137	2021/02/26	10:20:36	48.7
138	2021/02/26	10:20:39	48.2
139	2021/02/26	10:20:42	48.2
140	2021/02/26	10:20:45	47.8
141	2021/02/26	10:20:48	48.0
142	2021/02/26	10:20:51	48.4
143	2021/02/26	10:20:54	47.2
144	2021/02/26	10:20:57	50.6
145	2021/02/26	10:21:00	47.4
146	2021/02/26	10:21:03	50.2
147	2021/02/26	10:21:06	47.1
148	2021/02/26	10:21:09	46.5
149	2021/02/26	10:21:12	47.0
150	2021/02/26	10:21:15	46.9
151	2021/02/26	10:21:18	47.3
152	2021/02/26	10:21:21	47.8
153	2021/02/26	10:21:24	48.9
154	2021/02/26	10:21:27	50.3
155	2021/02/26	10:21:30	51.8
156	2021/02/26	10:21:33	51.1
157	2021/02/26	10:21:36	53.8
158	2021/02/26	10:21:39	54.1
159	2021/02/26	10:21:42	58.1
160	2021/02/26	10:21:45	59.3
161	2021/02/26	10:21:48	61.1
162	2021/02/26	10:21:51	57.6
163	2021/02/26	10:21:54	60.4
164	2021/02/26	10:21:57	58.7
165	2021/02/26	10:22:00	60.2
166	2021/02/26	10:22:03	56.8
167	2021/02/26	10:22:06	57.7
168	2021/02/26	10:22:09	53.9
169	2021/02/26	10:22:12	53.2
170	2021/02/26	10:22:15	53.4
171	2021/02/26	10:22:18	51.2
172	2021/02/26	10:22:21	49.8
173	2021/02/26	10:22:24	48.6
174	2021/02/26	10:22:27	48.1
175	2021/02/26	10:22:30	46.4
176	2021/02/26	10:22:33	47.4
177	2021/02/26	10:22:36	46.8
178	2021/02/26	10:22:39	46.8
179	2021/02/26	10:22:42	47.6
180	2021/02/26	10:22:45	50.1
181	2021/02/26	10:22:48	47.2
182	2021/02/26	10:22:51	46.0

183	2021/02/26	10:22:54	45.0
184	2021/02/26	10:22:57	46.1
185	2021/02/26	10:23:00	46.6
186	2021/02/26	10:23:03	47.8
187	2021/02/26	10:23:06	47.1
188	2021/02/26	10:23:09	45.7
189	2021/02/26	10:23:12	46.5
190	2021/02/26	10:23:15	47.8
191	2021/02/26	10:23:18	48.1
192	2021/02/26	10:23:21	47.0
193	2021/02/26	10:23:24	47.0
194	2021/02/26	10:23:27	46.5
195	2021/02/26	10:23:30	45.9
196	2021/02/26	10:23:33	47.5
197	2021/02/26	10:23:36	48.3
198	2021/02/26	10:23:39	47.8
199	2021/02/26	10:23:42	48.3
200	2021/02/26	10:23:45	48.6
201	2021/02/26	10:23:48	51.9
202	2021/02/26	10:23:51	65.4
203	2021/02/26	10:23:54	57.0
204	2021/02/26	10:23:57	50.5
205	2021/02/26	10:24:00	49.2
206	2021/02/26	10:24:03	47.7
207	2021/02/26	10:24:06	47.5
208	2021/02/26	10:24:09	48.7
209	2021/02/26	10:24:12	46.0
210	2021/02/26	10:24:15	45.5
211	2021/02/26	10:24:18	48.6
212	2021/02/26	10:24:21	50.1
213	2021/02/26	10:24:24	63.3
214	2021/02/26	10:24:27	59.8
215	2021/02/26	10:24:30	49.7
216	2021/02/26	10:24:33	46.6
217	2021/02/26	10:24:36	48.4
218	2021/02/26	10:24:39	51.4
219	2021/02/26	10:24:42	51.0
220	2021/02/26	10:24:45	47.8
221	2021/02/26	10:24:48	46.3
222	2021/02/26	10:24:51	47.8
223	2021/02/26	10:24:54	46.5
224	2021/02/26	10:24:57	46.9
225	2021/02/26	10:25:00	49.2
226	2021/02/26	10:25:03	48.2
227	2021/02/26	10:25:06	47.3
228	2021/02/26	10:25:09	49.3
229	2021/02/26	10:25:12	47.9
230	2021/02/26	10:25:15	47.3
231	2021/02/26	10:25:18	47.1
232	2021/02/26	10:25:21	46.0
233	2021/02/26	10:25:24	47.2
234	2021/02/26	10:25:27	46.3
235	2021/02/26	10:25:30	46.3
236	2021/02/26	10:25:33	47.5
237	2021/02/26	10:25:36	47.3
238	2021/02/26	10:25:39	48.1
239	2021/02/26	10:25:42	48.8
240	2021/02/26	10:25:45	48.6
241	2021/02/26	10:25:48	47.9
242	2021/02/26	10:25:51	46.4
243	2021/02/26	10:25:54	45.7
244	2021/02/26	10:25:57	45.1
245	2021/02/26	10:26:00	46.1
246	2021/02/26	10:26:03	46.8
247	2021/02/26	10:26:06	46.5
248	2021/02/26	10:26:09	47.7
249	2021/02/26	10:26:12	47.2
250	2021/02/26	10:26:15	49.1
251	2021/02/26	10:26:18	55.7
252	2021/02/26	10:26:21	59.2
253	2021/02/26	10:26:24	51.7
254	2021/02/26	10:26:27	48.3
255	2021/02/26	10:26:30	47.3
256	2021/02/26	10:26:33	46.4
257	2021/02/26	10:26:36	46.9
258	2021/02/26	10:26:39	49.7
259	2021/02/26	10:26:42	48.5
260	2021/02/26	10:26:45	54.3
261	2021/02/26	10:26:48	63.1
262	2021/02/26	10:26:51	53.7
263	2021/02/26	10:26:54	47.8
264	2021/02/26	10:26:57	48.0
265	2021/02/26	10:27:00	47.9
266	2021/02/26	10:27:03	48.2
267	2021/02/26	10:27:06	48.1
268	2021/02/26	10:27:09	47.5
269	2021/02/26	10:27:12	48.2
270	2021/02/26	10:27:15	48.9
271	2021/02/26	10:27:18	49.9
272	2021/02/26	10:27:21	49.7
273	2021/02/26	10:27:24	48.1
274	2021/02/26	10:27:27	47.5
275	2021/02/26	10:27:30	48.1
276	2021/02/26	10:27:33	48.7
277	2021/02/26	10:27:36	48.2
278	2021/02/26	10:27:39	54.1
279	2021/02/26	10:27:42	68.6
280	2021/02/26	10:27:45	59.6

281	2021/02/26	10:27:48	50.3
282	2021/02/26	10:27:51	48.1
283	2021/02/26	10:27:54	48.1
284	2021/02/26	10:27:57	49.4
285	2021/02/26	10:28:00	49.7
286	2021/02/26	10:28:03	48.4
287	2021/02/26	10:28:06	48.5
288	2021/02/26	10:28:09	47.4
289	2021/02/26	10:28:12	48.0
290	2021/02/26	10:28:15	47.6
291	2021/02/26	10:28:18	47.1
292	2021/02/26	10:28:21	47.1
293	2021/02/26	10:28:24	45.6
294	2021/02/26	10:28:27	46.6
295	2021/02/26	10:28:30	45.9
296	2021/02/26	10:28:33	48.7
297	2021/02/26	10:28:36	47.2
298	2021/02/26	10:28:39	47.0
299	2021/02/26	10:28:42	47.6
300	2021/02/26	10:28:45	46.7

Freq Weight : A
Time Weight : SLOW
Level Range : 40-100
Max dB : 87.1 - 2021/02/26 10:41:32
Level Range : 40-100
SEL : 91.4
Leq : 61.8

No.s	Date Time	(dB)
1	2021/02/26 10:35:43	46.7
2	2021/02/26 10:35:46	45.2
3	2021/02/26 10:35:49	44.4
4	2021/02/26 10:35:52	46.8
5	2021/02/26 10:35:55	44.9
6	2021/02/26 10:35:58	45.7
7	2021/02/26 10:36:01	44.7
8	2021/02/26 10:36:04	44.7
9	2021/02/26 10:36:07	44.1
10	2021/02/26 10:36:10	46.1
11	2021/02/26 10:36:13	45.4
12	2021/02/26 10:36:16	48.1
13	2021/02/26 10:36:19	48.6
14	2021/02/26 10:36:22	45.8
15	2021/02/26 10:36:25	44.7
16	2021/02/26 10:36:28	47.2
17	2021/02/26 10:36:31	45.6
18	2021/02/26 10:36:34	48.3
19	2021/02/26 10:36:37	53.0
20	2021/02/26 10:36:40	49.4
21	2021/02/26 10:36:43	45.6
22	2021/02/26 10:36:46	46.0
23	2021/02/26 10:36:49	47.2
24	2021/02/26 10:36:52	47.5
25	2021/02/26 10:36:55	48.8
26	2021/02/26 10:36:58	50.6
27	2021/02/26 10:37:01	51.3
28	2021/02/26 10:37:04	50.2
29	2021/02/26 10:37:07	49.5
30	2021/02/26 10:37:10	49.5
31	2021/02/26 10:37:13	52.1
32	2021/02/26 10:37:16	69.0
33	2021/02/26 10:37:19	67.4
34	2021/02/26 10:37:22	58.3
35	2021/02/26 10:37:25	53.5
36	2021/02/26 10:37:28	51.3
37	2021/02/26 10:37:31	49.7
38	2021/02/26 10:37:34	50.4
39	2021/02/26 10:37:37	49.9
40	2021/02/26 10:37:40	49.5
41	2021/02/26 10:37:43	48.4
42	2021/02/26 10:37:46	46.0
43	2021/02/26 10:37:49	45.8
44	2021/02/26 10:37:52	53.1
45	2021/02/26 10:37:55	47.0
46	2021/02/26 10:37:58	46.7
47	2021/02/26 10:38:01	45.4
48	2021/02/26 10:38:04	45.1
49	2021/02/26 10:38:07	44.6
50	2021/02/26 10:38:10	45.3
51	2021/02/26 10:38:13	44.5
52	2021/02/26 10:38:16	43.7
53	2021/02/26 10:38:19	43.1
54	2021/02/26 10:38:22	44.3
55	2021/02/26 10:38:25	44.7
56	2021/02/26 10:38:28	46.0
57	2021/02/26 10:38:31	44.4
58	2021/02/26 10:38:34	44.3
59	2021/02/26 10:38:37	44.6
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61	2021/02/26 10:38:43	45.3
62	2021/02/26 10:38:46	45.0
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64	2021/02/26 10:38:52	46.2
65	2021/02/26 10:38:55	47.2
66	2021/02/26 10:38:58	46.7
67	2021/02/26 10:39:01	45.5
68	2021/02/26 10:39:04	46.3
69	2021/02/26 10:39:07	45.1
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71	2021/02/26 10:39:13	44.5
72	2021/02/26 10:39:16	44.0
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74	2021/02/26 10:39:22	44.3
75	2021/02/26 10:39:25	44.8
76	2021/02/26 10:39:28	44.9
77	2021/02/26 10:39:31	45.7
78	2021/02/26 10:39:34	46.0
79	2021/02/26 10:39:37	45.6
80	2021/02/26 10:39:40	47.9
81	2021/02/26 10:39:43	46.7
82	2021/02/26 10:39:46	44.4
83	2021/02/26 10:39:49	44.0
84	2021/02/26 10:39:52	47.9

85	2021/02/26	10:39:55	48.0
86	2021/02/26	10:39:58	45.9
87	2021/02/26	10:40:01	45.0
88	2021/02/26	10:40:04	45.1
89	2021/02/26	10:40:07	46.3
90	2021/02/26	10:40:10	46.4
91	2021/02/26	10:40:13	47.1
92	2021/02/26	10:40:16	46.8
93	2021/02/26	10:40:19	47.4
94	2021/02/26	10:40:22	47.5
95	2021/02/26	10:40:25	46.3
96	2021/02/26	10:40:28	46.3
97	2021/02/26	10:40:31	47.5
98	2021/02/26	10:40:34	47.7
99	2021/02/26	10:40:37	46.8
100	2021/02/26	10:40:40	52.2
101	2021/02/26	10:40:43	47.4
102	2021/02/26	10:40:46	45.8
103	2021/02/26	10:40:49	46.8
104	2021/02/26	10:40:52	46.8
105	2021/02/26	10:40:55	45.2
106	2021/02/26	10:40:58	44.1
107	2021/02/26	10:41:01	44.6
108	2021/02/26	10:41:04	45.7
109	2021/02/26	10:41:07	47.5
110	2021/02/26	10:41:10	47.2
111	2021/02/26	10:41:13	46.8
112	2021/02/26	10:41:16	46.1
113	2021/02/26	10:41:19	45.9
114	2021/02/26	10:41:22	52.3
115	2021/02/26	10:41:25	76.8
116	2021/02/26	10:41:28	75.4
117	2021/02/26	10:41:31	83.8
118	2021/02/26	10:41:34	81.0
119	2021/02/26	10:41:37	71.7
120	2021/02/26	10:41:40	59.7
121	2021/02/26	10:41:43	51.7
122	2021/02/26	10:41:46	51.2
123	2021/02/26	10:41:49	47.7
124	2021/02/26	10:41:52	53.8
125	2021/02/26	10:41:55	49.5
126	2021/02/26	10:41:58	47.6
127	2021/02/26	10:42:01	47.8
128	2021/02/26	10:42:04	48.3
129	2021/02/26	10:42:07	47.4
130	2021/02/26	10:42:10	53.7
131	2021/02/26	10:42:13	47.8
132	2021/02/26	10:42:16	47.8
133	2021/02/26	10:42:19	46.4
134	2021/02/26	10:42:22	54.8
135	2021/02/26	10:42:25	51.9
136	2021/02/26	10:42:28	50.3
137	2021/02/26	10:42:31	49.8
138	2021/02/26	10:42:34	47.8
139	2021/02/26	10:42:37	53.1
140	2021/02/26	10:42:40	52.0
141	2021/02/26	10:42:43	52.7
142	2021/02/26	10:42:46	51.6
143	2021/02/26	10:42:49	54.8
144	2021/02/26	10:42:52	54.8
145	2021/02/26	10:42:55	51.9
146	2021/02/26	10:42:58	53.8
147	2021/02/26	10:43:01	56.7
148	2021/02/26	10:43:04	56.6
149	2021/02/26	10:43:07	57.4
150	2021/02/26	10:43:10	59.7
151	2021/02/26	10:43:13	60.5
152	2021/02/26	10:43:16	61.2
153	2021/02/26	10:43:19	60.2
154	2021/02/26	10:43:22	57.2
155	2021/02/26	10:43:25	55.6
156	2021/02/26	10:43:28	55.0
157	2021/02/26	10:43:31	55.5
158	2021/02/26	10:43:34	53.2
159	2021/02/26	10:43:37	54.9
160	2021/02/26	10:43:40	52.8
161	2021/02/26	10:43:43	50.4
162	2021/02/26	10:43:46	50.8
163	2021/02/26	10:43:49	51.4
164	2021/02/26	10:43:52	50.1
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166	2021/02/26	10:43:58	49.7
167	2021/02/26	10:44:01	48.6
168	2021/02/26	10:44:04	46.5
169	2021/02/26	10:44:07	45.4
170	2021/02/26	10:44:10	49.9
171	2021/02/26	10:44:13	49.2
172	2021/02/26	10:44:16	47.3
173	2021/02/26	10:44:19	46.4
174	2021/02/26	10:44:22	45.9
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176	2021/02/26	10:44:28	46.7
177	2021/02/26	10:44:31	44.7
178	2021/02/26	10:44:34	46.5
179	2021/02/26	10:44:37	47.7
180	2021/02/26	10:44:40	48.1
181	2021/02/26	10:44:43	49.3
182	2021/02/26	10:44:46	47.1

183	2021/02/26	10:44:49	48.7
184	2021/02/26	10:44:52	47.9
185	2021/02/26	10:44:55	46.3
186	2021/02/26	10:44:58	45.8
187	2021/02/26	10:45:01	47.2
188	2021/02/26	10:45:04	46.4
189	2021/02/26	10:45:07	49.6
190	2021/02/26	10:45:10	48.6
191	2021/02/26	10:45:13	47.3
192	2021/02/26	10:45:16	48.9
193	2021/02/26	10:45:19	52.5
194	2021/02/26	10:45:22	50.0
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196	2021/02/26	10:45:28	47.4
197	2021/02/26	10:45:31	47.5
198	2021/02/26	10:45:34	48.8
199	2021/02/26	10:45:37	58.1
200	2021/02/26	10:45:40	49.2
201	2021/02/26	10:45:43	48.6
202	2021/02/26	10:45:46	47.6
203	2021/02/26	10:45:49	46.5
204	2021/02/26	10:45:52	48.5
205	2021/02/26	10:45:55	49.8
206	2021/02/26	10:45:58	51.1
207	2021/02/26	10:46:01	50.9
208	2021/02/26	10:46:04	55.2
209	2021/02/26	10:46:07	53.5
210	2021/02/26	10:46:10	54.0
211	2021/02/26	10:46:13	53.4
212	2021/02/26	10:46:16	51.1
213	2021/02/26	10:46:19	52.5
214	2021/02/26	10:46:22	50.3
215	2021/02/26	10:46:25	48.8
216	2021/02/26	10:46:28	57.4
217	2021/02/26	10:46:31	52.9
218	2021/02/26	10:46:34	47.8
219	2021/02/26	10:46:37	47.5
220	2021/02/26	10:46:40	47.3
221	2021/02/26	10:46:43	47.9
222	2021/02/26	10:46:46	47.6
223	2021/02/26	10:46:49	46.8
224	2021/02/26	10:46:52	46.7
225	2021/02/26	10:46:55	52.2
226	2021/02/26	10:46:58	48.8
227	2021/02/26	10:47:01	54.6
228	2021/02/26	10:47:04	48.0
229	2021/02/26	10:47:07	46.9
230	2021/02/26	10:47:10	46.1
231	2021/02/26	10:47:13	46.9
232	2021/02/26	10:47:16	46.8
233	2021/02/26	10:47:19	47.7
234	2021/02/26	10:47:22	49.5
235	2021/02/26	10:47:25	46.3
236	2021/02/26	10:47:28	49.5
237	2021/02/26	10:47:31	45.2
238	2021/02/26	10:47:34	45.2
239	2021/02/26	10:47:37	44.8
240	2021/02/26	10:47:40	45.7
241	2021/02/26	10:47:43	44.7
242	2021/02/26	10:47:46	44.9
243	2021/02/26	10:47:49	46.4
244	2021/02/26	10:47:52	45.8
245	2021/02/26	10:47:55	45.3
246	2021/02/26	10:47:58	48.1
247	2021/02/26	10:48:01	45.1
248	2021/02/26	10:48:04	45.0
249	2021/02/26	10:48:07	45.8
250	2021/02/26	10:48:10	46.7
251	2021/02/26	10:48:13	46.4
252	2021/02/26	10:48:16	46.8
253	2021/02/26	10:48:19	46.9
254	2021/02/26	10:48:22	46.1
255	2021/02/26	10:48:25	47.4
256	2021/02/26	10:48:28	49.7
257	2021/02/26	10:48:31	48.5
258	2021/02/26	10:48:34	48.4
259	2021/02/26	10:48:37	58.6
260	2021/02/26	10:48:40	48.9
261	2021/02/26	10:48:43	47.4
262	2021/02/26	10:48:46	47.9
263	2021/02/26	10:48:49	47.7
264	2021/02/26	10:48:52	54.6
265	2021/02/26	10:48:55	54.7
266	2021/02/26	10:48:58	57.9
267	2021/02/26	10:49:01	50.8
268	2021/02/26	10:49:04	48.7
269	2021/02/26	10:49:07	48.0
270	2021/02/26	10:49:10	46.6
271	2021/02/26	10:49:13	45.3
272	2021/02/26	10:49:16	46.5
273	2021/02/26	10:49:19	46.7
274	2021/02/26	10:49:22	46.2
275	2021/02/26	10:49:25	46.3
276	2021/02/26	10:49:28	47.7
277	2021/02/26	10:49:31	47.2
278	2021/02/26	10:49:34	47.3
279	2021/02/26	10:49:37	46.5
280	2021/02/26	10:49:40	46.0

281	2021/02/26	10:49:43	48.0
282	2021/02/26	10:49:46	47.2
283	2021/02/26	10:49:49	48.7
284	2021/02/26	10:49:52	50.2
285	2021/02/26	10:49:55	48.9
286	2021/02/26	10:49:58	50.4
287	2021/02/26	10:50:01	49.6
288	2021/02/26	10:50:04	50.5
289	2021/02/26	10:50:07	48.6
290	2021/02/26	10:50:10	51.7
291	2021/02/26	10:50:13	48.3
292	2021/02/26	10:50:16	49.5
293	2021/02/26	10:50:19	50.6
294	2021/02/26	10:50:22	48.4
295	2021/02/26	10:50:25	48.0
296	2021/02/26	10:50:28	48.4
297	2021/02/26	10:50:31	50.8
298	2021/02/26	10:50:34	50.6
299	2021/02/26	10:50:37	50.4
300	2021/02/26	10:50:40	50.3

Freq Weight : A
Time Weight : SLOW
Level Range : 40-100
Max dB : 80.6 - 2021/02/26 11:15:15
Level Range : 40-100
SEL : 94.9
Leq : 65.4

No.s	Date Time	(dB)
1	2021/02/26 11:04:48	61.5
2	2021/02/26 11:04:51	64.3
3	2021/02/26 11:04:54	65.4
4	2021/02/26 11:04:57	64.1
5	2021/02/26 11:05:00	65.0
6	2021/02/26 11:05:03	62.4
7	2021/02/26 11:05:06	60.1
8	2021/02/26 11:05:09	64.8
9	2021/02/26 11:05:12	64.0
10	2021/02/26 11:05:15	69.5
11	2021/02/26 11:05:18	63.3
12	2021/02/26 11:05:21	70.0
13	2021/02/26 11:05:24	64.9
14	2021/02/26 11:05:27	70.3
15	2021/02/26 11:05:30	66.6
16	2021/02/26 11:05:33	66.1
17	2021/02/26 11:05:36	65.7
18	2021/02/26 11:05:39	66.6
19	2021/02/26 11:05:42	60.1
20	2021/02/26 11:05:45	64.2
21	2021/02/26 11:05:48	54.0
22	2021/02/26 11:05:51	49.4
23	2021/02/26 11:05:54	50.1
24	2021/02/26 11:05:57	49.1
25	2021/02/26 11:06:00	48.9
26	2021/02/26 11:06:03	48.6
27	2021/02/26 11:06:06	48.8
28	2021/02/26 11:06:09	50.9
29	2021/02/26 11:06:12	48.7
30	2021/02/26 11:06:15	49.3
31	2021/02/26 11:06:18	48.9
32	2021/02/26 11:06:21	50.1
33	2021/02/26 11:06:24	51.1
34	2021/02/26 11:06:27	51.0
35	2021/02/26 11:06:30	56.5
36	2021/02/26 11:06:33	63.6
37	2021/02/26 11:06:36	65.3
38	2021/02/26 11:06:39	65.0
39	2021/02/26 11:06:42	66.0
40	2021/02/26 11:06:45	69.6
41	2021/02/26 11:06:48	65.9
42	2021/02/26 11:06:51	63.1
43	2021/02/26 11:06:54	59.6
44	2021/02/26 11:06:57	66.3
45	2021/02/26 11:07:00	70.0
46	2021/02/26 11:07:03	64.3
47	2021/02/26 11:07:06	64.2
48	2021/02/26 11:07:09	64.7
49	2021/02/26 11:07:12	62.7
50	2021/02/26 11:07:15	67.8
51	2021/02/26 11:07:18	68.1
52	2021/02/26 11:07:21	67.0
53	2021/02/26 11:07:24	67.8
54	2021/02/26 11:07:27	60.2
55	2021/02/26 11:07:30	50.9
56	2021/02/26 11:07:33	48.9
57	2021/02/26 11:07:36	49.0
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60	2021/02/26 11:07:45	49.3
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62	2021/02/26 11:07:51	47.6
63	2021/02/26 11:07:54	66.4
64	2021/02/26 11:07:57	66.9
65	2021/02/26 11:08:00	65.9
66	2021/02/26 11:08:03	67.4
67	2021/02/26 11:08:06	68.3
68	2021/02/26 11:08:09	68.6
69	2021/02/26 11:08:12	60.6
70	2021/02/26 11:08:15	57.9
71	2021/02/26 11:08:18	62.4
72	2021/02/26 11:08:21	64.8
73	2021/02/26 11:08:24	65.4
74	2021/02/26 11:08:27	62.5
75	2021/02/26 11:08:30	62.4
76	2021/02/26 11:08:33	64.3
77	2021/02/26 11:08:36	72.1
78	2021/02/26 11:08:39	62.5
79	2021/02/26 11:08:42	69.1
80	2021/02/26 11:08:45	68.6
81	2021/02/26 11:08:48	66.0
82	2021/02/26 11:08:51	67.1
83	2021/02/26 11:08:54	68.5
84	2021/02/26 11:08:57	65.3

85	2021/02/26	11:09:00	66.1
86	2021/02/26	11:09:03	63.3
87	2021/02/26	11:09:06	63.3
88	2021/02/26	11:09:09	53.9
89	2021/02/26	11:09:12	48.0
90	2021/02/26	11:09:15	47.4
91	2021/02/26	11:09:18	48.2
92	2021/02/26	11:09:21	47.0
93	2021/02/26	11:09:24	49.4
94	2021/02/26	11:09:27	46.6
95	2021/02/26	11:09:30	46.4
96	2021/02/26	11:09:33	46.9
97	2021/02/26	11:09:36	47.3
98	2021/02/26	11:09:39	47.4
99	2021/02/26	11:09:42	48.2
100	2021/02/26	11:09:45	49.5
101	2021/02/26	11:09:48	51.5
102	2021/02/26	11:09:51	51.9
103	2021/02/26	11:09:54	60.2
104	2021/02/26	11:09:57	64.6
105	2021/02/26	11:10:00	65.3
106	2021/02/26	11:10:03	58.3
107	2021/02/26	11:10:06	63.6
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109	2021/02/26	11:10:12	67.4
110	2021/02/26	11:10:15	72.2
111	2021/02/26	11:10:18	74.0
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114	2021/02/26	11:10:27	67.7
115	2021/02/26	11:10:30	67.9
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120	2021/02/26	11:10:45	61.2
121	2021/02/26	11:10:48	60.3
122	2021/02/26	11:10:51	60.4
123	2021/02/26	11:10:54	60.6
124	2021/02/26	11:10:57	59.9
125	2021/02/26	11:11:00	58.3
126	2021/02/26	11:11:03	58.4
127	2021/02/26	11:11:06	63.9
128	2021/02/26	11:11:09	55.2
129	2021/02/26	11:11:12	58.7
130	2021/02/26	11:11:15	54.0
131	2021/02/26	11:11:18	49.0
132	2021/02/26	11:11:21	46.9
133	2021/02/26	11:11:24	47.1
134	2021/02/26	11:11:27	50.1
135	2021/02/26	11:11:30	53.4
136	2021/02/26	11:11:33	60.9
137	2021/02/26	11:11:36	62.6
138	2021/02/26	11:11:39	61.2
139	2021/02/26	11:11:42	62.3
140	2021/02/26	11:11:45	64.4
141	2021/02/26	11:11:48	62.7
142	2021/02/26	11:11:51	67.7
143	2021/02/26	11:11:54	72.9
144	2021/02/26	11:11:57	66.7
145	2021/02/26	11:12:00	65.5
146	2021/02/26	11:12:03	68.1
147	2021/02/26	11:12:06	67.4
148	2021/02/26	11:12:09	67.7
149	2021/02/26	11:12:12	71.3
150	2021/02/26	11:12:15	68.4
151	2021/02/26	11:12:18	69.3
152	2021/02/26	11:12:21	67.5
153	2021/02/26	11:12:24	65.6
154	2021/02/26	11:12:27	55.4
155	2021/02/26	11:12:30	48.8
156	2021/02/26	11:12:33	49.8
157	2021/02/26	11:12:36	48.8
158	2021/02/26	11:12:39	50.0
159	2021/02/26	11:12:42	52.1
160	2021/02/26	11:12:45	54.7
161	2021/02/26	11:12:48	58.0
162	2021/02/26	11:12:51	53.9
163	2021/02/26	11:12:54	53.0
164	2021/02/26	11:12:57	53.3
165	2021/02/26	11:13:00	50.4
166	2021/02/26	11:13:03	51.2
167	2021/02/26	11:13:06	54.4
168	2021/02/26	11:13:09	65.1
169	2021/02/26	11:13:12	64.6
170	2021/02/26	11:13:15	63.1
171	2021/02/26	11:13:18	61.5
172	2021/02/26	11:13:21	64.1
173	2021/02/26	11:13:24	67.4
174	2021/02/26	11:13:27	65.3
175	2021/02/26	11:13:30	68.8
176	2021/02/26	11:13:33	69.1
177	2021/02/26	11:13:36	69.1
178	2021/02/26	11:13:39	67.8
179	2021/02/26	11:13:42	69.3
180	2021/02/26	11:13:45	63.5
181	2021/02/26	11:13:48	68.2
182	2021/02/26	11:13:51	70.6

183	2021/02/26	11:13:54	65.9
184	2021/02/26	11:13:57	56.7
185	2021/02/26	11:14:00	54.4
186	2021/02/26	11:14:03	73.2
187	2021/02/26	11:14:06	67.8
188	2021/02/26	11:14:09	60.7
189	2021/02/26	11:14:12	52.7
190	2021/02/26	11:14:15	50.9
191	2021/02/26	11:14:18	62.7
192	2021/02/26	11:14:21	63.4
193	2021/02/26	11:14:24	55.2
194	2021/02/26	11:14:27	56.7
195	2021/02/26	11:14:30	53.2
196	2021/02/26	11:14:33	46.7
197	2021/02/26	11:14:36	46.1
198	2021/02/26	11:14:39	47.6
199	2021/02/26	11:14:42	51.5
200	2021/02/26	11:14:45	55.5
201	2021/02/26	11:14:48	65.2
202	2021/02/26	11:14:51	67.7
203	2021/02/26	11:14:54	64.6
204	2021/02/26	11:14:57	61.3
205	2021/02/26	11:15:00	61.8
206	2021/02/26	11:15:03	63.8
207	2021/02/26	11:15:06	68.4
208	2021/02/26	11:15:09	69.6
209	2021/02/26	11:15:12	78.8
210	2021/02/26	11:15:15	73.5
211	2021/02/26	11:15:18	68.8
212	2021/02/26	11:15:21	70.9
213	2021/02/26	11:15:24	67.2
214	2021/02/26	11:15:27	67.8
215	2021/02/26	11:15:30	60.0
216	2021/02/26	11:15:33	59.0
217	2021/02/26	11:15:36	68.6
218	2021/02/26	11:15:39	64.3
219	2021/02/26	11:15:42	56.3
220	2021/02/26	11:15:45	51.2
221	2021/02/26	11:15:48	48.3
222	2021/02/26	11:15:51	52.9
223	2021/02/26	11:15:54	54.4
224	2021/02/26	11:15:57	52.9
225	2021/02/26	11:16:00	60.5
226	2021/02/26	11:16:03	62.2
227	2021/02/26	11:16:06	65.0
228	2021/02/26	11:16:09	58.2
229	2021/02/26	11:16:12	50.8
230	2021/02/26	11:16:15	56.4
231	2021/02/26	11:16:18	65.5
232	2021/02/26	11:16:21	61.4
233	2021/02/26	11:16:24	59.3
234	2021/02/26	11:16:27	53.9
235	2021/02/26	11:16:30	59.2
236	2021/02/26	11:16:33	65.3
237	2021/02/26	11:16:36	63.9
238	2021/02/26	11:16:39	63.3
239	2021/02/26	11:16:42	65.5
240	2021/02/26	11:16:45	71.2
241	2021/02/26	11:16:48	63.1
242	2021/02/26	11:16:51	60.2
243	2021/02/26	11:16:54	57.3
244	2021/02/26	11:16:57	69.6
245	2021/02/26	11:17:00	73.2
246	2021/02/26	11:17:03	72.0
247	2021/02/26	11:17:06	70.3
248	2021/02/26	11:17:09	63.8
249	2021/02/26	11:17:12	70.4
250	2021/02/26	11:17:15	62.4
251	2021/02/26	11:17:18	72.2
252	2021/02/26	11:17:21	64.2
253	2021/02/26	11:17:24	58.7
254	2021/02/26	11:17:27	66.0
255	2021/02/26	11:17:30	62.2
256	2021/02/26	11:17:33	52.5
257	2021/02/26	11:17:36	52.4
258	2021/02/26	11:17:39	55.0
259	2021/02/26	11:17:42	53.0
260	2021/02/26	11:17:45	46.9
261	2021/02/26	11:17:48	45.4
262	2021/02/26	11:17:51	44.1
263	2021/02/26	11:17:54	43.0
264	2021/02/26	11:17:57	43.2
265	2021/02/26	11:18:00	45.0
266	2021/02/26	11:18:03	43.6
267	2021/02/26	11:18:06	45.2
268	2021/02/26	11:18:09	49.0
269	2021/02/26	11:18:12	57.0
270	2021/02/26	11:18:15	64.1
271	2021/02/26	11:18:18	60.8
272	2021/02/26	11:18:21	54.7
273	2021/02/26	11:18:24	55.0
274	2021/02/26	11:18:27	62.3
275	2021/02/26	11:18:30	67.8
276	2021/02/26	11:18:33	71.6
277	2021/02/26	11:18:36	71.2
278	2021/02/26	11:18:39	70.7
279	2021/02/26	11:18:42	70.9
280	2021/02/26	11:18:45	64.5

281	2021/02/26	11:18:48	59.4
282	2021/02/26	11:18:51	69.0
283	2021/02/26	11:18:54	66.8
284	2021/02/26	11:18:57	62.9
285	2021/02/26	11:19:00	54.1
286	2021/02/26	11:19:03	53.8
287	2021/02/26	11:19:06	67.2
288	2021/02/26	11:19:09	67.7
289	2021/02/26	11:19:12	64.9
290	2021/02/26	11:19:15	56.0
291	2021/02/26	11:19:18	52.1
292	2021/02/26	11:19:21	62.8
293	2021/02/26	11:19:24	65.5
294	2021/02/26	11:19:27	55.0
295	2021/02/26	11:19:30	47.9
296	2021/02/26	11:19:33	46.6
297	2021/02/26	11:19:36	50.2
298	2021/02/26	11:19:39	47.5
299	2021/02/26	11:19:42	52.4
300	2021/02/26	11:19:45	53.3

Freq Weight : A
Time Weight : SLOW
Level Range : 40-100
Max dB : 87.2 - 2021/02/26 11:51:00
Level Range : 40-100
SEL : 94.6
Leq : 65.0

No.s	Date Time	(dB)
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2	2021/02/26 11:39:51	54.7
3	2021/02/26 11:39:54	49.3
4	2021/02/26 11:39:57	46.0
5	2021/02/26 11:40:00	45.4
6	2021/02/26 11:40:03	45.4
7	2021/02/26 11:40:06	44.8
8	2021/02/26 11:40:09	43.6
9	2021/02/26 11:40:12	42.4
10	2021/02/26 11:40:15	50.1
11	2021/02/26 11:40:18	58.1
12	2021/02/26 11:40:21	57.1
13	2021/02/26 11:40:24	49.4
14	2021/02/26 11:40:27	51.7
15	2021/02/26 11:40:30	50.0
16	2021/02/26 11:40:33	48.8
17	2021/02/26 11:40:36	45.5
18	2021/02/26 11:40:39	45.9
19	2021/02/26 11:40:42	45.7
20	2021/02/26 11:40:45	47.4
21	2021/02/26 11:40:48	51.5
22	2021/02/26 11:40:51	47.6
23	2021/02/26 11:40:54	58.1
24	2021/02/26 11:40:57	66.8
25	2021/02/26 11:41:00	56.6
26	2021/02/26 11:41:03	50.1
27	2021/02/26 11:41:06	49.4
28	2021/02/26 11:41:09	48.8
29	2021/02/26 11:41:12	48.6
30	2021/02/26 11:41:15	48.8
31	2021/02/26 11:41:18	46.3
32	2021/02/26 11:41:21	47.1
33	2021/02/26 11:41:24	48.2
34	2021/02/26 11:41:27	51.1
35	2021/02/26 11:41:30	50.1
36	2021/02/26 11:41:33	50.4
37	2021/02/26 11:41:36	64.2
38	2021/02/26 11:41:39	65.6
39	2021/02/26 11:41:42	54.9
40	2021/02/26 11:41:45	48.8
41	2021/02/26 11:41:48	47.9
42	2021/02/26 11:41:51	47.9
43	2021/02/26 11:41:54	55.1
44	2021/02/26 11:41:57	63.6
45	2021/02/26 11:42:00	57.4
46	2021/02/26 11:42:03	55.3
47	2021/02/26 11:42:06	54.6
48	2021/02/26 11:42:09	54.6
49	2021/02/26 11:42:12	61.0
50	2021/02/26 11:42:15	60.4
51	2021/02/26 11:42:18	60.7
52	2021/02/26 11:42:21	59.0
53	2021/02/26 11:42:24	59.2
54	2021/02/26 11:42:27	64.7
55	2021/02/26 11:42:30	59.8
56	2021/02/26 11:42:33	55.3
57	2021/02/26 11:42:36	59.7
58	2021/02/26 11:42:39	60.1
59	2021/02/26 11:42:42	67.7
60	2021/02/26 11:42:45	64.3
61	2021/02/26 11:42:48	57.5
62	2021/02/26 11:42:51	66.0
63	2021/02/26 11:42:54	56.9
64	2021/02/26 11:42:57	51.6
65	2021/02/26 11:43:00	48.4
66	2021/02/26 11:43:03	49.7
67	2021/02/26 11:43:06	56.7
68	2021/02/26 11:43:09	65.6
69	2021/02/26 11:43:12	63.0
70	2021/02/26 11:43:15	61.2
71	2021/02/26 11:43:18	63.1
72	2021/02/26 11:43:21	55.0
73	2021/02/26 11:43:24	51.1
74	2021/02/26 11:43:27	51.1
75	2021/02/26 11:43:30	49.5
76	2021/02/26 11:43:33	48.2
77	2021/02/26 11:43:36	46.5
78	2021/02/26 11:43:39	46.5
79	2021/02/26 11:43:42	47.9
80	2021/02/26 11:43:45	44.3
81	2021/02/26 11:43:48	55.5
82	2021/02/26 11:43:51	63.7
83	2021/02/26 11:43:54	54.6
84	2021/02/26 11:43:57	51.2

85	2021/02/26	11:44:00	58.3
86	2021/02/26	11:44:03	62.8
87	2021/02/26	11:44:06	74.9
88	2021/02/26	11:44:09	74.4
89	2021/02/26	11:44:12	62.9
90	2021/02/26	11:44:15	54.4
91	2021/02/26	11:44:18	51.1
92	2021/02/26	11:44:21	58.1
93	2021/02/26	11:44:24	63.4
94	2021/02/26	11:44:27	58.9
95	2021/02/26	11:44:30	58.7
96	2021/02/26	11:44:33	50.2
97	2021/02/26	11:44:36	56.4
98	2021/02/26	11:44:39	58.4
99	2021/02/26	11:44:42	50.8
100	2021/02/26	11:44:45	54.2
101	2021/02/26	11:44:48	46.9
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103	2021/02/26	11:44:54	60.3
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105	2021/02/26	11:45:00	54.1
106	2021/02/26	11:45:03	52.3
107	2021/02/26	11:45:06	50.0
108	2021/02/26	11:45:09	51.0
109	2021/02/26	11:45:12	59.6
110	2021/02/26	11:45:15	68.4
111	2021/02/26	11:45:18	58.7
112	2021/02/26	11:45:21	51.4
113	2021/02/26	11:45:24	49.1
114	2021/02/26	11:45:27	54.3
115	2021/02/26	11:45:30	49.3
116	2021/02/26	11:45:33	53.3
117	2021/02/26	11:45:36	66.7
118	2021/02/26	11:45:39	56.8
119	2021/02/26	11:45:42	50.9
120	2021/02/26	11:45:45	52.4
121	2021/02/26	11:45:48	51.7
122	2021/02/26	11:45:51	52.2
123	2021/02/26	11:45:54	60.1
124	2021/02/26	11:45:57	62.3
125	2021/02/26	11:46:00	57.6
126	2021/02/26	11:46:03	56.8
127	2021/02/26	11:46:06	60.9
128	2021/02/26	11:46:09	61.1
129	2021/02/26	11:46:12	58.7
130	2021/02/26	11:46:15	56.4
131	2021/02/26	11:46:18	57.2
132	2021/02/26	11:46:21	54.4
133	2021/02/26	11:46:24	51.0
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135	2021/02/26	11:46:30	51.7
136	2021/02/26	11:46:33	53.4
137	2021/02/26	11:46:36	56.8
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139	2021/02/26	11:46:42	53.9
140	2021/02/26	11:46:45	50.0
141	2021/02/26	11:46:48	49.5
142	2021/02/26	11:46:51	49.3
143	2021/02/26	11:46:54	55.3
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147	2021/02/26	11:47:06	62.7
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155	2021/02/26	11:47:30	56.6
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157	2021/02/26	11:47:36	52.8
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159	2021/02/26	11:47:42	58.3
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161	2021/02/26	11:47:48	66.6
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167	2021/02/26	11:48:06	54.2
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169	2021/02/26	11:48:12	45.8
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173	2021/02/26	11:48:24	68.2
174	2021/02/26	11:48:27	63.0
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176	2021/02/26	11:48:33	58.9
177	2021/02/26	11:48:36	52.6
178	2021/02/26	11:48:39	53.0
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181	2021/02/26	11:48:48	46.7
182	2021/02/26	11:48:51	46.8

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185	2021/02/26	11:49:00	46.9
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187	2021/02/26	11:49:06	47.0
188	2021/02/26	11:49:09	47.6
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191	2021/02/26	11:49:18	47.2
192	2021/02/26	11:49:21	48.9
193	2021/02/26	11:49:24	55.2
194	2021/02/26	11:49:27	54.4
195	2021/02/26	11:49:30	63.6
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197	2021/02/26	11:49:36	67.5
198	2021/02/26	11:49:39	65.1
199	2021/02/26	11:49:42	65.8
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202	2021/02/26	11:49:51	69.7
203	2021/02/26	11:49:54	68.9
204	2021/02/26	11:49:57	73.0
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206	2021/02/26	11:50:03	70.1
207	2021/02/26	11:50:06	63.4
208	2021/02/26	11:50:09	66.2
209	2021/02/26	11:50:12	61.1
210	2021/02/26	11:50:15	54.8
211	2021/02/26	11:50:18	61.4
212	2021/02/26	11:50:21	57.7
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214	2021/02/26	11:50:27	57.2
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217	2021/02/26	11:50:36	60.4
218	2021/02/26	11:50:39	58.8
219	2021/02/26	11:50:42	58.0
220	2021/02/26	11:50:45	62.2
221	2021/02/26	11:50:48	64.6
222	2021/02/26	11:50:51	64.0
223	2021/02/26	11:50:54	73.7
224	2021/02/26	11:50:57	85.5
225	2021/02/26	11:51:00	79.5
226	2021/02/26	11:51:03	67.5
227	2021/02/26	11:51:06	67.3
228	2021/02/26	11:51:09	75.0
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230	2021/02/26	11:51:15	62.4
231	2021/02/26	11:51:18	54.4
232	2021/02/26	11:51:21	56.2
233	2021/02/26	11:51:24	67.0
234	2021/02/26	11:51:27	60.7
235	2021/02/26	11:51:30	66.3
236	2021/02/26	11:51:33	56.5
237	2021/02/26	11:51:36	55.3
238	2021/02/26	11:51:39	53.5
239	2021/02/26	11:51:42	51.6
240	2021/02/26	11:51:45	51.7
241	2021/02/26	11:51:48	58.3
242	2021/02/26	11:51:51	48.6
243	2021/02/26	11:51:54	44.5
244	2021/02/26	11:51:57	45.1
245	2021/02/26	11:52:00	42.5
246	2021/02/26	11:52:03	41.9
247	2021/02/26	11:52:06	41.0
248	2021/02/26	11:52:09	43.3
249	2021/02/26	11:52:12	44.6
250	2021/02/26	11:52:15	54.4
251	2021/02/26	11:52:18	64.4
252	2021/02/26	11:52:21	57.3
253	2021/02/26	11:52:24	57.0
254	2021/02/26	11:52:27	50.9
255	2021/02/26	11:52:30	50.6
256	2021/02/26	11:52:33	56.5
257	2021/02/26	11:52:36	63.8
258	2021/02/26	11:52:39	71.9
259	2021/02/26	11:52:42	69.2
260	2021/02/26	11:52:45	58.7
261	2021/02/26	11:52:48	55.8
262	2021/02/26	11:52:51	68.6
263	2021/02/26	11:52:54	60.1
264	2021/02/26	11:52:57	50.4
265	2021/02/26	11:53:00	44.1
266	2021/02/26	11:53:03	42.8
267	2021/02/26	11:53:06	43.6
268	2021/02/26	11:53:09	46.9
269	2021/02/26	11:53:12	45.2
270	2021/02/26	11:53:15	51.0
271	2021/02/26	11:53:18	64.6
272	2021/02/26	11:53:21	61.1
273	2021/02/26	11:53:24	61.2
274	2021/02/26	11:53:27	66.7
275	2021/02/26	11:53:30	55.9
276	2021/02/26	11:53:33	48.6
277	2021/02/26	11:53:36	54.3
278	2021/02/26	11:53:39	65.0
279	2021/02/26	11:53:42	68.3
280	2021/02/26	11:53:45	61.4

281	2021/02/26	11:53:48	54.9
282	2021/02/26	11:53:51	51.4
283	2021/02/26	11:53:54	51.6
284	2021/02/26	11:53:57	49.3
285	2021/02/26	11:54:00	46.6
286	2021/02/26	11:54:03	45.8
287	2021/02/26	11:54:06	46.5
288	2021/02/26	11:54:09	42.3
289	2021/02/26	11:54:12	43.1
290	2021/02/26	11:54:15	43.5
291	2021/02/26	11:54:18	44.8
292	2021/02/26	11:54:21	53.6
293	2021/02/26	11:54:24	64.0
294	2021/02/26	11:54:27	55.3
295	2021/02/26	11:54:30	57.7
296	2021/02/26	11:54:33	63.0
297	2021/02/26	11:54:36	55.3
298	2021/02/26	11:54:39	59.1
299	2021/02/26	11:54:42	60.4
300	2021/02/26	11:54:45	54.4

