

CONSENT CALENDAR September 13, 2022

To: Honorable Mayor and Members of the City Council

From: Councilmember Rigel Robinson (Author), Councilmember Terry Taplin

(Co-Sponsor), Mayor Jesse Arreguín (Co-Sponsor), and Councilmember

Kate Harrison (Co-Sponsor)

Subject: Referral: Keep Innovation in Berkeley

RECOMMENDATION

Refer to the City Manager and the Planning Commission to consider and return to Council with Zoning Ordinance amendments, codified performance standards, and other actions to encourage the growth and retention of Research & Development (R&D) in Berkeley. Staff and the Commission should explore:

- Naming R&D as an allowed land use in the commercial districts of Telegraph (C-T and C-C), West Berkeley (C-W), University (C-U), and Downtown Berkeley (C-DMU) with a Zoning Certificate, subject to performance standards.
 - a. Performance standards should regulate and mitigate potential impacts on quality of life, public health, and environmental health, such as noise, odors, fumes, vibrations, dust, light pollution, hours of operation, and disposal and storage protocols for flammable, combustible, chemical, and hazardous substances.
- 2. Updating the "District Purpose" sections of the MM and MU-LI districts to specifically embrace R&D. Consider doing the same for other districts where R&D is allowed, if deemed appropriate.
- 3. Amending R&D parking requirements in M-prefixed districts to align with Laboratory parking requirements and in C-prefixed districts, excluding C-T, to align with Manufacturing parking requirements.
- 4. Reviewing Berkeley Municipal Code 23.206.080 to ensure that language regulating Biosafety Level (BSL) Classes 1-4 is clear and consistent with regulations in neighboring jurisdictions and other cities that support a broad range of R&D. Consider repealing the section or amending it to permit BSL-2 in all districts where research and development facilities or laboratories are permitted.
- 5. Returning to Council with additional recommendations, if any, that would serve to encourage R&D in Berkeley, as determined by staff or that present themselves through the Planning Commission process.

POLICY COMMITTEE RECOMMENDATION

On July 19, 2022, the Land Use, Housing, & Economic Development Policy Committee adopted the following action: M/S/C (Robinson/Bartlett) to approve the item with a positive recommendation. Vote: All Ayes.

BACKGROUND

The City of Berkeley has over 400 "innovation sector" businesses in tech, biotech, R&D, and other STEM industries. The 2021 Berkeley Economic Dashboard (published in Q1 2022) reported robust growth opportunities in this sector, with 10 Berkeley-based companies receiving a total of nearly \$9 million in federal and state grants for R&D.¹ 35% of Berkeley's innovation companies develop software, 31% develop biotechnology and healthcare technologies, and 13% develop clean technologies to support environmental sustainability and address climate change. Nearly 87% of these innovation companies are relatively early stage and take advantage of the city's coworking spaces, accelerators, and incubators.

It is critical for the City to continue efforts to encourage the growth of R&D in Berkeley. In addition to providing jobs and fueling economic development locally, innovation companies make a global impact across sectors, including in the healthcare field and the fight against climate change. Berkeley benefits from the presence of the University of California, Berkeley and the Lawrence Berkeley National Laboratory (LBNL), whose affiliates go on to found startups supported by the Berkeley Startup Cluster and accelerators or incubators like Berkeley SkyDeck or Bakar Labs.² There is a clear demand for R&D space from companies who have grown out of UC Berkeley and are seeking to build their enterprise in Berkeley, close to the talent, facilities, and entrepreneur support programs on campus. If the City's zoning regulations do not provide sufficient opportunities for emerging growth companies, they have no choice but to leave Berkeley and settle in nearby cities that accommodate them with open arms, such as Oakland, Emeryville, San Leandro, and Alameda.

On March 22, 2022, Council adopted the first reading of a Zoning Ordinance amendment that modified the land use definition of Research and Development (R&D) in Berkeley Municipal Code 23.502.020.R.8.³ This amendment came to Council as a referral response to a March 20, 2020 referral from Mayor Arreguín and Councilmember Wengraf.

The original definition read:

Research and Development. An establishment comprised of laboratory or other non-office space, which is engaged in one or more of the following activities:

¹ https://berkeleyca.gov/sites/default/files/2022-04/2022-03-22%20Item%2038%20Economic%20Dashboards%20Update.pdf

² https://berkeleystartupcluster.com/

³ https://berkeleyca.gov/sites/default/files/city-council-meetings/2022-03-22%20Agenda%20Packet%20-%20Council%20-%20WEB.pdf

industrial, biological or scientific research; product design; development and testing; and limited manufacturing necessary for the production of prototypes.