Freq Weight : A
Time Weight : SLOW
Level Range : 40-100
Max dB : 80.5 - 2021/02/26 12:21:33
Level Range : 40-100
SEL : 87.0
Leq : 57.5

No.s	Date Time	(dB)
1	2021/02/26 12:06:44	42.2
2	2021/02/26 12:06:47	42.8
3	2021/02/26 12:06:50	45.3
4	2021/02/26 12:06:53	57.8
5	2021/02/26 12:06:56	55.9
6	2021/02/26 12:06:59	54.0
7	2021/02/26 12:07:02	47.8
8	2021/02/26 12:07:05	48.5
9	2021/02/26 12:07:08	52.8
10	2021/02/26 12:07:11	42.8
11	2021/02/26 12:07:14	46.5
12	2021/02/26 12:07:17	40.5
13	2021/02/26 12:07:20	39.2
14	2021/02/26 12:07:23	39.5
15	2021/02/26 12:07:26	40.8
16	2021/02/26 12:07:29	41.0
17	2021/02/26 12:07:32	40.9
18	2021/02/26 12:07:35	48.3
19	2021/02/26 12:07:38	50.3
20	2021/02/26 12:07:41	45.7
21	2021/02/26 12:07:44	45.5
22	2021/02/26 12:07:47	61.8
23	2021/02/26 12:07:50	55.5
24	2021/02/26 12:07:53	52.5
25	2021/02/26 12:07:56	48.7
26	2021/02/26 12:07:59	45.2
27	2021/02/26 12:08:02	43.7
28	2021/02/26 12:08:05	44.9
29	2021/02/26 12:08:08	44.4
30	2021/02/26 12:08:11	43.0
31	2021/02/26 12:08:14	41.8
32	2021/02/26 12:08:17	42.6
33	2021/02/26 12:08:20	43.9
34	2021/02/26 12:08:23	43.9
35	2021/02/26 12:08:26	44.0
36	2021/02/26 12:08:29	46.2
37	2021/02/26 12:08:32	46.9
38	2021/02/26 12:08:35	49.8
39	2021/02/26 12:08:38	46.5
40	2021/02/26 12:08:41	43.7
41	2021/02/26 12:08:44	44.0
42	2021/02/26 12:08:47	42.8
43	2021/02/26 12:08:50	42.2
44	2021/02/26 12:08:53	43.6
45	2021/02/26 12:08:56	44.2
46	2021/02/26 12:08:59	43.4
47	2021/02/26 12:09:02	45.9
48	2021/02/26 12:09:05	50.3
49	2021/02/26 12:09:08	47.8
50	2021/02/26 12:09:11	49.7
51	2021/02/26 12:09:14	56.3
52	2021/02/26 12:09:17	58.4
53	2021/02/26 12:09:20	60.6
54	2021/02/26 12:09:23	62.0
55	2021/02/26 12:09:26	60.4
56	2021/02/26 12:09:29	62.3
57	2021/02/26 12:09:32	58.1
58	2021/02/26 12:09:35	56.4
59	2021/02/26 12:09:38	55.7
60	2021/02/26 12:09:41	50.3
61	2021/02/26 12:09:44	49.0
62	2021/02/26 12:09:47	48.1
63	2021/02/26 12:09:50	48.3
64	2021/02/26 12:09:53	47.1
65	2021/02/26 12:09:56	45.2
66	2021/02/26 12:09:59	46.2
67	2021/02/26 12:10:02	44.2
68	2021/02/26 12:10:05	44.1
69	2021/02/26 12:10:08	46.6
70	2021/02/26 12:10:11	43.0
71	2021/02/26 12:10:14	43.9
72	2021/02/26 12:10:17	41.6
73	2021/02/26 12:10:20	41.1
74	2021/02/26 12:10:23	40.2
75	2021/02/26 12:10:26	40.5
76	2021/02/26 12:10:29	39.5
77	2021/02/26 12:10:32	40.4
78	2021/02/26 12:10:35	40.0
79	2021/02/26 12:10:38	48.5
80	2021/02/26 12:10:41	42.9
81	2021/02/26 12:10:44	43.6
82	2021/02/26 12:10:47	41.4
83	2021/02/26 12:10:50	41.0
84	2021/02/26 12:10:53	46.2

85	2021/02/26	12:10:56	53.1
86	2021/02/26	12:10:59	59.2
87	2021/02/26	12:11:02	51.1
88	2021/02/26	12:11:05	44.0
89	2021/02/26	12:11:08	45.9
90	2021/02/26	12:11:11	43.3
91	2021/02/26	12:11:14	43.6
92	2021/02/26	12:11:17	43.3
93	2021/02/26	12:11:20	41.1
94	2021/02/26	12:11:23	40.6
95	2021/02/26	12:11:26	40.3
96	2021/02/26	12:11:29	42.3
97	2021/02/26	12:11:32	39.8
98	2021/02/26	12:11:35	40.8
99	2021/02/26	12:11:38	42.0
100	2021/02/26	12:11:41	40.6
101	2021/02/26	12:11:44	41.2
102	2021/02/26	12:11:47	39.6
103	2021/02/26	12:11:50	40.4
104	2021/02/26	12:11:53	40.6
105	2021/02/26	12:11:56	39.9
106	2021/02/26	12:11:59	40.3
107	2021/02/26	12:12:02	40.9
108	2021/02/26	12:12:05	42.4
109	2021/02/26	12:12:08	42.3
110	2021/02/26	12:12:11	43.1
111	2021/02/26	12:12:14	41.8
112	2021/02/26	12:12:17	43.1
113	2021/02/26	12:12:20	41.8
114	2021/02/26	12:12:23	41.5
115	2021/02/26	12:12:26	42.4
116	2021/02/26	12:12:29	43.1
117	2021/02/26	12:12:32	41.4
118	2021/02/26	12:12:35	42.0
119	2021/02/26	12:12:38	41.5
120	2021/02/26	12:12:41	44.5
121	2021/02/26	12:12:44	44.2
122	2021/02/26	12:12:47	45.9
123	2021/02/26	12:12:50	44.0
124	2021/02/26	12:12:53	43.6
125	2021/02/26	12:12:56	43.5
126	2021/02/26	12:12:59	48.4
127	2021/02/26	12:13:02	47.2
128	2021/02/26	12:13:05	45.5
129	2021/02/26	12:13:08	45.7
130	2021/02/26	12:13:11	47.8
131	2021/02/26	12:13:14	52.6
132	2021/02/26	12:13:17	51.6
133	2021/02/26	12:13:20	53.7
134	2021/02/26	12:13:23	55.9
135	2021/02/26	12:13:26	52.5
136	2021/02/26	12:13:29	52.8
137	2021/02/26	12:13:32	59.0
138	2021/02/26	12:13:35	55.0
139	2021/02/26	12:13:38	54.7
140	2021/02/26	12:13:41	49.2
141	2021/02/26	12:13:44	47.2
142	2021/02/26	12:13:47	51.1
143	2021/02/26	12:13:50	47.4
144	2021/02/26	12:13:53	47.0
145	2021/02/26	12:13:56	47.4
146	2021/02/26	12:13:59	47.6
147	2021/02/26	12:14:02	47.5
148	2021/02/26	12:14:05	54.1
149	2021/02/26	12:14:08	68.2
150	2021/02/26	12:14:11	62.4
151	2021/02/26	12:14:14	70.2
152	2021/02/26	12:14:17	67.7
153	2021/02/26	12:14:20	58.2
154	2021/02/26	12:14:23	58.0
155	2021/02/26	12:14:26	64.6
156	2021/02/26	12:14:29	58.3
157	2021/02/26	12:14:32	50.0
158	2021/02/26	12:14:35	49.2
159	2021/02/26	12:14:38	44.3
160	2021/02/26	12:14:41	43.2
161	2021/02/26	12:14:44	41.0
162	2021/02/26	12:14:47	39.9
163	2021/02/26	12:14:50	40.0
164	2021/02/26	12:14:53	39.1
165	2021/02/26	12:14:56	39.3
166	2021/02/26	12:14:59	40.6
167	2021/02/26	12:15:02	39.7
168	2021/02/26	12:15:05	40.5
169	2021/02/26	12:15:08	40.8
170	2021/02/26	12:15:11	40.6
171	2021/02/26	12:15:14	40.8
172	2021/02/26	12:15:17	40.4
173	2021/02/26	12:15:20	44.5
174	2021/02/26	12:15:23	52.8
175	2021/02/26	12:15:26	62.8
176	2021/02/26	12:15:29	52.2
177	2021/02/26	12:15:32	43.3
178	2021/02/26	12:15:35	43.3
179	2021/02/26	12:15:38	42.4
180	2021/02/26	12:15:41	40.3
181	2021/02/26	12:15:44	42.0
182	2021/02/26	12:15:47	42.3

183	2021/02/26	12:15:50	42.4
184	2021/02/26	12:15:53	44.5
185	2021/02/26	12:15:56	42.3
186	2021/02/26	12:15:59	40.5
187	2021/02/26	12:16:02	43.6
188	2021/02/26	12:16:05	41.4
189	2021/02/26	12:16:08	39.5
190	2021/02/26	12:16:11	41.3
191	2021/02/26	12:16:14	40.1
192	2021/02/26	12:16:17	39.4
193	2021/02/26	12:16:20	40.5
194	2021/02/26	12:16:23	40.7
195	2021/02/26	12:16:26	41.7
196	2021/02/26	12:16:29	40.9
197	2021/02/26	12:16:32	41.5
198	2021/02/26	12:16:35	41.2
199	2021/02/26	12:16:38	40.0
200	2021/02/26	12:16:41	40.3
201	2021/02/26	12:16:44	39.9
202	2021/02/26	12:16:47	40.0
203	2021/02/26	12:16:50	39.6
204	2021/02/26	12:16:53	39.8
205	2021/02/26	12:16:56	40.2
206	2021/02/26	12:16:59	40.3
207	2021/02/26	12:17:02	40.2
208	2021/02/26	12:17:05	40.2
209	2021/02/26	12:17:08	40.3
210	2021/02/26	12:17:11	40.0
211	2021/02/26	12:17:14	39.8
212	2021/02/26	12:17:17	39.9
213	2021/02/26	12:17:20	39.9
214	2021/02/26	12:17:23	46.5
215	2021/02/26	12:17:26	50.6
216	2021/02/26	12:17:29	45.3
217	2021/02/26	12:17:32	48.8
218	2021/02/26	12:17:35	47.6
219	2021/02/26	12:17:38	50.4
220	2021/02/26	12:17:41	44.1
221	2021/02/26	12:17:44	48.5
222	2021/02/26	12:17:47	52.0
223	2021/02/26	12:17:50	60.8
224	2021/02/26	12:17:53	50.6
225	2021/02/26	12:17:56	49.0
226	2021/02/26	12:17:59	45.7
227	2021/02/26	12:18:02	46.9
228	2021/02/26	12:18:05	49.3
229	2021/02/26	12:18:08	49.6
230	2021/02/26	12:18:11	43.2
231	2021/02/26	12:18:14	41.9
232	2021/02/26	12:18:17	42.3
233	2021/02/26	12:18:20	44.5
234	2021/02/26	12:18:23	43.7
235	2021/02/26	12:18:26	42.7
236	2021/02/26	12:18:29	42.2
237	2021/02/26	12:18:32	43.4
238	2021/02/26	12:18:35	42.7
239	2021/02/26	12:18:38	41.8
240	2021/02/26	12:18:41	49.5
241	2021/02/26	12:18:44	46.1
242	2021/02/26	12:18:47	43.1
243	2021/02/26	12:18:50	41.5
244	2021/02/26	12:18:53	41.7
245	2021/02/26	12:18:56	43.8
246	2021/02/26	12:18:59	45.2
247	2021/02/26	12:19:02	42.7
248	2021/02/26	12:19:05	47.6
249	2021/02/26	12:19:08	48.2
250	2021/02/26	12:19:11	44.8
251	2021/02/26	12:19:14	49.3
252	2021/02/26	12:19:17	45.6
253	2021/02/26	12:19:20	48.3
254	2021/02/26	12:19:23	45.6
255	2021/02/26	12:19:26	42.5
256	2021/02/26	12:19:29	42.1
257	2021/02/26	12:19:32	42.6
258	2021/02/26	12:19:35	45.5
259	2021/02/26	12:19:38	42.4
260	2021/02/26	12:19:41	43.3
261	2021/02/26	12:19:44	43.6
262	2021/02/26	12:19:47	45.1
263	2021/02/26	12:19:50	47.4
264	2021/02/26	12:19:53	46.7
265	2021/02/26	12:19:56	42.8
266	2021/02/26	12:19:59	42.1
267	2021/02/26	12:20:02	46.2
268	2021/02/26	12:20:05	50.1
269	2021/02/26	12:20:08	50.5
270	2021/02/26	12:20:11	48.6
271	2021/02/26	12:20:14	48.0
272	2021/02/26	12:20:17	49.9
273	2021/02/26	12:20:20	48.4
274	2021/02/26	12:20:23	47.3
275	2021/02/26	12:20:26	55.4
276	2021/02/26	12:20:29	59.2
277	2021/02/26	12:20:32	62.7
278	2021/02/26	12:20:35	54.7
279	2021/02/26	12:20:38	53.0
280	2021/02/26	12:20:41	48.0

281	2021/02/26	12:20:44	46.8
282	2021/02/26	12:20:47	49.5
283	2021/02/26	12:20:50	46.9
284	2021/02/26	12:20:53	47.5
285	2021/02/26	12:20:56	53.2
286	2021/02/26	12:20:59	48.3
287	2021/02/26	12:21:02	46.7
288	2021/02/26	12:21:05	45.6
289	2021/02/26	12:21:08	44.3
290	2021/02/26	12:21:11	45.6
291	2021/02/26	12:21:14	45.5
292	2021/02/26	12:21:17	47.9
293	2021/02/26	12:21:20	53.7
294	2021/02/26	12:21:23	59.4
295	2021/02/26	12:21:26	63.6
296	2021/02/26	12:21:29	71.1
297	2021/02/26	12:21:32	77.7
298	2021/02/26	12:21:35	68.3
299	2021/02/26	12:21:38	65.6
300	2021/02/26	12:21:41	64.4

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021
Case Description: BART Stations project - architectural coating

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Description	Impact	Equipment				
		Spec Usage Device (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Compressor (air)	No	40	77.7	100.0	0.0	

Equipment	Lmax	Leq	Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Calculated (dBA)	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Compressor (air)	71.6	67.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A											
Total	71.6	67.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A												

**** Receptor #2 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Residences on Tremont St.	Residential	62.0	57.0	52.0

Description	Impact	Equipment				
		Spec Usage Device (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Compressor (air)	No	40	77.7	150.0	0.0	

Equipment	Lmax	Leq	Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Calculated (dBA)	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night

		Calculated (dBA)		Day	Evening		Night			Day	Evening		Night
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax	Leq												

--													
Compressor (air)		68.1	64.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A												
Total		68.1	64.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													

**** Receptor #3 ****

		Baselines (dBA)			
Description		Land Use	Daytime	Evening	Night
-----		-----	-----	-----	-----
Residences next to N Bkly BART		Residential	65.0	60.0	55.0

		Equipment				
		Spec	Actual	Receptor	Estimated	
Description		Impact Usage	Lmax	Lmax	Distance	Shielding
		Device (%)	(dBA)	(dBA)	(feet)	(dBA)
-----		-----	-----	-----	-----	-----
Compressor (air)		No	40	77.7	400.0	0.0

		Results													

		Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
		Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
		-----		-----		-----		-----		-----		-----		-----	
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax	Leq														
		-----		-----		-----		-----		-----		-----		-----	
--															
Compressor (air)		59.6	55.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A														
Total		59.6	55.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/18/2021

Case Description: BART Stations project - building construction with augur drilling

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Description	Impact	Equipment				
		Spec Usage Device	Actual (%)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Auger Drill Rig	No	20		84.4	100.0	0.0
Front End Loader	No	40		79.1	100.0	0.0
Backhoe	No	40		77.6	100.0	0.0
Tractor	No	40	84.0		100.0	0.0
Crane	No	16		80.6	100.0	0.0
All Other Equipment > 5 HP	No		50	85.0	100.0	0.0
All Other Equipment > 5 HP	No		50	85.0	100.0	0.0
All Other Equipment > 5 HP	No		50	85.0	100.0	0.0
Generator	No	50		80.6	100.0	0.0
Welder / Torch	No	40		74.0	100.0	0.0

Equipment Lmax Leq	Results						Noise Limits (dBA)						Noise Limit Exceedance (dBA)			
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night			
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Auger Drill Rig	78.3	71.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	78.0	74.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	74.5	66.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

All Other Equipment > 5 HP	79.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A N/A													
Generator	74.6	71.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Welder / Torch	68.0	64.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A													
Total	79.0	82.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													

***** Receptor #2 *****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
-----	-----	-----	-----	-----
Residences on Tremont St.	Residential	62.0	57.0	52.0

Description	Equipment					
	Impact	Spec Usage	Actual Lmax	Receptor Lmax	Estimated Distance	Shielding
-----	-----	-----	-----	-----	-----	-----
Auger Drill Rig	No	20	84.4	150.0	0.0	
Front End Loader	No	40	79.1	150.0	0.0	
Backhoe	No	40	77.6	150.0	0.0	
Tractor	No	40	84.0	150.0	0.0	
Crane	No	16	80.6	150.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	150.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	150.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	150.0	0.0	
Generator	No	50	80.6	150.0	0.0	
Welder / Torch	No	40	74.0	150.0	0.0	

Equipment	Results											
	Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	Calculated (dBA)		Day		Evening		Night		Day		Evening	
	-----		-----		-----		-----		-----		-----	
Lmax Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
--												
Auger Drill Rig	74.8	67.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A												
Front End Loader	69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A												
Backhoe	68.0	64.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A												
Tractor	74.5	70.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A												
Crane	71.0	63.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A												
All Other Equipment > 5 HP	75.5	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A	N/A	N/A												
All Other Equipment	> 5 HP	75.5	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A												
All Other Equipment	> 5 HP	75.5	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A												
Generator		71.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Welder / Torch		64.5	60.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A													
	Total	75.5	79.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														

***** Receptor #3 *****

Description	Baselines (dBA)													
	Land Use		Daytime		Evening		Night							
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Residences next to N Bkly BART	Residential		65.0		60.0		55.0							
	Equipment													
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Description	Impact	Spec Device	Usage (%)	Actual		Receptor		Estimated		Shielding				
				Lmax (dBA)	Lmax (dBA)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Distance (feet)	Shielding (dBA)	Shielding (dBA)	Shielding (dBA)	Shielding (dBA)	
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Auger Drill Rig	No	20		84.4		400.0		0.0						
Front End Loader	No	40		79.1		400.0		0.0						
Backhoe	No	40		77.6		400.0		0.0						
Tractor	No	40	84.0			400.0		0.0						
Crane	No	16		80.6		400.0		0.0						
All Other Equipment > 5 HP	No	50		85.0		400.0		0.0						
All Other Equipment > 5 HP	No	50		85.0		400.0		0.0						
All Other Equipment > 5 HP	No	50		85.0		400.0		0.0						
Generator	No	50		80.6		400.0		0.0						
Welder / Torch	No	40		74.0		400.0		0.0						
	Results													
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Equipment	Lmax	Leq	Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			-----		-----		-----		-----		-----		-----	
			Calculated (dBA)		Day	Evening	Night	Day	Evening	Night				
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Auger Drill Rig	66.3	59.3												
N/A N/A														
Front End Loader	61.0	57.1												
N/A N/A														
Backhoe	59.5	55.5												
N/A														
Tractor	65.9	62.0												
N/A														

Crane		62.5	54.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
All Other Equipment	> 5 HP	66.9	63.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A												
All Other Equipment	> 5 HP	66.9	63.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A												
All Other Equipment	> 5 HP	66.9	63.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A												
Generator		62.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Welder / Torch		55.9	52.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A													
	Total	66.9	70.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021
Case Description: BART Stations project - demolition

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Description	Equipment				
	Impact	Spec	Actual	Receptor	Estimated
	Usage	Lmax	Lmax	Distance	Shielding
Device	(%)	(dBA)	(dBA)	(feet)	(dBA)
Concrete Saw	No	20	89.6	100.0	0.0
Excavator	No	40	80.7	100.0	0.0
Excavator	No	40	80.7	100.0	0.0
Excavator	No	40	80.7	100.0	0.0
Dozer	No	40	81.7	100.0	0.0
Dozer	No	40	81.7	100.0	0.0

Equipment	Lmax	Leq	Results						Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Calculated (dBA)		Day		Evening		Night		Day		Evening		Night		Lmax	Leq	Lmax	Leq
			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq				
			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq				
Concrete Saw			83.6	76.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																				
Excavator			74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																				
Excavator			74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																				
Excavator			74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																				
Dozer			75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																				
Dozer			75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																				
Total			83.6	80.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																				

**** Receptor #2 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night

Residences on Tremont St. Residential 62.0 57.0 52.0

Equipment

Spec Actual Receptor Estimated					
Impact Usage Lmax Lmax Distance Shielding					
Description	Device	(%)	(dBA)	(dBA)	(feet) (dBA)

Concrete Saw	No	20		89.6	150.0 0.0
Excavator	No	40		80.7	150.0 0.0
Excavator	No	40		80.7	150.0 0.0
Excavator	No	40		80.7	150.0 0.0
Dozer	No	40		81.7	150.0 0.0
Dozer	No	40		81.7	150.0 0.0

Results

Noise Limits (dBA)							Noise Limit Exceedance (dBA)						
-----							-----						
Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
-----		-----		-----		-----		-----		-----		-----	
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax Leq													

Concrete Saw		80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Excavator		71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Excavator		71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Excavator		71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Dozer		72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Dozer		72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Total		80.0	76.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													

**** Receptor #3 ****

Baselines (dBA)					
Description Land Use Daytime Evening Night					

Residences next to N Bkly BART	Residential		65.0	60.0	55.0

Equipment

Spec Actual Receptor Estimated					
Impact Usage Lmax Lmax Distance Shielding					
Description	Device	(%)	(dBA)	(dBA)	(feet) (dBA)

Concrete Saw	No	20		89.6	400.0 0.0

Excavator	No	40	80.7	400.0	0.0
Excavator	No	40	80.7	400.0	0.0
Excavator	No	40	80.7	400.0	0.0
Dozer	No	40	81.7	400.0	0.0
Dozer	No	40	81.7	400.0	0.0

		Results													
		Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
		Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax	Leq														
Concrete Saw		71.5	64.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Excavator		62.6	58.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Excavator		62.6	58.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Excavator		62.6	58.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Dozer		63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Dozer		63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
	Total	71.5	68.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021

Case Description: BART Stations project - grading

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Description	Impact	Equipment				
		Device	Usage (%)	Spec Lmax (dBA)	Actual Receptor Lmax (dBA)	Estimated Distance Shielding (dBA)
Excavator	No	40		80.7	100.0	0.0
Excavator	No	40		80.7	100.0	0.0
Dozer	No	40		81.7	100.0	0.0
Front End Loader	No	40		79.1	100.0	0.0
Backhoe	No	40		77.6	100.0	0.0
Grader	No	40	85.0		100.0	0.0
Scraper	No	40		83.6	100.0	0.0
Scraper	No	40		83.6	100.0	0.0

		Results													
		Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
		Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Equipment															
Lmax	Leq														
Excavator		74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Excavator		74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Dozer		75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Front End Loader		73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A														
Backhoe		71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Grader		79.0	75.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Scraper		77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Scraper		77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Total		79.0	81.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A

***** Receptor #2 *****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Residences on Tremont St.	Residential	62.0	57.0	52.0

Equipment						
Description	Impact Device	Usage (%)	Spec	Actual	Receptor	Estimated
			Lmax	Lmax	Distance	Shielding
			(dBA)	(dBA)	(feet)	(dBA)
Excavator	No	40		80.7	150.0	0.0
Excavator	No	40		80.7	150.0	0.0
Dozer	No	40		81.7	150.0	0.0
Front End Loader	No	40		79.1	150.0	0.0
Backhoe	No	40		77.6	150.0	0.0
Grader	No	40	85.0		150.0	0.0
Scraper	No	40		83.6	150.0	0.0
Scraper	No	40		83.6	150.0	0.0

		Results													
		Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
		Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax	Leq														
Excavator		71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Excavator		71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Dozer		72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Front End Loader		69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A														
Backhoe		68.0	64.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Grader		75.5	71.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Scraper		74.0	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Scraper		74.0	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
	Total	75.5	77.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															

***** Receptor #3 *****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Residences next to N Bkly BART	Residential	65.0	60.0	55.0

Description	Equipment				
	Impact Device	Spec	Actual	Receptor	Estimated
		Usage (%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)
Excavator	No	40	80.7	400.0	0.0
Excavator	No	40	80.7	400.0	0.0
Dozer	No	40	81.7	400.0	0.0
Front End Loader	No	40	79.1	400.0	0.0
Backhoe	No	40	77.6	400.0	0.0
Grader	No	40	85.0	400.0	0.0
Scraper	No	40	83.6	400.0	0.0
Scraper	No	40	83.6	400.0	0.0

[illegible]

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021
Case Description: BART Stations project - paving

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Description	Equipment					
	Impact	Spec Usage	Actual Lmax	Receptor Lmax	Estimated Distance	Shielding
	Device	(%)	(dBA)	(dBA)	(feet)	(dBA)
Paver	No	50	77.2	100.0	0.0	
Paver	No	50	77.2	100.0	0.0	
Roller	No	20	80.0	100.0	0.0	
Roller	No	20	80.0	100.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	100.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	100.0	0.0	

			Results											

			Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Calculated (dBA)		Day		Evening		Night		Day		Evening	
Equipment			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax Leq														
-----			-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
--														
Paver			71.2	68.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Paver			71.2	68.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Roller			74.0	67.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Roller			74.0	67.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
All Other Equipment > 5 HP			79.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A N/A														
All Other Equipment > 5 HP			79.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A N/A														
Total			79.0	80.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														

**** Receptor #2 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
-----	-----	-----	-----	-----
Residences on Tremont St.	Residential	62.0	57.0	52.0

Equipment						

Description	Spec		Actual		Receptor	
	Impact	Usage	Lmax	Lmax	Distance	Estimated
-----	Device	(%)	(dBA)	(dBA)	(feet)	Shielding (dBA)
-----	-----	-----	-----	-----	-----	-----
Paver	No	50	77.2	150.0	0.0	
Paver	No	50	77.2	150.0	0.0	
Roller	No	20	80.0	150.0	0.0	
Roller	No	20	80.0	150.0	0.0	
All Other Equipment > 5 HP		No	50	85.0	150.0	0.0
All Other Equipment > 5 HP		No	50	85.0	150.0	0.0

			Results													
			Noise Limits (dBA)					Noise Limit Exceedance (dBA)								
			Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Equipment																
Lmax																
Leq																
--																
Paver			67.7	64.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																
Paver			67.7	64.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																
Roller			70.5	63.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																
Roller			70.5	63.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																
All Other Equipment > 5 HP			75.5	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A N/A																
All Other Equipment > 5 HP			75.5	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A N/A																
Total			75.5	76.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																

***** Receptor #3 *****

Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night	
-----	-----	-----	-----	-----	
Residences next to N Bkly BART	Residential	65.0	60.0	55.0	

Equipment						

Description	Spec		Actual		Receptor	
	Impact	Usage	Lmax	Lmax	Distance	Estimated
-----	Device	(%)	(dBA)	(dBA)	(feet)	Shielding (dBA)

Paver	No	50	77.2	400.0	0.0	
Paver	No	50	77.2	400.0	0.0	
Roller	No	20	80.0	400.0	0.0	
Roller	No	20	80.0	400.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	400.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	400.0	0.0	

Results

			Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
			Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq		
Equipment	Lmax	Leq														

--																
Paver			59.2	56.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A																
Paver			59.2	56.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A																
Roller			61.9	54.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A																
Roller			61.9	54.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A																
All Other Equipment	> 5 HP		66.9	63.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A														
All Other Equipment	> 5 HP		66.9	63.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A														
	Total		66.9	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A																

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021
Case Description: BART Stations project - site preparation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Description	Impact	Equipment				
		Device	Usage (%)	Spec Lmax (dBA)	Actual Receptor Lmax (dBA)	Estimated Distance Shielding (dBA)
Dozer	No	40		81.7	100.0	0.0
Dozer	No	40		81.7	100.0	0.0
Dozer	No	40		81.7	100.0	0.0
Front End Loader	No	40		79.1	100.0	0.0
Front End Loader	No	40		79.1	100.0	0.0
Backhoe	No	40		77.6	100.0	0.0
Tractor	No	40		84.0	100.0	0.0

		Results													
		Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
		Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax	Leq														
Dozer		75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Dozer		75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Dozer		75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Front End Loader		73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A														
Front End Loader		73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A														
Backhoe		71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Tractor		78.0	74.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
	Total	78.0	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															

**** Receptor #2 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Residences on Tremont St.	Residential	62.0	57.0	52.0

Description	Equipment					
	Impact Device	Spec Usage (%)	Actual		Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Dozer	No	40	81.7	150.0	0.0	
Dozer	No	40	81.7	150.0	0.0	
Dozer	No	40	81.7	150.0	0.0	
Front End Loader	No	40	79.1	150.0	0.0	
Front End Loader	No	40	79.1	150.0	0.0	
Backhoe	No	40	77.6	150.0	0.0	
Tractor	No	40	84.0	150.0	0.0	

[illegible]

**** Receptor #3 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Residences next to N Bkly BART	Residential	65.0	60.0	55.0

Equipment

Validation of TNM for Proposed Project

To validate the traffic noise model in TNM Version 2.5, modeled existing noise levels during weekday afternoon peak hours at several receiver locations were compared with measured noise levels at those locations. Modeled noise levels on Delaware Street and Martin Luther King Jr. Way were based on observed traffic counts during 15-minute noise measurements (multiplied by four to produce hourly traffic volumes). Traffic volumes published by Caltrans and the City for other modeled roadways, including Adeline Street, Ashby Avenue, and Sacramento Street, were cut by 30 percent to account for temporarily reduced traffic levels during the COVID-19 pandemic. This reduction factor is consistent with data by the traffic analytics firm INRIX. Since June 2020, INRIX documented that vehicle miles traveled in the Bay Area has ranged from approximately 60 to 80 percent of normal levels (Savidge 2021).

A close correspondence between measured ambient noise levels and modeled traffic noise levels at a given location is expected when motor vehicles are the primary noise source during the on-site measurement. Table 1 compares measured and modeled noise levels.

Table 1 Comparison Between Measured Ambient Noise and Modeled Traffic Noise Levels

No.	Location ¹	Existing Noise Level (dBA L _{eq})		Difference in Noise Level (2 minus 1)
		Measured Ambient Noise (1)	Modeled Traffic Noise (2)	
1	Woolsey Street south of Ed Roberts Campus parking lot	53.3	55.9	+2.6
2	Tremont Street northeast of Ed Roberts Campus parking lot	61.8	59.8	-2.0
3	Martin Luther King Jr. Way west of Ashby BART Station parking lot	65.4	67.6	+2.2
4	Delaware Street south of North Berkeley BART Station	65.0	66.1	+1.1

¹ Noise measurement locations are shown in Figures 4.8-1 and 4.8-2 in the EIR.

Source: Field measurements using ANSI Type II Integrating sound level meter. TNM 2004. See Appendix E for model outputs.

As shown in Table 1, the difference between measured and modeled noise levels ranges from 1.1 to 2.6 dBA L_{eq} at noise measurement locations 1, 2, 3, and 4. This is a relatively close correspondence between measured and modeled noise. Although modeled noise levels are generally higher, this results in a more conservative traffic noise analysis because the FTA's criteria for increases in traffic noise are more stringent when existing traffic noise is louder. Therefore, this analysis relies on the noise model to estimate noise experienced by noise-sensitive receptors in the project vicinity.

RESULTS: SOUND LEVELS
BART Stations Rezone

Rincon Consultants												
Jonathan Berlin												
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:												
RUN:												
BARRIER DESIGN:												
ATMOSPHERICS:												
Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Ashby Ave. residences west of MLK	6	1	0.0	73.1	66	73.1	10	Snd Lvl	73.1	0.0	8	-8.0
MLK Jr. Way residences	7	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
Ed Roberts Campus	8	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	8	-8.0
Delaware St. residences	9	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
Sacramento St. residences	10	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		5	0.0	0.0	0.0							
All Impacted		5	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

RESULTS: SOUND LEVELS
BART Stations Rezone

Rincon Consultants													
Jonathan Berlin													
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:													
RUN:													
BARRIER DESIGN:													
ATMOSPHERICS:													
Receiver													
Name	No.	#DUs	Existing	No Barrier					With Barrier				
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	
							Sub'l Inc					minus	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
NM 1	1	1	0.0	58.1	66	58.1	10	----	58.1	0.0	8	-8.0	
NM 3	2	1	0.0	71.7	66	71.7	10	Snd Lvl	71.7	0.0	8	-8.0	
NM 4	3	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0	
Dwelling Units		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		3	0.0	0.0	0.0								
All Impacted		2	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

RESULTS: SOUND LEVELS
BART Stations Rezone

Rincon Consultants													
Jonathan Berlin													
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:													
RUN:													
BARRIER DESIGN:													
ATMOSPHERICS:													
Receiver													
Name	No.	#DUs	Existing	No Barrier						With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	
							Sub'l Inc					minus	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
NM 1	1	1	0.0	55.9	66	55.9	10	----	55.9	0.0	8	-8.0	
NM 3	2	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0	
NM 4	3	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0	
NM 2	5	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0	
Dwelling Units		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		4	0.0	0.0	0.0								
All Impacted		2	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

RESULTS: SOUND LEVELS
BART Stations Rezone

Rincon Consultants												
Jonathan Berlin												
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:												
RUN:												
BARRIER DESIGN:												
ATMOSPHERICS:												
Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Ashby Ave. residences west of MLK	6	1	0.0	73.2	66	73.2	10	Snd Lvl	73.2	0.0	8	-8.0
MLK Jr. Way residences	7	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
Ed Roberts Campus	8	1	0.0	67.8	66	67.8	10	Snd Lvl	67.8	0.0	8	-8.0
Delaware St. residences	9	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
Sacramento St. residences	10	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		5	0.0	0.0	0.0							
All Impacted		5	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

HVAC noise from North Berkeley BART station site at nearest residences (40

Combined Noise Level (CNEL) from 86 HVAC units

[illegible]

dB Addition (3)

[illegible]

dB Addition (3)

HVAC unit	34.9	3.09E+03
HVAC unit	34.9	3.09E+03
HVAC unit	34.9	3.09E+03
HVAC unit	34.9	3.09E+03
HVAC unit	34.9	3.09E+03

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
1,200 units at North Berkeley BART station
Approx. 84 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site at least 400 feet from residences, accounting for horizontal distance and height of rooflines
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at nearest residences (200 ft)

Combined Noise Level (CNEL) from 47 HVAC units

[illegible]

dB Addition (2)

HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air Conditioning

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
600 units per parcel at Ashby BART station
50,000 sf of non-residential space per parcel
Approx. 47 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site is 200 feet from residences, accounting for horizontal distance and height of rooftop
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at Ed Roberts Campus (150 ft)

Combined Noise Level (CNEL) from 47 HVAC units

[illegible]

dB Addition

HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04

Source: Carrier 38AUZ/D 50 Hz Commercial
Split Systems Air Conditioning Condensing

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
600 units per parcel at Ashby BART station
50,000 sf of non-residential space per parcel
Approx. 47 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site is 150 feet away from Ed Roberts Campus, accounting for horizontal distance and height
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from North Berkeley BART station site at nearest residences (400 ft) under BART Patron Parking Alternative

Combined Noise Level (CNEL) from 79 HVAC units

[illegible]

dB Addition (3)

[illegible]

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split sys
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
1,125 units at North Berkeley BART station
Approx. 79 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site at least 400 feet from residences, accounting for horizontal distance and height of r
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shieldi
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at nearest residences (200 ft) under BART Patron Parking Alternative

Combined Noise Level (CNEL) from 44 HVAC units

[illegible]

dB Addition (2)

HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
Approx. 563 units per parcel at Ashby BART station
50,000 sf of non-residential space per parcel
Approx. 47 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site is 200 feet from residences, accounting for horizontal distance and height of rooftop
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at Ed Roberts Campus (150 ft) under BART Patron Parking Alternative

Combined Noise Level (CNEL) from 44 HVAC units

[illegible]

dB Addition

HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air Conditioning

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system condenser

1 ton of HVAC equipment needed per 600 SF of floor area

700 SF per residential unit

Approx. 563 units per parcel at Ashby BART station

50,000 sf of non-residential space per parcel

Approx. 44 16.7-ton HVAC units needed for project

Combined noise is equivalent to all units being at center of site

Center of site is 150 feet away from Ed Roberts Campus, accounting for horizontal distance and height of rooftop

Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding

Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA

All HVAC units operate continuously, day and night

HVAC noise from North Berkeley BART station site at nearest residences (400 ft) under Increased Housing Alternative

Combined Noise Level (CNEL) from 126 HVAC units

[illegible]

[illegible]

[illegible]

dB Addition (3)

HVAC unit	34.9	3.09E+03
HVAC unit	34.9	3.09E+03
HVAC unit	34.9	3.09E+03

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
1,800 units at North Berkeley BART station
Approx. 126 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site at least 400 feet from residences, accounting for horizontal distance and height of roof
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at nearest residences (200 ft) under Increased Housing Alternative

Combined Noise Level (CNEL) from 63 HVAC units

[illegible]

dB Addition (2)

HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
Approx. 900 units per parcel at Ashby BART station
50,000 sf of non-residential space per parcel
Approx. 63 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site is 200 feet from residences, accounting for horizontal distance and height of rooftop
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at Ed Roberts Campus (150 ft) under Increased Housing Alternative

Combined Noise Level (CNEL) from 63 HVAC units

[illegible]

dB Addition

[illegible]

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system condenser

1 ton of HVAC equipment needed per 600 SF of floor area

700 SF per residential unit

Approx. 900 units per parcel at Ashby BART station

50,000 sf of non-residential space per parcel

Approx. 63 16.7-ton HVAC units needed for project

Combined noise is equivalent to all units being at center of site

Center of site is 150 feet away from Ed Roberts Campus, accounting for horizontal distance and height of rooftop

dB Addition

Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding

Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA

All HVAC units operate continuously, day and night

Ambient Noise Survey Data Sheet

Instructions: Document noise measurement locations with a photo of the site, including the noise meter. Additionally, take notes on general and secondary noise sources, including the instantaneous noise level if possible. As a reminder, A/C weighting should be set to "A", and response time should typically be set to "slow." For additional information, please review the *Noise Measurement Protocols* in the case or on Jive.

Project Name: Berkeley BART Job Number: _____
Date: 2/26/21 Operator Name: Leslie Trejo

Measurement #1

Location: NM 1 - Wodsey Begin time: 10:14AM Finish time: 10:29AM
Measurement No.: 6 Wind (mph): 1.9 mph Direction: E
Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)
Calibration (dB): Start: 94.1 End: 94.3
Primary Noise Sources: Traffic on Wodsey Distance: ~20 ft from centerline
Secondary Noise Sources: _____
Notes: Some activity from residences south of meter, conversations + some generator noise from FEMA event north of meter
Traffic Count: Passenger Cars: 8
Medium Trucks (2 axles, 6 tires): _____ Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

Leq: 53.3 SEL: 82.8 L_{max}: 69.1 L_{min}: 45.0 PK: 91.1
L(05): 58.9 L(10): 55.5 L(50): 48.3 L(90): 46.5 L(95): 46.1
Response: Slow Fast Peak Impulse

Measurement #2

Location: NM 2 - Tremont Begin time: 10:36AM Finish time: 10:57AM
Measurement No.: 7 Wind (mph): 1.0 Direction: N
Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)
Calibration (dB): Start: 94.1 End: 94.4
Primary Noise Sources: Traffic on Tremont Distance: ~15 ft from centerline
Secondary Noise Sources: _____
Notes: 10:42 - dog howl/bark about 5 ft from meter
Traffic Count: Passenger Cars: 4
Medium Trucks (2 axles, 6 tires): _____ Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

Leq: 61.8 SEL: 91.4 L_{max}: 87.1 L_{min}: 43.0 PK: 103.4
L(05): 57.4 L(10): 54.0 L(50): 47.7 L(90): 45.0 L(95): 44.5
Response: Slow Fast Peak Impulse

Ambient Noise Survey Data Sheet

Instructions: Document noise measurement locations with a photo of the site, including the noise meter. Additionally, take notes on general and secondary noise sources, including the instantaneous noise level if possible. As a reminder, A/C weighting should be set to "A", and response time should typically be set to "slow." For additional information, please review the *Noise Measurement Protocols* in the case or on Jive.

Project Name: Berkeley BART **Job Number:** _____
Date: 2/26/21 **Operator Name:** Leslie Trejo

Measurement #1

Location: NM 3 - MLK Way **Begin time:** 11:05 AM **Finish time:** 11:20 AM
Measurement No.: 8 **Wind (mph):** _____ **Direction:** _____
Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)
Calibration (dB): Start: 94.0 End: _____
Primary Noise Sources: Traffic on MLK Way **Distance:** ~ 50 ft from centerline
Secondary Noise Sources: _____
Notes: 11:08 - car alarm, 11:10 - 11:11 AM - motorcycle idling (?), 11:16 - motorcycle start up
Traffic Count: Passenger Cars: 243
Medium Trucks (2 axles, 6 tires): 111 Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

Leq: 65.4 **SEL:** 94.9 **L_{max}:** 80.6 **L_{min}:** 42.1 **PK:** 95.1
L(05): 70.5 **L(10):** 69.3 **L(50):** 62.3 **L(90):** 48.3 **L(95):** 46.9
Response: Slow Fast Peak Impulse

Measurement #2

Location: NM 4 - Delaware **Begin time:** 11:40 AM **Finish time:** 11:55 AM
Measurement No.: 9 **Wind (mph):** 1.4 **Direction:** E
Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)
Calibration (dB): Start: 94.1 End: 94.0
Primary Noise Sources: Traffic on Delaware **Distance:** ~ 50 ft from centerline
Secondary Noise Sources: _____
Notes: 11:44 - motorcycle engine rev, 11:50 - loud music w/ bass on RV camper, 11:51 - fire truck
Traffic Count: Passenger Cars: 57
Medium Trucks (2 axles, 6 tires): 111 Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

Leq: 65.0 **SEL:** 94.6 **L_{max}:** 87.2 **L_{min}:** 41.0 **PK:** 101.0
L(05): 68.0 **L(10):** 65.6 **L(50):** 55.3 **L(90):** 46.2 **L(95):** 44.4
Response: Slow Fast Peak Impulse

Ambient Noise Survey Data Sheet

Instructions: Document noise measurement locations with a photo of the site, including the noise meter. Additionally, take notes on general and secondary noise sources, including the instantaneous noise level if possible. As a reminder, A/C weighting should be set to "A", and response time should typically be set to "slow." For additional information, please review the *Noise Measurement Protocols* in the case or on Jive.

Project Name: Berkeley BART **Job Number:** _____
Date: 2/26/21 **Operator Name:** Leslie Trejo

Measurement #1

Location: NM 5 - Virginia St **Begin time:** 12:06 PM **Finish time:** 12:21 PM
Measurement No.: 10 **Wind (mph):** 1.0 **Direction:** E

Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)

Calibration (dB): Start: 94.0 End: _____

Primary Noise Sources: Traffic on Virginia St **Distance:** ~25 ft from centerline

Secondary Noise Sources: _____

Notes: Tram Neighbor noted it is much quieter than it used to be
12:14 - garbage collection north of meter + honk; 12:21 - garbage collection

Traffic Count: Passenger Cars: 8
Medium Trucks (2 axles, 6 tires): 1 Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

Leq: 57.5 **SEL:** 87.0 **L_{max}:** 80.5 **L_{min}:** 38.4 **PK:** 96.5
L(05): 59.6 **L(10):** 55.9 **L(50):** 44.4 **L(90):** 40.2 **L(95):** 39.8
Response: Slow Fast Peak Impulse

Measurement #2

Location: _____ **Begin time:** _____ **Finish time:** _____

Measurement No.: _____ **Wind (mph):** _____ **Direction:** _____

Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)

Calibration (dB): Start: _____ End: _____

Primary Noise Sources: _____ **Distance:** _____

Secondary Noise Sources: _____

Notes: _____

Traffic Count: Passenger Cars: _____
Medium Trucks (2 axles, 6 tires): _____ Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

Leq: _____ **SEL:** _____ **L_{max}:** _____ **L_{min}:** _____ **PK:** _____
L(05): _____ **L(10):** _____ **L(50):** _____ **L(90):** _____ **L(95):** _____
Response: Slow Fast Peak Impulse

Freq Weight : A
Time Weight : SLOW
Level Range : 40-100
Max dB : 69.1 - 2021/02/26 10:27:45
Level Range : 40-100
SEL : 82.8
Leq : 53.3

No.s	Date	Time	(dB)
1	2021/02/26	10:13:48	54.4
2	2021/02/26	10:13:51	66.6
3	2021/02/26	10:13:54	61.0
4	2021/02/26	10:13:57	53.1
5	2021/02/26	10:14:00	50.6
6	2021/02/26	10:14:03	52.5
7	2021/02/26	10:14:06	51.1
8	2021/02/26	10:14:09	48.3
9	2021/02/26	10:14:12	50.0
10	2021/02/26	10:14:15	47.4
11	2021/02/26	10:14:18	46.4
12	2021/02/26	10:14:21	48.8
13	2021/02/26	10:14:24	49.1
14	2021/02/26	10:14:27	53.6
15	2021/02/26	10:14:30	55.1
16	2021/02/26	10:14:33	53.1
17	2021/02/26	10:14:36	49.0
18	2021/02/26	10:14:39	51.6
19	2021/02/26	10:14:42	51.4
20	2021/02/26	10:14:45	49.6
21	2021/02/26	10:14:48	48.4
22	2021/02/26	10:14:51	48.3
23	2021/02/26	10:14:54	49.0
24	2021/02/26	10:14:57	47.3
25	2021/02/26	10:15:00	46.6
26	2021/02/26	10:15:03	46.4
27	2021/02/26	10:15:06	46.7
28	2021/02/26	10:15:09	45.7
29	2021/02/26	10:15:12	48.0
30	2021/02/26	10:15:15	47.2
31	2021/02/26	10:15:18	48.4
32	2021/02/26	10:15:21	48.7
33	2021/02/26	10:15:24	47.0
34	2021/02/26	10:15:27	47.5
35	2021/02/26	10:15:30	47.5
36	2021/02/26	10:15:33	48.0
37	2021/02/26	10:15:36	50.1
38	2021/02/26	10:15:39	49.0
39	2021/02/26	10:15:42	49.8
40	2021/02/26	10:15:45	51.2
41	2021/02/26	10:15:48	51.2
42	2021/02/26	10:15:51	47.5
43	2021/02/26	10:15:54	49.1
44	2021/02/26	10:15:57	52.5
45	2021/02/26	10:16:00	51.0
46	2021/02/26	10:16:03	50.8
47	2021/02/26	10:16:06	54.4
48	2021/02/26	10:16:09	61.0
49	2021/02/26	10:16:12	60.9
50	2021/02/26	10:16:15	55.6
51	2021/02/26	10:16:18	59.1
52	2021/02/26	10:16:21	53.1
53	2021/02/26	10:16:24	51.4
54	2021/02/26	10:16:27	51.3
55	2021/02/26	10:16:30	49.0
56	2021/02/26	10:16:33	50.1
57	2021/02/26	10:16:36	50.3
58	2021/02/26	10:16:39	48.4
59	2021/02/26	10:16:42	49.7
60	2021/02/26	10:16:45	50.1
61	2021/02/26	10:16:48	49.6
62	2021/02/26	10:16:51	51.3
63	2021/02/26	10:16:54	48.3
64	2021/02/26	10:16:57	48.9
65	2021/02/26	10:17:00	48.6
66	2021/02/26	10:17:03	47.7
67	2021/02/26	10:17:06	47.5
68	2021/02/26	10:17:09	47.1
69	2021/02/26	10:17:12	48.3
70	2021/02/26	10:17:15	47.0
71	2021/02/26	10:17:18	49.1
72	2021/02/26	10:17:21	47.2
73	2021/02/26	10:17:24	47.6
74	2021/02/26	10:17:27	48.2
75	2021/02/26	10:17:30	46.7
76	2021/02/26	10:17:33	46.5
77	2021/02/26	10:17:36	47.0
78	2021/02/26	10:17:39	47.7
79	2021/02/26	10:17:42	47.0
80	2021/02/26	10:17:45	49.5
81	2021/02/26	10:17:48	50.7
82	2021/02/26	10:17:51	47.6
83	2021/02/26	10:17:54	46.0
84	2021/02/26	10:17:57	48.5

85	2021/02/26	10:18:20	47.2
86	2021/02/26	10:18:03	47.8
87	2021/02/26	10:18:06	47.9
88	2021/02/26	10:18:09	47.6
89	2021/02/26	10:18:12	47.1
90	2021/02/26	10:18:15	50.5
91	2021/02/26	10:18:18	51.1
92	2021/02/26	10:18:21	49.4
93	2021/02/26	10:18:24	47.9
94	2021/02/26	10:18:27	50.1
95	2021/02/26	10:18:30	54.2
96	2021/02/26	10:18:33	53.7
97	2021/02/26	10:18:36	53.2
98	2021/02/26	10:18:39	49.6
99	2021/02/26	10:18:42	49.6
100	2021/02/26	10:18:45	51.1
101	2021/02/26	10:18:48	50.4
102	2021/02/26	10:18:51	51.8
103	2021/02/26	10:18:54	52.5
104	2021/02/26	10:18:57	56.0
105	2021/02/26	10:19:00	60.9
106	2021/02/26	10:19:03	56.8
107	2021/02/26	10:19:06	53.1
108	2021/02/26	10:19:09	51.5
109	2021/02/26	10:19:12	57.6
110	2021/02/26	10:19:15	63.8
111	2021/02/26	10:19:18	55.0
112	2021/02/26	10:19:21	55.2
113	2021/02/26	10:19:24	55.2
114	2021/02/26	10:19:27	53.9
115	2021/02/26	10:19:30	49.4
116	2021/02/26	10:19:33	47.6
117	2021/02/26	10:19:36	47.7
118	2021/02/26	10:19:39	47.8
119	2021/02/26	10:19:42	47.8
120	2021/02/26	10:19:45	47.3
121	2021/02/26	10:19:48	49.8
122	2021/02/26	10:19:51	50.6
123	2021/02/26	10:19:54	48.2
124	2021/02/26	10:19:57	48.5
125	2021/02/26	10:20:00	46.9
126	2021/02/26	10:20:03	47.2
127	2021/02/26	10:20:06	47.8
128	2021/02/26	10:20:09	47.7
129	2021/02/26	10:20:12	48.3
130	2021/02/26	10:20:15	58.8
131	2021/02/26	10:20:18	58.5
132	2021/02/26	10:20:21	51.3
133	2021/02/26	10:20:24	48.8
134	2021/02/26	10:20:27	53.4
135	2021/02/26	10:20:30	59.5
136	2021/02/26	10:20:33	51.8
137	2021/02/26	10:20:36	48.7
138	2021/02/26	10:20:39	48.2
139	2021/02/26	10:20:42	48.2
140	2021/02/26	10:20:45	47.8
141	2021/02/26	10:20:48	48.0
142	2021/02/26	10:20:51	48.4
143	2021/02/26	10:20:54	47.2
144	2021/02/26	10:20:57	50.6
145	2021/02/26	10:21:00	47.4
146	2021/02/26	10:21:03	50.2
147	2021/02/26	10:21:06	47.1
148	2021/02/26	10:21:09	46.5
149	2021/02/26	10:21:12	47.0
150	2021/02/26	10:21:15	46.9
151	2021/02/26	10:21:18	47.3
152	2021/02/26	10:21:21	47.8
153	2021/02/26	10:21:24	48.9
154	2021/02/26	10:21:27	50.3
155	2021/02/26	10:21:30	51.8
156	2021/02/26	10:21:33	51.1
157	2021/02/26	10:21:36	53.8
158	2021/02/26	10:21:39	54.1
159	2021/02/26	10:21:42	58.1
160	2021/02/26	10:21:45	59.3
161	2021/02/26	10:21:48	61.1
162	2021/02/26	10:21:51	57.6
163	2021/02/26	10:21:54	60.4
164	2021/02/26	10:21:57	58.7
165	2021/02/26	10:22:00	60.2
166	2021/02/26	10:22:03	56.8
167	2021/02/26	10:22:06	57.7
168	2021/02/26	10:22:09	53.9
169	2021/02/26	10:22:12	53.2
170	2021/02/26	10:22:15	53.4
171	2021/02/26	10:22:18	51.2
172	2021/02/26	10:22:21	49.8
173	2021/02/26	10:22:24	48.6
174	2021/02/26	10:22:27	48.1
175	2021/02/26	10:22:30	46.4
176	2021/02/26	10:22:33	47.4
177	2021/02/26	10:22:36	46.8
178	2021/02/26	10:22:39	46.8
179	2021/02/26	10:22:42	47.6
180	2021/02/26	10:22:45	50.1
181	2021/02/26	10:22:48	47.2
182	2021/02/26	10:22:51	46.0

183	2021/02/26	10:22:54	45.0
184	2021/02/26	10:22:57	46.1
185	2021/02/26	10:23:00	46.6
186	2021/02/26	10:23:03	47.8
187	2021/02/26	10:23:06	47.1
188	2021/02/26	10:23:09	45.7
189	2021/02/26	10:23:12	46.5
190	2021/02/26	10:23:15	47.8
191	2021/02/26	10:23:18	48.1
192	2021/02/26	10:23:21	47.0
193	2021/02/26	10:23:24	47.0
194	2021/02/26	10:23:27	46.5
195	2021/02/26	10:23:30	45.9
196	2021/02/26	10:23:33	47.5
197	2021/02/26	10:23:36	48.3
198	2021/02/26	10:23:39	47.8
199	2021/02/26	10:23:42	48.3
200	2021/02/26	10:23:45	48.6
201	2021/02/26	10:23:48	51.9
202	2021/02/26	10:23:51	65.4
203	2021/02/26	10:23:54	57.0
204	2021/02/26	10:23:57	50.5
205	2021/02/26	10:24:00	49.2
206	2021/02/26	10:24:03	47.7
207	2021/02/26	10:24:06	47.5
208	2021/02/26	10:24:09	48.7
209	2021/02/26	10:24:12	46.0
210	2021/02/26	10:24:15	45.5
211	2021/02/26	10:24:18	48.6
212	2021/02/26	10:24:21	50.1
213	2021/02/26	10:24:24	63.3
214	2021/02/26	10:24:27	59.8
215	2021/02/26	10:24:30	49.7
216	2021/02/26	10:24:33	46.6
217	2021/02/26	10:24:36	48.4
218	2021/02/26	10:24:39	51.4
219	2021/02/26	10:24:42	51.0
220	2021/02/26	10:24:45	47.8
221	2021/02/26	10:24:48	46.3
222	2021/02/26	10:24:51	47.8
223	2021/02/26	10:24:54	46.5
224	2021/02/26	10:24:57	46.9
225	2021/02/26	10:25:00	49.2
226	2021/02/26	10:25:03	48.2
227	2021/02/26	10:25:06	47.3
228	2021/02/26	10:25:09	49.3
229	2021/02/26	10:25:12	47.9
230	2021/02/26	10:25:15	47.3
231	2021/02/26	10:25:18	47.1
232	2021/02/26	10:25:21	46.0
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234	2021/02/26	10:25:27	46.3
235	2021/02/26	10:25:30	46.3
236	2021/02/26	10:25:33	47.5
237	2021/02/26	10:25:36	47.3
238	2021/02/26	10:25:39	48.1
239	2021/02/26	10:25:42	48.8
240	2021/02/26	10:25:45	48.6
241	2021/02/26	10:25:48	47.9
242	2021/02/26	10:25:51	46.4
243	2021/02/26	10:25:54	45.7
244	2021/02/26	10:25:57	45.1
245	2021/02/26	10:26:00	46.1
246	2021/02/26	10:26:03	46.8
247	2021/02/26	10:26:06	46.5
248	2021/02/26	10:26:09	47.7
249	2021/02/26	10:26:12	47.2
250	2021/02/26	10:26:15	49.1
251	2021/02/26	10:26:18	55.7
252	2021/02/26	10:26:21	59.2
253	2021/02/26	10:26:24	51.7
254	2021/02/26	10:26:27	48.3
255	2021/02/26	10:26:30	47.3
256	2021/02/26	10:26:33	46.4
257	2021/02/26	10:26:36	46.9
258	2021/02/26	10:26:39	49.7
259	2021/02/26	10:26:42	48.5
260	2021/02/26	10:26:45	54.3
261	2021/02/26	10:26:48	63.1
262	2021/02/26	10:26:51	53.7
263	2021/02/26	10:26:54	47.8
264	2021/02/26	10:26:57	48.0
265	2021/02/26	10:27:00	47.9
266	2021/02/26	10:27:03	48.2
267	2021/02/26	10:27:06	48.1
268	2021/02/26	10:27:09	47.5
269	2021/02/26	10:27:12	48.2
270	2021/02/26	10:27:15	48.9
271	2021/02/26	10:27:18	49.9
272	2021/02/26	10:27:21	49.7
273	2021/02/26	10:27:24	48.1
274	2021/02/26	10:27:27	47.5
275	2021/02/26	10:27:30	48.1
276	2021/02/26	10:27:33	48.7
277	2021/02/26	10:27:36	48.2
278	2021/02/26	10:27:39	54.1
279	2021/02/26	10:27:42	68.6
280	2021/02/26	10:27:45	59.6

281	2021/02/26	10:27:48	50.3
282	2021/02/26	10:27:51	48.1
283	2021/02/26	10:27:54	48.1
284	2021/02/26	10:27:57	49.4
285	2021/02/26	10:28:00	49.7
286	2021/02/26	10:28:03	48.4
287	2021/02/26	10:28:06	48.5
288	2021/02/26	10:28:09	47.4
289	2021/02/26	10:28:12	48.0
290	2021/02/26	10:28:15	47.6
291	2021/02/26	10:28:18	47.1
292	2021/02/26	10:28:21	47.1
293	2021/02/26	10:28:24	45.6
294	2021/02/26	10:28:27	46.6
295	2021/02/26	10:28:30	45.9
296	2021/02/26	10:28:33	48.7
297	2021/02/26	10:28:36	47.2
298	2021/02/26	10:28:39	47.0
299	2021/02/26	10:28:42	47.6
300	2021/02/26	10:28:45	46.7

Freq Weight : A
Time Weight : SLOW
Level Range : 40-100
Max dB : 87.1 - 2021/02/26 10:41:32
Level Range : 40-100
SEL : 91.4
Leq : 61.8

No.s	Date Time	(dB)
1	2021/02/26 10:35:43	46.7
2	2021/02/26 10:35:46	45.2
3	2021/02/26 10:35:49	44.4
4	2021/02/26 10:35:52	46.8
5	2021/02/26 10:35:55	44.9
6	2021/02/26 10:35:58	45.7
7	2021/02/26 10:36:01	44.7
8	2021/02/26 10:36:04	44.7
9	2021/02/26 10:36:07	44.1
10	2021/02/26 10:36:10	46.1
11	2021/02/26 10:36:13	45.4
12	2021/02/26 10:36:16	48.1
13	2021/02/26 10:36:19	48.6
14	2021/02/26 10:36:22	45.8
15	2021/02/26 10:36:25	44.7
16	2021/02/26 10:36:28	47.2
17	2021/02/26 10:36:31	45.6
18	2021/02/26 10:36:34	48.3
19	2021/02/26 10:36:37	53.0
20	2021/02/26 10:36:40	49.4
21	2021/02/26 10:36:43	45.6
22	2021/02/26 10:36:46	46.0
23	2021/02/26 10:36:49	47.2
24	2021/02/26 10:36:52	47.5
25	2021/02/26 10:36:55	48.8
26	2021/02/26 10:36:58	50.6
27	2021/02/26 10:37:01	51.3
28	2021/02/26 10:37:04	50.2
29	2021/02/26 10:37:07	49.5
30	2021/02/26 10:37:10	49.5
31	2021/02/26 10:37:13	52.1
32	2021/02/26 10:37:16	69.0
33	2021/02/26 10:37:19	67.4
34	2021/02/26 10:37:22	58.3
35	2021/02/26 10:37:25	53.5
36	2021/02/26 10:37:28	51.3
37	2021/02/26 10:37:31	49.7
38	2021/02/26 10:37:34	50.4
39	2021/02/26 10:37:37	49.9
40	2021/02/26 10:37:40	49.5
41	2021/02/26 10:37:43	48.4
42	2021/02/26 10:37:46	46.0
43	2021/02/26 10:37:49	45.8
44	2021/02/26 10:37:52	53.1
45	2021/02/26 10:37:55	47.0
46	2021/02/26 10:37:58	46.7
47	2021/02/26 10:38:01	45.4
48	2021/02/26 10:38:04	45.1
49	2021/02/26 10:38:07	44.6
50	2021/02/26 10:38:10	45.3
51	2021/02/26 10:38:13	44.5
52	2021/02/26 10:38:16	43.7
53	2021/02/26 10:38:19	43.1
54	2021/02/26 10:38:22	44.3
55	2021/02/26 10:38:25	44.7
56	2021/02/26 10:38:28	46.0
57	2021/02/26 10:38:31	44.4
58	2021/02/26 10:38:34	44.3
59	2021/02/26 10:38:37	44.6
60	2021/02/26 10:38:40	45.6
61	2021/02/26 10:38:43	45.3
62	2021/02/26 10:38:46	45.0
63	2021/02/26 10:38:49	47.4
64	2021/02/26 10:38:52	46.2
65	2021/02/26 10:38:55	47.2
66	2021/02/26 10:38:58	46.7
67	2021/02/26 10:39:01	45.5
68	2021/02/26 10:39:04	46.3
69	2021/02/26 10:39:07	45.1
70	2021/02/26 10:39:10	44.8
71	2021/02/26 10:39:13	44.5
72	2021/02/26 10:39:16	44.0
73	2021/02/26 10:39:19	43.7
74	2021/02/26 10:39:22	44.3
75	2021/02/26 10:39:25	44.8
76	2021/02/26 10:39:28	44.9
77	2021/02/26 10:39:31	45.7
78	2021/02/26 10:39:34	46.0
79	2021/02/26 10:39:37	45.6
80	2021/02/26 10:39:40	47.9
81	2021/02/26 10:39:43	46.7
82	2021/02/26 10:39:46	44.4
83	2021/02/26 10:39:49	44.0
84	2021/02/26 10:39:52	47.9

85	2021/02/26	10:39:55	48.0
86	2021/02/26	10:39:58	45.9
87	2021/02/26	10:40:01	45.0
88	2021/02/26	10:40:04	45.1
89	2021/02/26	10:40:07	46.3
90	2021/02/26	10:40:10	46.4
91	2021/02/26	10:40:13	47.1
92	2021/02/26	10:40:16	46.8
93	2021/02/26	10:40:19	47.4
94	2021/02/26	10:40:22	47.5
95	2021/02/26	10:40:25	46.3
96	2021/02/26	10:40:28	46.3
97	2021/02/26	10:40:31	47.5
98	2021/02/26	10:40:34	47.7
99	2021/02/26	10:40:37	46.8
100	2021/02/26	10:40:40	52.2
101	2021/02/26	10:40:43	47.4
102	2021/02/26	10:40:46	45.8
103	2021/02/26	10:40:49	46.8
104	2021/02/26	10:40:52	46.8
105	2021/02/26	10:40:55	45.2
106	2021/02/26	10:40:58	44.1
107	2021/02/26	10:41:01	44.6
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111	2021/02/26	10:41:13	46.8
112	2021/02/26	10:41:16	46.1
113	2021/02/26	10:41:19	45.9
114	2021/02/26	10:41:22	52.3
115	2021/02/26	10:41:25	76.8
116	2021/02/26	10:41:28	75.4
117	2021/02/26	10:41:31	83.8
118	2021/02/26	10:41:34	81.0
119	2021/02/26	10:41:37	71.7
120	2021/02/26	10:41:40	59.7
121	2021/02/26	10:41:43	51.7
122	2021/02/26	10:41:46	51.2
123	2021/02/26	10:41:49	47.7
124	2021/02/26	10:41:52	53.8
125	2021/02/26	10:41:55	49.5
126	2021/02/26	10:41:58	47.6
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131	2021/02/26	10:42:13	47.8
132	2021/02/26	10:42:16	47.8
133	2021/02/26	10:42:19	46.4
134	2021/02/26	10:42:22	54.8
135	2021/02/26	10:42:25	51.9
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138	2021/02/26	10:42:34	47.8
139	2021/02/26	10:42:37	53.1
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143	2021/02/26	10:42:49	54.8
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155	2021/02/26	10:43:25	55.6
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253	2021/02/26	10:48:19	46.9
254	2021/02/26	10:48:22	46.1
255	2021/02/26	10:48:25	47.4
256	2021/02/26	10:48:28	49.7
257	2021/02/26	10:48:31	48.5
258	2021/02/26	10:48:34	48.4
259	2021/02/26	10:48:37	58.6
260	2021/02/26	10:48:40	48.9
261	2021/02/26	10:48:43	47.4
262	2021/02/26	10:48:46	47.9
263	2021/02/26	10:48:49	47.7
264	2021/02/26	10:48:52	54.6
265	2021/02/26	10:48:55	54.7
266	2021/02/26	10:48:58	57.9
267	2021/02/26	10:49:01	50.8
268	2021/02/26	10:49:04	48.7
269	2021/02/26	10:49:07	48.0
270	2021/02/26	10:49:10	46.6
271	2021/02/26	10:49:13	45.3
272	2021/02/26	10:49:16	46.5
273	2021/02/26	10:49:19	46.7
274	2021/02/26	10:49:22	46.2
275	2021/02/26	10:49:25	46.3
276	2021/02/26	10:49:28	47.7
277	2021/02/26	10:49:31	47.2
278	2021/02/26	10:49:34	47.3
279	2021/02/26	10:49:37	46.5
280	2021/02/26	10:49:40	46.0

281	2021/02/26	10:49:43	48.0
282	2021/02/26	10:49:46	47.2
283	2021/02/26	10:49:49	48.7
284	2021/02/26	10:49:52	50.2
285	2021/02/26	10:49:55	48.9
286	2021/02/26	10:49:58	50.4
287	2021/02/26	10:50:01	49.6
288	2021/02/26	10:50:04	50.5
289	2021/02/26	10:50:07	48.6
290	2021/02/26	10:50:10	51.7
291	2021/02/26	10:50:13	48.3
292	2021/02/26	10:50:16	49.5
293	2021/02/26	10:50:19	50.6
294	2021/02/26	10:50:22	48.4
295	2021/02/26	10:50:25	48.0
296	2021/02/26	10:50:28	48.4
297	2021/02/26	10:50:31	50.8
298	2021/02/26	10:50:34	50.6
299	2021/02/26	10:50:37	50.4
300	2021/02/26	10:50:40	50.3

Freq Weight : A
Time Weight : SLOW
Level Range : 40-100
Max dB : 80.6 - 2021/02/26 11:15:15
Level Range : 40-100
SEL : 94.9
Leq : 65.4

No.s	Date Time	(dB)
1	2021/02/26 11:04:48	61.5
2	2021/02/26 11:04:51	64.3
3	2021/02/26 11:04:54	65.4
4	2021/02/26 11:04:57	64.1
5	2021/02/26 11:05:00	65.0
6	2021/02/26 11:05:03	62.4
7	2021/02/26 11:05:06	60.1
8	2021/02/26 11:05:09	64.8
9	2021/02/26 11:05:12	64.0
10	2021/02/26 11:05:15	69.5
11	2021/02/26 11:05:18	63.3
12	2021/02/26 11:05:21	70.0
13	2021/02/26 11:05:24	64.9
14	2021/02/26 11:05:27	70.3
15	2021/02/26 11:05:30	66.6
16	2021/02/26 11:05:33	66.1
17	2021/02/26 11:05:36	65.7
18	2021/02/26 11:05:39	66.6
19	2021/02/26 11:05:42	60.1
20	2021/02/26 11:05:45	64.2
21	2021/02/26 11:05:48	54.0
22	2021/02/26 11:05:51	49.4
23	2021/02/26 11:05:54	50.1
24	2021/02/26 11:05:57	49.1
25	2021/02/26 11:06:00	48.9
26	2021/02/26 11:06:03	48.6
27	2021/02/26 11:06:06	48.8
28	2021/02/26 11:06:09	50.9
29	2021/02/26 11:06:12	48.7
30	2021/02/26 11:06:15	49.3
31	2021/02/26 11:06:18	48.9
32	2021/02/26 11:06:21	50.1
33	2021/02/26 11:06:24	51.1
34	2021/02/26 11:06:27	51.0
35	2021/02/26 11:06:30	56.5
36	2021/02/26 11:06:33	63.6
37	2021/02/26 11:06:36	65.3
38	2021/02/26 11:06:39	65.0
39	2021/02/26 11:06:42	66.0
40	2021/02/26 11:06:45	69.6
41	2021/02/26 11:06:48	65.9
42	2021/02/26 11:06:51	63.1
43	2021/02/26 11:06:54	59.6
44	2021/02/26 11:06:57	66.3
45	2021/02/26 11:07:00	70.0
46	2021/02/26 11:07:03	64.3
47	2021/02/26 11:07:06	64.2
48	2021/02/26 11:07:09	64.7
49	2021/02/26 11:07:12	62.7
50	2021/02/26 11:07:15	67.8
51	2021/02/26 11:07:18	68.1
52	2021/02/26 11:07:21	67.0
53	2021/02/26 11:07:24	67.8
54	2021/02/26 11:07:27	60.2
55	2021/02/26 11:07:30	50.9
56	2021/02/26 11:07:33	48.9
57	2021/02/26 11:07:36	49.0
58	2021/02/26 11:07:39	50.6
59	2021/02/26 11:07:42	51.1
60	2021/02/26 11:07:45	49.3
61	2021/02/26 11:07:48	47.7
62	2021/02/26 11:07:51	47.6
63	2021/02/26 11:07:54	66.4
64	2021/02/26 11:07:57	66.9
65	2021/02/26 11:08:00	65.9
66	2021/02/26 11:08:03	67.4
67	2021/02/26 11:08:06	68.3
68	2021/02/26 11:08:09	68.6
69	2021/02/26 11:08:12	60.6
70	2021/02/26 11:08:15	57.9
71	2021/02/26 11:08:18	62.4
72	2021/02/26 11:08:21	64.8
73	2021/02/26 11:08:24	65.4
74	2021/02/26 11:08:27	62.5
75	2021/02/26 11:08:30	62.4
76	2021/02/26 11:08:33	64.3
77	2021/02/26 11:08:36	72.1
78	2021/02/26 11:08:39	62.5
79	2021/02/26 11:08:42	69.1
80	2021/02/26 11:08:45	68.6
81	2021/02/26 11:08:48	66.0
82	2021/02/26 11:08:51	67.1
83	2021/02/26 11:08:54	68.5
84	2021/02/26 11:08:57	65.3

85	2021/02/26	11:09:00	66.1
86	2021/02/26	11:09:03	63.3
87	2021/02/26	11:09:06	63.3
88	2021/02/26	11:09:09	53.9
89	2021/02/26	11:09:12	48.0
90	2021/02/26	11:09:15	47.4
91	2021/02/26	11:09:18	48.2
92	2021/02/26	11:09:21	47.0
93	2021/02/26	11:09:24	49.4
94	2021/02/26	11:09:27	46.6
95	2021/02/26	11:09:30	46.4
96	2021/02/26	11:09:33	46.9
97	2021/02/26	11:09:36	47.3
98	2021/02/26	11:09:39	47.4
99	2021/02/26	11:09:42	48.2
100	2021/02/26	11:09:45	49.5
101	2021/02/26	11:09:48	51.5
102	2021/02/26	11:09:51	51.9
103	2021/02/26	11:09:54	60.2
104	2021/02/26	11:09:57	64.6
105	2021/02/26	11:10:00	65.3
106	2021/02/26	11:10:03	58.3
107	2021/02/26	11:10:06	63.6
108	2021/02/26	11:10:09	71.5
109	2021/02/26	11:10:12	67.4
110	2021/02/26	11:10:15	72.2
111	2021/02/26	11:10:18	74.0
112	2021/02/26	11:10:21	72.0
113	2021/02/26	11:10:24	64.7
114	2021/02/26	11:10:27	67.7
115	2021/02/26	11:10:30	67.9
116	2021/02/26	11:10:33	70.8
117	2021/02/26	11:10:36	68.0
118	2021/02/26	11:10:39	65.7
119	2021/02/26	11:10:42	64.7
120	2021/02/26	11:10:45	61.2
121	2021/02/26	11:10:48	60.3
122	2021/02/26	11:10:51	60.4
123	2021/02/26	11:10:54	60.6
124	2021/02/26	11:10:57	59.9
125	2021/02/26	11:11:00	58.3
126	2021/02/26	11:11:03	58.4
127	2021/02/26	11:11:06	63.9
128	2021/02/26	11:11:09	55.2
129	2021/02/26	11:11:12	58.7
130	2021/02/26	11:11:15	54.0
131	2021/02/26	11:11:18	49.0
132	2021/02/26	11:11:21	46.9
133	2021/02/26	11:11:24	47.1
134	2021/02/26	11:11:27	50.1
135	2021/02/26	11:11:30	53.4
136	2021/02/26	11:11:33	60.9
137	2021/02/26	11:11:36	62.6
138	2021/02/26	11:11:39	61.2
139	2021/02/26	11:11:42	62.3
140	2021/02/26	11:11:45	64.4
141	2021/02/26	11:11:48	62.7
142	2021/02/26	11:11:51	67.7
143	2021/02/26	11:11:54	72.9
144	2021/02/26	11:11:57	66.7
145	2021/02/26	11:12:00	65.5
146	2021/02/26	11:12:03	68.1
147	2021/02/26	11:12:06	67.4
148	2021/02/26	11:12:09	67.7
149	2021/02/26	11:12:12	71.3
150	2021/02/26	11:12:15	68.4
151	2021/02/26	11:12:18	69.3
152	2021/02/26	11:12:21	67.5
153	2021/02/26	11:12:24	65.6
154	2021/02/26	11:12:27	55.4
155	2021/02/26	11:12:30	48.8
156	2021/02/26	11:12:33	49.8
157	2021/02/26	11:12:36	48.8
158	2021/02/26	11:12:39	50.0
159	2021/02/26	11:12:42	52.1
160	2021/02/26	11:12:45	54.7
161	2021/02/26	11:12:48	58.0
162	2021/02/26	11:12:51	53.9
163	2021/02/26	11:12:54	53.0
164	2021/02/26	11:12:57	53.3
165	2021/02/26	11:13:00	50.4
166	2021/02/26	11:13:03	51.2
167	2021/02/26	11:13:06	54.4
168	2021/02/26	11:13:09	65.1
169	2021/02/26	11:13:12	64.6
170	2021/02/26	11:13:15	63.1
171	2021/02/26	11:13:18	61.5
172	2021/02/26	11:13:21	64.1
173	2021/02/26	11:13:24	67.4
174	2021/02/26	11:13:27	65.3
175	2021/02/26	11:13:30	68.8
176	2021/02/26	11:13:33	69.1
177	2021/02/26	11:13:36	69.1
178	2021/02/26	11:13:39	67.8
179	2021/02/26	11:13:42	69.3
180	2021/02/26	11:13:45	63.5
181	2021/02/26	11:13:48	68.2
182	2021/02/26	11:13:51	70.6

183	2021/02/26	11:13:54	65.9
184	2021/02/26	11:13:57	56.7
185	2021/02/26	11:14:00	54.4
186	2021/02/26	11:14:03	73.2
187	2021/02/26	11:14:06	67.8
188	2021/02/26	11:14:09	60.7
189	2021/02/26	11:14:12	52.7
190	2021/02/26	11:14:15	50.9
191	2021/02/26	11:14:18	62.7
192	2021/02/26	11:14:21	63.4
193	2021/02/26	11:14:24	55.2
194	2021/02/26	11:14:27	56.7
195	2021/02/26	11:14:30	53.2
196	2021/02/26	11:14:33	46.7
197	2021/02/26	11:14:36	46.1
198	2021/02/26	11:14:39	47.6
199	2021/02/26	11:14:42	51.5
200	2021/02/26	11:14:45	55.5
201	2021/02/26	11:14:48	65.2
202	2021/02/26	11:14:51	67.7
203	2021/02/26	11:14:54	64.6
204	2021/02/26	11:14:57	61.3
205	2021/02/26	11:15:00	61.8
206	2021/02/26	11:15:03	63.8
207	2021/02/26	11:15:06	68.4
208	2021/02/26	11:15:09	69.6
209	2021/02/26	11:15:12	78.8
210	2021/02/26	11:15:15	73.5
211	2021/02/26	11:15:18	68.8
212	2021/02/26	11:15:21	70.9
213	2021/02/26	11:15:24	67.2
214	2021/02/26	11:15:27	67.8
215	2021/02/26	11:15:30	60.0
216	2021/02/26	11:15:33	59.0
217	2021/02/26	11:15:36	68.6
218	2021/02/26	11:15:39	64.3
219	2021/02/26	11:15:42	56.3
220	2021/02/26	11:15:45	51.2
221	2021/02/26	11:15:48	48.3
222	2021/02/26	11:15:51	52.9
223	2021/02/26	11:15:54	54.4
224	2021/02/26	11:15:57	52.9
225	2021/02/26	11:16:00	60.5
226	2021/02/26	11:16:03	62.2
227	2021/02/26	11:16:06	65.0
228	2021/02/26	11:16:09	58.2
229	2021/02/26	11:16:12	50.8
230	2021/02/26	11:16:15	56.4
231	2021/02/26	11:16:18	65.5
232	2021/02/26	11:16:21	61.4
233	2021/02/26	11:16:24	59.3
234	2021/02/26	11:16:27	53.9
235	2021/02/26	11:16:30	59.2
236	2021/02/26	11:16:33	65.3
237	2021/02/26	11:16:36	63.9
238	2021/02/26	11:16:39	63.3
239	2021/02/26	11:16:42	65.5
240	2021/02/26	11:16:45	71.2
241	2021/02/26	11:16:48	63.1
242	2021/02/26	11:16:51	60.2
243	2021/02/26	11:16:54	57.3
244	2021/02/26	11:16:57	69.6
245	2021/02/26	11:17:00	73.2
246	2021/02/26	11:17:03	72.0
247	2021/02/26	11:17:06	70.3
248	2021/02/26	11:17:09	63.8
249	2021/02/26	11:17:12	70.4
250	2021/02/26	11:17:15	62.4
251	2021/02/26	11:17:18	72.2
252	2021/02/26	11:17:21	64.2
253	2021/02/26	11:17:24	58.7
254	2021/02/26	11:17:27	66.0
255	2021/02/26	11:17:30	62.2
256	2021/02/26	11:17:33	52.5
257	2021/02/26	11:17:36	52.4
258	2021/02/26	11:17:39	55.0
259	2021/02/26	11:17:42	53.0
260	2021/02/26	11:17:45	46.9
261	2021/02/26	11:17:48	45.4
262	2021/02/26	11:17:51	44.1
263	2021/02/26	11:17:54	43.0
264	2021/02/26	11:17:57	43.2
265	2021/02/26	11:18:00	45.0
266	2021/02/26	11:18:03	43.6
267	2021/02/26	11:18:06	45.2
268	2021/02/26	11:18:09	49.0
269	2021/02/26	11:18:12	57.0
270	2021/02/26	11:18:15	64.1
271	2021/02/26	11:18:18	60.8
272	2021/02/26	11:18:21	54.7
273	2021/02/26	11:18:24	55.0
274	2021/02/26	11:18:27	62.3
275	2021/02/26	11:18:30	67.8
276	2021/02/26	11:18:33	71.6
277	2021/02/26	11:18:36	71.2
278	2021/02/26	11:18:39	70.7
279	2021/02/26	11:18:42	70.9
280	2021/02/26	11:18:45	64.5

281	2021/02/26	11:18:48	59.4
282	2021/02/26	11:18:51	69.0
283	2021/02/26	11:18:54	66.8
284	2021/02/26	11:18:57	62.9
285	2021/02/26	11:19:00	54.1
286	2021/02/26	11:19:03	53.8
287	2021/02/26	11:19:06	67.2
288	2021/02/26	11:19:09	67.7
289	2021/02/26	11:19:12	64.9
290	2021/02/26	11:19:15	56.0
291	2021/02/26	11:19:18	52.1
292	2021/02/26	11:19:21	62.8
293	2021/02/26	11:19:24	65.5
294	2021/02/26	11:19:27	55.0
295	2021/02/26	11:19:30	47.9
296	2021/02/26	11:19:33	46.6
297	2021/02/26	11:19:36	50.2
298	2021/02/26	11:19:39	47.5
299	2021/02/26	11:19:42	52.4
300	2021/02/26	11:19:45	53.3

Freq Weight : A
Time Weight : SLOW
Level Range : 40-100
Max dB : 87.2 - 2021/02/26 11:51:00
Level Range : 40-100
SEL : 94.6
Leq : 65.0

No.s	Date Time	(dB)
1	2021/02/26 11:39:48	54.2
2	2021/02/26 11:39:51	54.7
3	2021/02/26 11:39:54	49.3
4	2021/02/26 11:39:57	46.0
5	2021/02/26 11:40:00	45.4
6	2021/02/26 11:40:03	45.4
7	2021/02/26 11:40:06	44.8
8	2021/02/26 11:40:09	43.6
9	2021/02/26 11:40:12	42.4
10	2021/02/26 11:40:15	50.1
11	2021/02/26 11:40:18	58.1
12	2021/02/26 11:40:21	57.1
13	2021/02/26 11:40:24	49.4
14	2021/02/26 11:40:27	51.7
15	2021/02/26 11:40:30	50.0
16	2021/02/26 11:40:33	48.8
17	2021/02/26 11:40:36	45.5
18	2021/02/26 11:40:39	45.9
19	2021/02/26 11:40:42	45.7
20	2021/02/26 11:40:45	47.4
21	2021/02/26 11:40:48	51.5
22	2021/02/26 11:40:51	47.6
23	2021/02/26 11:40:54	58.1
24	2021/02/26 11:40:57	66.8
25	2021/02/26 11:41:00	56.6
26	2021/02/26 11:41:03	50.1
27	2021/02/26 11:41:06	49.4
28	2021/02/26 11:41:09	48.8
29	2021/02/26 11:41:12	48.6
30	2021/02/26 11:41:15	48.8
31	2021/02/26 11:41:18	46.3
32	2021/02/26 11:41:21	47.1
33	2021/02/26 11:41:24	48.2
34	2021/02/26 11:41:27	51.1
35	2021/02/26 11:41:30	50.1
36	2021/02/26 11:41:33	50.4
37	2021/02/26 11:41:36	64.2
38	2021/02/26 11:41:39	65.6
39	2021/02/26 11:41:42	54.9
40	2021/02/26 11:41:45	48.8
41	2021/02/26 11:41:48	47.9
42	2021/02/26 11:41:51	47.9
43	2021/02/26 11:41:54	55.1
44	2021/02/26 11:41:57	63.6
45	2021/02/26 11:42:00	57.4
46	2021/02/26 11:42:03	55.3
47	2021/02/26 11:42:06	54.6
48	2021/02/26 11:42:09	54.6
49	2021/02/26 11:42:12	61.0
50	2021/02/26 11:42:15	60.4
51	2021/02/26 11:42:18	60.7
52	2021/02/26 11:42:21	59.0
53	2021/02/26 11:42:24	59.2
54	2021/02/26 11:42:27	64.7
55	2021/02/26 11:42:30	59.8
56	2021/02/26 11:42:33	55.3
57	2021/02/26 11:42:36	59.7
58	2021/02/26 11:42:39	60.1
59	2021/02/26 11:42:42	67.7
60	2021/02/26 11:42:45	64.3
61	2021/02/26 11:42:48	57.5
62	2021/02/26 11:42:51	66.0
63	2021/02/26 11:42:54	56.9
64	2021/02/26 11:42:57	51.6
65	2021/02/26 11:43:00	48.4
66	2021/02/26 11:43:03	49.7
67	2021/02/26 11:43:06	56.7
68	2021/02/26 11:43:09	65.6
69	2021/02/26 11:43:12	63.0
70	2021/02/26 11:43:15	61.2
71	2021/02/26 11:43:18	63.1
72	2021/02/26 11:43:21	55.0
73	2021/02/26 11:43:24	51.1
74	2021/02/26 11:43:27	51.1
75	2021/02/26 11:43:30	49.5
76	2021/02/26 11:43:33	48.2
77	2021/02/26 11:43:36	46.5
78	2021/02/26 11:43:39	46.5
79	2021/02/26 11:43:42	47.9
80	2021/02/26 11:43:45	44.3
81	2021/02/26 11:43:48	55.5
82	2021/02/26 11:43:51	63.7
83	2021/02/26 11:43:54	54.6
84	2021/02/26 11:43:57	51.2

85	2021/02/26	11:44:00	58.3
86	2021/02/26	11:44:03	62.8
87	2021/02/26	11:44:06	74.9
88	2021/02/26	11:44:09	74.4
89	2021/02/26	11:44:12	62.9
90	2021/02/26	11:44:15	54.4
91	2021/02/26	11:44:18	51.1
92	2021/02/26	11:44:21	58.1
93	2021/02/26	11:44:24	63.4
94	2021/02/26	11:44:27	58.9
95	2021/02/26	11:44:30	58.7
96	2021/02/26	11:44:33	50.2
97	2021/02/26	11:44:36	56.4
98	2021/02/26	11:44:39	58.4
99	2021/02/26	11:44:42	50.8
100	2021/02/26	11:44:45	54.2
101	2021/02/26	11:44:48	46.9
102	2021/02/26	11:44:51	58.1
103	2021/02/26	11:44:54	60.3
104	2021/02/26	11:44:57	60.6
105	2021/02/26	11:45:00	54.1
106	2021/02/26	11:45:03	52.3
107	2021/02/26	11:45:06	50.0
108	2021/02/26	11:45:09	51.0
109	2021/02/26	11:45:12	59.6
110	2021/02/26	11:45:15	68.4
111	2021/02/26	11:45:18	58.7
112	2021/02/26	11:45:21	51.4
113	2021/02/26	11:45:24	49.1
114	2021/02/26	11:45:27	54.3
115	2021/02/26	11:45:30	49.3
116	2021/02/26	11:45:33	53.3
117	2021/02/26	11:45:36	66.7
118	2021/02/26	11:45:39	56.8
119	2021/02/26	11:45:42	50.9
120	2021/02/26	11:45:45	52.4
121	2021/02/26	11:45:48	51.7
122	2021/02/26	11:45:51	52.2
123	2021/02/26	11:45:54	60.1
124	2021/02/26	11:45:57	62.3
125	2021/02/26	11:46:00	57.6
126	2021/02/26	11:46:03	56.8
127	2021/02/26	11:46:06	60.9
128	2021/02/26	11:46:09	61.1
129	2021/02/26	11:46:12	58.7
130	2021/02/26	11:46:15	56.4
131	2021/02/26	11:46:18	57.2
132	2021/02/26	11:46:21	54.4
133	2021/02/26	11:46:24	51.0
134	2021/02/26	11:46:27	52.1
135	2021/02/26	11:46:30	51.7
136	2021/02/26	11:46:33	53.4
137	2021/02/26	11:46:36	56.8
138	2021/02/26	11:46:39	59.8
139	2021/02/26	11:46:42	53.9
140	2021/02/26	11:46:45	50.0
141	2021/02/26	11:46:48	49.5
142	2021/02/26	11:46:51	49.3
143	2021/02/26	11:46:54	55.3
144	2021/02/26	11:46:57	60.9
145	2021/02/26	11:47:00	52.6
146	2021/02/26	11:47:03	53.9
147	2021/02/26	11:47:06	62.7
148	2021/02/26	11:47:09	61.8
149	2021/02/26	11:47:12	63.7
150	2021/02/26	11:47:15	68.6
151	2021/02/26	11:47:18	59.3
152	2021/02/26	11:47:21	53.0
153	2021/02/26	11:47:24	50.7
154	2021/02/26	11:47:27	48.7
155	2021/02/26	11:47:30	56.6
156	2021/02/26	11:47:33	50.2
157	2021/02/26	11:47:36	52.8
158	2021/02/26	11:47:39	61.2
159	2021/02/26	11:47:42	58.3
160	2021/02/26	11:47:45	63.1
161	2021/02/26	11:47:48	66.6
162	2021/02/26	11:47:51	65.7
163	2021/02/26	11:47:54	68.6
164	2021/02/26	11:47:57	62.2
165	2021/02/26	11:48:00	55.4
166	2021/02/26	11:48:03	56.7
167	2021/02/26	11:48:06	54.2
168	2021/02/26	11:48:09	48.5
169	2021/02/26	11:48:12	45.8
170	2021/02/26	11:48:15	50.9
171	2021/02/26	11:48:18	56.5
172	2021/02/26	11:48:21	54.7
173	2021/02/26	11:48:24	68.2
174	2021/02/26	11:48:27	63.0
175	2021/02/26	11:48:30	59.2
176	2021/02/26	11:48:33	58.9
177	2021/02/26	11:48:36	52.6
178	2021/02/26	11:48:39	53.0
179	2021/02/26	11:48:42	49.9
180	2021/02/26	11:48:45	48.2
181	2021/02/26	11:48:48	46.7
182	2021/02/26	11:48:51	46.8

183	2021/02/26	11:48:54	46.4
184	2021/02/26	11:48:57	46.4
185	2021/02/26	11:49:00	46.9
186	2021/02/26	11:49:03	47.1
187	2021/02/26	11:49:06	47.0
188	2021/02/26	11:49:09	47.6
189	2021/02/26	11:49:12	48.2
190	2021/02/26	11:49:15	47.4
191	2021/02/26	11:49:18	47.2
192	2021/02/26	11:49:21	48.9
193	2021/02/26	11:49:24	55.2
194	2021/02/26	11:49:27	54.4
195	2021/02/26	11:49:30	63.6
196	2021/02/26	11:49:33	62.6
197	2021/02/26	11:49:36	67.5
198	2021/02/26	11:49:39	65.1
199	2021/02/26	11:49:42	65.8
200	2021/02/26	11:49:45	62.2
201	2021/02/26	11:49:48	65.1
202	2021/02/26	11:49:51	69.7
203	2021/02/26	11:49:54	68.9
204	2021/02/26	11:49:57	73.0
205	2021/02/26	11:50:00	72.2
206	2021/02/26	11:50:03	70.1
207	2021/02/26	11:50:06	63.4
208	2021/02/26	11:50:09	66.2
209	2021/02/26	11:50:12	61.1
210	2021/02/26	11:50:15	54.8
211	2021/02/26	11:50:18	61.4
212	2021/02/26	11:50:21	57.7
213	2021/02/26	11:50:24	56.3
214	2021/02/26	11:50:27	57.2
215	2021/02/26	11:50:30	57.3
216	2021/02/26	11:50:33	64.4
217	2021/02/26	11:50:36	60.4
218	2021/02/26	11:50:39	58.8
219	2021/02/26	11:50:42	58.0
220	2021/02/26	11:50:45	62.2
221	2021/02/26	11:50:48	64.6
222	2021/02/26	11:50:51	64.0
223	2021/02/26	11:50:54	73.7
224	2021/02/26	11:50:57	85.5
225	2021/02/26	11:51:00	79.5
226	2021/02/26	11:51:03	67.5
227	2021/02/26	11:51:06	67.3
228	2021/02/26	11:51:09	75.0
229	2021/02/26	11:51:12	73.2
230	2021/02/26	11:51:15	62.4
231	2021/02/26	11:51:18	54.4
232	2021/02/26	11:51:21	56.2
233	2021/02/26	11:51:24	67.0
234	2021/02/26	11:51:27	60.7
235	2021/02/26	11:51:30	66.3
236	2021/02/26	11:51:33	56.5
237	2021/02/26	11:51:36	55.3
238	2021/02/26	11:51:39	53.5
239	2021/02/26	11:51:42	51.6
240	2021/02/26	11:51:45	51.7
241	2021/02/26	11:51:48	58.3
242	2021/02/26	11:51:51	48.6
243	2021/02/26	11:51:54	44.5
244	2021/02/26	11:51:57	45.1
245	2021/02/26	11:52:00	42.5
246	2021/02/26	11:52:03	41.9
247	2021/02/26	11:52:06	41.0
248	2021/02/26	11:52:09	43.3
249	2021/02/26	11:52:12	44.6
250	2021/02/26	11:52:15	54.4
251	2021/02/26	11:52:18	64.4
252	2021/02/26	11:52:21	57.3
253	2021/02/26	11:52:24	57.0
254	2021/02/26	11:52:27	50.9
255	2021/02/26	11:52:30	50.6
256	2021/02/26	11:52:33	56.5
257	2021/02/26	11:52:36	63.8
258	2021/02/26	11:52:39	71.9
259	2021/02/26	11:52:42	69.2
260	2021/02/26	11:52:45	58.7
261	2021/02/26	11:52:48	55.8
262	2021/02/26	11:52:51	68.6
263	2021/02/26	11:52:54	60.1
264	2021/02/26	11:52:57	50.4
265	2021/02/26	11:53:00	44.1
266	2021/02/26	11:53:03	42.8
267	2021/02/26	11:53:06	43.6
268	2021/02/26	11:53:09	46.9
269	2021/02/26	11:53:12	45.2
270	2021/02/26	11:53:15	51.0
271	2021/02/26	11:53:18	64.6
272	2021/02/26	11:53:21	61.1
273	2021/02/26	11:53:24	61.2
274	2021/02/26	11:53:27	66.7
275	2021/02/26	11:53:30	55.9
276	2021/02/26	11:53:33	48.6
277	2021/02/26	11:53:36	54.3
278	2021/02/26	11:53:39	65.0
279	2021/02/26	11:53:42	68.3
280	2021/02/26	11:53:45	61.4