The updated definition reads:

Research and Development: An establishment engaged in the following activities: 1) industrial, biological or scientific research; and/or 2) product or process design, development, prototyping, or testing. This may include labs, offices, warehousing, and light manufacturing functions as part of the overall Research and Development use.

The March 2020 referral observed that the R&D definition in the BMC did not adequately reflect present-day R&D business activities. For example, the definition prohibited R&D establishments from including office space and required the inclusion of a laboratory. The referral requested that the new definition reflect evolving business practices and provide flexibility for R&D establishments to occupy spaces that meet their operating needs. Modifying the R&D definition supported the City's Strategic Plan goal of fostering a dynamic, sustainable, and locally-based economy.

Through that process, additional issues have come to light that have the effect of inhibiting innovation in Berkeley, which this referral aims to address.

Recommendation #1: Naming R&D as an allowed land use in the commercial districts of Telegraph (C-T and C-C), West Berkeley (C-W), University (C-U), and Downtown Berkeley (C-DMU) with a Zoning Certificate, subject to performance standards.

BMC 23.204.020.A Table 23.204-1⁴ and 23.206.020.A Table 23.206-1⁵ lay out allowed land uses for each commercial and manufacturing district, respectively. Currently, R&D is permitted in three districts across the city: C-W (with an Administrative Use Permit) and MM and MU-LI (with a Zoning Certificate if under 20,000 sq. ft. and an AUP if over 20,000 sq. ft.).

Notably, the commercial districts in Southside (C-T), the southern portion of Telegraph (C-C), and the Downtown (C-DMU) do not currently allow R&D. R&D spaces close to campus would be extremely valuable to students, alumni, and others affiliated with UC Berkeley and LBNL. By allowing R&D in these districts, the City would make it easier to keep the innovation and talent that flows from the university in Berkeley. Furthermore, permitting R&D in the University Avenue commercial corridor (C-U) would play an important role in connecting West Berkeley and UC Berkeley, the City's two primary hubs of innovation.

⁴ https://berkeley.municipal.codes/BMC/23.204.020

⁵ https://berkeley.municipal.codes/BMC/23.206.020

Startups have expressed that the City's permitting process remains a challenge, particularly if the Zoning Ordinance requires an AUP. This process can take months or even years, which is problematic for R&D companies whose runway for finding a suitable space to develop proof of concept is limited by the funding they have available from early-stage investors. The timelines associated with an AUP provide founders no concrete assurance and can jeopardize operations during the most critical time for startups.

However, noise disruption and biohazard safety are of particular concern when permitting new uses in commercial districts due to their mixed-use residential buildings and proximity to residential districts. It is important that staff and the Planning Commission consider strategies for mitigating any impacts of R&D in C-prefixed districts, including the use of performance standards. Performance standards, which lay out metrics and regulations that the applicant must agree to before being issued a Zoning Certificate, are an important tool to ensure conformance to the neighborhood without imposing lengthy permit approval timelines.

One example that the City of Berkeley can look towards is the City of Fremont. Fremont utilizes performance standards in their industrial districts, which house R&D activities, to ensure that "adjoining properties, persons and the community as well as the region are provided protection against adverse conditions which may be created by the various uses operating within the industrial zoning districts." The performance standards regulate noise, vibration, glare or heat, fire hazards, liquid or solid wastes, fissionable or radioactive material, and aesthetics. See Attachment 1.

The City of San Diego serves as a case study of how R&D can co-exist with commercial and residential uses. In 2019, the San Diego City Council approved the creation of two new mixed-use zones, RMX (Residential Mixed-Use) and EMX (Employment Mixed-Use). The stated purpose of the zones was to "provide housing and jobs near commercial centers and corridors to reduce dependency on the automobile, promote access to transit and multi-model transportation systems, and to provide for a walkable, pedestrian-oriented setting, including infill of existing development." In both RMX and EMX zones, R&D is permitted by-right alongside multi-family residential development, retail, and most commercial services. San Diego also permits R&D in several of its commercial zones. 8

Recommendation #2: Updating the "District Purpose" sections of the MM and MU-LI districts to specifically embrace R&D. Consider doing the same for other districts where R&D is allowed, if deemed appropriate.