281	2021/02/26	11:53:48	54.9
282	2021/02/26	11:53:51	51.4
283	2021/02/26	11:53:54	51.6
284	2021/02/26	11:53:57	49.3
285	2021/02/26	11:54:00	46.6
286	2021/02/26	11:54:03	45.8
287	2021/02/26	11:54:06	46.5
288	2021/02/26	11:54:09	42.3
289	2021/02/26	11:54:12	43.1
290	2021/02/26	11:54:15	43.5
291	2021/02/26	11:54:18	44.8
292	2021/02/26	11:54:21	53.6
293	2021/02/26	11:54:24	64.0
294	2021/02/26	11:54:27	55.3
295	2021/02/26	11:54:30	57.7
296	2021/02/26	11:54:33	63.0
297	2021/02/26	11:54:36	55.3
298	2021/02/26	11:54:39	59.1
299	2021/02/26	11:54:42	60.4
300	2021/02/26	11:54:45	54.4

Freq Weight : A
Time Weight : SLOW
Level Range : 40-100
Max dB : 80.5 - 2021/02/26 12:21:33
Level Range : 40-100
SEL : 87.0
Leq : 57.5

No.s	Date Time	(dB)
1	2021/02/26 12:06:44	42.2
2	2021/02/26 12:06:47	42.8
3	2021/02/26 12:06:50	45.3
4	2021/02/26 12:06:53	57.8
5	2021/02/26 12:06:56	55.9
6	2021/02/26 12:06:59	54.0
7	2021/02/26 12:07:02	47.8
8	2021/02/26 12:07:05	48.5
9	2021/02/26 12:07:08	52.8
10	2021/02/26 12:07:11	42.8
11	2021/02/26 12:07:14	46.5
12	2021/02/26 12:07:17	40.5
13	2021/02/26 12:07:20	39.2
14	2021/02/26 12:07:23	39.5
15	2021/02/26 12:07:26	40.8
16	2021/02/26 12:07:29	41.0
17	2021/02/26 12:07:32	40.9
18	2021/02/26 12:07:35	48.3
19	2021/02/26 12:07:38	50.3
20	2021/02/26 12:07:41	45.7
21	2021/02/26 12:07:44	45.5
22	2021/02/26 12:07:47	61.8
23	2021/02/26 12:07:50	55.5
24	2021/02/26 12:07:53	52.5
25	2021/02/26 12:07:56	48.7
26	2021/02/26 12:07:59	45.2
27	2021/02/26 12:08:02	43.7
28	2021/02/26 12:08:05	44.9
29	2021/02/26 12:08:08	44.4
30	2021/02/26 12:08:11	43.0
31	2021/02/26 12:08:14	41.8
32	2021/02/26 12:08:17	42.6
33	2021/02/26 12:08:20	43.9
34	2021/02/26 12:08:23	43.9
35	2021/02/26 12:08:26	44.0
36	2021/02/26 12:08:29	46.2
37	2021/02/26 12:08:32	46.9
38	2021/02/26 12:08:35	49.8
39	2021/02/26 12:08:38	46.5
40	2021/02/26 12:08:41	43.7
41	2021/02/26 12:08:44	44.0
42	2021/02/26 12:08:47	42.8
43	2021/02/26 12:08:50	42.2
44	2021/02/26 12:08:53	43.6
45	2021/02/26 12:08:56	44.2
46	2021/02/26 12:08:59	43.4
47	2021/02/26 12:09:02	45.9
48	2021/02/26 12:09:05	50.3
49	2021/02/26 12:09:08	47.8
50	2021/02/26 12:09:11	49.7
51	2021/02/26 12:09:14	56.3
52	2021/02/26 12:09:17	58.4
53	2021/02/26 12:09:20	60.6
54	2021/02/26 12:09:23	62.0
55	2021/02/26 12:09:26	60.4
56	2021/02/26 12:09:29	62.3
57	2021/02/26 12:09:32	58.1
58	2021/02/26 12:09:35	56.4
59	2021/02/26 12:09:38	55.7
60	2021/02/26 12:09:41	50.3
61	2021/02/26 12:09:44	49.0
62	2021/02/26 12:09:47	48.1
63	2021/02/26 12:09:50	48.3
64	2021/02/26 12:09:53	47.1
65	2021/02/26 12:09:56	45.2
66	2021/02/26 12:09:59	46.2
67	2021/02/26 12:10:02	44.2
68	2021/02/26 12:10:05	44.1
69	2021/02/26 12:10:08	46.6
70	2021/02/26 12:10:11	43.0
71	2021/02/26 12:10:14	43.9
72	2021/02/26 12:10:17	41.6
73	2021/02/26 12:10:20	41.1
74	2021/02/26 12:10:23	40.2
75	2021/02/26 12:10:26	40.5
76	2021/02/26 12:10:29	39.5
77	2021/02/26 12:10:32	40.4
78	2021/02/26 12:10:35	40.0
79	2021/02/26 12:10:38	48.5
80	2021/02/26 12:10:41	42.9
81	2021/02/26 12:10:44	43.6
82	2021/02/26 12:10:47	41.4
83	2021/02/26 12:10:50	41.0
84	2021/02/26 12:10:53	46.2

85	2021/02/26	12:10:56	53.1
86	2021/02/26	12:10:59	59.2
87	2021/02/26	12:11:02	51.1
88	2021/02/26	12:11:05	44.0
89	2021/02/26	12:11:08	45.9
90	2021/02/26	12:11:11	43.3
91	2021/02/26	12:11:14	43.6
92	2021/02/26	12:11:17	43.3
93	2021/02/26	12:11:20	41.1
94	2021/02/26	12:11:23	40.6
95	2021/02/26	12:11:26	40.3
96	2021/02/26	12:11:29	42.3
97	2021/02/26	12:11:32	39.8
98	2021/02/26	12:11:35	40.8
99	2021/02/26	12:11:38	42.0
100	2021/02/26	12:11:41	40.6
101	2021/02/26	12:11:44	41.2
102	2021/02/26	12:11:47	39.6
103	2021/02/26	12:11:50	40.4
104	2021/02/26	12:11:53	40.6
105	2021/02/26	12:11:56	39.9
106	2021/02/26	12:11:59	40.3
107	2021/02/26	12:12:02	40.9
108	2021/02/26	12:12:05	42.4
109	2021/02/26	12:12:08	42.3
110	2021/02/26	12:12:11	43.1
111	2021/02/26	12:12:14	41.8
112	2021/02/26	12:12:17	43.1
113	2021/02/26	12:12:20	41.8
114	2021/02/26	12:12:23	41.5
115	2021/02/26	12:12:26	42.4
116	2021/02/26	12:12:29	43.1
117	2021/02/26	12:12:32	41.4
118	2021/02/26	12:12:35	42.0
119	2021/02/26	12:12:38	41.5
120	2021/02/26	12:12:41	44.5
121	2021/02/26	12:12:44	44.2
122	2021/02/26	12:12:47	45.9
123	2021/02/26	12:12:50	44.0
124	2021/02/26	12:12:53	43.6
125	2021/02/26	12:12:56	43.5
126	2021/02/26	12:12:59	48.4
127	2021/02/26	12:13:02	47.2
128	2021/02/26	12:13:05	45.5
129	2021/02/26	12:13:08	45.7
130	2021/02/26	12:13:11	47.8
131	2021/02/26	12:13:14	52.6
132	2021/02/26	12:13:17	51.6
133	2021/02/26	12:13:20	53.7
134	2021/02/26	12:13:23	55.9
135	2021/02/26	12:13:26	52.5
136	2021/02/26	12:13:29	52.8
137	2021/02/26	12:13:32	59.0
138	2021/02/26	12:13:35	55.0
139	2021/02/26	12:13:38	54.7
140	2021/02/26	12:13:41	49.2
141	2021/02/26	12:13:44	47.2
142	2021/02/26	12:13:47	51.1
143	2021/02/26	12:13:50	47.4
144	2021/02/26	12:13:53	47.0
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146	2021/02/26	12:13:59	47.6
147	2021/02/26	12:14:02	47.5
148	2021/02/26	12:14:05	54.1
149	2021/02/26	12:14:08	68.2
150	2021/02/26	12:14:11	62.4
151	2021/02/26	12:14:14	70.2
152	2021/02/26	12:14:17	67.7
153	2021/02/26	12:14:20	58.2
154	2021/02/26	12:14:23	58.0
155	2021/02/26	12:14:26	64.6
156	2021/02/26	12:14:29	58.3
157	2021/02/26	12:14:32	50.0
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159	2021/02/26	12:14:38	44.3
160	2021/02/26	12:14:41	43.2
161	2021/02/26	12:14:44	41.0
162	2021/02/26	12:14:47	39.9
163	2021/02/26	12:14:50	40.0
164	2021/02/26	12:14:53	39.1
165	2021/02/26	12:14:56	39.3
166	2021/02/26	12:14:59	40.6
167	2021/02/26	12:15:02	39.7
168	2021/02/26	12:15:05	40.5
169	2021/02/26	12:15:08	40.8
170	2021/02/26	12:15:11	40.6
171	2021/02/26	12:15:14	40.8
172	2021/02/26	12:15:17	40.4
173	2021/02/26	12:15:20	44.5
174	2021/02/26	12:15:23	52.8
175	2021/02/26	12:15:26	62.8
176	2021/02/26	12:15:29	52.2
177	2021/02/26	12:15:32	43.3
178	2021/02/26	12:15:35	43.3
179	2021/02/26	12:15:38	42.4
180	2021/02/26	12:15:41	40.3
181	2021/02/26	12:15:44	42.0
182	2021/02/26	12:15:47	42.3

183	2021/02/26	12:15:50	42.4
184	2021/02/26	12:15:53	44.5
185	2021/02/26	12:15:56	42.3
186	2021/02/26	12:15:59	40.5
187	2021/02/26	12:16:02	43.6
188	2021/02/26	12:16:05	41.4
189	2021/02/26	12:16:08	39.5
190	2021/02/26	12:16:11	41.3
191	2021/02/26	12:16:14	40.1
192	2021/02/26	12:16:17	39.4
193	2021/02/26	12:16:20	40.5
194	2021/02/26	12:16:23	40.7
195	2021/02/26	12:16:26	41.7
196	2021/02/26	12:16:29	40.9
197	2021/02/26	12:16:32	41.5
198	2021/02/26	12:16:35	41.2
199	2021/02/26	12:16:38	40.0
200	2021/02/26	12:16:41	40.3
201	2021/02/26	12:16:44	39.9
202	2021/02/26	12:16:47	40.0
203	2021/02/26	12:16:50	39.6
204	2021/02/26	12:16:53	39.8
205	2021/02/26	12:16:56	40.2
206	2021/02/26	12:16:59	40.3
207	2021/02/26	12:17:02	40.2
208	2021/02/26	12:17:05	40.2
209	2021/02/26	12:17:08	40.3
210	2021/02/26	12:17:11	40.0
211	2021/02/26	12:17:14	39.8
212	2021/02/26	12:17:17	39.9
213	2021/02/26	12:17:20	39.9
214	2021/02/26	12:17:23	46.5
215	2021/02/26	12:17:26	50.6
216	2021/02/26	12:17:29	45.3
217	2021/02/26	12:17:32	48.8
218	2021/02/26	12:17:35	47.6
219	2021/02/26	12:17:38	50.4
220	2021/02/26	12:17:41	44.1
221	2021/02/26	12:17:44	48.5
222	2021/02/26	12:17:47	52.0
223	2021/02/26	12:17:50	60.8
224	2021/02/26	12:17:53	50.6
225	2021/02/26	12:17:56	49.0
226	2021/02/26	12:17:59	45.7
227	2021/02/26	12:18:02	46.9
228	2021/02/26	12:18:05	49.3
229	2021/02/26	12:18:08	49.6
230	2021/02/26	12:18:11	43.2
231	2021/02/26	12:18:14	41.9
232	2021/02/26	12:18:17	42.3
233	2021/02/26	12:18:20	44.5
234	2021/02/26	12:18:23	43.7
235	2021/02/26	12:18:26	42.7
236	2021/02/26	12:18:29	42.2
237	2021/02/26	12:18:32	43.4
238	2021/02/26	12:18:35	42.7
239	2021/02/26	12:18:38	41.8
240	2021/02/26	12:18:41	49.5
241	2021/02/26	12:18:44	46.1
242	2021/02/26	12:18:47	43.1
243	2021/02/26	12:18:50	41.5
244	2021/02/26	12:18:53	41.7
245	2021/02/26	12:18:56	43.8
246	2021/02/26	12:18:59	45.2
247	2021/02/26	12:19:02	42.7
248	2021/02/26	12:19:05	47.6
249	2021/02/26	12:19:08	48.2
250	2021/02/26	12:19:11	44.8
251	2021/02/26	12:19:14	49.3
252	2021/02/26	12:19:17	45.6
253	2021/02/26	12:19:20	48.3
254	2021/02/26	12:19:23	45.6
255	2021/02/26	12:19:26	42.5
256	2021/02/26	12:19:29	42.1
257	2021/02/26	12:19:32	42.6
258	2021/02/26	12:19:35	45.5
259	2021/02/26	12:19:38	42.4
260	2021/02/26	12:19:41	43.3
261	2021/02/26	12:19:44	43.6
262	2021/02/26	12:19:47	45.1
263	2021/02/26	12:19:50	47.4
264	2021/02/26	12:19:53	46.7
265	2021/02/26	12:19:56	42.8
266	2021/02/26	12:19:59	42.1
267	2021/02/26	12:20:02	46.2
268	2021/02/26	12:20:05	50.1
269	2021/02/26	12:20:08	50.5
270	2021/02/26	12:20:11	48.6
271	2021/02/26	12:20:14	48.0
272	2021/02/26	12:20:17	49.9
273	2021/02/26	12:20:20	48.4
274	2021/02/26	12:20:23	47.3
275	2021/02/26	12:20:26	55.4
276	2021/02/26	12:20:29	59.2
277	2021/02/26	12:20:32	62.7
278	2021/02/26	12:20:35	54.7
279	2021/02/26	12:20:38	53.0
280	2021/02/26	12:20:41	48.0

281	2021/02/26	12:20:44	46.8
282	2021/02/26	12:20:47	49.5
283	2021/02/26	12:20:50	46.9
284	2021/02/26	12:20:53	47.5
285	2021/02/26	12:20:56	53.2
286	2021/02/26	12:20:59	48.3
287	2021/02/26	12:21:02	46.7
288	2021/02/26	12:21:05	45.6
289	2021/02/26	12:21:08	44.3
290	2021/02/26	12:21:11	45.6
291	2021/02/26	12:21:14	45.5
292	2021/02/26	12:21:17	47.9
293	2021/02/26	12:21:20	53.7
294	2021/02/26	12:21:23	59.4
295	2021/02/26	12:21:26	63.6
296	2021/02/26	12:21:29	71.1
297	2021/02/26	12:21:32	77.7
298	2021/02/26	12:21:35	68.3
299	2021/02/26	12:21:38	65.6
300	2021/02/26	12:21:41	64.4

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021
Case Description: BART Stations project - architectural coating

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Description	Impact	Equipment				
		Spec Usage Device (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Compressor (air)	No	40	77.7	100.0	0.0	

Equipment	Lmax	Leq	Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Calculated (dBA)	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Compressor (air)	71.6	67.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A											
Total	71.6	67.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A												

**** Receptor #2 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Residences on Tremont St.	Residential	62.0	57.0	52.0

Description	Impact	Equipment				
		Spec Usage Device (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Compressor (air)	No	40	77.7	150.0	0.0	

Equipment	Lmax	Leq	Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Calculated (dBA)	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night

		Calculated (dBA)		Day	Evening		Night			Day	Evening		Night
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax Leq													
Compressor (air)		68.1	64.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A													
Total		68.1	64.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													

**** Receptor #3 ****

		Baselines (dBA)			
Description		Land Use	Daytime	Evening	Night
Residences next to N Bkly BART		Residential	65.0	60.0	55.0

		Equipment				
		Spec	Actual	Receptor	Estimated	
Description		Impact Usage	Lmax	Lmax	Distance	Shielding
		Device (%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)		No	40	77.7	400.0	0.0

		Results													
		Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
		Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Equipment															
Lmax	Leq														
Compressor (air)		59.6	55.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A														
	Total	59.6	55.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/18/2021

Case Description: BART Stations project - building construction with augur drilling

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Description	Impact	Equipment		Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
		Usage Device	Spec (%)				
Auger Drill Rig	No	20		84.4	100.0	0.0	
Front End Loader	No	40		79.1	100.0	0.0	
Backhoe	No	40		77.6	100.0	0.0	
Tractor	No	40	84.0		100.0	0.0	
Crane	No	16		80.6	100.0	0.0	
All Other Equipment > 5 HP	No			50	85.0	100.0	0.0
All Other Equipment > 5 HP	No			50	85.0	100.0	0.0
All Other Equipment > 5 HP	No			50	85.0	100.0	0.0
Generator	No	50		80.6	100.0	0.0	
Welder / Torch	No	40		74.0	100.0	0.0	

Equipment Lmax Leq	Results						Noise Limits (dBA)						Noise Limit Exceedance (dBA)			
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night			
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Auger Drill Rig	78.3	71.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	78.0	74.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	74.5	66.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

All Other Equipment > 5 HP	79.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A N/A													
Generator	74.6	71.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Welder / Torch	68.0	64.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A													
Total	79.0	82.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													

***** Receptor #2 *****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
-----	-----	-----	-----	-----
Residences on Tremont St.	Residential	62.0	57.0	52.0

Description	Equipment					
	Impact	Spec Usage	Actual Lmax	Receptor Lmax	Estimated Distance	Shielding
-----	-----	-----	-----	-----	-----	-----
Auger Drill Rig	No	20	84.4	150.0	0.0	
Front End Loader	No	40	79.1	150.0	0.0	
Backhoe	No	40	77.6	150.0	0.0	
Tractor	No	40	84.0	150.0	0.0	
Crane	No	16	80.6	150.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	150.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	150.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	150.0	0.0	
Generator	No	50	80.6	150.0	0.0	
Welder / Torch	No	40	74.0	150.0	0.0	

Equipment	Results											
	Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	Calculated (dBA)		Day		Evening		Night		Day		Evening	
	-----		-----		-----		-----		-----		-----	
Lmax Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
--												
Auger Drill Rig	74.8	67.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A												
Front End Loader	69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A												
Backhoe	68.0	64.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A												
Tractor	74.5	70.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A												
Crane	71.0	63.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A												
All Other Equipment > 5 HP	75.5	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A	N/A	N/A												
All Other Equipment > 5 HP	75.5	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A												
All Other Equipment > 5 HP	75.5	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A												
Generator	71.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Welder / Torch	64.5	60.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A													
Total	75.5	79.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														

***** Receptor #3 *****

Description	Baselines (dBA)												
	Land Use		Daytime		Evening		Night						
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Residences next to N Bkly BART	Residential		65.0		60.0		55.0						
Equipment													
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Description	Impact	Spec Usage Device	Actual Lmax (%)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)							
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Auger Drill Rig	No	20		84.4	400.0	0.0							
Front End Loader	No	40		79.1	400.0	0.0							
Backhoe	No	40		77.6	400.0	0.0							
Tractor	No	40	84.0		400.0	0.0							
Crane	No	16		80.6	400.0	0.0							
All Other Equipment > 5 HP	No	50		85.0	400.0	0.0							
All Other Equipment > 5 HP	No	50		85.0	400.0	0.0							
All Other Equipment > 5 HP	No	50		85.0	400.0	0.0							
Generator	No	50		80.6	400.0	0.0							
Welder / Torch	No	40		74.0	400.0	0.0							
Results													

	Noise Limits (dBA)												
	Noise Limit Exceedance (dBA)												
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Calculated (dBA)	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	Day
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Lmax Leq													
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
--													
Auger Drill Rig	66.3	59.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A													
Front End Loader	61.0	57.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A N/A													
Backhoe	59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Tractor	65.9	62.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													

Crane		62.5	54.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
All Other Equipment	> 5 HP	66.9	63.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A												
All Other Equipment	> 5 HP	66.9	63.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A												
All Other Equipment	> 5 HP	66.9	63.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A												
Generator		62.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Welder / Torch		55.9	52.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A													
	Total	66.9	70.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021
Case Description: BART Stations project - demolition

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Description	Equipment				
	Impact	Spec	Actual	Receptor	Estimated
	Usage	Lmax	Lmax	Distance	Shielding
Device	(%)	(dBA)	(dBA)	(feet)	(dBA)
Concrete Saw	No	20	89.6	100.0	0.0
Excavator	No	40	80.7	100.0	0.0
Excavator	No	40	80.7	100.0	0.0
Excavator	No	40	80.7	100.0	0.0
Dozer	No	40	81.7	100.0	0.0
Dozer	No	40	81.7	100.0	0.0

Equipment	Lmax	Leq	Results						Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Calculated (dBA)		Day		Evening		Night		Day		Evening		Night					
			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq				
Concrete Saw			83.6	76.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
N/A																				
Excavator			74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
N/A																				
Excavator			74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
N/A																				
Excavator			74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
N/A																				
Dozer			75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
N/A																				
Dozer			75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
N/A																				
Total			83.6	80.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
N/A																				

**** Receptor #2 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night

Residences on Tremont St. Residential 62.0 57.0 52.0

Equipment

Spec Actual Receptor Estimated					
Impact Usage Lmax Lmax Distance Shielding					
Description	Device	(%)	(dBA)	(dBA)	(feet) (dBA)

Concrete Saw	No	20		89.6	150.0 0.0
Excavator	No	40		80.7	150.0 0.0
Excavator	No	40		80.7	150.0 0.0
Excavator	No	40		80.7	150.0 0.0
Dozer	No	40		81.7	150.0 0.0
Dozer	No	40		81.7	150.0 0.0

Results

Noise Limits (dBA)							Noise Limit Exceedance (dBA)						
-----							-----						
Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
-----		-----		-----		-----		-----		-----		-----	
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax Leq													

Concrete Saw		80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Excavator		71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Excavator		71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Excavator		71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Dozer		72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Dozer		72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													
Total		80.0	76.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A													

**** Receptor #3 ****

Baselines (dBA)					
Description Land Use Daytime Evening Night					

Residences next to N Bkly BART	Residential		65.0	60.0	55.0

Equipment

Spec Actual Receptor Estimated					
Impact Usage Lmax Lmax Distance Shielding					
Description	Device	(%)	(dBA)	(dBA)	(feet) (dBA)

Concrete Saw	No	20		89.6	400.0 0.0

Excavator	No	40	80.7	400.0	0.0
Excavator	No	40	80.7	400.0	0.0
Excavator	No	40	80.7	400.0	0.0
Dozer	No	40	81.7	400.0	0.0
Dozer	No	40	81.7	400.0	0.0

Results

[illegible]

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021

Case Description: BART Stations project - grading

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Description	Impact	Equipment				
		Device	Usage (%)	Spec Lmax (dBA)	Actual Receptor Lmax (dBA)	Estimated Distance Shielding (dBA)
Excavator	No	40		80.7	100.0	0.0
Excavator	No	40		80.7	100.0	0.0
Dozer	No	40		81.7	100.0	0.0
Front End Loader	No	40		79.1	100.0	0.0
Backhoe	No	40		77.6	100.0	0.0
Grader	No	40	85.0		100.0	0.0
Scraper	No	40		83.6	100.0	0.0
Scraper	No	40		83.6	100.0	0.0

		Results													
		Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
		Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Equipment	Lmax	Leq													
Excavator	74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A															
Excavator	74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A															
Dozer	75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A															
Front End Loader	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A N/A															
Backhoe	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A															
Grader	79.0	75.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A															
Scraper	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A															
Scraper	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A															
Total	79.0	81.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

N/A

***** Receptor #2 *****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
-----	-----	-----	-----	-----
Residences on Tremont St.	Residential	62.0	57.0	52.0

Description	Equipment				
	Impact	Usage	Spec Lmax	Actual Lmax	Receptor Estimated Distance
-----	-----	-----	-----	-----	-----
Excavator	No	40		80.7	150.0
Excavator	No	40		80.7	150.0
Dozer	No	40		81.7	150.0
Front End Loader	No	40		79.1	150.0
Backhoe	No	40		77.6	150.0
Grader	No	40	85.0		150.0
Scraper	No	40		83.6	150.0
Scraper	No	40		83.6	150.0

		Results													
		Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
		Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax	Leq														
Excavator		71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Excavator		71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Dozer		72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Front End Loader		69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A														
Backhoe		68.0	64.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Grader		75.5	71.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Scraper		74.0	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Scraper		74.0	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
	Total	75.5	77.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															

***** Receptor #3 *****

Description	Baselines (dBA)				
	Land Use	Daytime	Evening	Night	
Residences next to N Bkly BART	Residential		65.0	60.0	55.0

Equipment						
Description	Impact Device	Spec Usage		Receptor Lmax		Estimated
		Usage (%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Excavator	No	40		80.7	400.0	0.0
Excavator	No	40		80.7	400.0	0.0
Dozer	No	40		81.7	400.0	0.0
Front End Loader	No	40		79.1	400.0	0.0
Backhoe	No	40		77.6	400.0	0.0
Grader	No	40	85.0		400.0	0.0
Scraper	No	40		83.6	400.0	0.0
Scraper	No	40		83.6	400.0	0.0

Results													

</													

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021
Case Description: BART Stations project - paving

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Description	Equipment					
	Impact	Spec Usage	Actual Lmax	Receptor Lmax	Estimated Distance	Shielding
	Device	(%)	(dBA)	(dBA)	(feet)	(dBA)
Paver	No	50	77.2	100.0	0.0	
Paver	No	50	77.2	100.0	0.0	
Roller	No	20	80.0	100.0	0.0	
Roller	No	20	80.0	100.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	100.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	100.0	0.0	

			Results											

			Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Calculated (dBA)		Day		Evening		Night		Day		Evening	
Equipment			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax Leq														
-----			-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
--														
Paver			71.2	68.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Paver			71.2	68.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Roller			74.0	67.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
Roller			74.0	67.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														
All Other Equipment	> 5 HP		79.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A												
All Other Equipment	> 5 HP		79.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A												
Total			79.0	80.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A														

**** Receptor #2 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residences on Tremont St.	Residential	62.0	57.0	52.0

Equipment						
Description	Spec		Actual		Receptor	
	Impact	Usage	Lmax	Lmax	Distance	Shielding
	Device	(%)	(dBA)	(dBA)	(feet)	(dBA)
Paver	No	50	77.2	150.0	0.0	
Paver	No	50	77.2	150.0	0.0	
Roller	No	20	80.0	150.0	0.0	
Roller	No	20	80.0	150.0	0.0	
All Other Equipment > 5 HP		No	50	85.0	150.0	0.0
All Other Equipment > 5 HP		No	50	85.0	150.0	0.0

			Results													
			Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
			Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Equipment																
Lmax	Leq															

--																
Paver			67.7	64.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																
Paver			67.7	64.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																
Roller			70.5	63.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																
Roller			70.5	63.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																
All Other Equipment	> 5 HP		75.5	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A														
All Other Equipment	> 5 HP		75.5	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A														
	Total		75.5	76.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A																

***** Receptor #3 *****

Baselines (dBA)					
Description	Land Use	Daytime	Evening	Night	
Residences next to N Bkly BART	Residential	65.0	60.0	55.0	

Equipment						
Description	Spec		Actual		Receptor	
	Impact	Usage	Lmax	Lmax	Distance	Shielding
	Device	(%)	(dBA)	(dBA)	(feet)	(dBA)

Paver	No	50	77.2	400.0	0.0	
Paver	No	50	77.2	400.0	0.0	
Roller	No	20	80.0	400.0	0.0	
Roller	No	20	80.0	400.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	400.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	400.0	0.0	

Results

			Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
			Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq		
Equipment	Lmax	Leq														

--																
Paver			59.2	56.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A																
Paver			59.2	56.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A																
Roller			61.9	54.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A																
Roller			61.9	54.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A																
All Other Equipment	> 5 HP		66.9	63.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A														
All Other Equipment	> 5 HP		66.9	63.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A														
	Total		66.9	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
N/A																

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021
Case Description: BART Stations project - site preparation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Description	Impact	Equipment				
		Device	Usage (%)	Spec Lmax (dBA)	Actual Receptor Lmax (dBA)	Estimated Distance Shielding (dBA)
Dozer	No	40		81.7	100.0	0.0
Dozer	No	40		81.7	100.0	0.0
Dozer	No	40		81.7	100.0	0.0
Front End Loader	No	40		79.1	100.0	0.0
Front End Loader	No	40		79.1	100.0	0.0
Backhoe	No	40		77.6	100.0	0.0
Tractor	No	40		84.0	100.0	0.0

		Results													
		Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
		Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax	Leq														
Dozer		75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Dozer		75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Dozer		75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Front End Loader		73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A														
Front End Loader		73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A														
Backhoe		71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Tractor		78.0	74.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
	Total	78.0	79.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															

**** Receptor #2 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Residences on Tremont St.	Residential	62.0	57.0	52.0

Equipment						
Description	Impact Device	Usage (%)	Receptor			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Dozer	No	40	81.7	150.0	0.0	
Dozer	No	40	81.7	150.0	0.0	
Dozer	No	40	81.7	150.0	0.0	
Front End Loader	No	40	79.1	150.0	0.0	
Front End Loader	No	40	79.1	150.0	0.0	
Backhoe	No	40	77.6	150.0	0.0	
Tractor	No	40	84.0	150.0	0.0	

		Results													
		Noise Limits (dBA)						Noise Limit Exceedance (dBA)							
		Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax	Leq														
Dozer		72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Dozer		72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Dozer		72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Front End Loader		69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A														
Front End Loader		69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A														
Backhoe		68.0	64.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
Tractor		74.5	70.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															
	Total	74.5	76.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A															

***** Receptor #3 *****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Residences next to N Bkly BART	Residential	65.0	60.0	55.0

Equipment

Validation of TNM for Proposed Project

To validate the traffic noise model in TNM Version 2.5, modeled existing noise levels during weekday afternoon peak hours at several receiver locations were compared with measured noise levels at those locations. Modeled noise levels on Delaware Street and Martin Luther King Jr. Way were based on observed traffic counts during 15-minute noise measurements (multiplied by four to produce hourly traffic volumes). Traffic volumes published by Caltrans and the City for other modeled roadways, including Adeline Street, Ashby Avenue, and Sacramento Street, were cut by 30 percent to account for temporarily reduced traffic levels during the COVID-19 pandemic. This reduction factor is consistent with data by the traffic analytics firm INRIX. Since June 2020, INRIX documented that vehicle miles traveled in the Bay Area has ranged from approximately 60 to 80 percent of normal levels (Savidge 2021).

A close correspondence between measured ambient noise levels and modeled traffic noise levels at a given location is expected when motor vehicles are the primary noise source during the on-site measurement. Table 1 compares measured and modeled noise levels.

Table 1 Comparison Between Measured Ambient Noise and Modeled Traffic Noise Levels

No.	Location ¹	Existing Noise Level (dBA L _{eq})		Difference in Noise Level (2 minus 1)
		Measured Ambient Noise (1)	Modeled Traffic Noise (2)	
1	Woolsey Street south of Ed Roberts Campus parking lot	53.3	55.9	+2.6
2	Tremont Street northeast of Ed Roberts Campus parking lot	61.8	59.8	-2.0
3	Martin Luther King Jr. Way west of Ashby BART Station parking lot	65.4	67.6	+2.2
4	Delaware Street south of North Berkeley BART Station	65.0	66.1	+1.1

¹ Noise measurement locations are shown in Figures 4.8-1 and 4.8-2 in the EIR.

Source: Field measurements using ANSI Type II Integrating sound level meter. TNM 2004. See Appendix E for model outputs.

As shown in Table 1, the difference between measured and modeled noise levels ranges from 1.1 to 2.6 dBA L_{eq} at noise measurement locations 1, 2, 3, and 4. This is a relatively close correspondence between measured and modeled noise. Although modeled noise levels are generally higher, this results in a more conservative traffic noise analysis because the FTA's criteria for increases in traffic noise are more stringent when existing traffic noise is louder. Therefore, this analysis relies on the noise model to estimate noise experienced by noise-sensitive receptors in the project vicinity.

RESULTS: SOUND LEVELS
BART Stations Rezone

Rincon Consultants												
Jonathan Berlin												
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:												
RUN:												
BARRIER DESIGN:												
ATMOSPHERICS:												
Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Ashby Ave. residences west of MLK	6	1	0.0	73.1	66	73.1	10	Snd Lvl	73.1	0.0	8	-8.0
MLK Jr. Way residences	7	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
Ed Roberts Campus	8	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	8	-8.0
Delaware St. residences	9	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
Sacramento St. residences	10	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		5	0.0	0.0	0.0							
All Impacted		5	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

RESULTS: SOUND LEVELS
BART Stations Rezone

Rincon Consultants													
Jonathan Berlin													
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:													
RUN:													
BARRIER DESIGN:													
ATMOSPHERICS:													
Receiver													
Name	No.	#DUs	Existing	No Barrier					With Barrier				
			LAeq1h	LAeq1h			Increase over existing	Type	Calculated	Noise Reduction			
				Calculated	Crit'n		Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
								Sub'l Inc					minus
													Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	dB
NM 1	1	1	0.0	58.1	66	58.1	10	----	58.1	0.0	8	-8.0	
NM 3	2	1	0.0	71.7	66	71.7	10	Snd Lvl	71.7	0.0	8	-8.0	
NM 4	3	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0	
Dwelling Units		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		3	0.0	0.0	0.0								
All Impacted		2	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

RESULTS: SOUND LEVELS
BART Stations Rezone

Rincon Consultants													
Jonathan Berlin													
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:													
RUN:													
BARRIER DESIGN:													
ATMOSPHERICS:													
Receiver													
Name	No.	#DUs	Existing	No Barrier					With Barrier				
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	
							Sub'l Inc					minus	
												Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
NM 1	1	1	0.0	55.9	66	55.9	10	----	55.9	0.0	8	-8.0	
NM 3	2	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0	
NM 4	3	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0	
NM 2	5	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0	
Dwelling Units		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		4	0.0	0.0	0.0								
All Impacted		2	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

RESULTS: SOUND LEVELS
BART Stations Rezone

Rincon Consultants												
Jonathan Berlin												
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:												
RUN:												
BARRIER DESIGN:												
ATMOSPHERICS:												
Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Ashby Ave. residences west of MLK	6	1	0.0	73.2	66	73.2	10	Snd Lvl	73.2	0.0	8	-8.0
MLK Jr. Way residences	7	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
Ed Roberts Campus	8	1	0.0	67.8	66	67.8	10	Snd Lvl	67.8	0.0	8	-8.0
Delaware St. residences	9	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
Sacramento St. residences	10	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		5	0.0	0.0	0.0							
All Impacted		5	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

HVAC noise from North Berkeley BART station site at nearest residences (40

Combined Noise Level (CNEL) from 86 HVAC units

[illegible]

dB Addition (3)

[illegible]

dB Addition (3)

HVAC unit	34.9	3.09E+03
HVAC unit	34.9	3.09E+03
HVAC unit	34.9	3.09E+03
HVAC unit	34.9	3.09E+03
HVAC unit	34.9	3.09E+03

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
1,200 units at North Berkeley BART station
Approx. 84 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site at least 400 feet from residences, accounting for horizontal distance and height of roofline
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at nearest residences (200 ft)

Combined Noise Level (CNEL) from 47 HVAC units

[illegible]

dB Addition (2)

HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air Conditioning

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
600 units per parcel at Ashby BART station
50,000 sf of non-residential space per parcel
Approx. 47 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site is 200 feet from residences, accounting for horizontal distance and height of rooftop
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at Ed Roberts Campus (150 ft)

Combined Noise Level (CNEL) from 47 HVAC units

[illegible]

dB Addition

HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04

Source: Carrier 38AUZ/D 50 Hz Commercial
Split Systems Air Conditioning Condensing

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
600 units per parcel at Ashby BART station
50,000 sf of non-residential space per parcel
Approx. 47 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site is 150 feet away from Ed Roberts Campus, accounting for horizontal distance and height
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from North Berkeley BART station site at nearest residences (400 ft) under BART Patron Parking Alternative

Combined Noise Level (CNEL) from 79 HVAC units

[illegible]

dB Addition (3)

[illegible]

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split sys
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
1,125 units at North Berkeley BART station
Approx. 79 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site at least 400 feet from residences, accounting for horizontal distance and height of r
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shieldi
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at nearest residences (200 ft) under BART Patron Parking Alternative

Combined Noise Level (CNEL) from 44 HVAC units

[illegible]

dB Addition (2)

HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
Approx. 563 units per parcel at Ashby BART station
50,000 sf of non-residential space per parcel
Approx. 47 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site is 200 feet from residences, accounting for horizontal distance and height of rooftop
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at Ed Roberts Campus (150 ft) under BART Patron Parking Alternative

Combined Noise Level (CNEL) from 44 HVAC units

[illegible]

dB Addition

HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air Conditioning

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system condenser

1 ton of HVAC equipment needed per 600 SF of floor area

700 SF per residential unit

Approx. 563 units per parcel at Ashby BART station

50,000 sf of non-residential space per parcel

Approx. 44 16.7-ton HVAC units needed for project

Combined noise is equivalent to all units being at center of site

Center of site is 150 feet away from Ed Roberts Campus, accounting for horizontal distance and height of rooftop

Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding

Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA

All HVAC units operate continuously, day and night

HVAC noise from North Berkeley BART station site at nearest residences (400 ft) under Increased Housing Alternative

Combined Noise Level (CNEL) from 126 HVAC units

[illegible]

[illegible]

[illegible]

dB Addition (3)

HVAC unit	34.9	3.09E+03
HVAC unit	34.9	3.09E+03
HVAC unit	34.9	3.09E+03

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
1,800 units at North Berkeley BART station
Approx. 126 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site at least 400 feet from residences, accounting for horizontal distance and height of roof
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at nearest residences (200 ft) under Increased Housing Alternative

Combined Noise Level (CNEL) from 63 HVAC units

[illegible]

dB Addition (2)

HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
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HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04
HVAC unit	40.9	1.23E+04

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
Approx. 900 units per parcel at Ashby BART station
50,000 sf of non-residential space per parcel
Approx. 63 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site is 200 feet from residences, accounting for horizontal distance and height of rooftop
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at Ed Roberts Campus (150 ft) under Increased Housing Alternative

Combined Noise Level (CNEL) from 63 HVAC units

[illegible]

dB Addition

[illegible]

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:

Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system condenser

1 ton of HVAC equipment needed per 600 SF of floor area

700 SF per residential unit

Approx. 900 units per parcel at Ashby BART station

50,000 sf of non-residential space per parcel

Approx. 63 16.7-ton HVAC units needed for project

Combined noise is equivalent to all units being at center of site

Center of site is 150 feet away from Ed Roberts Campus, accounting for horizontal distance and height of rooftop

dB Addition

Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding

Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA

All HVAC units operate continuously, day and night

Appendix H

Transportation Analysis Methodology Memorandum

MEMORANDUM

Date: September 2, 2021 Project #: 24827

To: Alisa Shen, Principal Planner – City of Berkeley

From: Amanda Leahy, AICP; Grace Carsky; and Laurence Lewis, AICP/LEED AP – Kittelson

Project: Ashby and North Berkeley BART Station Area Zoning and EIR

Subject: Transportation Analysis Methodology Memorandum

INTRODUCTION

Planning is underway to re-imagine the Ashby and North Berkeley BART stations to include housing, open space, and community amenities. Both sites are owned by the San Francisco Bay Area Rapid Transit District (BART).

In September 2018, Governor Jerry Brown signed Assembly Bill 2923,¹ state legislation that affects zoning requirements on existing BART-owned property within 1/2 mile of stations in Alameda, Contra Costa, and San Francisco Counties. Cities and counties have until July 1, 2022 to rezone BART's property to conform with the standards established in AB 2923. The current zoning at the Ashby and North Berkeley BART stations does not comply with AB 2923, so the City of Berkeley must develop new zoning for these stations. The City of Berkeley is working with BART to develop zoning and site planning parameters for the station areas that reflect a shared community vision. After the zoning is complete, BART, as the property owner, will choose the developer and oversee construction of any projects at their stations.

The City and BART have agreed upon a Memorandum of Understanding (MOU)² that establishes a framework for development of the Ashby and North Berkeley BART stations, including a community advisory process and other community engagement; milestones and a timeline to develop zoning that complies with AB 2923; solicitation of developer(s); and further studies/planning for the two station areas. The first phase of planning for the Ashby and North Berkeley BART station areas will ultimately result in new

1 Assembly Bill 2923. https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB2923. Accessed August 19, 2020.

2 Memorandum of Understanding. https://www.cityofberkeley.info/Clerk/City_Council/2019/12_Dec/Documents/2019-12-10_Item_31_Approval_of_a_Memorandum.aspx. Accessed August 19, 2020.

zoning language added to the Berkeley Municipal Code. Development of new zoning will also require environmental review and the preparation of an Environmental Impact Report (EIR).

Kittelson & Associates, Inc. (Kittelson) prepared this memorandum to summarize the approach to the transportation analysis for the traffic and transportation section of the EIR. The transportation analysis identifies environmental effects of the proposed development program and selected alternatives for the Ashby and North Berkeley BART station sites using the environmental checklist form set forth in Appendix G of the CEQA Guidelines and thresholds and guidance established by the City of Berkeley in the City of Berkeley VMT Criteria and Thresholds (June 2020) and Transportation Impact Report Guidelines (September 2005) documents.³ The following transportation topics are addressed in this memorandum:

- Project description
- Project travel demand
- BART ridership and station access
- Vehicle miles traveled analysis
- Parking assessment
- Transportation demand management (TDM)

PROJECT DESCRIPTION

For purposes of a more conservative transportation analysis from a travel demand standpoint, Kittelson assumed a reasonable maximum building potential within the proposed zoning and development envelope, which takes into account the AB 2923 requirements, state and local land use regulations, neighborhood considerations and other constraints of the sites. The proposed development at each site is summarized below and described further in the Project Description Chapter of the EIR.

Ashby BART Station Site. The Ashby BART Station site (Assessor's Parcel Numbers 053-1597-39-04) encompasses the entire triangular block bounded by Ashby Avenue to the north, Adeline Street to the east and south, and Martin Luther King Jr. Way to the west. The site is currently located in the Adeline Corridor Commercial (C-AC) zoning district and would be rezoned as part of the Residential BART Mixed-Use District (R-BMU) with this project. The proposed project would construct 1,200 residential dwelling units and up to 100,000 square feet of community space.

North Berkeley BART Station. The North Berkeley BART Station site (Assessor's Parcel Numbers 058-2147-18-05) encompasses the entire block bounded by Virginia Street to the north, Delaware Street to the south, Sacramento Street to the east, and Acton Street to the west. The site is currently located in the Unclassified (U) zoning district with auxiliary lots located within the Single Family Residential (R-1) and Restricted Multiple-family Residential (R2-A) zoning districts. The site would be rezoned as part of the R-BMU District

³ The City is currently, as of October 15, 2021, in the process of updating the City of Berkeley Guidelines for Development of Traffic Impact Reports (published in September 2005).

with this project. The proposed project would construct 1,200 residential dwelling units and up to 50,000 square feet of community space.

PROJECT ANALYSIS APPROACH AND METHODOLOGIES

Project Travel Demand

The trip generation estimates were developed based on the vehicle trip rates provided in the Institute of Transportation Engineer's (ITE) Trip Generation Manual (10th Edition) with adjustments using methods consistent with the City's Guidelines. The Guidelines identifies potential trip generation adjustment factors to apply to the ITE trip generation to calculate the number of person trips generated by the project for each mode. Adjustment factors include trip credits for existing uses on the project site, internal trip capture to account for surrounding land use mix, and mode share adjustments to account for available transportation options. These adjustment factors and their application are described in this section. Detailed travel demand calculations are included as Attachment A.

Trip Generation Rates

Trip generation rates were chosen for a variety of potential land uses that could be developed as residential and community uses at the Ashby and North Berkeley BART station sites, based on surrounding land uses and community uses typically seen in mixed-use developments. The trip generation rates include residents, employees, and visitors and are presented in Table 1.

Table 1: ITE Trip Generation Rates

Land Use	ITE Land Use Code	Trips per Dwelling Unit or 1,000 Square Feet			
		Weekday Daily Rate	AM Peak Hour Rate	PM Peak Hour Rate	Saturday Midday Rate
Residential					
Residential – Apartment	220	7.32	0.46	0.56	0.70
Residential - Senior Adult Housing (Attached)	252	3.70	0.20	0.26	0.33
Recreational					
Health/Fitness Club	492	--	1.31	3.45	--
Institutional					
Daycare Center	565	47.62	11.00	11.12	1.7
Office					
General Office	710	9.47	1.16	1.15	0.53
Small Office Building	712	16.19	1.92	2.45	--
Medical-Dental Office Building	720	34.80	2.78	3.46	3.1
US Post Office	732	103.94	8.28	11.21	5.33
Retail					
Apparel Store	876	66.4	1.00	4.12	--
Convenience Market	851	762.28	62.54	49.11	79.12

Land Use	ITE Land Use Code	Trips per Dwelling Unit or 1,000 Square Feet			
		Weekday Daily Rate	AM Peak Hour Rate	PM Peak Hour Rate	Saturday Midday Rate
Pharmacy/Drugstore w/o Drive-Through	880	90.08	2.94	8.51	--
Services					
Quality Sit-Down Restaurant	931	83.84	0.73	7.80	10.68
Composite Restaurant	932	112.18	9.94	9.77	11.19
Coffee/Donut Shop w/o Drive-Through	936	--	101.14	36.31	--
Bread/Donut/Bagel Shop w/o DT	939	--	70.54	28.00	--

Source: Kittelson & Associates, Inc. 2020. ITE Manual, 10th Edition.

Notes: DU = Dwelling Units; SF = Square Feet; '--' means there are no rates for the time period.

Project Person Trip Generation Estimates

Project Land Use Program Assumptions

Kittelson estimated the travel demand generated by the proposed developments for weekday daily and weekday AM and PM peak hours. The specific tenants and use of the non-residential community space proposed at the Ashby and North Berkeley BART station sites are uncertain at this time. In order to provide a reasonable estimate of the travel demand potential associated with the community uses, and to allow for flexibility in selection of future tenants, the travel demand analysis presented in this memo was calculated as follows:

- **Ashby BART Station site.** A total of 100,000 square feet of community space is proposed. Half of that space, or 50,000 square feet, is assumed to be a Health/Fitness Club⁴, and the remaining 50,000 square feet is split equally among the following five land uses: Small Office Building, Convenience Market, Composite Restaurant, Bagel/Coffee Shop, and Daycare.
- **North Berkeley BART Station site.** The 25,000 square feet of community land use is split equally among the following five land uses: Small Office Building, Convenience Market, Composite Restaurant, Bagel/Coffee Shop, and Daycare.

These land uses represent a range of travel demand characteristics and are land uses that could reasonably be developed at the Ashby and North Berkeley BART station sites. While the weekend flea market at the Ashby BART station site is anticipated to continue, the trip generation analysis is focused on weekday AM and PM peak periods of travel and does not evaluate temporary events or weekend travel.

⁴ The 50,000 square foot Health/Fitness Club (ITE Code 492) represents the potential Ashby Recreation and Community Housing project of the Bay Area Outreach and Recreation Program and the East Bay Supportive Housing Collaborative. According to the project sponsor's letter to the Planning Commission in response to the Notice of Preparation on November 30, 2020, the size of the recreational facility is currently contemplated at around 50,000 square feet. The size of the residential component of the project is uncertain. However, given the trip generation rates for non-residential uses are typically higher than those for residential uses, the land use mix assumed for the remaining community uses would generate more trips than the residential component and the analysis could be considered to provide a conservative estimate of travel demand associated with the future development. The sponsor's letter was accessed on December 29, 2020 and can be found online: https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3_-_Commissions/Commission_for_Planning/2020-12-20_PC_Supplemental%20Communications%20Packet%201.pdf.

Project Person-Trip Generation

Table 2 presents the person-trips that would occur inside the project site (internal trips) and person-trips that would begin or end outside of the project site (external trips) based on the maximum potential development scenario for each site and assuming the allocation of non-residential community uses described in the Project Land Use Program Assumptions section. Consistent with the City's Guidelines, Kittelson applied trip generation adjustment factors to the ITE trip generation to convert ITE vehicle-trips to person-trips. Person-trip generation estimates (internal and external) for the proposed project scenarios are estimated using the ITE trip generation rates in Table 1 and inflating them by a factor of 1.18 to adjust from vehicle to person trips.⁵

Table 2: Unadjusted Person Trip Generation Estimates

Land Use	Size/Unit	Daily	Weekday AM			Weekday PM		
			In	Out	Total	In	Out	Total
Ashby BART Station Site								
Residential	1,200 DU	10,365	150	501	651	500	293	793
Community Uses	100,000 SF	20,582	1,168	1,110	2,278	767	719	1,486
Health/Fitness Club	50,000 SF	1,405	39	38	77	116	88	204
Small Office Building	10,000 SF	191	19	4	23	9	20	29
Convenience Market	10,000 SF	8995	369	369	738	295	284	579
Composite Restaurant	10,000 SF	1324	64	53	117	71	44	115
Coffee/Donut Shop	10,000 SF	8,105	608	585	1193	214	214	428
Daycare	10,000 SF	562	69	61	130	62	69	131
Total	--	30,947	1,318	1,611	2,929	1,267	1,012	2,279
North Berkeley BART Station Site								
Residential	1,200 DU	10,365	150	501	651	500	293	793
Community Uses	25,000 SF	9,591	564	537	1,101	326	316	642
Small Office Building	5,000 SF	96	9	2	11	4	10	14
Convenience Market	5,000 SF	4,497	185	184	369	148	142	290
Composite Restaurant	5,000 SF	662	32	27	59	36	22	58
Coffee/Donut Shop	5,000 SF	4,055	304	293	597	107	107	214
Daycare	5,000 SF	281	34	31	65	31	35	66
Total	--	19,956	714	1,038	1,752	826	609	1,435

Source: Kittelson & Associates, Inc. 2020. ITE Manual, 10th Edition.

Notes: DU = Dwelling Units; SF = Square Feet; In = inbound to the project site; Out = outbound away from the project site; Total includes both internal and external person-trips; Inbound trips have been rounded up and outbound trips calculated as the difference of the total trips and inbound trips; Trip generation estimates assume equal square footage across all community land uses. The ITE Trip Generation Manual does not provide a daily rate for Health/Fitness Club or Coffee/Donut Shop land uses. The daily trips for these uses were calculated by multiplying the average of the AM and PM peak hour trips by 10.

As shown in Table 2, the proposed development at the Ashby BART station site is expected to generate approximately 30,947 net new weekday daily person trips, including 2,929 person trips (1,318 inbound, 1,611 outbound) during the weekday AM peak hour and 2,279 person trips (1,267 inbound, 1,012 outbound)

⁵ Person trips are calculated as vehicle trip generation rates * 1.18. This is consistent with the multimodal trip generation adjustment factor from the West Berkeley Circulation Master Plan and City of Oakland Transportation Impact Study Guidelines.

during the weekday PM peak hour. The proposed development at the North Berkeley BART Station site is expected to generate approximately 19,956 net new weekday daily person trips, including 1,752 person trips (714 inbound, 1,038 outbound) during the weekday AM peak hour and 1,435 person trips (826 inbound, 609 outbound) during the weekday PM peak hour.

Trip Credits for Existing Uses

Both sites are currently occupied by surface parking. For purposes of a more conservative transportation analysis from a travel demand standpoint, Kittelson did not apply trip credits for the existing surface parking lot when calculating the net new trips generated by the developments. Trip credits are typically applied to account for existing land uses that would be replaced by a proposed development. Because the proposed project would replace surface parking and would not replace an active land use, it is assumed that these vehicle trips would remain as part of the background traffic on the surrounding street network.

Land Use Mix and Internal Trip Capture

Internal trip capture is the portion of trips generated by a mixed-use development that both begin and end within the development. These “internal” trips account for a portion of the total development’s trip generation without using the external transportation network. As a result, mixed-use development creates less demand on the external transportation network than single-use developments generating the same number of trips. The City’s Guidelines does not provide a specific methodology to assess the number of trips that could remain within a mixed-use project site.

Given that the proposed developments would allow for a mix of different integrated, complementary, and interacting land uses such as residential, retail, restaurant, and daycare uses, the future developments are anticipated to result in some level of internal trip capture.

Therefore, Kittelson made the appropriate refinements to the standard travel demand analysis approach to account for the project size and land use mix, which would be expected to have more than the typical proportion of project trips internal to the site than would be assumed using ITE rates. To better estimate the trip-making patterns of the proposed developments, Kittelson developed a modified trip generation model specific to each project site. The internal trip capture rates were determined using ITE’s Improved Estimation of Internal Trip Capture for Mixed-Use Development and Alternative Approaches to Estimating Internal Traffic Capture of Mixed-Use Projects.⁶

Internalization is dependent on the quantity and mix of uses as well as the levels of activity they generate at various times of day. As a result, the internalization percentage is different for each scenario and time period. Given the future tenants of the community space are unknown, and so as not to overestimate the internal trip capture potential of the proposed developments, Kittelson assumed a less diverse mix of uses for the non-residential community uses than was assumed for the trip generation estimates. Specifically,

⁶ ITE Journal. 2010 and 2011. Improved Estimation of Internal Trip Capture for Mixed-Use Development and Alternative Approaches to Estimating Internal Traffic Capture of Mixed-Use Projects.

Kittelson assumed an equal square footage of Small Office, Convenience Market, and Composite Restaurant.

The methodology accounts for trips internal to the proposed development that would still occur but would not be made by automobile or transit and would instead remain within walking distance of the project site and would occur by walking, bicycling, and linked trips. The following steps were used to develop the internal trip capture rates:

- Determine the total number of person-trips generated during the weekday AM and weekday PM peak hour periods by each individual land use (see Table 1 and Table 2).
- Use unconstrained internal capture percentages to estimate the number of potential internal trips between each pair of land uses. Apply the internal capture rate to each individual land use within the origin and destination categories based on ITE data.
- Balance the number of trips generated at both ends of each interacting pair of origin and destination land uses.

As explained in the step-by-step process, the internal trip capture rates used in the analysis are constrained by the need for the number of trips generated by the producer uses to match the number of trips received by the attractor uses. Using the unconstrained internal trip capture rates as an initial point of analysis, the site-specific internal trip capture rates were identified through a balancing process. The weekday AM peak hour and PM peak hour internal and external person-trip generation estimates for the Ashby and North Berkeley BART station sites are shown in Table 3. Internal trip capture calculations are included as Attachment B.

Table 3: Person Trip Generation Estimates – Internal and External

Site / Trip Type	Person Trip Estimates			
	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Number	Proportion	Number	Proportion
Ashby BART Station Site				
External	2,665	91%	1,755	77%
Internal	264	9%	524	23%
Total (Internal and External)	2,929	100%	2,279	100%
North Berkeley BART Station Site				
External	1,629	93%	1,220	85%
Internal	123	7%	215	15%
Total (Internal and External)	1,752	100%	1,435	100%

Source: Kittelson & Associates, Inc. 2021; ITE Journal 2010 and 2011.

Notes: Trip generation estimates assume equal square footage across the small office, convenience market, and composite restaurant. A low internalization trip rate was chosen for conservative estimates. Internal trips have been rounded and external trips calculated as the difference of the total trips and internal trips.

As shown in Table 3, the Ashby and North Berkeley developments are estimated to result in an internal trip capture rate of 9 percent (264 person-trips) and 7 percent (123 person-trips), respectively during the

weekday AM peak hour. During the weekday PM peak hour, the Ashby and North Berkeley developments are estimated to result in an internal trip capture rate of 23 percent (524 person-trips) and 15 percent (215 person-trips), respectively.

Transportation Options and Mode Share

Given the proximity of the project sites to a variety of land uses within walking distance⁷, multiple high frequency transit routes, casual carpool, dedicated bicycle facilities, and the availability of rideshare service, Kittelson applied a modal split adjustment to the external person trip generation estimates to account for carpool, transit, walk, bike, and taxi/transportation network company (e.g., Uber, Lyft) trips. Mode share was estimated based on data available from the United States Census for the project’s census tracts.^{8,9} Due to data limitations, Kittelson used residential mode split for residential and non-residential uses and applied to all analysis time periods. Kittelson reviewed data from the Bay Area Travel Survey (2000) and mode share included in the West Berkeley Circulation Master Plan Trip Generation Model (2009). However, given the changes in land use development, transportation options, and travel behavior that have occurred over the past 10 to 20 years, the more recent data from the US Census was determined to be more relevant for use in the analysis. Table 4 summarizes mode share for external trips and Table 5 summarizes project travel demand by mode.

Table 4: Mode Share for External Trips

Mode	Mode Share for External Trips	
	Ashby BART Station Site	North Berkeley BART Station Site
Auto	37.7%	36.4%
Transit	34.7%	33.7%
Walk	7.7%	7.9%
Bike	12.0%	10.3%
Other (Carpooling)	7.9%	11.7%
Total	100%	100%

Source: Kittelson & Associates, Inc. 2021; US Census ACS Five-Year Estimates (2014-2018)

Note: Means of Transportation to Work by Place of Work census data was used for the mode share for the project census tract. Data was dropped if place of work was out of state. The mode “working from home” was dropped from the analysis, as no external trips are expected to be made via this mode share.

⁷ The Ashby site has a WalkScore of 96 “Walker’s Paradise” and the North Berkeley site has a WalkScore of 86 “Very Walkable”. WalkScore.com. Accessed October 23, 2020.

⁸ US Census American Community Survey (ACS) Five-Year Estimates (2014-2018), the current dataset, were referenced for this analysis. The Ashby BART Station is located within Census Tract 4239.01 and the North Berkeley BART Station is located within Census Tract 4222.

⁹ In Census Tract 4239.01 (Ashby BART), 62% of residents work within Alameda County and 38% of residents work outside Alameda County. In Census Tract 4222 (North Berkeley BART), 59% of residents work within Alameda County and 40% of residents work outside of Alameda County.

Table 5: Project Travel Demand – Project External Person-Trips by Mode¹⁰

Mode	Weekday AM Peak Hour			Weekday PM Peak Hour		
	In	Out	Total	In	Out	Total
Ashby BART Station Site						
Auto ¹	452	553	1,005	368	294	662
Transit	416	509	925	339	270	609
Walk	92	113	205	75	60	135
Bike	144	176	320	117	94	211
Other	95	116	211	77	62	139
Project External Person-Trips¹	1,199	1,467	2,666	976	780	1,756
<i>Project External Vehicle-Trips²</i>	<i>367</i>	<i>450</i>	<i>817</i>	<i>299</i>	<i>239</i>	<i>538</i>
North Berkeley BART Station Site						
Auto ¹	242	351	593	256	188	444
Transit	224	325	549	237	174	411
Walk	52	77	129	55	41	96
Bike	68	100	168	72	54	126
Other	78	113	191	82	61	143
Project External Person-Trips¹	664	966	1,630	702	518	1,220
<i>Project External Vehicle-Trips²</i>	<i>189</i>	<i>274</i>	<i>463</i>	<i>200</i>	<i>147</i>	<i>347</i>

Source: Kittelson & Associates, Inc. 2021

Notes: “Other” mode includes carpooling. Total external trips may not add up to totals in Table 4 due to rounding.

1 The project person auto-trip estimates shown in this table are not directly comparable to the ITE Vehicle-Trip Generation estimates shown in Table 1. Project person-trip estimates are calculated by factoring ITE vehicle-trips by a multiple of 1.18 to convert vehicle-trips to person-trips (this factor is consistent with the factor applied in the West Berkeley Circulation Master Plan) and then converts back to trips by mode using mode share adjustment rates derived from US Census.

2 Project external vehicle-trips are calculated as auto person-trips multiplied by the average vehicle occupancy. The average vehicle occupancy for Ashby (census tract 4239.01) is 1.23 and the average vehicle occupancy for North Berkeley (census tract 4222) is 1.28.

The mode share data shown in Table 4 reflects the mode share characteristics for the project’s census tracts (tract 4239.01 for Ashby and tract 4222 for North Berkeley), which is based on United States Census American Community Survey Means of Transportation to Work information. Project person-trip estimates shown in Table 5 are calculated using the person-trip estimates in Table 2 and converts back to trips by mode using adjustment rates derived from US Census data.

BART Ridership and Station Access

Kittelson prepared a ridership and station access analysis for the Ashby and North Berkeley BART stations, reflecting existing (year 2019) a.m. and p.m. weekday peak hour conditions that includes the additional development from the proposed projects and other reasonably foreseeable land use projects in the vicinity of the stations. Kittelson utilized the following data and references, which were provided by BART staff:

¹⁰ Estimated external project trips are in addition to the existing trips from the on-site parking.

- Existing (Year 2019) average hourly entries/exits for both stations
- Station access mode share data for both stations from the 2008 and 2015 Station Profile Survey
- BART Transit-Oriented Development Access Model
- Parking inventory data (updated July 1, 2020) for both stations
- Parking occupancy data within ¼-mile around the North Berkeley BART station

The outcome of this analysis is an estimate of weekday a.m. and p.m. peak hour person trips by mode to and from the BART stations. Kittelson will present this BART ridership and station access information within the discussion of existing baseline conditions. Kittelson will also use this data to estimate BART parking demand and support analysis of the BART parking policy alternative.

BART Ridership

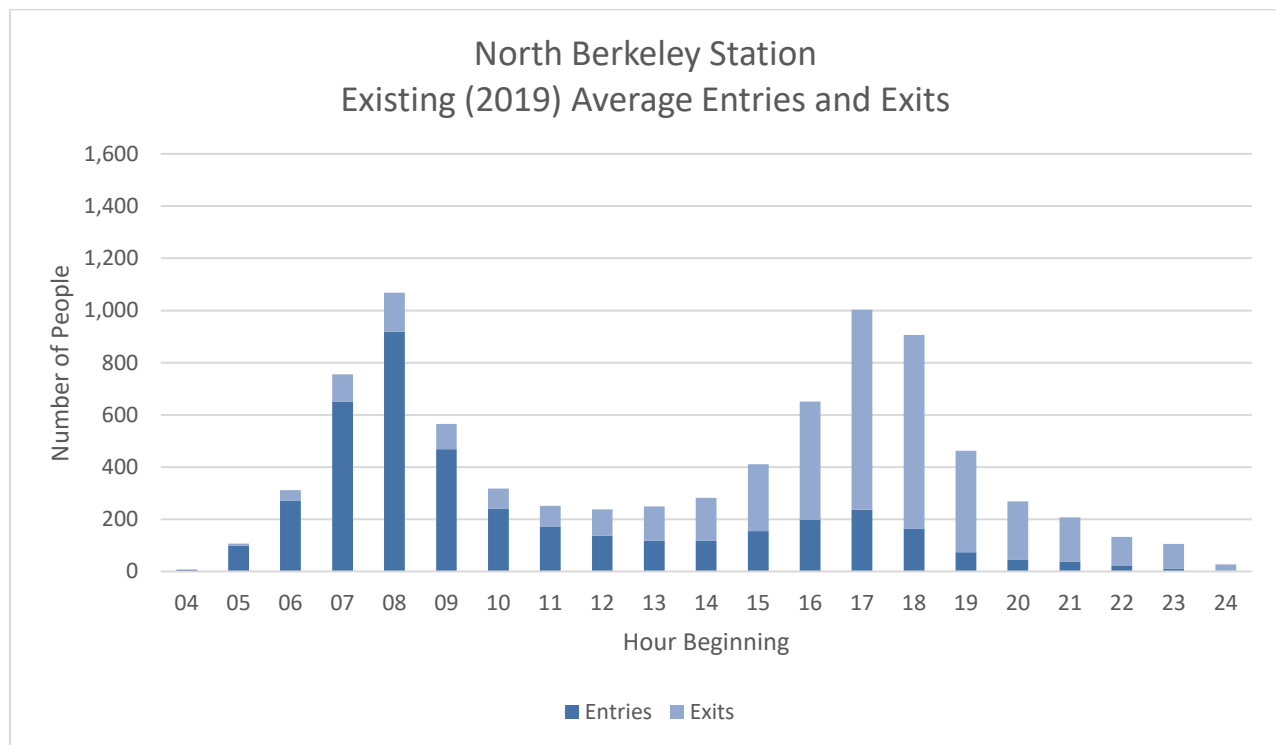
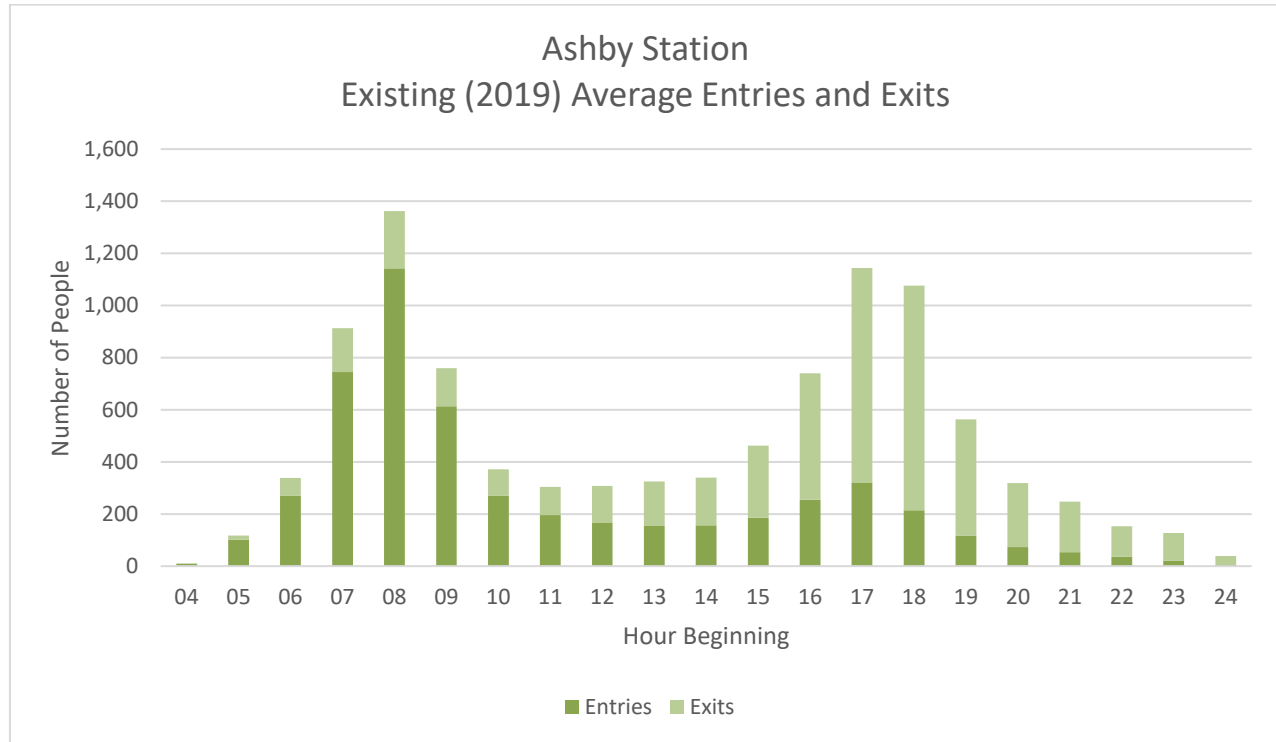
BART staff provided Kittelson with the hourly average number of entries and exits for each station in 2019. This data is summarized in Table 6 and shown in Exhibit 1.

Table 6: Existing (Year 2019) Hourly Average BART Station Entries and Exits

Hour Beginning	Existing (Year 2019) Ridership					
	Ashby BART Station			North Berkeley BART Station		
	Entries	Exits	Total	Entries	Exits	Total
4 AM	9	1	11	6	0	7
5 AM	101	16	117	98	9	107
6 AM	271	68	339	272	40	311
7 AM	745	169	913	651	105	756
8 AM	1,143	219	1,362	919	149	1,068
9 AM	613	146	759	468	97	566
10 AM	270	102	372	241	77	318
11 AM	195	108	304	171	80	251
12 PM	168	140	308	137	101	238
1 PM	154	171	325	118	131	249
2 PM	156	183	339	117	165	283
3 PM	187	276	463	155	255	410
4 PM	254	486	740	199	452	651
5 PM	321	823	1,144	237	766	1,004
6 PM	214	862	1,076	164	742	906
7 PM	117	445	562	74	388	462
8 PM	73	245	318	45	224	269
9 PM	53	194	247	39	168	207
10 PM	37	116	153	21	111	133
11 PM	20	107	127	12	94	106
12 AM	4	34	38	3	24	27
1 AM	0	10	10	0	10	10
Total	5,105	4,921	10,026	4,147	4,190	8,337

Source: BART, 2020.

Exhibit 1: Existing (2019) Station Entries and Exits



As shown in Table 6 and Exhibit 1, the peak hour of station usage (total entries and exits) occurred between 8 and 9 a.m. and coincided with the peak hour of station entries for both stations. The peak hour of station exits occurred between 5 and 6 p.m. at North Berkeley and between 6 and 7 p.m. at Ashby. On average in 2019, there were around 10,030 station entries and exits at Ashby and 8,340 station entries and exits at North Berkeley over the course of a single day. At Ashby, approximately 14 percent (1,360 riders) entered or exited during the weekday a.m. peak hour and 11 percent (1,080 riders) entered or exited during the weekday p.m. peak hour. At Berkeley, approximately 13 percent (1,070 riders) entered or exited during the weekday a.m. peak hour and 11 percent (1,000 riders) entered or exited during the weekday p.m. peak hour.

BART Station Access

BART staff provided Kittelson with the results of empirical surveys conducted at both stations as part of the 2015 Station Profile Study¹¹. Travel mode to the station for home and non-home origins and all entries is summarized in Table 7. Using this data, Kittelson estimated existing (2019) station entries by mode, as shown in Table 8. Additionally, Kittelson extrapolated the station entry by mode data to station exits to estimate the trips by mode for all people accessing the stations, as shown in Table 9.

Table 7: 2015 Station Profile Study Mode Share

Mode	Mode Share of Station Entries					
	Ashby BART Station			North Berkeley BART Station		
	Home	Non-Home	Total	Home	Non-Home	Total
Walk	59%	62%	60%	46%	57%	48%
Bike	11%	13%	12%	12%	14%	13%
Transit	2%	3%	2%	1%	3%	1%
Drop Off	10%	18%	12%	16%	20%	17%
Drive and Park	18%	4%	13%	25%	6%	20%
Total	100%	100%	99%	100%	100%	99%

Source: BART, 2020.

Notes: Numbers may not sum to 100 due to rounding.

Table 8: Existing (2019) Station Entries by Mode

Mode ¹	Existing (2019) Station Entries by Mode					
	Ashby BART Station			North Berkeley BART Station		
	Home ²	Non-Home ²	Total	Home ²	Non-Home ²	Total
Daily						
Walk	2,042	1,019	3,061	1,370	666	2,036
Bike	381	214	594	357	164	521
Transit	69	49	119	30	35	65
Drop Off	346	294	642	476	234	710
Drive and Park	623	66	689	745	70	815
Total	3,461	1,644	5,105	2,978	1,169	4,147
AM Peak Hour³						

¹¹ BART. 2015 Station Profile Study. Online: <https://www.bart.gov/about/reports/profile>.

Mode ¹	Existing (2019) Station Entries by Mode					
	Ashby BART Station			North Berkeley BART Station		
	Home ²	Non-Home ²	Total	Home ²	Non-Home ²	Total
Walk	545	272	817	353	171	524
Bike	102	57	159	92	42	134
Transit	18	13	32	8	9	17
Drop Off	92	79	171	123	60	183
Drive and Park	166	18	184	192	18	210
Total	923	439	1,362	767	301	1,068
PM Peak Hour⁴						
Walk	431	215	645	332	161	493
Bike	80	45	125	87	40	126
Transit	15	10	25	7	8	16
Drop Off	73	62	135	115	57	172
Drive and Park	131	14	145	180	17	197
Total	730	346	1,076	721	283	1,004

Source: BART, 2019 Average Daily Ridership and 2015 Station Profile Study.

Notes: Mode share from Table 7 was applied to station entries. Numbers may not sum to exact ridership values due to rounding.

¹ The Existing (2019) Station Entries by Mode are calculated by applying the station entry mode share from the 2015 Station Profile Study (see Table 8) to calculate mode share of station entries for all time periods.

² The estimates apply the home/non-home origin split from the 2015 Station Profile Study to the 2019 Average Daily Ridership to calculate the 2019 home/non-home origin trips. At Ashby station, 68% of trips were home-based and 32% were non-home based. At North Berkeley station, 72% of trips were home-based and 28% were non-home based.

³ According to the 2019 Average Daily Ridership data, the weekday a.m. peak hour occurs between 8 and 9 a.m. for both stations.

⁴ According to the 2019 Average Daily Ridership data, the weekday p.m. peak hour occurs between 6 and 7 p.m. at Ashby and between 5 and 6 p.m. at North Berkeley.

Table 9: Existing (2019) Station Access by Mode

Mode ¹	Existing (2019) Station Access by Mode					
	Ashby BART Station			North Berkeley BART Station		
	Entries ²	Exits	Total	Entries ²	Exits	Total
Daily						
Walk	3,061	3,002	6,063	2,036	2,053	4,089
Bike	594	591	1,185	521	545	1,066
Transit	119	98	217	65	42	107
Drop Off	642	591	1,233	710	712	1,422
Drive and Park	689	640	1,329	815	838	1,653
Total	5,105	4,922	10,027	4,147	4,190	8,337
AM Peak Hour³						
Walk	817	134	951	524	74	598
Bike	159	26	185	134	19	153
Transit	32	4	36	17	1	18
Drop Off	171	26	197	183	25	208
Drive and Park	184	29	213	210	30	240
Total	1,362	219	1,581	1,068	149	1,217
PM Peak Hour⁴						
Walk	645	526	1,171	493	376	869
Bike	125	103	228	126	100	226
Transit	25	17	42	16	8	24
Drop Off	135	103	238	172	130	302
Drive and Park	145	112	257	197	153	350

Mode ¹	Existing (2019) Station Access by Mode					
	Ashby BART Station			North Berkeley BART Station		
	Entries ²	Exits	Total	Entries ²	Exits	Total
Total	1,076	861	1,937	1,004	767	1,771

Source: BART, 2019 Average Daily Ridership and 2015 Station Profile Study.

Notes: Mode share from Table 7 was applied to station entries. Numbers may not sum to exact ridership values due to rounding.

¹ The Existing (2019) Station Entries by Mode are calculated by applying the station entry mode share from the 2015 Station Profile Study (see Table 8) to calculate mode share of station entries for all time periods.

² The estimates apply the home/non-home origin split from the 2015 Station Profile Study to the 2019 Average Daily Ridership to calculate the 2019 home/non-home origin trips. At Ashby station, 68% of trips were home-based and 32% were non-home based. At North Berkeley station, 72% of trips were home-based and 28% were non-home based.

³ According to the 2019 Average Daily Ridership data, the weekday a.m. peak hour occurs between 8 and 9 a.m. for both stations.

⁴ According to the 2019 Average Daily Ridership data, the weekday p.m. peak hour occurs between 6 and 7 p.m. at Ashby and between 5 and 6 p.m. at North Berkeley.

Ashby BART Station

As shown in Table 7, 60% of people traveling to the station walk, and a similar proportion of people (12% to 13%) drive and park, get dropped off, or bike and the remaining 2% take transit. The proportion of people walking, biking, and taking transit to the station is approximately the same regardless of their home or non-home origin. According to the 2015 Station Profile Study, approximately 70% of people driving and parking parked within the BART lot, 5% parked in a non-BART lot, and 20% parked on street. The remaining 5% of people driving and parking did not provide a parking location.

In 2008, approximately 21 percent of passengers from all origins (home- and non-home based) accessed the Ashby BART station by car. This represents an approximately 38 percent reduction in drive and park mode share over the eight-year period (2008 to 2015), or almost six percent reduction per year.

North Berkeley BART Station

As shown in Table 7, almost 50% of people traveling to the station walk, 20% get dropped off, 17% drive and park, 13% bike and the remaining 1% take transit. The proportion of people walking, biking, and taking transit to the station is approximately the same regardless of their home or non-home origin. According to the 2015 Station Profile Study, approximately 77% of people driving and parking parked within the BART lot, 9% parked in a non-BART lot, and 14% parked on street.

In 2008, approximately 21 percent of passengers from all origins (home- and non-home based) accessed the North Berkeley BART station by car. This represents an approximately 46 percent reduction in drive and park mode share over the eight-year period (2008 to 2015), or around seven percent per year.

Trip Distribution and Assignment

Kittelson determined the directional distribution of vehicle trips generated by the future developments based on a review of travel patterns within the study area obtained the Alameda Countywide Model at the stations and nearby intersections. Based on these trip distribution patterns, Kittelson assigned the vehicle trips generated by the future developments to regional roadway segments of significance. Kittelson

calculated project added traffic volumes to roadway segments at the Ashby BART and North Berkeley BART station sites for the weekday AM and PM peak hours.

The trip distribution is presented in tabular form. Resulting project-added traffic volumes will be used as inputs to the air quality, greenhouse gas and noise analyses, if needed.

Vehicle Miles Traveled Analysis

Kittelsohn conducted a vehicle miles traveled (VMT) analysis consistent with the City of Berkeley's VMT Criteria and Thresholds (June 29, 2020). In the City of Berkeley, land use projects that meet at least one of the established screening criteria are presumed to cause a less-than-significant VMT impact and would not require further VMT analysis for CEQA. The proposed developments would meet the Transit Priority Area screening criteria and would therefore be exempt from further VMT analysis.

VMT Screening Criteria

- **Projects in Transit Priority Areas (TPA):** Projects located within a ½-mile walkshed around major transit stops (i.e., the BART stations and the Amtrak station) or within a ¼-mile walkshed around high quality transit corridors. This TPA screening would not apply if the project has any of the following characteristics:
 - Has a Floor Area Ratio (FAR) of less than 0.75 for office uses; or
 - Includes more than 200,000 square feet of office or commercial space; or
 - Includes more parking supply than the project's estimated demand; or
 - Is inconsistent with the City's General Plan, an applicable Specific Plan, or an applicable Sustainable Communities Strategy (as determined by the City, with input from MTC); or
 - Replaces affordable residential units with market-rate residential units; or
 - Has project-specific or location-specific information that indicates that the project will generate significant levels of VMT.
- **Low-Income Housing:** Low-income housing units typically generate less VMT than market-rate units of similar sizes and can contribute to improving jobs-housing balance. As such, projects that contain 100% restricted units affordable to Low-Income Households and Very Low-Income Households, as defined in Berkeley Municipal Code 22.20.065, are presumed not to require transportation VMT analysis for CEQA, as long as the projects do not include more parking supply than the project's estimated demand.
- **Small Projects:** Projects defined as generating 836 daily VMT or less. Based on recent data from the California Household Travel Survey, this level of VMT would equate to 20 units of residential use or up to 10,000 square feet of non-residential use.
- **Locally Serving Public Facility:** Locally serving public facilities generally encompass government, civic, cultural, health, and infrastructure uses which contribute to and support community needs and mostly generate trips within the local area. Locally serving public facilities include, but are not limited to, public schools, passive parks (parks designed for use in an informal way and typically less developed), libraries, community centers, police stations, fire stations, and public utilities.

- **Projects in Low VMT Areas:** Projects that are located in low-VMT areas and that have characteristics similar to other uses already located in those areas can be presumed to generate VMT at similar rates. The low-VMT areas in Berkeley are defined based on the results of the Alameda County Transportation Commission (CTC) model.
 - Residential projects will be screened out if located in an area that has household VMT per capita that is 15% lower than the baseline regional average.
 - Office and industrial projects will be screened out if located in an area that has home-work VMT per worker that is 15% lower than the baseline regional average.

Each component of a mixed-use project is considered separately; therefore, each of the project's individual land uses were compared to the screening criteria with considerations for internal capture between uses. It is possible for some of the mixed-use project's land uses to be screened out and some to require further analysis.

Cumulative Conditions

The cumulative conditions assessment evaluates the long-term impacts of the project in combination with cumulative projects. The cumulative conditions analysis for transportation topics other than VMT uses a list-based approach. The specific land use development and transportation network changes considered in the cumulative conditions analysis were provided by Rincon, City, and BART staff. The discussion of cumulative transportation impacts assesses the degree to which the proposed developments would affect the transportation network in conjunction with overall citywide growth and other cumulative projects. Given uncertainty around future BART service, it is speculative to quantify BART ridership and station access based on available information. Therefore, Kittelson provides a qualitative assessment of the cumulative analysis for the EIR.

Parking Assessment

California Senate Bill (SB) 743 amended CEQA by adding California Public Resources Code (PRC) section 21099 regarding the analysis of parking impacts for certain urban infill projects in transit priority areas.¹² PRC section 21099(d), effective January 1, 2014, provides that "... parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment." Accordingly, parking is no longer to be considered in determining if a project has the potential to result in significant environmental effects for projects that meet all three criteria established in the statute.

The proposed project meets all of the criteria, and thus the transportation impact analysis does not consider the adequacy of parking in determining the significance of project impacts under CEQA.

¹²A "transit priority area" is defined as an area within 0.5 mile of an existing or planned major transit stop. A "major transit stop" is defined in California Public Resources Code section 21064.3 as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

However, the City and BART acknowledge that parking conditions may be of interest to the public and a parking assessment may be useful to support development of the proposed project and alternatives. As a result, the EIR will include a BART Parking Policy alternative to analyze the impacts of various parking supply scenarios. Kittelson will prepare a parking assessment to evaluate the parking supply and estimated parking demand generated by the developments as well as BART patrons. The assessment will address local parking policies (e.g., residential parking permits, parking enforcement, parking time limits) and land uses (e.g., parking demand generators), both of which would influence potential for secondary environmental impacts due to parking shortages.¹³ The following sections outline our proposed approach and assumptions for this analysis.

Vehicle Parking Demand Estimates

To complete evaluation of the proposed project or alternatives, Kittelson developed parking demand estimates for the proposed project using the rates provided in the Institute of Transportation Engineers' (ITE) *Parking Generation Manual, 4th Edition* (2010) rates for "Mid-Rise Apartment" (Land Use 221). A rate is not available for "Apartment" (Land Use Code 220) that is used in the trip generation estimates and the "Mid-Rise Apartment" (Land Use Code 221) is the best-fit for the parking estimates based on the number of dwelling units and number of surveyed uses. For commercial land uses, similar to the approach used to develop the trip generation estimates, the rates for Small Office (Land Use Code 712), Convenience Market (Land Use Code 851), and Composite Restaurant (Land Use Code 932) were used to estimate parking demand.

Similar to the way ITE overestimates trip generation, the *Parking Generation Manual* rates overestimate the parking demand generated by development in a dense, urban, mixed use environment, such as Berkeley. To account for this, Kittelson applied a reduction factor of 64 percent and 66 percent at the Ashby and North Berkeley sites, respectively, based on the comparison of the ITE vehicle trip generation to the project vehicle trip generation estimates, which accounts for expected internal trip capture and use of non-auto modes. Table 10 provides both unadjusted and adjusted ITE parking generation rates for the residential and commercial land uses. Parking demand calculations are included as Attachment C. Table 11 presents the estimated vehicle parking demand for the proposed project using the adjusted ITE parking generation rates.

¹³ Cruising Technical Memorandum, WSA, May 22, 2007. https://www.cityofberkeley.info/uploadedFiles/Public_Works/Level_3_-_Transportation/Cruising%20Tech%20Memo_0522071.pdf. Accessed December 29, 2020.

Table 10. ITE Parking Demand Rates

Land Use	Size/Unit	Unadjusted ITE Parking Demand Rate Percentile			Adjusted ITE Parking Demand Rate Percentile		
		33rd	50th	85th	33rd	50th	85th
Ashby BART Station Site							
Residential	1,200 DU	1.13	1.31	1.47	0.41	0.47	0.53
Community Uses	100 KSF						
Health Club	50 KSF	3.93	4.73	8.87	1.42	1.71	3.21
Small Office Building	16.67 KSF	2.12	2.56	4.17	0.77	0.93	1.51
Convenience Market	16.67 KSF	--	5.44	--	--	1.97	--
Composite Restaurant	16.67 KSF	6.39	9.44	17.4	2.31	3.41	6.29
North Berkeley BART Station Site							
Residential	1,200 DU	1.13	1.31	1.47	0.38	0.44	0.49
Community Uses	25 KSF						
Small Office Building	8.33 KSF	2.12	2.56	4.17	0.71	0.86	1.40
Convenience Market	8.33 KSF	--	5.44	--	--	1.82	--
Composite Restaurant	8.33 KSF	6.39	9.44	17.4	2.14	3.16	5.83

Source: Kittelson & Associates, Inc., 2021; ITE Parking Generation Manual, 4th Edition, 2010

Notes: DU – dwelling unit (residential uses); KSF – thousand square feet (non-residential uses); “--” indicates value not available. There are only two samples for Convenience Market parking demand rates, therefore there are no 33rd or 85th percentile rates. The 50th percentile parking space demand is included in the total number of spaces calculated for the 33rd and 85th percentile demand.

Table 11. Project Vehicle Parking Demand

Location / Land Use	Vehicle Parking Demand (spaces)		
	33rd	50th	85th
Ashby BART Station Site			
Residential	490	568	638
Non-Residential Community Uses	156	191	324
Total Vehicle Parking Spaces	646	760	962
North Berkeley BART Station Site			
Residential	455	527	591
Non-Residential Community Uses	40	49	76
Total Vehicle Parking Spaces	494	576	667

Source: Kittelson & Associates, Inc., 2021; ITE Parking Generation Manual, 4th Edition, 2010

BART

Kittelson will utilize the BART ridership and station access data to estimate vehicle parking demand generated by BART riders. As shown in Table 9, 213 people drive and park at Ashby BART Station during the AM peak hour and 257 people drive and park during the PM peak hour under existing (2019) conditions. A total of 240 people drive and park at the North Berkeley BART Station during the AM peak hour and 350 people drive and park during the PM peak hour under existing (2019) conditions.

Kittelson will compare the proposed vehicle parking supply against the estimated demand to identify potential for parking demand to exceed supply throughout the day.

Secondary Environmental Impacts Assessment

Kittelson will qualitatively evaluate the effect of a parking supply reduction on the surrounding street network, including: increases in vehicle miles traveled as a result of vehicle circling/cruising; increases in potential for conflicts between people driving, walking, biking, and transit as a result of double-parking and circling/cruising; and increases in traffic congestion that may inhibit emergency vehicle access. Mitigation measures will be developed (e.g., adjusting local parking policies and improving alternatives to automobile parking to reduce the demand for parking) for any secondary environmental impacts identified. As discussed in the following section, the project would be required to implement a transportation demand management (TDM) program, which would reduce vehicle travel and reduce the potential for secondary environmental impacts related to parking.

Transportation Demand Management

The proposed project is required to comply with BART's Transit Oriented Development Transportation Demand Management Program¹⁴ (TDM program) and the City of Berkeley TDM program, which applies to development on all BART-owned land and land within Berkeley city limits, respectively.

BART's TDM program assigns points to TDM strategies so that each point represents approximately a one percent reduction in VMT based on empirical data. The TDM program sets a minimum TDM point target of 20 points for all land uses, except in documented cases of economic infeasibility or where a project is complying with an equivalent program. Additionally, each land use has a required strategy that is counted towards its point total. All developments that include parking will be required to implement parking management strategies. Parking strategies are required as part of the larger TDM package because studies show they have the biggest impact on VMT reduction. These required strategies are consistent with the residential parking permit context that currently exists around most BART stations, along with paid parking at BART station lots and on some streets around BART stations adjacent to commercial districts.

Kittelson assumed that the developments would meet the TDM program requirements. However, for purposes of a more conservative analysis, Kittelson did not apply adjustment factors to the estimated trip generation or parking demand related to TDM program implementation.

¹⁴ BART. August 2020. Transit Oriented Development Transportation Demand Management Program. Online: https://www.bart.gov/sites/default/files/docs/TransportationDemandManagementProgram_20200820_boardmailout.pdf. Accessed October 21, 2020.