⁶ <u>https://www.codepublishing.com/CA/Fremont/#!/html/Fremont18/Fremont1850.html</u> (18.50.040 Performance Standards)

https://docs.sandiego.gov/municode/MuniCodeChapter13/Ch13Art01Division07.pdf

https://docs.sandiego.gov/municode/MuniCodeChapter13/Ch13Art01Division05.pdf

The "District Purpose" sections of the Zoning Ordinance determine the purpose of each zoning district, detailing what uses are allowed, welcomed, and explicitly stated to further the City's goals. R&D applicants need to feel confident that they will have a place in the district if they choose to locate there. In MM and MU-LI, where R&D is currently permitted, the Purpose sections do not mention R&D despite calling out the importance and belonging of similar industries, including manufacturing, industrial use, and laboratories.

Staff and the Commission should consider amending BMC 23.206.070.A and 23.206.080.A with the following language:

23.206.070 MM Mixed Manufacturing District.

- A. District Purpose. The purpose of the Mixed Manufacturing (MM) district is to:
- 1. Implement the West Berkeley Plan MM designation;
- 2. Encourage development of a general manufacturing district for the full range of manufacturers, including larger scale materials processing manufacturers sometimes known as heavy manufacturers;
- 3. Encourage development of a manufacturing district targeted to manufacturing and industrial uses <u>including research and development</u>, so that manufacturers and industrial businesses will not be interfered with by incompatible uses;
- 4. Encourage the creation and continuation of well paid (often unionized) jobs for men and women without advanced degrees;
- 5. Provide an appropriate location for the development of compatible industries which can provide high quality employment for people at all educational levels, and add significantly to the tax base, such as the biotechnology industry and other research and development uses:
- 6. Allow reuse of upper story industrial space as offices to facilitate use of upper story space;
- 7. Maintain and improve the quality of the West Berkeley environment, while allowing the lawful and reasonable operation of the full range of manufacturers; and
- 8. Support the development of industrial businesses which contribute to the maintenance and improvement of the environment.

23.206.080 MU-LI Mixed Use-Light Industrial District.

- A. District Purpose. The purpose of the Mixed Use-Light Industrial (MU-LI) district is to:
- 1. Implement the West Berkeley Plan Light Manufacturing District designation;
- 2. Encourage development of a mixed use-light industrial area for a range of compatible uses;

- 3. Encourage development of an area where light manufacturers can operate free from the economic, physical and social constraints caused by incompatible uses.
- 4. Encourage the creation and continuation of well-paid jobs which do not require advanced degrees;
- 5. Provide for the continued availability of manufacturing and industrial buildings for manufacturing uses, especially of larger spaces needed by medium sized and larger light manufacturers;
- 6. Provide opportunities for office development when it will not unduly interfere with light manufacturing uses and/or the light manufacturing building stock;
- 7. Provide the opportunity for laboratory development the development of research and development facilities in appropriate locations;
- 8. Support the development of businesses which contribute to the maintenance and improvement of the environment;
- 9. Allow on-site ancillary retail as a tool to maintain and enhance the economic viability of manufacturers in the district; and
- 10. Maintain and improve the quality of the West Berkeley environment, while allowing the lawful and reasonable operation of light industrial uses.

Recommendation #3: Amending R&D parking requirements in M-prefixed districts to align with Laboratory parking requirements and in C-prefixed districts, excluding C-T, to align with Manufacturing parking requirements.

BMC 23.322.030 details the minimum off-street parking spaces required for each use. Currently, in M-prefixed districts, R&D is not explicitly named in Table 23.322-4, meaning that it is parked under "All non-residential uses except uses listed below" at 2 spaces per 1,000 sq. ft. In contrast, laboratories are parked as 1 space per 650 sq. ft., despite R&D spaces typically accommodating a similar number of people per square foot as laboratories. This disadvantages R&D by requiring them to provide more parking than their laboratory counterparts, which is expensive and creates incentives for employees to drive to work that run counter to the City's Climate Action Plan goals. For the purposes of consistency, R&D parking requirements should be amended to align with Laboratory parking requirements.

In C-T, off-street parking is not required, so no amendments are needed. In C-prefixed districts excluding C-T, R&D is also not listed in Table 23.322-2. It may be unclear to applicants whether R&D falls under Manufacturing (which requires 1.5 spaces per 1,000 sq. ft. in C-DMU, 1 per 1,000 sq. ft. in C-W, and 2 per 1,000 sq. ft. in all other C-prefixed districts), or under "All non-residential uses except uses listed below," (which requires 1.5 spaces per 1,000 sq. ft. in C-DMU and 2 per 1,000 in all other C-prefixed districts). This can create confusion for R&D companies looking to locate in C-W. Adding an R&D section here to align parking requirements with Manufacturing would improve clarity and consistency.