Attachment A Trip Generation Calculations

Land Use Scenario - Assume equal split of community uses among five non-residential land uses

Person Trip Estimates

Land Use	Size/Unit	Daily	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday
			In	Out	Total	In	Out	Total	
Ashby									
Residential	1200	10365	150	501	651	500	293	793	991
Health-Fitness	50000	0	39	38	77	116	88	204	0
Small Office Building	10000	191	19	4	23	9	20	29	0
Convenience Market	10000	8995	369	369	738	295	284	579	934
Composite Restaurant	10000	1324	64	53	117	71	44	115	132
Bagel/Coffee Shop	10000	0	608	585	1193	214	214	428	0
Daycare	10000	562	69	61	130	62	69	131	20
Total		21437	1318	1611	2929	1267	1012	2279	2077
North Berkeley									
Residential	1200	10365	150	501	651	500	293	793	991
Small Office Building	5000	96	9	2	11	4	10	14	0
Convenience Market	5000	4497	185	184	369	148	142	290	467
Composite Restaurant	5000	662	32	27	59	36	22	58	66
Bagel/Coffee Shop	5000	0	304	293	597	107	107	214	0
Daycare	5000	281	34	31	65	31	35	66	10
Total		15901	714	1038	1752	826	609	1435	1534

Internal/External Trips

Site / Trip Type	Person Trip Estimates			
	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Number	Proportion	Number	Proportion
Ashby				
External	2,665	91%	1,755	77%
Internal	264	9%	524	23%
Total (Internal and External)	2,929	100%	2,279	100%
North Berkeley				
External	1,629	93%	1,220	85%
Internal	123	7%	215	15%
Total (Internal and External)	1,752	100%	1,435	100%

Mode Share

Mode	Mode Share for External Trips
Ashby	
Auto	37.70%
Transit	34.70%
Walk	7.70%
Bike	12.00%
Other (Carpooling)	7.90%
Total	100.00%
North Berkeley	
Auto	36.40%
Transit	33.70%
Walk	7.90%
Bike	10.30%
Other (Carpooling)	11.70%
Total	100.00%

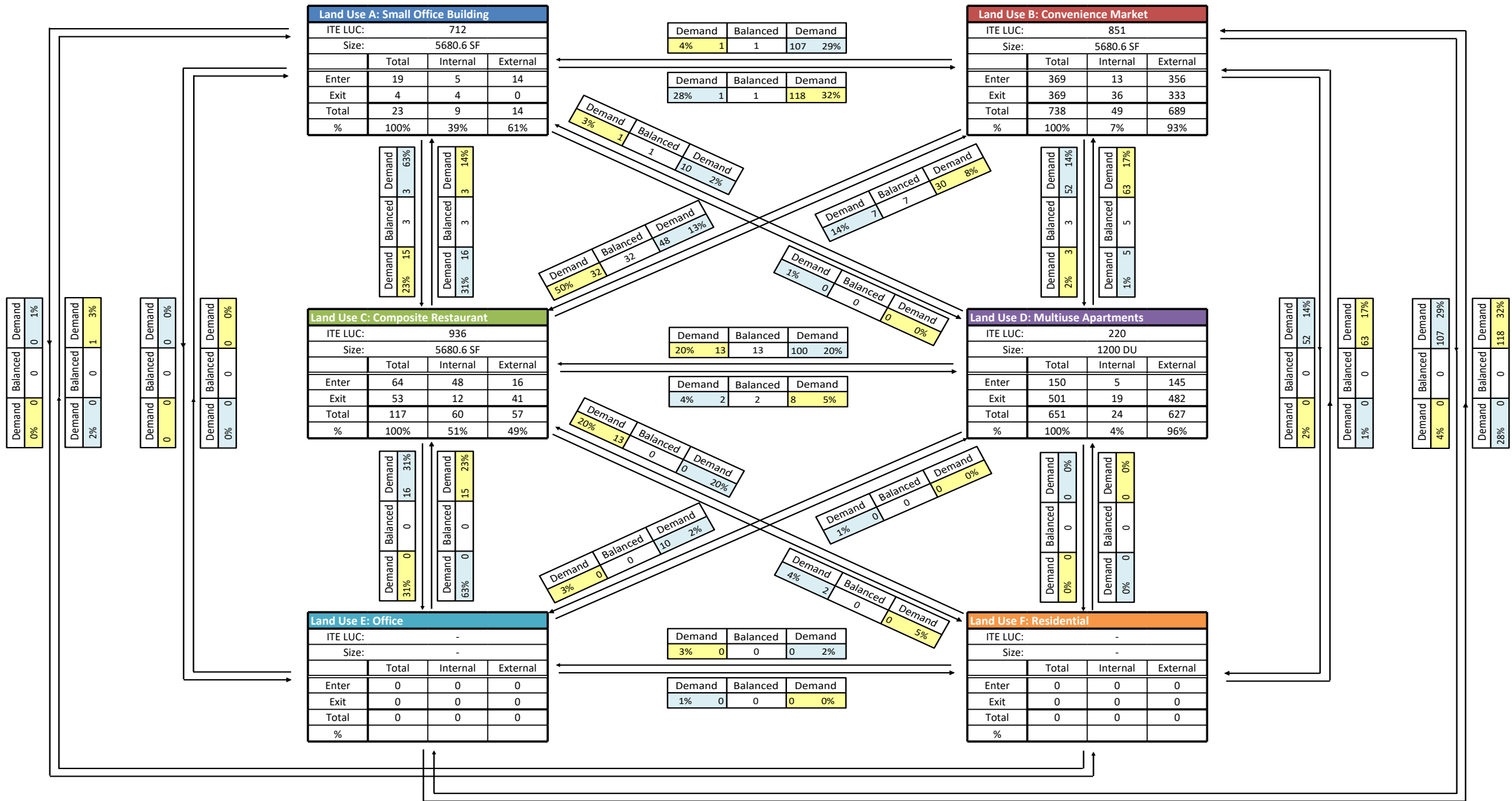
Person Trips by Mode

Mode	Daily	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Ashby							
Auto	8082	452	553	1005	368	294	662
Transit	7439	416	509	925	339	270	609
Walk	1651	92	113	205	75	60	135
Bike	2572	144	176	320	117	94	211
Other	1694	95	116	211	77	62	139
Project Person-Trips	21438	1199	1467	2666	976	780	1756
Project Vehicle-Trips		367	450	817	299	239	538
North Berkeley							
Auto ¹	5727	242	351	593	256	188	444
Transit	5302	224	325	549	237	174	411
Walk	1243	52	77	129	55	41	96
Bike	1620	68	100	168	72	54	126
Other	1841	78	113	191	82	61	143
Project Person-Trips	15733	664	966	1630	702	518	1220
Project Vehicle-Trips		189	274	463	200	147	347

Attachment B Internal Trip Capture Calculations

Multi-Use Internal Capture

Project Number: 24827
Project Name: City of Berkeley Ashby/North Berkeley
Scenario: Ashby AM Peak - Scenario 2

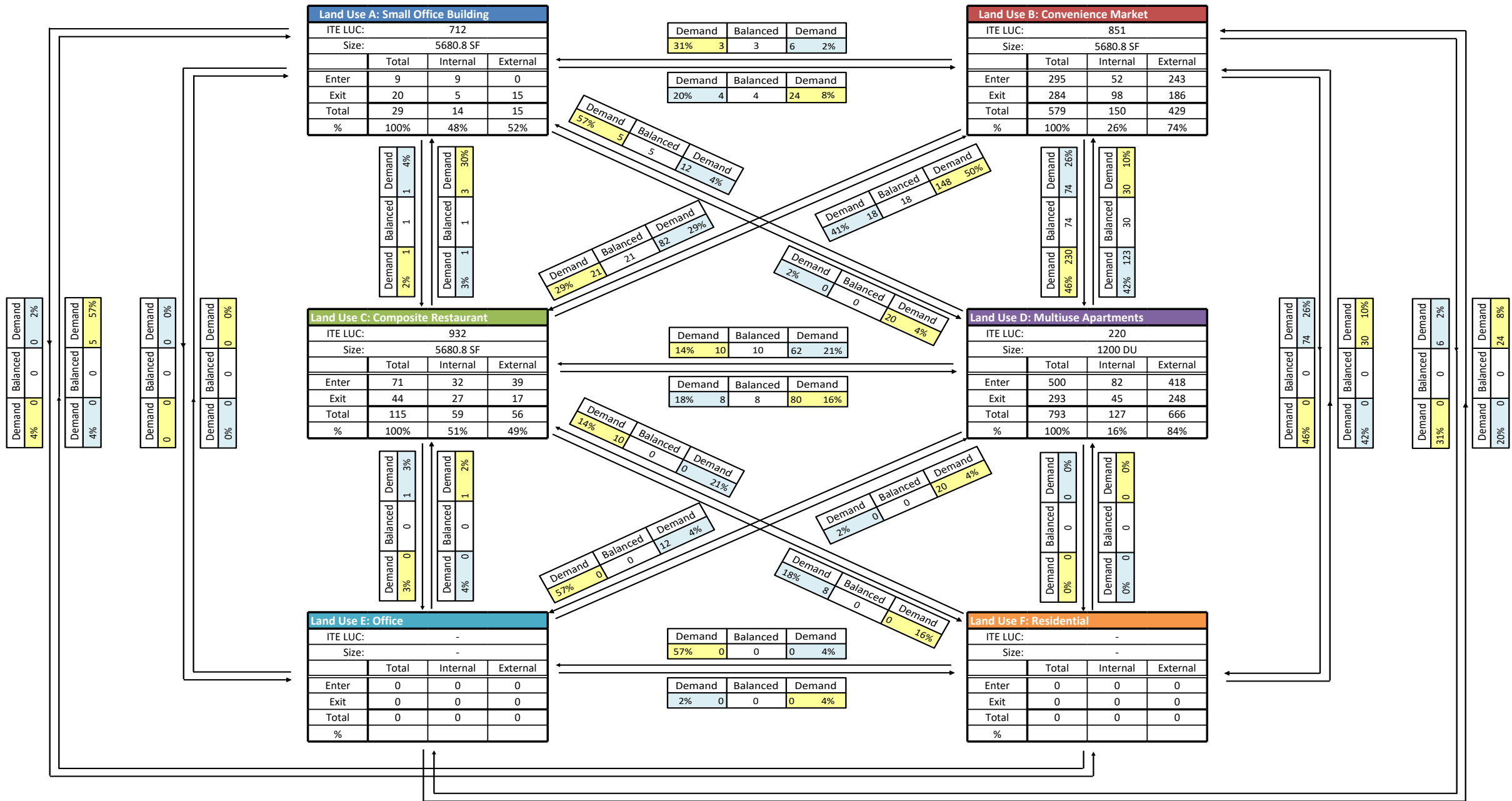


Internal and External Trip Summary						
Origin Land Use		Total		Internal		External
		Enter	Exit	Enter	Exit	Enter Exit
A	Small Office Building	19	4	5	4	14 0
B	Convenience Market	369	369	13	36	356 333
C	Composite Restaurant	64	53	48	12	16 41
D	Multiuse Apartments	150	501	5	19	145 482
E	Office	0	0	0	0	0 0
F	Residential	0	0	0	0	0 0

Internal Capture	9.29%

Multi-Use Internal Capture

Project Number: 24827
Project Name: City of Berkeley Ashby/North Berkeley
Scenario: Ashby PM Peak - Scenario 2

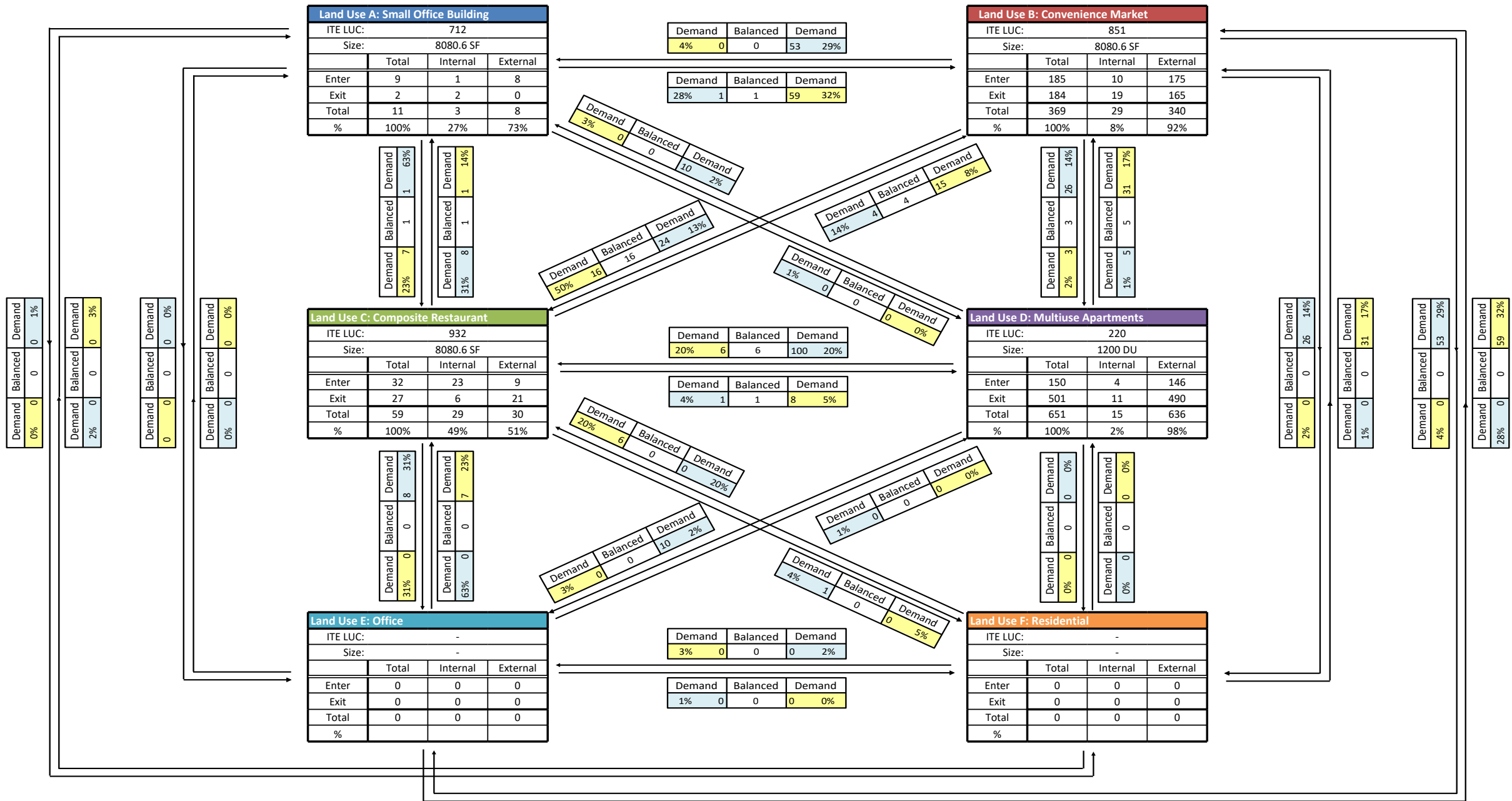


Internal and External Trip Summary							
Origin Land Use		Total		Internal		External	
		Enter	Exit	Enter	Exit	Enter	Exit
A	Small Office Building	9	20	9	5	0	15
B	Convenience Market	295	284	52	98	243	186
C	Composite Restaurant	71	44	32	27	39	17
D	Multiuse Apartments	500	293	82	45	418	248
E	Office	0	0	0	0	0	0
F	Residential	0	0	0	0	0	0

Internal Capture	23.09%

Multi-Use Internal Capture

Project Number: 24827
Project Name: City of Berkeley Ashby/North Berke
Scenario: North Berkeley AM Peak - Scenario

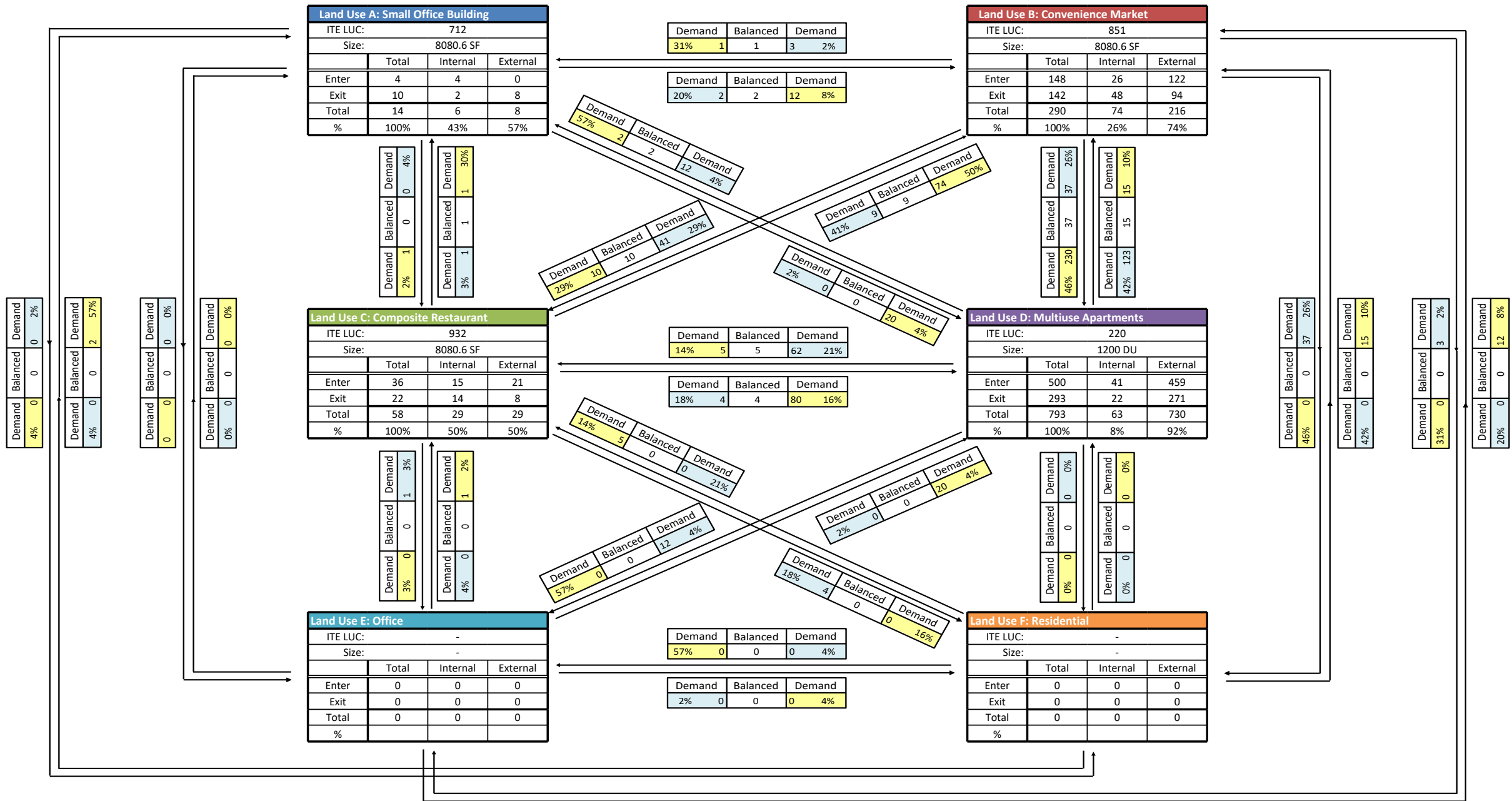


Internal and External Trip Summary							
Origin Land Use		Total		Internal		External	
		Enter	Exit	Enter	Exit	Enter	Exit
A	Small Office Building	9	2	1	2	8	0
B	Convenience Market	185	184	10	19	175	165
C	Composite Restaurant	32	27	23	6	9	21
D	Multiuse Apartments	150	501	4	11	146	490
E	Office	0	0	0	0	0	0
F	Residential	0	0	0	0	0	0

Internal Capture	6.97%

Multi-Use Internal Capture

Project Number: 24827
Project Name: City of Berkeley Ashby/North Berke
Scenario: North Berkeley PM Peak - Scenario



Internal and External Trip Summary							
Origin Land Use		Total		Internal		External	
		Enter	Exit	Enter	Exit	Enter	Exit
A	Small Office Building	4	10	4	2	0	8
B	Convenience Market	148	142	26	48	122	94
C	Composite Restaurant	36	22	15	14	21	8
D	Multiuse Apartments	500	293	41	22	459	271
E	Office	0	0	0	0	0	0
F	Residential	0	0	0	0	0	0

Internal Capture	14.89%

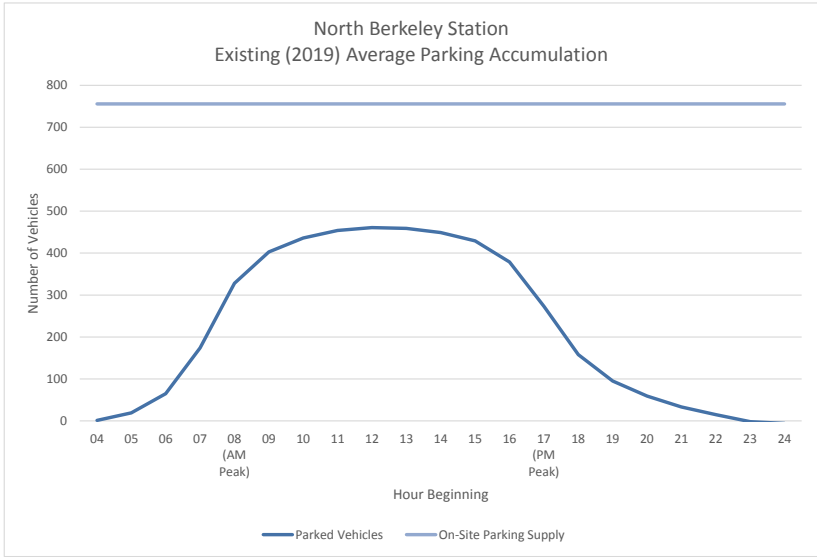
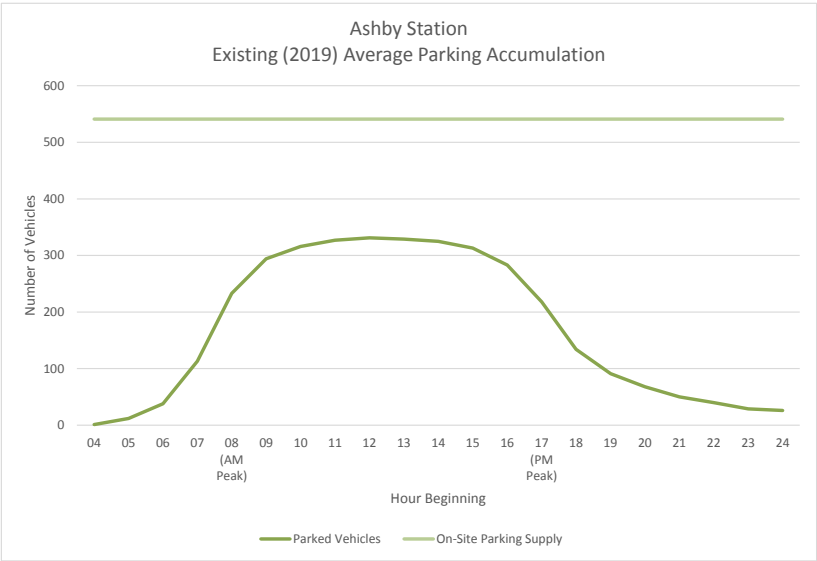
Attachment C Parking Demand Calculations

Ashby and North Berkeley BART Stations
Vehicle Parking Demand and Accumulation Analysis

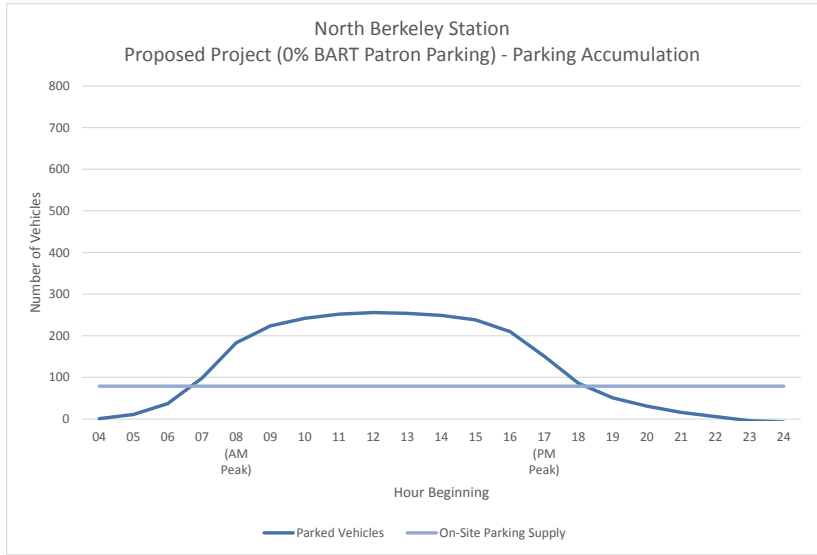
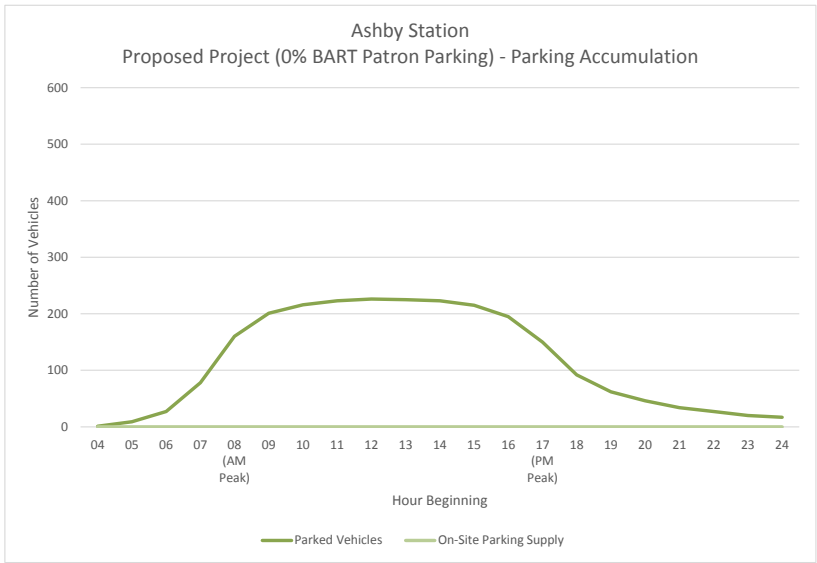
	Existing (2019) Vehicle Parking Demand and Accumulation (2019 ridership, 2015 mode share, existing parking supply)											
	Ashby			North Berkeley			Ashby			North Berkeley		
Hour Beginning	Inbound	Outbound	Total	Inbound	Outbound	Total	Parking Accumulat ion	Parking Surplus/D eficit	Percent Surplus/D eficit	Parking Accumulat ion	Parking Surplus/D eficit	Percent Surplus/D eficit
04	1	0	1	1	0	1	1	540	54000%	1	755	75500%
05	13	2	15	20	2	22	12	529	4408%	19	737	3879%
06	35	9	44	54	8	62	38	503	1324%	65	691	1063%
07	97	22	119	130	21	151	113	428	379%	174	582	334%
08 (AM Peak)	149	29	178	184	30	214	233	308	132%	328	428	130%
09	80	19	99	94	19	113	294	247	84%	403	353	88%
10	35	13	48	48	15	63	316	225	71%	436	320	73%
11	25	14	39	34	16	50	327	214	65%	454	302	67%
12	22	18	40	27	20	47	331	210	63%	461	295	64%
13	20	22	42	24	26	50	329	212	64%	459	297	65%
14	20	24	44	23	33	56	325	216	66%	449	307	68%
15	24	36	60	31	51	82	313	228	73%	429	327	76%
16	33	63	96	40	90	130	283	258	91%	379	377	99%
17 (PM Peak)	42	107	149	47	153	200	218	323	148%	273	483	177%
18	28	112	140	33	148	181	134	407	304%	158	598	378%
19	15	58	73	15	78	93	91	450	495%	95	661	696%
20	9	32	41	9	45	54	68	473	696%	59	697	1181%
21	7	25	32	8	34	42	50	491	982%	33	723	2191%
22	5	15	20	4	22	26	40	501	1253%	15	741	4940%
23	3	14	17	2	19	21	29	512	1766%	-2	758	-37900%
24	1	4	5	1	5	6	26	515	1981%	-6	762	-12700%
1	0	1	1	0	2	2	25	516	2064%	-8	764	-9550%
Total	664	639	1,303	829	837	1,666	3,596	8,306	705	4,674	11,958	309

Source: BART Average Hourly 2019 Station Entries and Exits. BART Station Profile Study, 2008 and 2015. Kittelson, 2021.

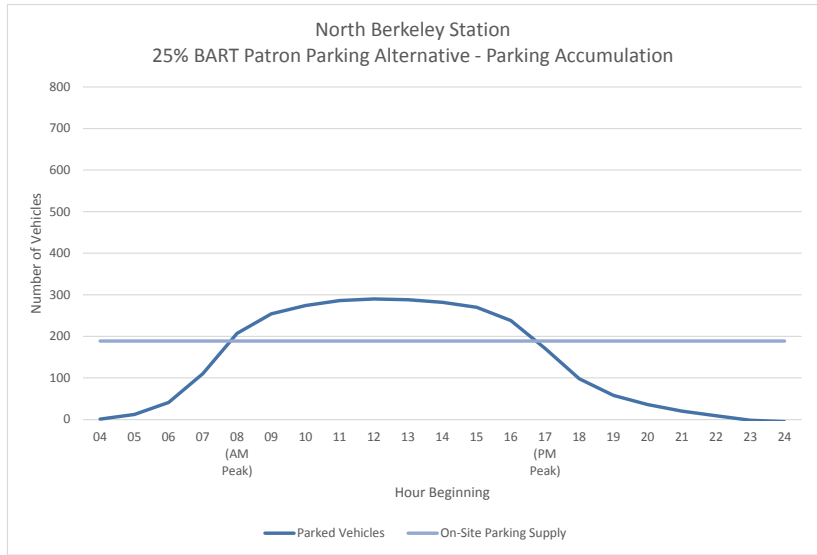
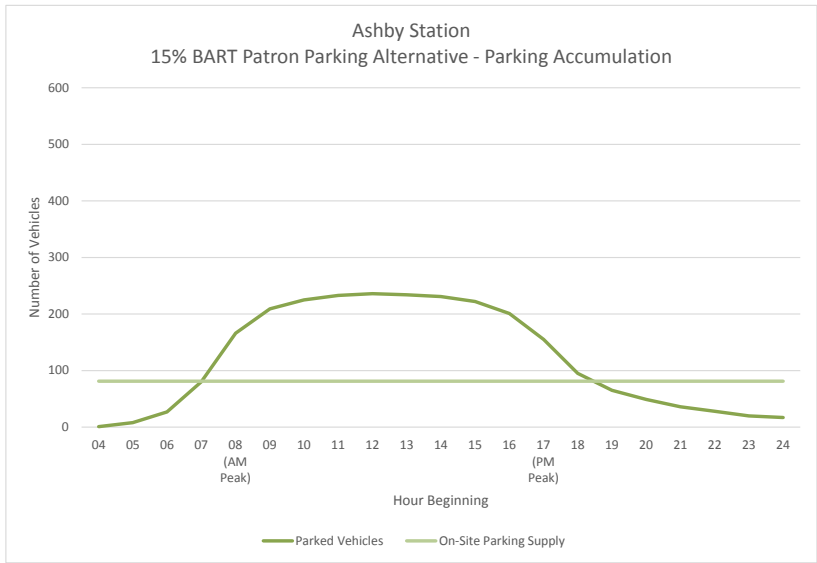
Notes: Blue shaded cells indicate peak hour of demand during the AM and PM periods.



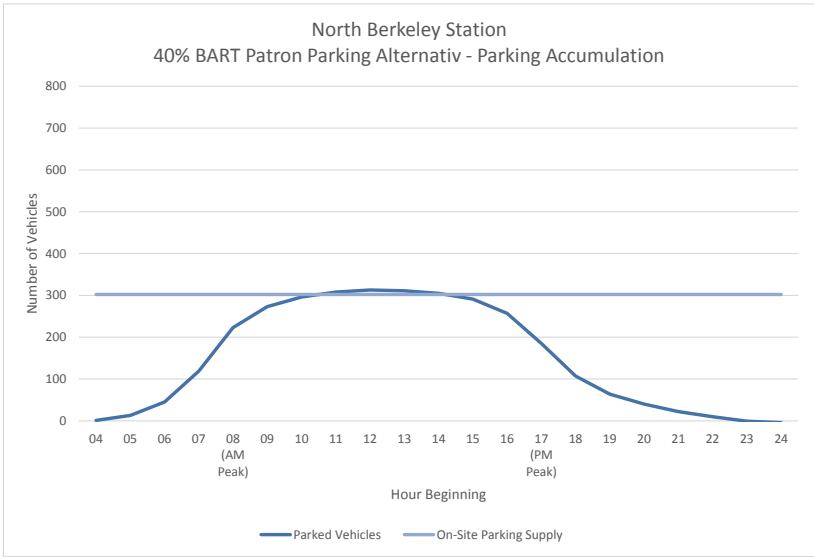
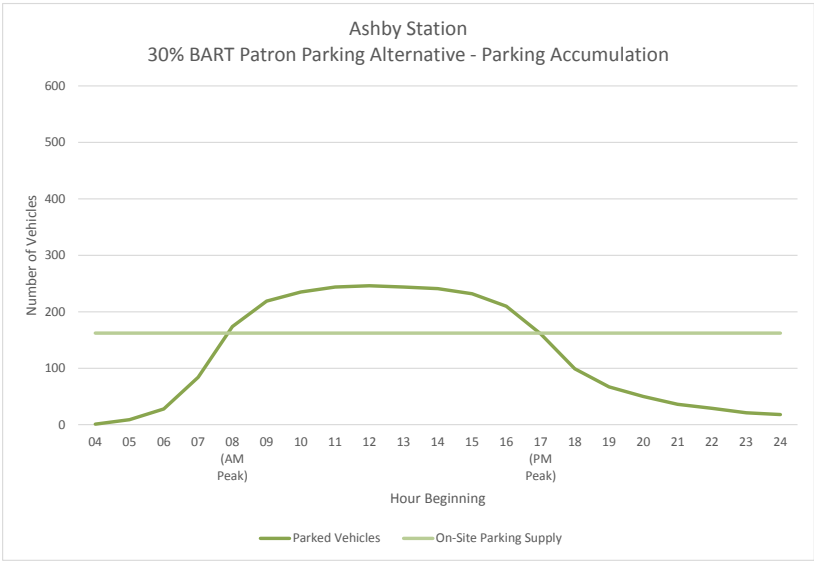
Proposed Project Conditions (2019 ridership, 2020 mode share, 77% and 65retention, zero replacement parking)											
Ashby			North Berkeley			Ashby			North Berkeley		
Inbound	Outbound	Total	Inbound	Outbound	Total	Parking Accumulat ion	Parking Surplus/D eficit	Percent Surplus/D eficit	Parking Accumulat ion	Parking Surplus/D eficit	Percent Surplus/D eficit
1	0	1	1	0	1	1	-1	-100%	1	78	7800%
9	1	10	11	1	12	9	-9	-100%	11	68	618%
24	6	30	30	4	34	27	-27	-100%	37	42	114%
66	15	81	73	12	85	78	-78	-100%	98	-19	-19%
101	19	120	102	17	119	160	-160	-100%	183	-104	-57%
54	13	67	52	11	63	201	-201	-100%	224	-145	-65%
24	9	33	27	9	36	216	-216	-100%	242	-163	-67%
17	10	27	19	9	28	223	-223	-100%	252	-173	-69%
15	12	27	15	11	26	226	-226	-100%	256	-177	-69%
14	15	29	13	15	28	225	-225	-100%	254	-175	-69%
14	16	30	13	18	31	223	-223	-100%	249	-170	-68%
17	25	42	17	28	45	215	-215	-100%	238	-159	-67%
23	43	66	22	50	72	195	-195	-100%	210	-131	-62%
28	73	101	26	85	111	150	-150	-100%	151	-72	-48%
19	77	96	18	83	101	92	-92	-100%	86	-7	-8%
10	40	50	8	43	51	62	-62	-100%	51	28	55%
6	22	28	5	25	30	46	-46	-100%	31	48	155%
5	17	22	4	19	23	34	-34	-100%	16	63	394%
3	10	13	2	12	14	27	-27	-100%	6	73	1217%
2	9	11	1	11	12	20	-20	-100%	-4	83	-2075%
0	3	3	0	3	3	17	-17	-100%	-7	86	-1229%
0	1	1	0	1	1	16	-16	-100%	-8	87	-1088%
452	436	888	459	467	926	2,463	-2,463	-22	2,577	-839	53



Low Replacement Scenario (2019 ridership, 2020 mode share, 80% and 74% retention, lower replacement parking)											
Ashby			North Berkeley			Ashby			North Berkeley		
Inbound	Outbound	Total	Inbound	Outbound	Total	Parking Accumulat ion	Parking Surplus/D eficit	Percent Surplus/D eficit	Parking Accumulat ion	Parking Surplus/D eficit	Percent Surplus/D eficit
1	0	1	1	0	1	1	80	8015%	1	188	18800%
9	2	11	12	1	13	8	73	914%	12	177	1475%
25	6	31	34	5	39	27	54	201%	41	148	361%
69	16	85	82	13	95	80	1	1%	110	79	72%
106	20	126	116	19	135	166	-85	-51%	207	-18	-9%
57	14	71	59	12	71	209	-128	-61%	254	-65	-26%
25	9	34	30	10	40	225	-144	-64%	274	-85	-31%
18	10	28	22	10	32	233	-152	-65%	286	-97	-34%
16	13	29	17	13	30	236	-155	-66%	290	-101	-35%
14	16	30	15	17	32	234	-153	-65%	288	-99	-34%
14	17	31	15	21	36	231	-150	-65%	282	-93	-33%
17	26	43	20	32	52	222	-141	-63%	270	-81	-30%
24	45	69	25	57	82	201	-120	-60%	238	-49	-21%
30	76	106	30	97	127	155	-74	-48%	171	18	11%
20	80	100	21	94	115	95	-14	-15%	98	91	93%
11	41	52	9	49	58	65	16	25%	58	131	226%
7	23	30	6	28	34	49	32	66%	36	153	425%
5	18	23	5	21	26	36	45	125%	20	169	845%
3	11	14	3	14	17	28	53	190%	9	180	2000%
2	10	12	1	12	13	20	61	306%	-2	191	-9550%
0	3	3	0	3	3	17	64	377%	-5	194	-3880%
0	1	1	0	1	1	16	65	407%	-6	195	-3250%
473	457	930	523	529	1,052	2,554	-769	100	2,932	1,226	74



High Replacement Scenario (2019 ridership, 2020 mode share, 84% and 79%retention, higher replacement parking)											
Ashby			North Berkeley			Ashby			North Berkeley		
Inbound	Outbound	Total	Inbound	Outbound	Total	Parking Accumula tion	Parking Surplus/D eficit	Percent Surplus/D eficit	Parking Accumula tion	Parking Surplus/D eficit	Percent Surplus/D eficit
1	0	1	1	0	1	1	161	16130%	1	301	30140%
10	2	12	13	1	14	9	153	1703%	13	289	2226%
26	7	33	37	5	42	28	134	480%	45	257	572%
72	16	88	88	14	102	84	78	93%	119	183	154%
111	21	132	124	20	144	174	-12	-7%	223	79	36%
59	14	73	63	13	76	219	-57	-26%	273	29	11%
26	10	36	33	10	43	235	-73	-31%	296	6	2%
19	10	29	23	11	34	244	-82	-33%	308	-6	-2%
16	14	30	19	14	33	246	-84	-34%	313	-11	-3%
15	17	32	16	18	34	244	-82	-33%	311	-9	-3%
15	18	33	16	22	38	241	-79	-33%	305	-3	-1%
18	27	45	21	35	56	232	-70	-30%	291	11	4%
25	47	72	27	61	88	210	-48	-23%	257	45	18%
31	80	111	32	104	136	161	1	1%	185	117	63%
21	83	104	22	100	122	99	63	64%	107	195	183%
11	43	54	10	53	63	67	95	142%	64	238	373%
7	24	31	6	30	36	50	112	225%	40	262	656%
5	19	24	5	23	28	36	126	351%	22	280	1275%
4	11	15	3	15	18	29	133	460%	10	292	2924%
2	10	12	2	13	15	21	141	673%	-1	303	-30340%
0	3	3	0	3	3	18	144	802%	-4	306	-7660%
0	1	1	0	1	1	17	145	855%	-5	307	-6148%
494	477	971	561	566	1,127	2,665	906	217	3,173	3,480	-55

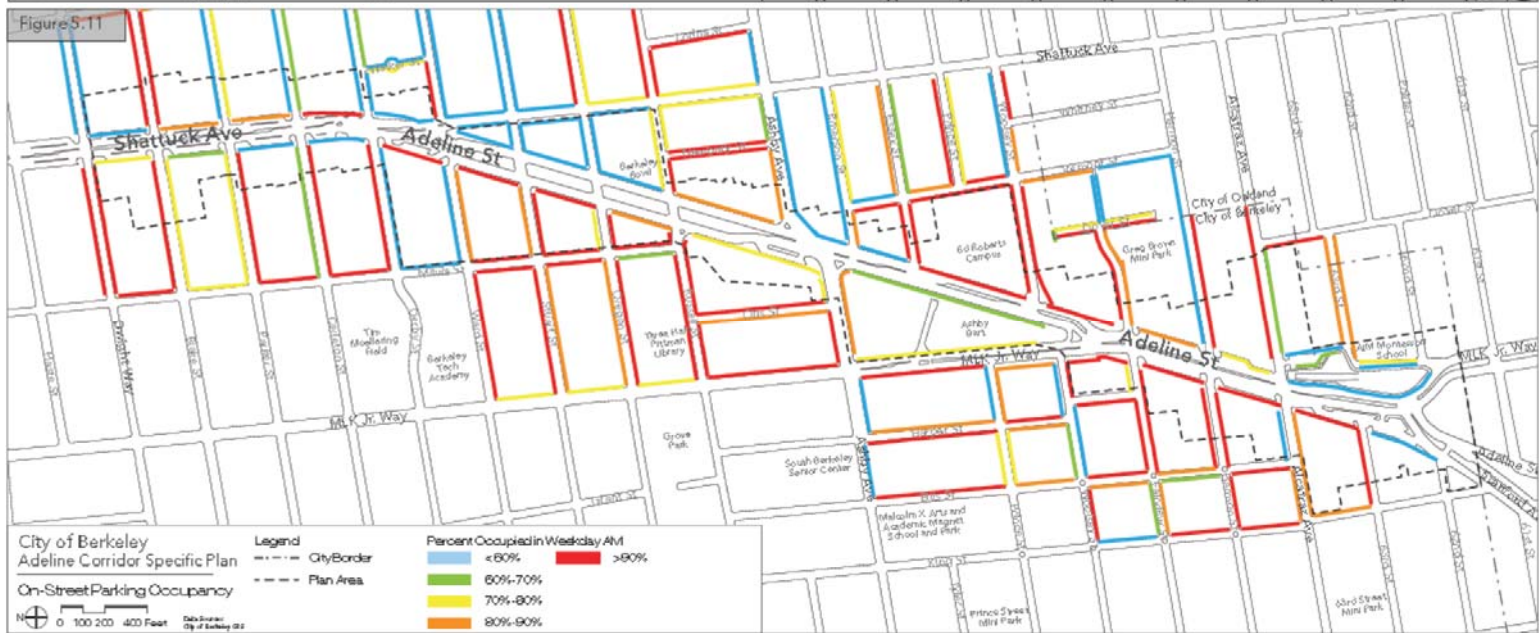
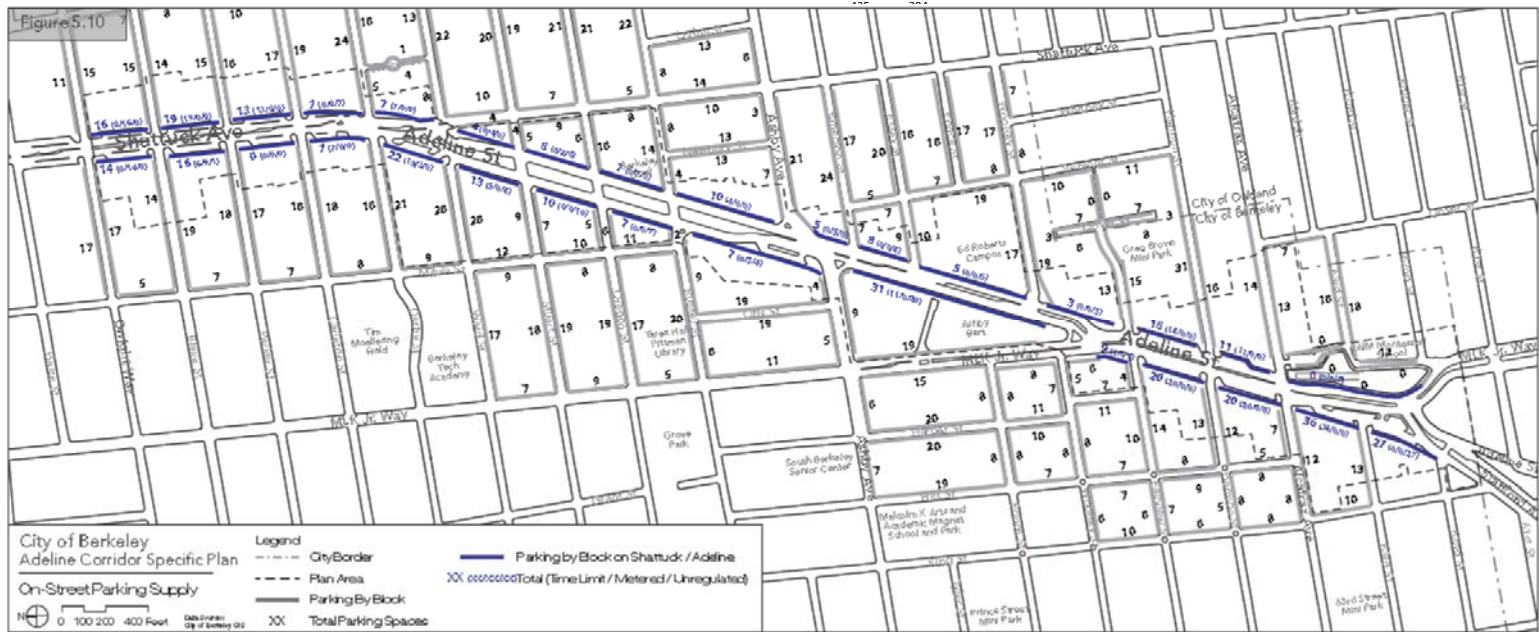


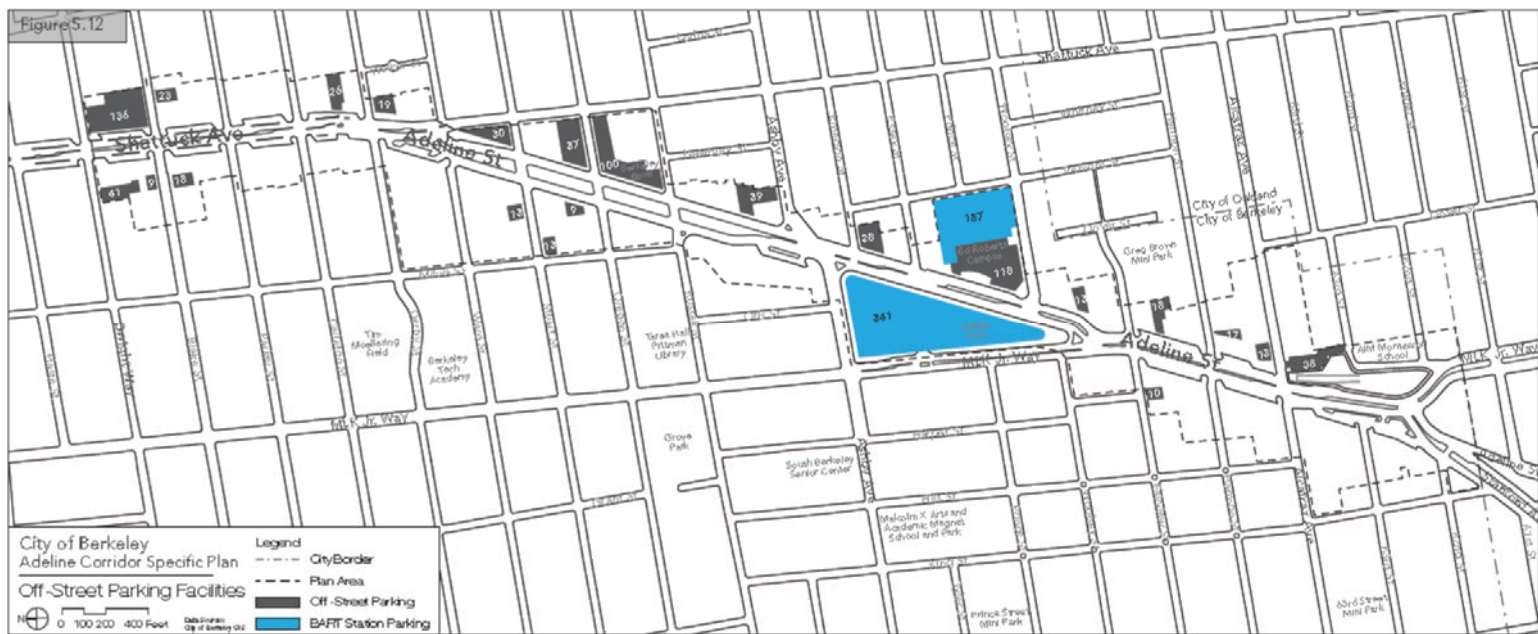
Existing (Year 2019) Percentage Total Ridership - Hourly Distribution of Entries and Exits					
Ashby			North Berkeley		
Entries	Exits	Total	Entries	Exits	Total
0%	0%	0%	0%	0%	0%
2%	0%	1%	2%	0%	1%
5%	1%	3%	7%	1%	4%
15%	3%	9%	16%	3%	9%
22%	5%	14%	22%	4%	13%
12%	3%	8%	11%	2%	7%
5%	2%	4%	6%	2%	4%
4%	2%	3%	4%	2%	3%
3%	3%	3%	3%	2%	3%
3%	3%	3%	3%	3%	3%
3%	4%	3%	3%	4%	3%
4%	6%	5%	4%	6%	5%
5%	10%	7%	5%	11%	8%
6%	17%	11%	6%	18%	12%
4%	18%	11%	4%	18%	11%
2%	9%	6%	2%	9%	6%
1%	5%	3%	1%	5%	3%
1%	4%	2%	1%	4%	3%
1%	2%	2%	0%	3%	2%
0%	2%	1%	0%	2%	1%
0%	1%	0%	0%	1%	0%
0%	0%	0%	0%	0%	0%
100%	100%	100%	100%	100%	100%

Ashby and North Berkeley BART Stations
Vehicle Parking Demand and Accumulation Analysis

BART Station Access - Drive and Park Mode Share

Inputs and Assumptions	Ashby	North Berkeley	Notes
Vehicle parking supply			
Existing	541	756	Existing on-site vehicle parking supply. Includes surface parking lot and auxiliary lots.
low retention	81	189	Assumes 15% replacement at Ashby and 25% replacement at North Berkeley
high retention	162	302	Assumes 30% replacement at Ashby and 40% replacement at North Berkeley
project	0	79	Assumes 0% replacement at Ashby and maintenance of 79 spaces on existing auxiliary lot at North Berkeley
Station access mode share (drive and park)			
2008 Station Profile			
Study (all origins)	21.0%	37.0%	
2015 Station Profile			
Study (all origins)	13.0%	20.0%	
Existing (2019)	12.2%	18.5%	Applies adjustment factor based on observed mode shift occurring between 2008 and 2015
Existing (2020)	11.5%	17.1%	Applies adjustment factor based on observed mode shift occurring between 2008 and 2015
Low replacement	11.5%	17.1%	Assumes baseline (2020) mode share. Does not include adjustments to directly account for parking supply on-site or transportation demand management measures that may be implemented with the project.
High replacement	11.5%	17.1%	Assumes baseline (2020) mode share. Does not include adjustments to directly account for parking supply on-site or transportation demand management measures that may be implemented with the project.
0 spaces	11.5%	17.1%	Assumes baseline (2020) mode share. Does not include adjustments to directly account for parking supply on-site or transportation demand management measures that may be implemented with the project.
Rider loss/rider retention			
Low replacement	19.6%	26.3%	Assumes 85% and 75% of the ridership loss would occur in the low replacement scenarios at Ashby and North Berkeley, respectively, compared to the proposed project (zero replacement parking) scenario.
High replacement	16.1%	21.0%	Assumes 70% and 60% of the ridership loss would occur in the high replacement scenarios at Ashby and North Berkeley, respectively, compared to the proposed project (zero replacement parking) scenario.
0 spaces	23%	35%	Source: BART TOD Access Model outputs of 77% retention at Ashby and 65% retention at North Berkeley







Attachment D Alameda County
Transportation Commission
Congestion Management Program
(CMP) Land Use Analysis Program
Analysis

ASHBY AND NORTH BERKELEY BART ZONING STANDARDS – CONGESTION MANAGEMENT PROGRAM (CMP) LAND USE PROGRAM ANALYSIS

Introduction

Based on the expected trip generation potential of the proposed project (i.e., greater than 100 peak hour vehicle trips), an Alameda County Transportation Commission (Alameda CTC) Congestion Management Program (CMP) Land Use Analysis Program analysis of the proposed project's effect on Metropolitan Transportation System (MTS) roadways and regional transportation network is required.¹

The designated CMP roadway network includes state highways and principal arterials that carry 30,000 vehicles per day; have four or more lanes; are major cross-town connectors; and connect at both ends to another CMP route or major activity center. The Alameda CTC adopted a two-tier approach for the CMP network in 2011. The first tier (Tier 1) is the existing CMP network and the second tier (Tier 2) consists of an expanded number of roadways that forms a supplemental network that is monitored for informational purposes. The MTS system is a regionally designated system that includes the entire CMP network as well as major arterials, transit services, rail, maritime ports, airports, and transfer hubs and includes roadways recognized as “regionally significant” as well as all interstate highways, state routes, and portions of the local street network.

Analysis Topics

Consistent with the 2019 CMP², the following topics are analyzed.

- Autos: Study impacts to roadway segments on the 2002 Metropolitan Transportation System. Vehicle delay using the HCM 2010 methodology and consistency with adopted plans.
- Transit: Study impacts to MTS transit operators (ACE, AC Transit, BART, Capitol Corridor, LAVTA, Union City Transit, and WETA). Effects of vehicle traffic on mixed-flow transit, transit capacity, transit access/egress, need for future transit service, consistency with adopted plans, and Circulation Element needs.

¹ Alameda CTC requires the assessment of development-driven impacts to regional roadways of projects that generate more than 100 “net new” PM peak-hour trips for which an EIR is being prepared. Impact thresholds are established by local agencies.

² An amendment to Chapter 6: Land Use Analysis Program was approved June 2020.

- Bicycles: Study impacts to cyclists on facilities of countywide significance, defined in the Countywide Active Transportation Plan. Effects of vehicle traffic on bicyclists' conditions, site development, and roadway improvements, and consistency with adopted plans.
- Pedestrians: Study impacts to pedestrians within the areas of countywide significance defined in the Countywide Active Transportation Plan. Effects of vehicle traffic on pedestrian conditions, site development, and roadway improvements, and consistency with adopted plans

Project Travel Demand

The trip generation estimates were developed based on the vehicle trip rates provided in the Institute of Transportation Engineer's (ITE) Trip Generation Manual (10th Edition) with adjustments using methods consistent with the City of Berkeley's Transportation Impact Report Guidelines (TIR Guidelines) and are presented in Table 1.

Table 1: Project Travel Demand – Project External Person-Trips by Mode³

Mode	Weekday AM Peak Hour			Weekday PM Peak Hour		
	In	Out	Total	In	Out	Total
Ashby BART Station Site						
Auto ¹	452	553	1,005	368	294	662
Transit	416	509	925	339	270	609
Walk	92	113	205	75	60	135
Bike	144	176	320	117	94	211
Other	95	116	211	77	62	139
Project External Person-Trips¹	1,199	1,467	2,666	976	780	1,756
<i>Project External Vehicle-Trips²</i>	<i>367</i>	<i>450</i>	<i>817</i>	<i>299</i>	<i>239</i>	<i>538</i>
North Berkeley BART Station Site						
Auto ¹	242	351	593	256	188	444
Transit	224	325	549	237	174	411
Walk	52	77	129	55	41	96
Bike	68	100	168	72	54	126
Other	78	113	191	82	61	143
Project External Person-Trips¹	664	966	1,630	702	518	1,220
<i>Project External Vehicle-Trips²</i>	<i>189</i>	<i>274</i>	<i>463</i>	<i>200</i>	<i>147</i>	<i>347</i>

Source: Kittelson & Associates, Inc. 2021

Notes: "Other" mode includes carpooling. Total external trips may not add up to totals in Table 4 due to rounding.

1 The project person auto-trip estimates shown in this table are not directly comparable to the ITE Vehicle-Trip Generation estimates shown in Table 1. Project person-trip estimates are calculated by factoring ITE vehicle-trips by a multiple of 1.18 to convert vehicle-trips to person-trips (this factor is consistent with the factor applied in the West Berkeley Circulation Master Plan) and then converts back to trips by mode using mode share adjustment rates derived from US Census.

³ Estimated external project trips are in addition to the existing trips from the on-site parking.

2 Project external vehicle-trips are calculated as auto person-trips divided by the average vehicle ridership. The average vehicle ridership for Ashby (census tract 4239.01) is 1.23 and the AVO for North Berkeley (census tract 4222) is 1.28.

Project Trip Distribution

The directional distribution and assignment of trips generated by the Project was determined based on 2020 volumes from the Alameda CTC model. Based on this proposed trip distribution pattern, the trips generated by the proposed Project were assigned to the nearby study intersections during the PM peak hour as follows:

North Berkeley BART:

- I-80/I-580/Eastshore Highway from the north via University Avenue – 37%
- I-80/I-580/Eastshore Highway from the south via University Avenue – 35%
- San Pablo Avenue/Delaware Street from the north – 7%
- San Pablo Avenue/Delaware Street from the south – 7%
- University Avenue/Sacramento Street from the east – 7%
- University Avenue/Sacramento Street from the west – 7%

Ashby BART:

- Ashby Avenue from the west – 10%
- Ashby Avenue from the east – 11%
- Adeline Street from the north – 12%
- Adeline Street from the south – 13%
- MLK Jr. Way from the north – 13%
- MLK Jr. Way from the south – 15%
- Shattuck Avenue from the north – 18%
- Shattuck Avenue/Alcatraz Avenue from the south – 8%

Autos: CMP and MTS Roadway Segment Analysis

Analysis Methodology

Analysis of roadway segments on the CMP and MTS network was performed based on the service volume tables from the Highway Capacity Manual, as shown in Table 2. A volume to capacity ratio was calculated using the volumes from the Alameda CTC model and the level of service (LOS) F service volume threshold as the estimate for roadway capacity. On CMP and MTS designated roadway segments that are projected to exceed the CMP standard in the future (Year 2040) without

the proposed project, the impact is significant if the proposed project adds at least five percent to the future peak hour traffic volume.

Table 2. Roadway Segment Level of Service Criteria

Level of Service	Description	Volume-to-Capacity Ratio (V/C Ratio)
A	Vehicles travel at free-flow speeds and can maneuver almost freely within the traffic stream.	≤ 0.30
B	Vehicles travel at free-flow speeds and movement within the traffic stream is only slightly restricted.	> 0.30 and ≤ 0.50
C	Vehicles travel at or near free-flow speed and movement is somewhat restricted. Incidents can cause local queuing.	> 0.50 and ≤ 0.71
D	Vehicle speed declines as density increases, and maneuverability within the traffic stream is noticeably limited.	> 0.71 and ≤ 0.89
E	Roadway is operating at or near capacity, with vehicles closely spaced. Any incident can cause backups that propagate upstream.	> 0.89 and ≤ 1.00
F	Roadway operates beyond capacity, with significant queuing at bottlenecks such as key intersections or lane drops. Vehicles are closely spaced and maneuverability is extremely restricted.	> 1.00

Source: Transportation Research Board, *Highway Capacity Manual*, 2000.

Kittelson applied the standards and methodologies outlined in Chapter 6 Land Use Analysis Program of the most recent Alameda CTC CMP (2020 Amendment) for this analysis. Alameda CTC uses LOS standards as defined in the 1985 HCM using speed-based methodology for Tier 1 roadways and reports both 1985 HCM and 2000 HCM (density-based) LOS for Tier 2 roadways.

The CMP legislation requires a standard of LOS E for all CMP Tier 1 roadways in Alameda County. This LOS E threshold is used to determine deficiency as part of the LOS monitoring CMP element and does not apply to the Land Use Analysis Program. This threshold is used for biennial monitoring, not to determine long-term impacts by an individual land use action.

For the purposes of this analysis, Kittelson will utilize the Florida Department of Transportation generalized service volume tables⁴, which implements HCM 2010 methodology to evaluate study roadway segments. Consistent with City of Berkeley practice, the following thresholds of significance will be applied:

For a roadway segment of the ACTC Congestion Management Program (CMP) Network:

- On CMP designated roadway segments that are projected to meet the CMP standard in the future (Year 2040) without the Project, the impact is significant if the Project causes the segment to exceed the standard and adds at least five (5) percent to the future peak hour traffic volume; or

⁴ Florida Department of Transportation. 2012. Generalized Service Volume Tables. Online: <https://www.fdot.gov/docs/default-source/planning/systems/programs/SM/invisible/QLOS/Tampa/FDOT-2012-Generalized-Service-Volume-Tables.pdf>

- On CMP designated roadway segments that are projected to exceed the CMP standard in the future (Year 2040) without the Project, the impact is significant if the Project adds at least five (5) percent to the future peak hour traffic volume.

CMP and MTS Roadway Segment Analysis

CMP and MTS roadways in the vicinity of the North Berkeley and Ashby BART station sites include I-80/I-580, Ashby Avenue (State Route 13), San Pablo Avenue (State Route 123), University Avenue, Adeline Street, Martin Luther King Jr Way, and Shattuck Avenue.

Traffic forecasts for Year 2040 Conditions were extracted from the current version of the Countywide Model (updated June 2018) at the selected roadway segments. The Cumulative (Year 2040) traffic analysis takes into consideration forecasted land use development and planned, funded, and approved changes to the transportation (roadway, transit, pedestrian, and bicycle) network and infrastructure near the proposed project sites. The Alameda CTC travel demand model roadway network is consistent with the assumptions of Plan Bay Area 2040. The Cumulative Plus Project forecasts were derived by manually adding the project-generated traffic to the Cumulative no Project forecasts. The Cumulative Conditions level of service analysis results and proposed project contribution for the weekday PM peak hour for the Ashby BART station and North Berkeley BART station are shown in **Error! Reference source not found.** and Table 4, respectively.

Table 3. Ashby BART Roadway Segment Analysis – Cumulative (Year 2040) Plus Project Conditions, PM Peak Hour

#	Segment	Capacity	Cumulative Conditions			Cumulative Plus Project Conditions			
			Volume	v/c Ratio ^a	LOS ^b	Project Volume	v/c Ratio ^c	LOS ^b	Project Contribution ^d
Northbound/Eastbound									
1	MLK Jr. Way, north of Adeline Street	1,690	2,007	1.19	F	31	1.21	F	1.5%
2	MLK Jr. Way, south of Adeline Street/Stanford Avenue	1,690	1,804	1.07	F	45	1.09	F	2.4%
3	Shattuck Avenue, north of Adeline Street	1,690	2,064	1.22	F	43	1.25	F	2.0%
4	Shattuck Avenue, south of Alcatraz Avenue	1,690	835	0.49	B	24	0.51	C	2.8%
5	Adeline Street, south of Ashby Avenue	1,690	1,335	0.79	D	39	0.81	D	2.8%
6	Adeline Street, north of Ashby Avenue	1,690	1,528	0.9	E	29	0.92	E	1.9%
7	Ashby Avenue, west of Adeline Street	1,690	977	0.58	C	30	0.60	C	3.0%
8	Ashby Avenue, east of Adeline Street	1,690	1,964	1.16	F	26	1.18	F	1.3%
Southbound/Westbound									
9	MLK Jr. Way, north of Adeline Street	1,690	1,847	1.09	F	39	1.12	F	2.1%
10	MLK Jr. Way, south of Adeline Street/Stanford Avenue	1,690	2,014	1.19	F	36	1.21	F	1.8%
11	Shattuck Avenue, north of Adeline Street	1,690	1,979	1.17	F	53	1.20	F	2.6%
12	Shattuck Avenue, south of Alcatraz Avenue	1,690	1,013	0.6	C	19	0.61	C	1.8%
13	Adeline Street, south of Ashby Street	1,690	2,208	1.31	F	31	1.32	F	1.4%
14	Adeline Street, north of Ashby Street	1,690	1,291	0.76	D	36	0.79	D	2.7%
15	Ashby Avenue, west of Adeline Street	1,690	1,013	0.6	C	24	0.61	C	2.3%
16	Ashby Avenue, east of Adeline Street	1,690	773	0.46	B	33	0.48	B	4.1%

^a v/c Ratio: Volume-to-Capacity Ratio

^b LOS: Level-of-Service

^c Project-related increase to v/c Ratio

^d Project contribution to Cumulative Plus Project volume

Source: Kittelson & Associates, Inc., 2021.

Table 4. North Berkeley BART Roadway Segment Analysis – Cumulative (Year 2040) Plus Project Conditions, PM Peak Hour

#	Segment	Capacity	Cumulative Conditions			Cumulative Plus Project Conditions			
			Volume	v/c Ratio ^a	LOS ^b	Project Volume	v/c Ratio ^c	LOS ^b	Project Contribution ^d
Northbound/Eastbound									
1	I-80/I-580, north of University Avenue	10,360	11,974	1.16	F	55	1.16	F	0.5%
2	I-80/I-580, south of University Avenue	10,360	12,495	1.21	F	70	1.21	F	0.6%
3	San Pablo Ave, north of Delaware Street	1,690	2,287	1.35	F	10	1.36	F	0.4%
4	San Pablo Ave, south of Delware Street	1,690	2,180	1.29	F	14	1.30	F	0.6%
5	University Avenue, west of Sacramento Street	1,690	2,060	1.22	F	14	1.23	F	0.7%
6	University Avenue, east of Sacramento Street	1,690	1,503	0.89	D	10	0.90	E	0.7%
Southbound/Westbound									
7	I-80/I-580, north of University Avenue	10,360	9,969	0.96	E	74	0.97	E	0.7%
8	I-80/I-580, south of University Avenue	10,360	9,983	0.96	E	52	0.97	E	0.5%
9	San Pablo Ave, north of Delaware Street	1,690	2,022	1.2	F	14	1.20	F	0.7%
10	San Pablo Ave, south of Delware Street	1,690	2,089	1.24	F	10	1.24	F	0.5%
11	University Avenue, west of Sacramento Street	1,690	2,018	1.19	F	10	1.20	F	0.5%
12	University Avenue, east of Sacramento Street	1,690	2,057	1.22	F	14	1.23	F	0.7%

^a v/c Ratio: Volume-to-Capacity Ratio

^b LOS: Level-of-Service

^c Project-related increase to v/c Ratio

^d Project contribution to Cumulative Plus Project volume

Source: Kittelson & Associates, Inc., 2021.

The following Ashby BART station study roadway segments would operate at LOS E or LOS F under Cumulative Conditions and would continue to operate at LOS E or LOS F under Cumulative Plus Project Conditions with the addition of traffic generated by the proposed project.

- **Segment 1** (northbound Martin Luther King Jr. Way, north of Adeline Street) (LOS F)
- **Segment 2** (northbound Martin Luther King Jr. Way, south of Adeline Street) (LOS F)
- **Segment 3** (northbound Shattuck Avenue, north of Adeline Street) (LOS F)
- **Segment 6** (northbound Adeline Street, north of Ashby Avenue) (LOS E)
- **Segment 8** (eastbound Ashby Avenue, west of Adeline Street) (LOS F)
- **Segment 9** (southbound Martin Luther King Jr. Way, north of Adeline Street) (LOS F)
- **Segment 10** (southbound Martin Luther King Jr. Way, south of Adeline Street) (LOS F)
- **Segment 11** (southbound Shattuck Avenue, north of Adeline Street) (LOS F)
- **Segment 13** (southbound Adeline Street, south of Ashby Avenue) (LOS F)

All North Berkeley BART study roadway segments except **Segment 6** (eastbound University Avenue, east of Sacramento Street) would operate at LOS E or LOS F under Cumulative Conditions and would continue to operate at LOS E or LOS F under Cumulative Plus Project Conditions with the addition of traffic generated by the proposed project. **Segment 6** would operate at LOS D under Cumulative No Project Conditions and would operate at LOS E under Cumulative Plus Project Conditions. The project contribution to **Segment 6** is 0.7%.

With the addition of traffic generated by the proposed project, all study CMP and MTS roadway segments that are operating at LOS E or LOS F without the proposed project would continue to operate at LOS E or LOS F with the proposed project at both Ashby and North Berkeley BART stations. As shown in Table 3 and Table 4.

, the proposed project would add less than 5 percent to the future peak hour traffic volume at Ashby BART and North Berkeley BART stations, respectively. Therefore, according to the significance criteria, this impact is less than significant.⁵

Transit: MTS Operators

The DEIR addresses potential impacts of the proposed project to transit operations, including the MTS transit operators, such as BART and AC Transit, within the study area. Section 4.11.1 discusses existing transit conditions at the Ashby BART and North Berkeley BART station sites. AC Transit lines 12, 18, 80, 688, 800, and F all have stops and routes within a ½-mile of the Ashby BART Station site. AC Transit lines 51B, 52, 604, 688, 800, and J all have stops and routes within a ½-mile of the North Berkeley BART Station site. Potential impacts to transit are discussed under Impact TRA-1 and Impact TRA-3 (Section 4.11.5).

Pedestrians and Bicycles: Facilities of Countywide Significance

The DEIR addresses potential impacts of the proposed project to bicycle facilities on and around the project area, including facilities of countywide significance. Section 4.11.1 discusses existing pedestrian and bicycle facilities and the challenges pedestrians and cyclists at the Ashby BART and North Berkeley BART station sites. Potential impacts to people walking and biking are discussed under Impact TRA-1 and Impact TRA-3 (Section 4.11.5).

⁵ The criteria of significance are consistent with criteria used in the 2020 Long Range Development Plan EIR. Online: http://realestate.berkeley.edu/sites/default/files/4.12_transportation.pdf. Accessed March 23, 2021. The significance criteria states that on CMP and MTS designated roadway segments that are projected to exceed the CMP standard in the future (Year 2040) without the Project, the impact is significant if the Project adds at least 5 percent to the future peak hour traffic volume.

Appendix I

Water Supply Assessment

March 9, 2021

Justin Horner, Associate Planner
City of Berkeley
Department of Planning & Development
1947 Center Street, 2nd Floor
Berkeley, CA 94704

Re: Water Supply Assessment – Ashby and North Berkeley BART Station Transit-Oriented Development Zoning Standards Project

Dear Mr. Horner:

This letter is in response to your request made on January 4, 2021, for water agency consultation (Enclosure 1) concerning the Water Supply Assessment (WSA) for the Ashby and North Berkeley BART Station Transit-Oriented Development Zoning Standards Project (Project), located in the City of Berkeley (City), which is within East Bay Municipal Utility District's (EBMUD's) Ultimate Service Boundary. EBMUD appreciates the opportunity to provide this response.

Pursuant to Sections 10910-10915 of the California Water Code, the Project meets the threshold requirement for an assessment of water supply availability based on the amount of water this Project would require, which is greater than the amount of water required by a 500-dwelling-unit project.

Please note this WSA addresses the issue of water supply only and is not a guarantee of service; future water service is subject to the rates and regulations in effect at that time.

Project Demand

The water demand for the Project is accounted for in EBMUD's water demand projections, as published in EBMUD's Urban Water Management Plan (UWMP) 2015 (Enclosure 2). EBMUD's water demand projections account for anticipated future water demands within EBMUD's service boundaries and for variations in demand-attributed changes in development patterns. The existing land uses consist of parking spaces and transit BART stations with historical water use of approximately 14,000 gallons per day (GPD). The projected water use at Project build-out is approximately 440,000 GPD.

EBMUD's demand projections indicate both densification and land use changes in a few existing land use classifications, including commercial and residential land use areas. These changes increase demand for EBMUD water. EBMUD's UWMP 2015 projects water demands over time, accounting for estimated variations in demand usage minus

conservation and recycled supply sources, as noted in the UWMP 2015, Table 4-1, Mid-Cycle Demand Projections (Table 1). Typically, EBMUD prepares a full demand study every ten years; the most recent version, the 2050 Demand Study, was completed in 2020. For planning purposes, water demands are estimated in five-year increments, but it is recognized that actual incremental amounts may occur stepwise in shorter time increments. An increase in usage by one customer in a particular customer class does not require a strict gallon-for-gallon increase in conservation by other customers in that class, as, in actuality, the amount of potable demand, conservation and recycled water use EBMUD-wide will vary somewhat. In 2014, EBMUD prepared the Mid-Cycle Demand Assessment (MCDA) in order to assess any significant effects on metered water consumption caused by the 2008-2010 drought, and the economic downturn that affected growth in the Bay Area. As part of the MCDA, EBMUD reviewed recently updated city and county general plans for significant changes since the 2040 Demand Study, and held meetings with representatives from the cities of Alameda, Oakland, Richmond and San Ramon. The MCDA concluded that, while the cities and counties might reach their build-out goals later than originally anticipated, they would still reach these goals by 2040. Accordingly, the MCDA validated the 2040 Demand Study, as demands are expected to gradually increase back to 2040 projected levels as development and water use return to pre-drought and pre-recession conditions. EBMUD completed a comprehensive demand study in 2020 with a long-term horizon of 2050. As part of the demand study, EBMUD reached out to each city and county in the service area to ask about projected development and future land-use changes. The study results will be incorporated into the UWMP 2020.

Table 1
Mid-Cycle Demand Projections (UWMP 2015, Table 4-1)

TABLE 4-1 AVERAGE ANNUAL DEMAND (MGD)	MID-CYCLE DEMAND PROJECTIONS					
	2015	2020	2025	2030	2035	2040
PROJECTED TOTAL DEMAND	232	267	276	290	304	312
CONSERVATION ¹	-33	-39	-44	-51	-57	-62
NON-POTABLE WATER ^{1,2}	-9	-11	-14	-17	-18	-20
PLANNING LEVEL OF DEMAND	190	217	218	222	229	230

¹ See Chapters 6 and 7 for more discussion of water recycling and conservation, respectively.
² Non-potable water includes recycled water and raw water projects.

Project Area

The Project includes three proposed development sites located within or adjacent to the Ashby BART and North Berkeley BART Stations. The Ashby BART Station includes two proposed development sites within the existing 4.4-acre transit station and the 1.9-acre surface parking lot. The existing 4.4-acre transit station site is located west of the Ed Roberts Campus and bounded by Ashby Avenue (California State Route 13) to the north; Martin Luther King Jr. Way to the west; and Adeline Street to the east. The existing 1.9-acre surface parking lot is located immediately east of the Ed Roberts Campus and

bounded by Tremont Street to the east; Woolsey Street to the south; and residential houses to the north. At build-out, the areas of the Ashby BART locations will include the development of up to 1,200 residential dwelling units and 100,000 square feet of non-residential space. The North Berkeley BART station includes one proposed development site located at the existing 8.1-acre transit station and parking lot. The site is located west of Ohlone Park and bounded by Sacramento Street to the east; Acton Street to the west; Virginia Street to the north; and Delaware Street to the south. At build-out, the areas of the North Berkeley BART location will include development of up to 1,200 residential dwelling units and 25,000 square feet of non-residential space. The total Project area consists of 14.4 acres. At build-out, the Project will include the combined development of up to 2,400 residential dwelling units and 125,000 square feet of non-residential space.

EBMUD Water Demand Projections

Since the 1970s, water demand within EBMUD's service area has ranged from 200 to 220 million gallons per day (MGD) in non-drought years. Section 4.1 of the UWMP 2015 outlines past and current EBMUD water demand, including Figure 4-1 which shows historic water use (including metered and unmetered demands) within EBMUD's service area, along with the number of customer accounts. The 2040 water demand forecast of 312 MGD for EBMUD's service area can be reduced to 230 MGD with the successful implementation of water recycling and conservation programs, as outlined in the UWMP 2015. Current demand is lower than estimated in the MCDA as a result of the recent multi-year drought. This is because the planning level of demand may differ from the actual demand in any given year due to water use reductions that typically occur during droughts. After droughts, a rebound effect is expected wherein demand rises back to projected levels. Thus, the MCDA still reflects a reasonable expectation for demand in year 2040, as the demands are expected to gradually increase back to 2040 projected demand levels as development and water use return to pre-drought and pre-recession conditions. The proposed Project's future development and operations will not change EBMUD's 2040 demand projection.

EBMUD Water Supply, Water Rights and the UWMP 2015

EBMUD has water right permits and licenses that allow for delivery of up to a maximum of 325 MGD from the Mokelumne River, subject to the availability of Mokelumne River runoff and the senior water rights of other users. EBMUD's position in the hierarchy of Mokelumne River water users is determined by a variety of agreements between Mokelumne River water right holders and the terms of the appropriative water right permits and licenses.

Conditions that could, depending on hydrology, restrict EBMUD's ability to receive its full entitlement include:

- Upstream water use by senior water right holders.

- Downstream water use by riparian and senior appropriators and other downstream obligations, including protection of public trust resources.
- Variability in precipitation and runoff.

During prolonged droughts, the Mokelumne River supply cannot meet EBMUD's projected customer demands. To address this, EBMUD has completed construction of the Freeport Regional Water Facility and the Bayside Groundwater Project Phase 1, which are discussed below in the Supplemental Water Supply and Demand Management section of this assessment. EBMUD has obtained and continues to seek supplemental supplies.

The UWMP 2015, adopted on June 28, 2016 by EBMUD's Board of Directors under Resolution No. 34092-16, is a long-range planning document used to assess current and projected water usage, water supply planning, and conservation and recycling efforts. EBMUD's water supply sources are discussed in Section 1.5.1 of the UWMP 2015. EBMUD's main water supply is the Mokelumne River, and EBMUD has rights to receive up to 325 MGD of water from this source subject to the availability of runoff, senior water rights of other users, and downstream fishery flow requirements. EBMUD also has a Long-Term Renewal Contract (Contract No. 14-06-200-5183A-LTR1) with the United States (U.S.) Bureau of Reclamation to receive water from the Central Valley Project (CVP) through the Freeport Regional Water Facility in years when EBMUD's water supplies are relatively low (for more details, see Section 3.3.2 of the UWMP 2015). During some dry years, EBMUD may purchase water transfers to help meet customer demands. Section 5.1 of the UWMP 2015 discusses EBMUD's water transfer program.

EBMUD maintains a biennial budget and five-year capital improvement program to optimize investments and maximize drinking water quality, and the reliability, safety, flexibility, and overall efficiency of the water supply system. EBMUD's most recently adopted budget, which includes capital expenditures for the delivery of water supplies to its customers, can be found at <http://www.ebmud.com/about-us/investors/budget-and-rates/>.

EBMUD complies with applicable local, state, and federal regulations in the operation of its water supply system. Figure 1-4 of the UWMP 2015 illustrates the numerous local, state, and federal agencies that may regulate EBMUD's facilities and operations.

A summary of EBMUD's demand and supply projections, in five-year increments, for a 25-year planning horizon is provided in UWMP 2015, Table 4-5, Preliminary EBMUD Baseline Supply and Demand Analysis (Table 2).

EBMUD's evaluation of water supply availability accounts for the diversions of both upstream and downstream water right holders and fishery releases on the Mokelumne River. Fishery releases are based on the requirements of a 1998 Joint Settlement Agreement (JSA) between EBMUD, U.S. Fish and Wildlife Service, and the California Department of Fish and Wildlife. The JSA requires EBMUD to make minimum flow

releases from its reservoirs to the lower Mokelumne River to protect and enhance the fishery resources and ecosystem of the river. As this water is released downriver, it is, therefore, not available for use by EBMUD's customers.

Table 2
Preliminary EBMUD Baseline Supply and Demand Analysis
(UWMP 2015, Table 4-5)

TABLE 4-5		PRELIMINARY EBMUD BASELINE SUPPLY & DEMAND ANALYSIS					
SUPPLY AND DEMAND COMPARISON - NORMAL YEAR (MGDI)		2015	2020	2025	2030	2035	2040
MOKELUMNE SYSTEM		>190	>217	>218	>222	>229	>230
DEMAND TOTALS		190	217	218	222	229	230
DIFFERENCE		0	0	0	0	0	0
DRY YEAR RESULTS FROM EBMUDSIM (MGDI)		2015	2020	2025	2030	2035	2040
SINGLE DRY YEAR OR FIRST YEAR OF MULTI-YEAR DROUGHT	MOKELUMNE SYSTEM	145	169	170	173	179	179
	CVP SUPPLIES ²	36	35	35	35	35	35
	BAYSIDE ³	0	0	0	0	0	0
	SUPPLY TOTALS	181	204	205	208	214	215
	PLANNING LEVEL DEMAND ¹	190	217	218	222	229	230
	RATIONING ⁴	5%	6%	6%	6%	7%	7%
	DEMAND TOTALS	185	203	202	206	212	214
NEED FOR WATER (IAF) ⁵		0	0	0	0	0	0
SECOND YEAR	MOKELUMNE SYSTEM	81	103	103	107	112	113
	CVP SUPPLIES ²	71	71	71	71	71	71
	BAYSIDE ³	0	0	0	0	0	0
	SUPPLY TOTALS	152	174	174	178	183	184
	PLANNING LEVEL DEMAND ¹	190	217	218	222	229	230
	RATIONING ⁴	20%	20%	20%	20%	20%	20%
	DEMAND TOTALS	152	178	178	178	184	185
NEED FOR WATER (IAF) ⁵		0	0	0	0	0	0
THIRD YEAR	MOKELUMNE SYSTEM	111	132	132	125	120	104
	CVP SUPPLIES ²	40	40	40	40	40	40
	BAYSIDE ³	1	1	1	1	1	1
	SUPPLY TOTALS	152	173	173	166	161	145
	PLANNING LEVEL DEMAND ¹	190	217	218	222	229	230
	RATIONING ⁴	20%	20%	20%	20%	20%	20%
	DEMAND TOTALS	152	178	178	178	183	184
NEED FOR WATER (IAF) ⁵		0	0	2	13	24	48

1. Planning Level of Demand accounts for projected savings from water recycling and conservation programs as discussed in Chapters 6 and 7 respectively. Customer demand values are based on the Mid Cycle Demand Assessment, October 2014.
2. Projected available CVP supplies are taken according to the Drought Management Program Guidelines discussed in Chapter 3.
3. For the purposes of this modeling effort, it is assumed that the Bayside Groundwater Project would be brought online in the third year of a drought.
4. Rationing reduction goals are determined according to projected system storage levels in the Drought Management Program Guidelines discussed in Chapter 3.
5. Need for Water includes unmet customer demand as well as shortages on the Lower Mokelumne River.

The available supply and demand shown in Table 2 were derived from EBMUD's baseline hydrologic model with the following assumptions:

- Customer demand values are based on the MCDA, and planning-level demands account for projected savings from water recycling and conservation programs.
- EBMUD Drought Planning Sequence assumes water years 1976, 1977 and a modified 1978 hydrology.
- Total system storage is depleted by the end of the third year of the drought.
- EBMUD will implement its Drought Management Program (DMP) when necessary.
- The diversions by Amador and Calaveras Counties upstream of Pardee Reservoir will increase over time, eventually reaching the full extent of their senior rights.
- Releases are made to meet the requirements of senior downstream water right holders and fishery releases, as required by the JSA.
- EBMUD allocation of CVP supply is available the first year of a drought and subsequent drought years, according to the U.S. Bureau of Reclamation's Municipal and Industrial Shortage Policy.
- The Bayside Groundwater Project Phase 1 is available and brought online in the third year of a drought.

The UWMP 2015 concludes that EBMUD has, and will have, adequate water supplies to serve existing and projected demand within the Ultimate Service Boundary during normal and wet years, but that deficits are projected for multi-year droughts. During multi-year droughts, EBMUD may require significant customer water use reductions and may also need to acquire supplemental supplies to meet customer demand.

As discussed under the DMP Guidelines section in Chapter 3 of the UWMP 2015, EBMUD's system storage generally allows EBMUD to continue serving its customers during dry-year events. EBMUD typically imposes water use restrictions based on the projected storage available at the end of September and, based on recent changes to its DMP Guidelines (summarized below), may also implement water use restrictions in response to a State of California mandate. By imposing water use restrictions in the first dry year of potential drought periods, EBMUD attempts to minimize water use restrictions in subsequent years if a drought persists. Throughout dry periods, EBMUD must continue to meet its current and subsequent-year fishery flow release requirements and obligations to downstream agencies.

The UWMP 2015 includes DMP Guidelines that establish the level of water use restrictions EBMUD may implement under varying conditions. Under the DMP Guidelines, water use restrictions may be determined based upon either projected end-of-September Total System Storage (TSS) or water use restriction mandates from the State Water Resources Control Board. When state-mandated water use restrictions exceed the reductions that would otherwise be called for based upon end-of-September TSS,

EBMUD's water use reduction requirements may be guided by the applicable state mandates. Under either scenario, while EBMUD strives to keep water use reductions at or below 15 percent, if the drought is severe, mandatory water use reductions could exceed 15 percent.

Despite water savings from EBMUD's aggressive conservation and recycling programs and water use restrictions called for in the DMP Guidelines, supplemental supplies are still needed in significant, severe, and critical droughts. The proposed Project will be subject to the same drought restrictions that apply to all EBMUD customers. In addition, the proposed Project will be subject to EBMUD's regulations aimed at encouraging efficient water use, such as Sections 29 and 31 of EBMUD's Regulations Governing Water Service. Section 29, "Water Use Restrictions," promotes efficient water use by EBMUD customers and prohibits certain uses of potable water. Section 31, "Water Efficiency Requirements," identifies the types of water efficiency requirements (i.e., maximum flow rates for flow control devices) for water service.

Supplemental Water Supply and Demand Management

The goals of meeting projected water needs and increased water reliability rely on supplemental supplies, improving reliability of existing water supply facilities, water conservation, and recycled water programs.

By 2011, EBMUD completed construction of the Freeport Regional Water Facility and the Bayside Groundwater Project Phase 1 to augment its water supply during drought periods. However, additional supplemental supplies beyond those provided through these facilities will still be needed, as noted above. Chapter 5 of the UWMP 2015 describes potential supplemental water supply projects that could be implemented to meet projected long-term water demands during multi-year drought periods.

The Freeport Regional Water Facility became operational in February 2011. EBMUD's ability to take delivery of CVP water through the Freeport Regional Water Facility is based on its Long Term Renewal Contract (LTRC) with the U.S. Bureau of Reclamation. The LTRC provides for up to 133,000 acre feet of CVP supply in a single dry year, not to exceed a total of 165,000 acre feet in three consecutive dry years. Under the LTRC, the CVP supply is available to EBMUD only in dry years when EBMUD's total stored water supply is forecast to be below 500,000 total acre feet on September 30 of each year.

EBMUD is developing the Bayside Groundwater Project in phases to provide a source of supplemental supply in dry years. Construction of the first phase (Bayside Groundwater Project Phase 1) was completed in 2010, allowing EBMUD to inject treated potable water into a deep aquifer in the South East Bay Plain Groundwater Basin for later extraction, treatment, and use during severe droughts. A permit from the Department of Public Health is required before the groundwater can be extracted and treated for municipal use. As described in Chapter 4 of the UWMP 2015, EBMUD's drought planning calls for using the

Bayside Groundwater Project Phase 1 during the third year of multi-year droughts to provide up to 1 MGD of water to meet customer demands. Additional information on the Bayside Groundwater Project can be found in Section 5.3 and Appendix E of the UWMP 2015.

Chapter 5 of the UWMP 2015 also lists other potential supplemental water projects, including Northern California water transfers, Bayside Groundwater Project Expansion, expansion of Contra Costa Water District's Los Vaqueros Reservoir, and others that could be implemented to meet the projected long-term water supplemental need during multi-year drought periods. The UWMP 2015 identifies a broad mix of projects, with inherent scalability and the ability to adjust implementation schedules for particular components, which will allow EBMUD to pursue the necessary supplemental supplies while minimizing the risks associated with future uncertainties, such as project implementation challenges and global climate change. The Environmental Impact Report that EBMUD certified for the Water Supply Management Program 2040 examined the impacts of pursuing these supplemental supply projects at a program level. Separate project-level environmental documentation will be prepared, as appropriate, for specific components as they are developed in further detail and implemented in accordance with EBMUD's water supply needs.

In addition to pursuing supplemental water supply sources, EBMUD also maximizes resources through continuous improvements in the delivery and transmission of available water supplies and investments in ensuring the safety of its existing water supply facilities. These programs, along with emergency interties and planned water recycling and conservation efforts, would ensure a reliable water supply to meet projected demands for current and future EBMUD customers within the current service area.

Water Conservation and Recycled Water Considerations

The proposed Project presents opportunities to incorporate water conservation measures. Conditions of approval for the implementation of the proposed Project should require that the Project comply with the California Model Water Efficient Landscape Ordinance (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495). EBMUD staff would appreciate the opportunity to meet with the City to discuss conservation measures. This meeting will explore early opportunities to expand water conservation via EBMUD's conservation programs and best management practices applicable to the Project.

Conservation strategies will be required to achieve water use reduction goals and restrictions, including compliance with Sections 29 and 31, described above, of EBMUD's Regulations Governing Water Service, and all other legally mandated water conservation requirements.

Justin Horner, Associate Planner
March 9, 2021
Page 9

The Project is not currently a candidate for recycled water; however, future recycled water pipeline expansions toward the City could potentially serve a portion of the Project boundaries. Recycled water is appropriate for outdoor landscape irrigation, and EBMUD is evaluating options of recycled water for in-building, non-potable use. As EBMUD further plans its recycled water program, the feasibility of providing recycled water to the Project may change. EBMUD encourages the City and its developers to continue to coordinate closely with EBMUD during the planning of the Project to further explore the options and requirements relating to recycled water use.

The Project sponsor should contact Jennifer L. McGregor, Senior Civil Engineer, at (510) 287-1030 for further information.

Sincerely,



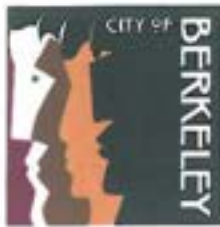
David J. Rehnstrom
Manager of Water Distribution Planning Division

DJR:JML:btf

sb21_022b_Ashby and North Berkeley BART TOD Standards_WSA_Letter.docx

Enclosures: 1. Letter of Request for Water Supply Assessment dated January 4, 2021
2. EBMUD Urban Water Management Plan 2015

cc: Board of Directors w/o Enclosure 2



January 4, 2021

Sent via e-mail to:
drehnstr@ebmud.com

David Rehnstrom
Water Services Planning
East Bay Municipal Utility District
375 Eleventh Street
Oakland, CA 94607

RE: Request for Water Supply Assessment for the Ashby BART Station and North Berkeley BART Station Transit-Oriented Development Zoning Standards Project

Dear Mr. Rehnstrom:

Pursuant to Section 15155 of the California Environmental Quality Act (CEQA) Guidelines and Sections 10910-10915 of the California Water Code, the City of Berkeley requests that EBMUD prepare a Water Supply Assessment (WSA) to determine if there is adequate water supply to meet projected demand for future development under proposed zoning standards at the Ashby BART Station and North Berkeley BART Station.

California Assembly Bill (AB) 2923, passed in 2018, requires the adoption of TOD zoning standards for BART-owned properties within ½-mile of station entrances in Alameda, Contra Costa and San Francisco counties that establish specific local zoning requirements for height, density, parking, and floor area ratio. The Project includes development of standards that comply with AB 2923 and are guided by additional City policy priorities related to affordable housing, an overall emphasis on social equity, and development without displacement. In 2020, the City of Berkeley began a community planning process to develop zoning/site planning scenarios for the Ashby and North Berkeley BART stations to refine into final zoning standards that comply with AB 2923. These sites are shown in Figure 1 and Figure 2.

An EIR will analyze potential environmental impacts of development that could be encouraged by the land use regulation changes in the proposed Project. At the Ashby BART station, the EIR will evaluate the impact of up to 1,200 dwelling units and 100,000 square feet of non-residential space that would be constructed, distributed between the 4.4-acre station site and the 1.9 acre surface parking lot east of the Ed Roberts campus. At the North Berkeley BART station, the EIR will evaluate the impact of up to 1,200 dwelling units, as well as 25,000 square

Mr. David Rehnstrom
January 4, 2021
Page 2

feet of non-residential space, located on the main 8.1-acre station site. The three auxiliary lots located northwest of the station along the Ohlone Greenway are not anticipated to include any new development. Per the Memorandum of Understanding (MOU) between BART and the City of Berkeley, and due to their location directly above the underground BART right of way, it is anticipated that these lots would include only surface infrastructure enhancements.

City Planning staff and its consultant team led by Rincon Consulting are currently in the process of preparing the EIR for this project. The City anticipates releasing draft EIR for public review in Spring 2021.

The City understands that this WSA request is a required part of the environmental documentation for the project and that EBMUD has up to 90 days to prepare the WSA. The timing of this request coincides with the EIR preparation currently underway.

Please contact me at JHorner@cityofberkeley.info if you have any questions or require additional information. Thank you for your time and assistance on this matter.

Sincerely,



Justin Horner
Associate Planner
City of Berkeley

Attachments:

1. Water use estimates for the project
2. EBMUD water use factors used to develop the water use estimate

Figure 1 Ashby BART Station Map



Figure 2 North Berkeley BART Station Map



Attachment 1: WATER USAGE ESTIMATES

Proposed 2030 Water Demand Under the Ashby BART Station and North Berkeley BART Station TOD Development Standards Project

Use	Quantity	Unit	Typical water demand (gallons per unit) *	Average Daily Water Demand (gpd)
Ashby BART Station (1, 2)				
Residential	3,000	Person	50	150,000
Non-residential (retail)	100,000	SF	0.388	38,800
			<i>Subtotal</i>	<i>188,800</i>
North Berkeley BART Station (3, 4)				
Residential	3,000	Person	50	150,000
Non-residential (retail)	12,500	SF	0.388	4,850
			<i>Subtotal</i>	<i>154,850</i>
			Total	343,650

Notes:

*Flowrate factors are based on reference material provided by EBMUD (see attachment)

50 gpd/person for high-rise apartments

0.173 gpd/sf for general office (-10 years)

0.388 gpd/sf for department store

(1) Assumed 1,200 units at Ashby BART and 2.5 persons per unit = 3,000 people

(2) Assumed 100,000 square feet of non-residential at Ashby BART, all retail (to be conservative)

(3) Assumed 1200 units at North Berkeley BART and 2.5 persons per unit

(4) Assumed 25,000 square feet of non-residential at NB BART, all retail

Enclosure 2

WASTEWATER ENGINEERING

Treatment, Disposal,
and Reuse

Third Edition

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Commercial facilities. The water used by commercial facilities for sanitary purposes will vary widely depending on the type of activity (e.g., an office as compared to a restaurant). Typical water-use values for various types of commercial facilities are reported in Table 2-3. For large commercial water-using facilities such as laundries and car washes, careful estimates of actual water use should be made.

Institutional facilities. Water used by facilities such as hospitals, schools, and rest homes is usually based on some measure of the size of the facility and the type of housing function provided (e.g., per student or per bed). Water use for schools will vary significantly depending on whether the students are housed on campus or are day students. Representative water-use values for institutional facilities are reported in Table 2-4.

TABLE 2-3
Typical rates of water use for commercial facilities^a

User	Unit	Flow, gal/unit · d	
		Range	Typical
Airport	Passenger	3-5	4
Apartment house	Person	100-200	100
Automobile service station	Employee	8-15	13
	Vehicle served	8-15	10
Boarding house	Person	25-50	40
Department store	Toilet room	400-600	550
	Employee	8-13	10
Hotel	Guest	40-60	50
	Employee	8-13	10
Lodging house and tourist home	Guest	30-50	40
Motel	Guest	25-40	35
Motel with kitchen	Guest	25-60	40
Laundry (self-service)	Machine	400-650	550
	Wash	45-55	50
Office	Employee	8-20	15
Public lavatory	User	3-6	5
Restaurant (including toilet)			
Conventional	Customer	8-10	9
Short-order	Customer	3-8	6
Bar and cocktail lounge	Customer	2-4	3
	Seat	15-25	20
Shopping center	Parking space	1-3	2
	Employee	8-13	10
Theater			
Indoor	Seat	2-4	3
Outdoor	Car	3-5	4

^a Adapted in part from Refs. 7 and 8.

Note: gal × 3.7854 = L

TABLE 2-4
Typical water-

User
Assembly hall
Hospital, medical
Hospital, mental
Prison
Rest home
School, day
With cafeteria, g
and showers
With cafeteria or
Without cafeteria
School, boarding

^a Adapted in part from
Note: gal × 3.7854 = L

Recreati
bowling alleys,
involving water

Industrial (No
pal agencies to i
water-using ind
their own suppl
those involved i
ments, may dep
water use to be
Because industr
work to inspect
of both water u

Public Servic
smallest compo
used for public
system mainte
new water line
flushing of sew
sanitary sewer

TABLE 2-9
Typical wastewater flowrates from
residential sources*

Source	Unit	Flow, gal/unit · d	
		Range	Typical
Apartment:			
High-rise	Person	35–75	50
Low-rise	Person	50–80	65
Hotel	Guest	30–55	45
Individual residence:			
Typical home	Person	45–90	70
Better home	Person	60–100	80
Luxury home	Person	75–150	95
Older home	Person	30–60	45
Summer cottage	Person	25–50	40
Motel:			
With kitchen	Unit	90–180	100
Without kitchen	Unit	75–150	95
Trailer park	Person	30–50	40

* Adapted in part from Ref. 7.

Note: gal × 3.7854 = L.

vary with the region, climate, and type of facility. The actual records of institutions are the best sources of flow data for design purposes.

Recreational Facilities. Wastewater flowrates from many recreational facilities are highly seasonal. Typical data on wastewater flowrates from recreational facilities are presented in Table 2-12.

Sources and Rates of Industrial (Nondomestic) Wastewater Flows

Nondomestic wastewater flowrates from industrial sources vary with the type and size of the facility, the degree of water reuse, and the onsite wastewater treatment methods, if any. Extremely high peak flowrates may be reduced by the use of detention tanks and equalization basins. Typical design values for estimating the flows from industrial areas that have no or little wet-process type industries are 1000 to 1500 gal/acre · d (9 to 14 m³/ha · d) for light industrial developments and 1500 to 3000 gal/acre · d (14 to 28 m³/ha · d) for medium industrial developments. Alternatively, for estimating industrial flowrates where the nature of the industry is known, data such as those reported in Table 2-6 can be used. For industries without internal recycling or reuse programs, it can be assumed that about 85 to 95 percent of the water used in the various operations and processes will become wastewater. For large industries with internal water-reuse programs, separate estimates must be made. Average domestic

Water Supply Planning

David W. Prasifka



Krieger Publishing Company
Malabar, Florida
1994

Table 1-6. Summary of Commercial and Institutional Water Use.

Type of Establishment or Institution	Selected Parameter	Annual Water Use (gpd/unit)		Maximum Day Water Use (gpd/unit)		Peak Hour Water Use (gpd/unit)	
		Expected	Design	Expected	Design	Expected	Design
Primary and secondary schools							
public elementary	gpd/student	5.38	8.67	9.68	13.00	49.10	52.40
public senior high	gpd/student	5.64	9.75				
public junior high	gpd/student	6.63	12.20	19.60	25.20	121.00	127.00
private elementary	gpd/student	2.24	6.09	3.10	6.92	25.70	29.50
private senior high	gpd/student	10.40	18.60	15.70	23.90	38.70	46.90
combined (grades 1-12)	gpd/student	8.49	18.70	16.80	27.00	51.30	61.50
Colleges							
students in residence	gpd/student	106	179	114	187	250	323
nonresident students	gpd/student	15	*	27	*	58	*
Hospitals	gpd/bed	346	559	551	764	912	1120
Nursing homes and institutions	gpd/bed	113	209	146	222	424	500
Apartments							
high-rise	gpd/occupied unit	218	322	426	530	745	849
garden-type	gpd/occupied unit	213	315	272	374	671	773
Hotels							
Hotels	gpd/sq. ft.	0.256	*	0.294	*	0.433	*
Motels							
Motels	gpd/sq. ft.	0.224	0.326	0.461	0.563	1.55	1.65
Office buildings							
general offices (- 10 years)	gpd/sq. ft.	0.093	0.164	0.173	0.244	0.521	0.592
general offices (+ 10 years)	gpd/sq. ft.	0.142	0.223				
medical offices	gpd/sq. ft.	0.618	*	1.660	*	4.970	*
Department stores							
Department stores	gpd/sq. ft. of total sales area	0.216	0.483	0.388	0.655	0.958	1.230
Car washes							
Car washes	gpd/sq. ft.	4.78	*	10.3	*	31.5	*
Service stations							
Service stations	gpd/sq. ft. of garage & office space	0.251	0.485	0.590	0.824	4.890	5.120
Laundries							
commercial laundries & dry cleaners	gpd/sq. ft.	0.253	0.639	0.326	0.712	1.570	1.960
laundromats	gpd/sq. ft.	2.170	6.390	*	*	*	*
Restaurants							
drive-ins (parking only)	gpd/car space	109.0					
drive-ins (seating & parking)	gpd/seat	40.6					
conventional restaurants	gpd/seat	24.2	55.2	83.4	114	167	198

(continued)

(continued)

Attachment J

Special Status Species Evaluation Tables

Table J-1 Special Status Plant Species in the Regional Vicinity (Twelve Quad) of the Study Area

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	None/None G5T2/S2 1B.2	Cismontane woodland, Valley and foothill grassland. clay, volcanic, often serpentinite. 52 - 305 m. perennial bulbiferous herb. Blooms (Apr)May-Jun	Not Expected	No suitable elevation, habitat (i.e., cismontane woodland, valley and foothill grassland), or soils are present. The species is not expected to occur within project sites.
<i>Amorpha californica</i> var. <i>napensis</i> Napa false indigo	None/None G4T2/S2 1B.2	Broadleaved upland forest (openings), Chaparral, Cismontane woodland. 50 - 2000 m. perennial deciduous shrub. Blooms Apr-Jul	Not Expected	No suitable habitat (i.e., broadleaved upland forest, chaparral, cismontane woodland) is present. The species is not expected to occur within project sites.
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	None/None G3/S3 1B.2	Coastal bluff scrub, Cismontane woodland, Valley and foothill grassland. 3 - 500 m. annual herb. Blooms Mar-Jun	Not Expected	No suitable habitat (i.e., cismontane woodland, valley and foothill grassland, and coastal bluff scrub) is present. The species is not expected to occur within project sites.
<i>Arctostaphylos franciscana</i> Franciscan manzanita	FE/None G1/S1 1B.1	Coastal scrub (serpentinite). 60 - 300 m. perennial evergreen shrub. Blooms Feb-Apr	Not Expected	No suitable habitat (i.e., chaparral) or elevations are present. The species is not expected to occur within project sites.
<i>Arctostaphylos imbricata</i> San Bruno Mountain manzanita	None/SE G1/S1 1B.1	Chaparral, Coastal scrub. rocky. 275 - 370 m. perennial evergreen shrub. Blooms Feb-May	Not Expected	No suitable habitat (i.e., chaparral and coastal scrub) or elevations are present. The species is not expected to occur within project sites.
<i>Arctostaphylos montana</i> ssp. <i>ravenii</i> Presidio manzanita	FE/SE G3T1/S1 1B.1	Chaparral, Coastal prairie, Coastal scrub. serpentinite outcrop. 45 - 215 m. perennial evergreen shrub. Blooms Feb-Mar	Not Expected	No suitable habitat (i.e., chaparral and coastal prairie or scrub) or soils are present. The species is not expected to occur within project sites.
<i>Arctostaphylos montaraensis</i> Montara manzanita	None/None G1/S1 1B.2	Chaparral (maritime), Coastal scrub. 80 - 500 m. perennial evergreen shrub. Blooms Jan-Mar	Not Expected	No suitable habitat (i.e., chaparral and coastal scrub) or elevations are present. The species is not expected to occur within project sites.
<i>Arctostaphylos pacifica</i> Pacific manzanita	None/SE G1/S1 1B.1	Chaparral, Coastal scrub. 330 - 330 m. evergreen shrub. Blooms Feb-Apr	Not Expected	No suitable habitat (i.e., coastal scrub and chaparral) or elevations are present. The species is not expected to occur within project sites.



Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Arctostaphylos pallida</i> pallid manzanita	FT/SE G1/S1 1B.1	Broadleafed upland forest, Closed-cone coniferous forest, Chaparral, Cismontane woodland, Coastal scrub. siliceous shale, sandy or gravelly. 185 - 465 m. perennial evergreen shrub. Blooms Dec-Mar	Not Expected	No suitable habitat (i.e., broadleafed upland forest, chaparral, cismontane woodland or coastal scrub), elevations, or soils are present. The species is not expected to occur within project sites.
<i>Arenaria paludicola</i> marsh sandwort	FE/SE G1/S1 1B.1	Occurs in sandy substrates and openings within freshwater or brackish marshes and swamps. This species blooms between May and August, and typically occurs at elevations ranging from 3-170 meters.	Not Expected	No suitable marsh habitat or sandy soils are present. The species is not expected to occur within project sites.
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	None/None G2T1/S1 1B.2	Playas, Valley and foothill grassland (adobe clay), Vernal pools. alkaline. 1 - 60 m. annual herb. Blooms Mar-Jun	Not Expected	No suitable habitat (i.e., alkali playa, valley and foothill grassland, or vernal pools) or soils are present. The species is not expected to occur within project sites.
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	None/None G2/S2 1B.2	Perennial herb. Blooms Mar-June. Chaparral, valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 90-1555 m.	Not Expected	No suitable habitat (i.e., chaparral, valley and foothill grassland, cismontane woodland) or soils are present. The species is not expected to occur within project sites.
<i>Blepharizonia plumosa</i> big tarplant	None/None G1G2/S1S2 1B.1	Valley and foothill grassland. Usually clay. 30 - 505 m. annual herb. Blooms Jul-Oct	Not Expected	No suitable habitat (i.e., chaparral, cismontane woodland, riparian woodland, or valley and foothill grassland) or soils are present. The species is not expected to occur within project sites.
<i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern	None/None G2/S2 1B.2	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland. 30 - 840 m. perennial bulbiferous herb. Blooms Apr-Jun	Not Expected	No suitable habitat (i.e., broadleafed upland forest, chaparral, cismontane woodland or coastal scrub) is present. The species is not expected to occur within project sites.



Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Calochortus tiburonensis</i> Tiburon mariposa lily	FT/ST G1/S1 1B.1	Valley and foothill grassland (serpentinite). 50 - 150 m. perennial bulbiferous herb. Blooms Mar-Jun	Not Expected	No suitable valley and foothill grassland habitat or soils are present. The species is not expected to occur within project sites.
<i>Calystegia purpurata</i> ssp. <i>saxicola</i> coastal bluff morning-glory	None/None G4T2T3/S2S3 1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, North Coast coniferous forest. 0 - 105 m. perennial herb. Blooms (Mar)Apr-Sep	Not Expected	No suitable coastal habitat or is present. The species is not expected to occur within project sites.
<i>Carex comosa</i> bristly sedge	None/None G5/S2 2B.1	Coastal prairie, Marshes and swamps (lake margins), Valley and foothill grassland. 0 - 625 m. perennial rhizomatous herb. Blooms May-Sep	Not Expected	No suitable marsh habitat is present. The species is not expected to occur within project sites.
<i>Carex praticola</i> northern meadow sedge	None/None G5/S2 2B.2	Meadows and seeps (mesic). 0 - 3200 m. perennial herb. Blooms May-Jul	Not Expected	No suitable meadow habitats are present. The species is not expected to occur within project sites.
<i>Castilleja affinis</i> var. <i>neglecta</i> Tiburon paintbrush	FE/ST G4G5T1T2/S1S2 1B.2	Valley and foothill grassland (serpentinite). 60 - 400 m. perennial herb (hemiparasitic). Blooms Apr-Jun	Not Expected	No suitable valley and foothill grassland habitat or elevations are present. The species is not expected to occur within project sites.
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	None/None G3T1T2/S1S2 1B.1	Valley and foothill grassland (alkaline). 0 - 230 m. annual herb. Blooms May-Oct(Nov)	Not Expected	No suitable valley and foothill grassland habitat or alkaline soils are present. The species is not expected to occur within project sites.
<i>Centromadia parryi</i> ssp. <i>parryi</i> pappose tarplant	None/None G3T2/S2 1B.2	Chaparral, Coastal prairie, Meadows and seeps, Marshes and swamps (coastal salt), Valley and foothill grassland (vernally mesic). often alkaline. 0 - 420 m. annual herb. Blooms May-Nov	Not Expected	No suitable habitat (i.e., chaparral, coastal prairie or saltmarsh, valley and foothill grassland, meadows and seeps) or soils are present. The species is not expected to occur within project sites.
<i>Chloropyron maritimum</i> ssp. <i>palustre</i> Point Reyes bird's-beak	None/None G4?T2/S2 1B.2	Marshes and swamps (coastal salt). 0 - 10 m. annual herb (hemiparasitic). Blooms Jun-Oct	Not Expected	No suitable coastal salt marsh habitat is present. The species is not expected to occur within project sites.
<i>Chloropyron molle</i> ssp. <i>molle</i> soft bird's-beak	FE/SR G2T1/S1 1B.2	Marshes and swamps (coastal salt). 0 - 3 m. annual herb (hemiparasitic). Blooms Jun-Nov	Not Expected	No suitable coastal salt marsh habitat is present. The species is not expected to occur within project sites.



Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i> San Francisco Bay spineflower	None/None G2T1/S1 1B.2	Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub. sandy. 3 - 215 m. annual herb. Blooms Apr-Jul(Aug)	Not Expected	No suitable coastal habitat or soils are present. The species is not expected to occur within project sites.
<i>Chorizanthe robusta</i> var. <i>robusta</i> robust spineflower	FE/None G2T1/S1 1B.1	Chaparral (maritime), Cismontane woodland (openings), Coastal dunes, Coastal scrub. sandy or gravelly. 3 - 300 m. annual herb. Blooms Apr-Sep	Not Expected	No suitable habitat (i.e., cismontane woodland, coastal dunes, coastal scrub, chaparral) or sandy soils are present. The species is not expected to occur within project sites.
<i>Cicuta maculata</i> var. <i>bolanderi</i> Bolander's water-hemlock	None/None G5T4T5/S2? 2B.1	Marshes and swamps Coastal, fresh or brackish water. 0 - 200 m. perennial herb. Blooms Jul-Sep	Not Expected	No suitable marsh habitats are present. The species is not expected to occur within project sites.
<i>Cirsium andrewsii</i> Franciscan thistle	None/None G3/S3 1B.2	Broadleafed upland forest, Coastal bluff scrub, Coastal prairie, Coastal scrub. mesic, sometimes serpentine. 0 - 150 m. perennial herb. Blooms Mar-Jul	Not Expected	No suitable habitat (i.e., coastal bluff scrub, broadleafed upland forest, coastal scrub, coastal prairie) or soils are present. The species is not expected to occur within project sites.
<i>Cirsium hydrophilum</i> var. <i>vaseyi</i> Mt. Tamalpais thistle	None/None G2T1/S1 1B.2	Broadleafed upland forest, Chaparral, Meadows and seeps. serpentine seeps. 240 - 620 m. perennial herb. Blooms May-Aug	Not Expected	No suitable habitat (i.e., broadleafed upland forest, chaparral, meadows and seeps), elevations, or soils are present. The species is not expected to occur within project sites.
<i>Cirsium occidentale</i> var. <i>compactum</i> compact cobwebby thistle	None/None G3G4T2/S2 1B.2	Chaparral, Coastal dunes, Coastal prairie, Coastal scrub. 5 - 150 m. perennial herb. Blooms Apr-Jun	Not Expected	No suitable habitat (i.e., chaparral and coastal dunes, prairie, and scrub) is present. The species is not expected to occur within project sites.
<i>Clarkia franciscana</i> Presidio clarkia	FE/SE G1/S1 1B.1	Coastal scrub, Valley and foothill grassland (serpentine). 25 - 335 m. annual herb. Blooms May-Jul	Not Expected	No suitable coastal scrub habitat or soils are present. The species is not expected to occur within project sites.
<i>Collinsia corymbosa</i> round-headed Chinese-houses	None/None G1/S1 1B.2	Coastal dunes. 0 - 20 m. annual herb. Blooms Apr-Jun	Not Expected	No suitable coastal dunes habitat is present. The species is not expected to occur within project sites.



Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Collinsia multicolor</i> San Francisco collinsia	None/None G2/S2 1B.2	Annual herb. Blooms March-May. Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus. 30-250m (100-820ft).	Not Expected	No suitable habitat (i.e., closed-cone coniferous forest and coastal scrub) or soils are present. The species is not expected to occur within project sites.
<i>Dirca occidentalis</i> western leatherwood	None/None G2/S2 1B.2	Broadleafed upland forest, Closed-cone coniferous forest, Chaparral, Cismontane woodland, North Coast coniferous forest, Riparian forest, Riparian woodland. mesic. 25 - 425 m. perennial deciduous shrub. Blooms Jan-Mar(Apr)	Not Expected	No suitable habitats (i.e., broadleafed upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland) are present. The species is not expected to occur within project sites.
<i>Eriogonum luteolum</i> var. <i>caninum</i> Tiburon buckwheat	None/None G5T2/S2 1B.2	Chaparral, Cismontane woodland, Coastal prairie, Valley and foothill grassland. serpentinite, sandy to gravelly. 0 - 700 m. annual herb. Blooms May-Sep	Not Expected	No suitable habitat (i.e., chaparral, valley and foothill grassland, cismontane woodland, coastal prairie) or soils are present. The species is not expected to occur within project sites.
<i>Eryngium jepsonii</i> Jepson's coyote thistle	None/None G2?/S2? 1B.2	Valley and foothill grassland, Vernal pools. clay. 3 - 300 m. perennial herb. Blooms Apr-Aug	Not Expected	No suitable vernal pool habitat or soils are present. The species is not expected to occur within project sites.
<i>Extriplex joaquinana</i> San Joaquin spearscale	None/None G2/S2 1B.2	Annual herb. Blooms April through October. Chenopod scrub, alkali meadow, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with <i>Distichlis spicata</i> , <i>Frankenia</i> , etc. 1-835 m.	Not Expected	No suitable alkali wetlands habitat or soils are present. The species is not expected to occur within project sites.
<i>Fissidens pauperculus</i> minute pocket moss	None/None G3?/S2 1B.2	North Coast coniferous forest (damp coastal soil). 10 - 1024 m. moss. Blooms	Not Expected	No suitable north coast coniferous forest habitat or soils are present. The species is not expected to occur within project sites.



Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Fritillaria liliacea</i> fragrant fritillary	None/None G2/S2 1B.2	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland. Often serpentine. 3 - 410 m. perennial bulbiferous herb. Blooms Feb-Apr	Not Expected	No suitable habitat (i.e., coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland) or soils are present. The species is not expected to occur within project sites.
<i>Gilia capitata</i> ssp. <i>chamissonis</i> blue coast gilia	None/None G5T2/S2 1B.1	Coastal dunes, Coastal scrub. 2 - 200 m. annual herb. Blooms Apr-Jul	Not Expected	No suitable coastal habitat is present. The species is not expected to occur within the project sites.
<i>Gilia millefoliata</i> dark-eyed gilia	None/None G2/S2 1B.2	Coastal dunes. 2 - 30 m. annual herb. Blooms Apr-Jul	Not Expected	No suitable coastal dunes habitat is present. The species is not expected to occur within the project sites.
<i>Helianthella castanea</i> Diablo helianthella	None/None G2/S2 1B.2	Broadleaved upland forest, Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland. Usually rocky, axonal soils. Often in partial shade. 60 - 1300 m. perennial herb. Blooms Mar-Jun	Not Expected	No suitable habitat (i.e., broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland) or soils are present. The species is not expected to occur within the project sites.
<i>Hemizonia congesta</i> ssp. <i>congesta</i> congested-headed hayfield tarplant	None/None G5T2/S2 1B.2	Valley and foothill grassland. sometimes roadsides. 20 - 560 m. annual herb. Blooms Apr-Nov	Not Expected	No suitable valley and foothill grassland habitat are present. While this species can occur in ruderal areas such as roadsides, the project sites is developed with no natural plant communities and there are no recorded occurrences within 5 miles of the project sites (CNDDDB 2021a), thus the species is not expected to occur the within project sites.
<i>Hesperoxys sparsiflora</i> var. <i>brevifolia</i> short-leaved evax	None/None G4T3/S2 1B.2	Coastal bluff scrub (sandy), Coastal dunes, Coastal prairie. 0 - 215 m. annual herb. Blooms Mar-Jun	Not Expected	No suitable coastal habitat or sandy soils are present. The species is not expected to occur within the project sites.



Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Hesperolinon congestum</i> Marin western flax	FT/ST G1/S1 1B.1	Chaparral, Valley and foothill grassland. serpentine. 5 - 370 m. annual herb. Blooms Apr- Jul	Not Expected	No suitable habitat (i.e., chaparral, valley and foothill grassland) or soils are present. The species is not expected to occur within the project sites.
<i>Heteranthera dubia</i> water star-grass	None/None G5/S2 2B.2	Marshes and swamps (alkaline, still or slow- moving water). Requires a pH of 7 or higher, usually in slightly eutrophic waters. 30 - 1495 m. perennial herb (aquatic). Blooms Jul- Oct	Not Expected	No suitable marsh habitat or waters are present. The species is not expected to occur within the project sites.
<i>Hoita strobilina</i> Loma Prieta hoita	None/None G2?/S2? 1B.1	Chaparral, Cismontane woodland, Riparian woodland. usually serpentine, mesic. 30 - 860 m. perennial herb. Blooms May-Jul(Aug-Oct)	Not Expected	No suitable habitat (i.e., chaparral, cismontane woodland, riparian woodland) or soils are present. The species is not expected to occur within the project sites..
<i>Holocarpha macradenia</i> Santa Cruz tarplant	FT/SE G1/S1 1B.1	Coastal prairie, Coastal scrub, Valley and foothill grassland. often clay, sandy. 10 - 220 m. annual herb. Blooms Jun-Oct	Not Expected	No suitable coastal habitat or soils are present. The species is not expected to occur within the project sites.
<i>Horkelia cuneata</i> var. <i>sericea</i> Kellogg's horkelia	None/None G4T1?/S1? 1B.1	Closed-cone coniferous forest, Chaparral (maritime), Coastal dunes, Coastal scrub. sandy or gravelly, openings. 10 - 200 m. perennial herb. Blooms Apr-Sep	Not Expected	No suitable coastal dunes habitat or soils are present. The species is not expected to occur within the project sites.
<i>Horkelia marinensis</i> Point Reyes horkelia	None/None G2/S2 1B.2	Coastal dunes, Coastal prairie, Coastal scrub. sandy. 5 - 755 m. perennial herb. Blooms May-Sep	Not Expected	No suitable coastal habitat or sandy soils are present. The species is not expected to occur within the project sites.
<i>Hypogymnia schizidiata</i> island rock lichen	None/None G2/S1 1B.3	Closed-cone coniferous forest, Chaparral. On bark and wood of hardwoods and conifers. 360 - 405 m. foliose lichen (null). Blooms	Not Expected	No suitable habitat (i.e., chaparral and closed-cone coniferous forest) is present. The species is not expected to occur within the project sites.



City of Berkeley

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Project

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Isocoma arguta</i> Carquinez goldenbush	None/None G1/S1 1B.1	Valley and foothill grassland (alkaline). 1 - 20 m. perennial shrub. Blooms Aug-Dec	Not Expected	No suitable valley and foothill grassland habitat or soils are present. The species is not expected to occur within the project sites.
<i>Lasthenia conjgens</i> Contra Costa goldfields	FE/None G1/S1 1B.1	Cismontane woodland, Playas (alkaline), Valley and foothill grassland, Vernal pools. mesic. 0 - 470 m. annual herb. Blooms Mar- Jun	Not Expected	No suitable vernal pool habitat or soils are present. The species is not expected to occur within the project sites.
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea	None/None G5T2/S2 1B.2	Marshes and swamps (freshwater and brackish). 0 - 5 m. perennial herb. Blooms May-Jul(Aug-Sep)	Not Expected	No suitable marsh habitat is present. The species is not expected to occur within the project sites.
<i>Layia carnosa</i> beach layia	FE/SE G2/S2 1B.1	Coastal dunes, Coastal scrub (sandy). 0 - 60 m. annual herb. Blooms Mar- Jul	Not Expected	No suitable coastal habitat or soils are present. The species is not expected to occur within the project sites.
<i>Leptosiphon rosaceus</i> rose leptosiphon	None/None G1/S1 1B.1	Coastal bluff scrub. 0 - 100 m. annual herb. Blooms Apr-Jul	Not Expected	No suitable coastal bluff scrub habitat is present. The species is not expected to occur within the project sites.
<i>Lessingia germanorum</i> San Francisco lessingia	FE/SE G1/S1 1B.1	Coastal scrub (remnant dunes). 25 - 110 m. annual herb. Blooms (Jun)Jul-Nov	Not Expected	No suitable coastal scrub habitat or sandy soils are present. The species is not expected to occur within the project sites.
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	None/SR G2/S2 1B.1	Marshes and swamps (brackish or freshwater), Riparian scrub. 0 - 10 m. perennial rhizomatous herb. Blooms Apr-Nov	Not Expected	No suitable habitat (i.e., chaparral and cismontane woodland) is present. The species is not expected to occur within the project sites.
<i>Malacothamnus arcuatus</i> arcuate bush- mallow	None/None G2Q/S2 1B.2	Chaparral, Cismontane woodland. 15 - 355 m. perennial evergreen shrub. Blooms Apr-Sep	Not Expected	No suitable coastal habitat or soils are present. The species is not expected to occur within the project sites.
<i>Meconella oregana</i> Oregon meconella	None/None G2G3/S2 1B.1	Coastal prairie, Coastal scrub. 250 - 620 m. annual herb. Blooms Mar-Apr	Not Expected	No suitable habitat (i.e., closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland) or elevations are present. The species is not expected to occur within the project sites.



Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Microseris paludosa</i> marsh microseris	None/None G2/S2 1B.2	Closed-cone coniferous forest, Cismontane woodland, Coastal scrub, Valley and foothill grassland. 5 - 355 m. perennial herb. Blooms Apr-Jun(Jul)	Not Expected	No suitable coastal habitat or is present. The species is not expected to occur within the project sites.
<i>Monardella sinuata</i> ssp. <i>nigrescens</i> northern curly-leaved monardella	None/None G3T2/S2 1B.2	Chaparral (SCR Co.), Coastal dunes, Coastal scrub, Lower montane coniferous forest (SCR Co., ponderosa pine sandhills). Sandy. 0 - 300 m. annual herb. Blooms (Apr)May-Jul(Aug-Sep)	Not Expected	No suitable habitat or sandy soils are present. The species is not expected to occur within the project sites.
<i>Monolopia gracilens</i> woodland woollythreads	None/None G3/S3 1B.2	Broadleaved upland forest (openings), Chaparral (openings), Cismontane woodland, North Coast coniferous forest (openings), Valley and foothill grassland. Serpentine. 100 - 1200 m. annual herb. Blooms (Feb)Mar-Jul	Not Expected	No suitable habitat (i.e., chaparral, valley and foothill grassland, cismontane woodland, broadleaved upland forest, north coast coniferous forest), elevations or soils are present. The species is not expected to occur within the project sites.
<i>Pentachaeta bellidiflora</i> white-rayed pentachaeta	FE/SE G1/S1 1B.1	Cismontane woodland, Valley and foothill grassland (often serpentine). 35 - 620 m. annual herb. Blooms Mar-May	Not Expected	No suitable habitat (i.e., valley and foothill grassland, cismontane woodland) or soils are present. The species is not expected to occur within the project sites.
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris' popcornflower	None/None G3T1Q/S1 1B.2	Chaparral, Coastal prairie, Coastal scrub. mesic. 3 - 160 m. annual herb. Blooms Mar-Jun	Not Expected	No suitable chaparral or coastal habitat is present. The species is not expected to occur within the project sites.
<i>Plagiobothrys diffusus</i> San Francisco popcornflower	None/SE G1Q/S1 1B.1	Coastal prairie, Valley and foothill grassland. 60 - 360 m. annual herb. Blooms Mar-Jun	Not Expected	No suitable coastal marine habitat or native grasslands are present. The species is not expected to occur within the project sites.
<i>Plagiobothrys glaber</i> hairless popcornflower	None/None GH/SH 1A	Meadows and seeps (alkaline), Marshes and swamps (coastal salt). 15 - 180 m. annual herb. Blooms Mar-May	Not Expected	No suitable habitat (i.e., meadows and seeps, coastal salt marshes and swamps) is present. The species is not expected to occur within the project sites.



Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Polemonium carneum</i> Oregon polemonium	None/None G3G4/S2 2B.2	Coastal prairie, Coastal scrub, Lower montane coniferous forest. 0 - 1830 m. perennial herb. Blooms Apr-Sep	Not Expected	No suitable coastal habitat or coniferous forests are present. The species is not expected to occur within the project sites.
<i>Sanicula maritima</i> adobe sanicle	None/SR G2/S2 1B.1	Chaparral, Coastal prairie, Meadows and seeps, Valley and foothill grassland. clay, serpentinite. 30 - 240 m. perennial herb. Blooms Feb-May	Not Expected	No suitable habitat (i.e., meadows and seeps, valley and foothill grassland, chaparral, coastal prairie) or soils are present. The species is not expected to occur within the project sites.
<i>Senecio aphanactis</i> chaparral ragwort	None/None G3/S2 2B.2	Chaparral, Cismontane woodland, Coastal scrub. sometimes alkaline. 15 - 800 m. annual herb. Blooms Jan-Apr(May)	Not Expected	No suitable habitat (i.e., chaparral, cismontane woodland, coastal scrub) or soils are present. The species is not expected to occur within the project sites.
<i>Silene scouleri</i> ssp. <i>scouleri</i> Scouler's catchfly	None/None G5T4T5/S2S3 2B.2	Coastal bluff scrub, Coastal prairie, Valley and foothill grassland. 0 - 600 m. perennial herb. Blooms (Mar-May)Jun-Aug(Sep)	Not Expected	No suitable coastal habitat or soils are present. The species is not expected to occur within the project sites.
<i>Silene verecunda</i> ssp. <i>verecunda</i> San Francisco campion	None/None G5T1/S1 1B.2	Coastal bluff scrub, Chaparral, Coastal prairie, Coastal scrub, Valley and foothill grassland. sandy. 30 - 645 m. perennial herb. Blooms July	Not Expected	No suitable coastal habitat or soils are present. The species is not expected to occur within the project sites.
<i>Spergularia macrotheca</i> var. <i>longistyla</i> long-styled sand- spurrey	None/None G5T2/S2 1B.2	Meadows and seeps, Marshes and swamps. Alkaline. 0 - 255 m. perennial herb. Blooms Feb-May(Jun)	Not Expected	No suitable marsh habitat or alkaline soils are present. The species is not expected to occur within the project sites.
<i>Stebbinsoseris decipiens</i> Santa Cruz microseris	None/None G2/S2 1B.2	Broadleafed upland forest, Closed-cone coniferous forest, Chaparral, Coastal prairie, Coastal scrub, Valley and foothill grassland. open areas, sometimes serpentinite. 10 - 500 m. annual herb. Blooms Apr-May	Not Expected	No suitable habitat (i.e., broadleafed upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland) or soils are present. The species is not expected to occur within the project sites.



Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i> most beautiful jewelflower	None/None G2T2/S2 1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland. serpentinite. 95 - 1000 m. annual herb. Blooms (Mar)Apr-Sep(Oct)	Not Expected	No suitable habitat (i.e., chaparral, valley and foothill grassland, cismontane woodland) or soils are present. The species is not expected to occur within the project sites.
<i>Streptanthus glandulosus</i> ssp. <i>niger</i> Tiburon jewelflower	FE/SE G4T1/S1 1B.1	Valley and foothill grassland (serpentinite). 30 - 150 m. annual herb. Blooms May-Jun	Not Expected	No suitable valley and foothill grassland habitat or soils are present. The species is not expected to occur within the project sites.
<i>Stuckenia filiformis</i> ssp. <i>alpina</i> slender-leaved pondweed	None/None G5T5/S2S3 2B.2	Marshes and swamps (assorted shallow freshwater). 300 - 2150 m. perennial rhizomatous herb (aquatic). Blooms May-Jul	Not Expected	No suitable marsh habitat or elevations are present. The species is not expected to occur within the project sites.
<i>Suaeda californica</i> California seablite	FE/None G1/S1 1B.1	Marshes and swamps (coastal salt). 0 - 15 m. perennial evergreen shrub. Blooms Jul-Oct	Not Expected	No suitable coastal salt marsh habitat is present. The species is not expected to occur within the project sites.
<i>Symphyotrichum lentum</i> Suisun Marsh aster	None/None G2/S2 1B.2	Marshes and swamps (brackish and freshwater). 0 - 3 m. perennial rhizomatous herb. Blooms (Apr)May-Nov	Not Expected	No suitable marsh habitat or swamps are present. The species is not expected to occur within the project sites.
<i>Trifolium amoenum</i> two-fork clover	FE/None G1/S1 1B.1	Coastal bluff scrub, Valley and foothill grassland (sometimes serpentinite). 5 - 415 m. annual herb. Blooms Apr-Jun	Not Expected	No suitable habitat (i.e., valley and foothill grassland, coastal bluff scrub) or soils are present. The species is not expected to occur within the project sites.
<i>Trifolium hydrophilum</i> saline clover	None/None G2/S2 1B.2	Marshes and swamps, Valley and foothill grassland (mesic, alkaline), Vernal pools. 0 - 300 m. annual herb. Blooms Apr-Jun	Not Expected	No suitable habitat (marsh, valley and foothill grassland, vernal pools) is present. The species is not expected to occur within the project sites.
<i>Triphysaria floribunda</i> San Francisco owl's-clover	None/None G2?/S2? 1B.2	Coastal prairie, Coastal scrub, Valley and foothill grassland. usually serpentinite. 10 - 160 m. annual herb. Blooms Apr-Jun	Not Expected	No suitable coastal habitat or soils are present. The species is not expected to occur within the project sites.



Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
<i>Triquetrella californica</i> coastal triquetrella	None/None G2/S2 1B.2	Coastal bluff scrub, Coastal scrub. 10 - 100 m. moss.	Not Expected	No suitable coastal habitat or soils are present. The species is not expected to occur within the project sites.
<i>Viburnum ellipticum</i> oval-leaved viburnum	None/None G4G5/S3? 2B.3	Chaparral, Cismontane woodland, Lower montane coniferous forest. 215 - 1400 m. perennial deciduous shrub. Blooms May-Jun	Not Expected	No suitable habitat (i.e., chaparral, cismontane woodland, lower montane coniferous forest) or elevations are present. The species is not expected to occur within the project sites.

Regional Vicinity refers to within a 9-quad search radius of site.

FE = Federally Endangered FT = Federally Threatened FC = Federal Candidate Species

SE = State Endangered ST = State Threatened SC = State Candidate SR = State Rare

CRPR (CNPS California Rare Plant Rank):

1A=Presumed Extinct in California

1B=Rare, Threatened, or Endangered in California and elsewhere

2A=Plants presumed extirpated in California, but more common elsewhere

2B=Plants Rare, Threatened, or Endangered in California, but more common elsewhere

CRPR Threat Code Extension:

.1=Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2=Fairly endangered in California (20-80% occurrences threatened)

.3=Not very endangered in California (<20% of occurrences threatened)



Table J-2 Special Status Animal Species in the Regional Vicinity (Twelve Quad) of the Study Area

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Invertebrates				
<i>Bombus crotchii</i> Crotch bumble bee	None/SCE G3G4/S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Low Potential	Suitable host plants are available, however presence in the site is unlikely due to disturbance. One occurrence from 2015 has been recorded within 5 miles (CDFW 2021a).
<i>Bombus occidentalis</i> western bumble bee	None/SCE G2G3/S1	Once common & widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.	Low Potential	Suitable host plants are available, however presence in the site is unlikely due to disturbance. Four historic occurrences are recorded within 5 miles (CDFW 2021a).
<i>Callophrys mossii bayensis</i> San Bruno elfin butterfly	FE/None G4T1/S3	Coastal, mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is <i>Sedum spathulifolium</i> .	Not Expected	No suitable habitat present within the project sites and is outside of species range. Species not expected to be present in a fully developed urban area.
<i>Danaus plexippus</i> pop. 1 monarch - California overwintering population	None/None G4T2T3/S2S3	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Not Expected	Landscaped trees are present; however, groves of trees are absent and due to the dense urban and developed nature of the project sites it is unlikely that this species will roost in the project sites. Four occurrences have been recorded within 5 miles in dense groves of trees (CDFW 2021a).
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	FT/None G5T1/S1	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. <i>Plantago erecta</i> is the primary host plant; <i>Orthocarpus densiflorus</i> & <i>O. purpurascens</i> are the secondary host plants.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Plebejus icarioides missionensis</i> Mission blue butterfly	FE/None G5T1/S1	Inhabits grasslands of the San Francisco peninsula. Three larval host plants: <i>Lupinus albifrons</i> , <i>L. variicolor</i> , and <i>L. formosus</i> , of which <i>L. albifrons</i> is favored.	Not Expected	No suitable habitat present within the project sites, which are outside of the species range.



Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Speyeria callippe</i> <i>callippe</i> callippe silverspot butterfly	FE/None G5T1/S1	Restricted to the northern coastal scrub of the San Francisco peninsula. Hostplant is <i>Viola pedunculata</i> . Most adults found on E-facing slopes; males congregate on hilltops in search of females.	Not Expected	No suitable habitat present within the project sites, which is outside of the species range.
Fish				
<i>Archoplites interruptus</i> Sacramento perch	None/None G2G3/S1 SSC	Historically found in the sloughs, slow-moving rivers, and lakes of the Central Valley. Prefers warm water. Aquatic vegetation is essential for young. Tolerates wide range of physio-chemical water conditions.	Not Expected	Suitable aquatic habitats are not present.
<i>Eucyclogobius newberryi</i> tidewater goby	FE/None G3/S3	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	Not Expected	Suitable aquatic habitats are not present.
<i>Hypomesus transpacificus</i> Delta smelt	FT/SE G1/S1	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait & San Pablo Bay. Seldom found at salinities > 10 ppt. Most often at salinities < 2ppt.	Not Expected	Suitable aquatic habitats are not present.
<i>Mylopharodon conocephalus</i> hardhead	None/None G3/S3 SSC	Low to mid-elevation streams in the Sacramento-San Joaquin drainage. Also present in the Russian River. Clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate.	Not Expected	Suitable aquatic habitats are not present.
<i>Pogonichthys macrolepidotus</i> Sacramento splittail	None/None GNR/S3 SSC	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay and associated marshes. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	Not Expected	Suitable aquatic habitats are not present.
<i>Spirinchus thaleichthys</i> longfin smelt	FC/ST G5/S1	Euryhaline, nektonic & anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.	Not Expected	Suitable aquatic habitats are not present.



Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Amphibians				
<i>Ambystoma californiense</i> California tiger salamander	FT/ST G2G3/S2S3 WL	Central Valley DPS federally listed as threatened. Santa Barbara and Sonoma counties DPS federally listed as endangered. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Not Expected	No suitable habitat near vernal pools or seasonal water sources present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Dicamptodon ensatus</i> California giant salamander	None/None G3/S2S3 SSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	Not Expected	No suitable habitat (i.e., wet coastal forests) present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Rana boylei</i> foothill yellow-legged frog	None/SE G3/S3 SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	Not Expected	No suitable stream habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Rana draytonii</i> California red-legged frog	FT/None G2G3/S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Not Expected	No suitable habitat near permanent sources of water present within the project sites. Species not expected to be present in a fully developed urban area.
Reptiles				
<i>Chelonia mydas</i> green turtle	FT/None G3/S1	Marine. Completely herbivorous; needs adequate supply of seagrasses and algae.	Not Expected	No suitable aquatic habitat within the project sites.
<i>Emys marmorata</i> western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Not Expected	No suitable aquatic habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	FT/ST G4T2/S2	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna and woodland habitats. Mostly south-facing slopes and ravines, with rock outcrops, deep crevices or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses.	Not Expected	No suitable chaparral or scrub habitats present within the project sites. Species not expected to be present in a fully developed urban area.



Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Thamnophis sirtalis tetrataenia</i> San Francisco gartersnake	FE/SE G5T2Q/S2 FP	Vicinity of freshwater marshes, ponds and slow-moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important.	Not Expected	No suitable aquatic habitat present within the project sites and it is outside of species' range. Species not expected to be present in a fully developed urban area.
Birds				
<i>Accipiter cooperii</i> Cooper's hawk	None/None G5/S4 WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Low Potential	This species may forage within the project area and has a low potential to nest in trees within the site.
<i>Agelaius tricolor</i> tricolored blackbird	None/ST G2G3/S1S2 SSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	Not Expected	Open water and suitable nesting habitat are not present.
<i>Aquila chrysaetos</i> golden eagle	None/None G5/S3 FP WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Not Expected	Suitable nesting habitat is not present, and the site is too small to provide foraging habitat.
<i>Asio flammeus</i> short-eared owl	None/None G5/S3 SSC	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Athene cunicularia</i> burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Branta hutchinsii leucopareia</i> cackling (=Aleutian Canada) goose	FD/None G5T3/S3 WL	Winters on lakes and inland prairies. Forages on natural pasture or that cultivated to grain; loaf on lakes, reservoirs, ponds.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Circus hudsonius</i> northern harrier	None/None G5/S3 SSC	Coastal salt & freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.



Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Coturnicops noveboracensis</i> yellow rail	None/None G4/S1S2 SSC	Summer resident in eastern Sierra Nevada in Mono County. Freshwater marshlands.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Elanus leucurus</i> white-tailed kite	None/None G5/S3S4 FP	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Falco peregrinus anatum</i> American peregrine falcon	FD/SD G4T4/S3S4 FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Low Potential	Species may forage nearby, but suitable nesting habitat is not available because all human made structures in the vicinity are not at the height preferred by this species.
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	None/None G5T3/S3 SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Haliaeetus leucocephalus</i> bald eagle	FD/SE G5/S3 FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Laterallus jamaicensis coturniculus</i> California black rail	None/ST G3G4T1/S1 FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Melospiza melodia maxillaris</i> Suisun song sparrow	None/None G5T3/S3 SSC	Resident of brackish-water marshes surrounding Suisun Bay. Inhabits cattails, tules and other sedges, and Salicornia; also known to frequent tangles bordering sloughs.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area..



Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Melospiza melodia pusillula</i> Alameda song sparrow	None/None G5T2?/S2S3 SSC	Resident of salt marshes bordering south arm of San Francisco Bay. Inhabits Salicornia marshes; nests low in Grindelia bushes (high enough to escape high tides) and in Salicornia.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Melospiza melodia samuelis</i> San Pablo song sparrow	None/None G5T2/S2 SSC	Resident of salt marshes along the north side of San Francisco and San Pablo bays. Inhabits tidal sloughs in the Salicornia marshes; nests in Grindelia bordering slough channels.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Pandion haliaetus</i> osprey	None/None G5/S4 WL	Ocean shore, bays, freshwater lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	Not Expected	While the project sites is within 15 miles of open water, there are no recorded occurrences within 5 miles (CNDDDB 2021a). Species not expected to be present in a fully developed and disturbed urban area.
<i>Phalacrocorax auritus</i> double-crested cormorant	None/None G5/S4 WL	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	Not Expected	Suitable aquatic habitats are not present within the project sites.
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	FE/SE G5T1/S1 FP	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	Not Expected	Suitable aquatic habitats are not present within the project sites.
<i>Rynchops niger</i> black skimmer	None/None G5/S2 SSC	Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites. Nesting colonies usually less than 200 pairs.	Not Expected	Suitable aquatic habitats are not present within the project sites.
<i>Sternula antillarum browni</i> California least tern	FE/SE G4T2T3Q/S2 FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, land fills, or paved areas.	Not Expected	Suitable aquatic habitats are not present within appropriate proximity of the project sites.
<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	None/None G5/S3 SSC	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds. Nests only where large insects such as Odonata are abundant, nesting timed with maximum emergence of aquatic insects.	Not Expected	Suitable habitats are not present within the project sites.
Mammals				



Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Antrozous pallidus</i> pallid bat	None/None G5/S3 SSC	Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Low Potential	Suitable roosting habitat for the species may be present within the project sites, although the species is sensitive to disturbance. Five historical occurrences are recorded within 5 miles of the project sites (CDFW 2021a).
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	None/None G3G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls & ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Enhydra lutris nereis</i> southern sea otter	FT/None G4T2/S2 FP	Occurs in nearshore marine environments from Ano Nuevo in San Mateo County to Point Sal in Santa Barbara County. Requires canopies of giant kelp or bull kelp for rafting and feeding. Prefers rocky substrates with abundant invertebrates to prey on.	Not Expected	Suitable aquatic habitats are not present.
<i>Eumetopias jubatus</i> Steller (=northern) sea-lion	FD/None G3/S2	Breeds on Ano Nuevo, San Miguel and Farallon islands, Point St. George, & Sugarloaf. Hauls-out on islands & rocks. Needs haul-out and breeding sites with unrestricted access to water, near aquatic food supply and with no human disturbance.	Not Expected	Suitable aquatic habitats are not present.
<i>Lasiurus blossevillii</i> western red bat	None/None G5/S3 SSC	Roosts in trees in forests and woodlands of varying elevations. Forages in grasslands, shrublands, open woodlands and forests, and agriculture. Typically found in riparian habitats, does not occur in deserts.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Microtus californicus sanpabloensis</i> San Pablo vole	None/None G5T1T2/S1S2 SSC	Saltmarshes of San Pablo Creek, on the south shore of San Pablo Bay. Constructs burrow in soft soil. Feeds on grasses, sedges and herbs. Forms a network of runways leading from the burrow.	Not Expected	No suitable salt marsh habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	None/None G5T2T3/S2S3 SSC	Typically found in forest habitats with moderate to dense understory. Can occur in chaparral, riparian woodlands, and coniferous forests, particularly redwood. Builds middens out of grasses, leaves, and woody debris. This subspecies is found only in the San Francisco Bay region.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.



City of Berkeley

Ashby and North Berkeley BART Stations Transit-Oriented Development Zoning Project

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Nyctinomops macrotis</i> big free-tailed bat	None/None G5/S3 SSC	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	Low Potential	Suitable roosting habitat for the species may be present within the project sites in the form of man-made structures. One historic occurrence is recorded within 5 miles of the project sites.
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	FE/SE G1G2/S1S2 FP	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat, but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow; builds loosely organized nests. Requires higher areas for flood escape.	Not Expected	No suitable saline emergent wetland or marsh habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Scapanus latimanus parvus</i> Alameda Island mole	None/None G5THQ/SH SSC	Only known from Alameda Island. Found in a variety of habitats, especially annual and perennial grasslands. Prefers moist, friable soils. Avoids flooded soils.	Not Expected	The project sites does not overlap with the species' range.
<i>Sorex ornatus sinuosus</i> Suisun shrew	None/None G5T1T2Q/S1S2 SSC	Tidal marshes of the northern shores of San Pablo and Suisun bays. Require dense low-lying cover and driftwood and other litter above the mean hightide line for nesting and foraging.	Not Expected	No suitable marsh habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Sorex vagrans halicoetes</i> salt-marsh wandering shrew	None/None G5T1/S1 SSC	Salt marshes of the south arm of San Francisco Bay. Medium high marsh 6-8 ft above sea level where abundant driftwood is scattered among Salicornia.	Not Expected	No suitable salt marsh habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Taxidea taxus</i> American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not Expected	No suitable habitat present within the project sites. Species not expected to be present in a fully developed urban area.
<i>Zapus trinotatus orarius</i> Point Reyes jumping mouse	None/None G5T1T3Q/S1S3 SSC	Primarily in bunch grass marshes on the uplands of Point Reyes. Also present in coastal scrub, grassland, and meadows. Eats mainly grass seeds w/ some insects & fruit taken. Builds grassy nests on ground under vegetation, burrows in winter.	Not Expected	No suitable bunch grass marsh habitat present within the project sites. Species not expected to be present in a fully developed urban area.
Regional Vicinity refers to within a 9-quad search radius of site.				
FE = Federally Endangered FT = Federally Threatened FC = Federal Candidate Species FS=Federally Sensitive				
SE = State Endangered ST = State Threatened SC = State Candidate SS=State Sensitive				
SSC = CDFW Species of Special Concern SFP = State Fully Protected				