In addition to considering the following changes to BMC 23.322.030 Table 23.322-2 and Table 23.322-4, staff and the Commission may take up the R&D parking discussion in concert with other Council referrals that address off-street parking, such as Councilmember Taplin's "Parking Minima for Mixed-Use Projects and Manufacturing Districts" item referred on June 28, 2022.

Table 23.322-2. REQUIRED OFF-STREET PARKING REQUIREMENTS IN COMMERCIAL DISTRICTS (EXCLUDING C-T)

Land Use	Required Parking Spaces		
Residential Uses			
Accessory Dwelling Unit	See Chapter 23.306		
Dwellings, including Group Living Accommodations	If located on a roadway less than 26 feet in width in the Hillside Overlay: 1 per unit All Other Locations: None required		
Hotel, Residential	None required		
Mixed-Use Residential (residential use only)	None required		
Senior Congregate Housing	None required		
Non-Residential Uses			
All non-residential uses except uses listed below	C-DMU District: 1.5 per 1,000 sq. ft. All Other Commercial Districts: 2 per 1,000 sq. ft.		
Hospital	1 per each 4 beds plus 1 per each 3 employees		
Library	C-DMU District: 1.5 per 1,000 sq. ft. All Other Commercial Districts: 1 per 500 sq. ft. of publicly accessible floor area		
Nursing Home	1 per 3 employees		
Medical Practitioners	C-DMU District: 1.5 per 1,000 sq. ft. All Other Commercial Districts: 1 per 300 sq. ft.		
Hotels, Tourist	C-DMU District: 1 per 3 guest/sleeping rooms or suites C-C, C-U, C-W Districts: 1 per 3 guest/sleeping rooms or suites plus 1 per 3 employees All Other Commercial Districts: 2 per 1,000 sq. ft.		
Motels, Tourist	C-DMU District: 1 per 3 guest/sleeping rooms or suites		

	C-C, C-U, C-W Districts: 1 per guest/sleeping room plus 1 for owner or manager [1] All Other Commercial Districts: 2 per 1,000 sq. ft.		
Large Vehicle Sales and Rental	C-DMU District: 1.5 per 1,000 sq. ft. C-SA District: 1 per 1,000 sq. ft. All Other Commercial Districts: 2 per 1,000 sq. ft.		
Small Vehicle Sales and Service	C-DMU District: 1.5 per 1,000 sq. ft. C-SA District: 1 per 1,000 sq. ft. All Other Commercial Districts: 2 per 1,000 sq. ft.		
Manufacturing	C-DMU District: 1.5 per 1,000 sq. ft. C-W District: 1 per 1,000 sq. ft [1] All Other Commercial Districts: 2 per 1,000 sq. ft.		
Research and Development	C-DMU District: 1.5 per 1,000 sq. ft. C-W District: 1 per 1,000 sq. ft [1] All Other Commercial Districts: 2 per 1,000 sq. ft.		
Wholesale Trade	C-DMU District: 1.5 per 1,000 sq. ft. C-W District: 1 per 1,000 sq. ft All Other Commercial Districts: 2 per 1,000 sq. ft.		
Live/Work	If workers/clients are permitted in work area, 1 per first 1,000 sq. ft. of work area and 1 per each additional 750 sq. ft. of work area		

Notes:

[1] Spaces must be on the same lot as building it serves.

Table 23.322-4. REQUIRED OFF-STREET PARKING IN MANUFACTURING DISTRICTS

Land Use	Required Parking Spaces		
Residential Uses			
Accessory Dwelling Unit	See Chapter 23.306		
Dwellings	None required		
Group Living Accommodation	None required		
Non-Residential Uses			

All non-residential uses except uses listed below	2 per 1,000 sq. ft.	
Art/Craft Studio	1 per 1,000 sq. ft.	
Community Care Facility	1 per 2 non-resident employees	
Food Service Establishment	1 per 300 sq. ft.	
Library	1 per 500 sq. ft. of publicly accessible floor area	
Laboratories	1 per 650 sq. ft.	
Research and Development	1 per 650 sq. ft.	
Nursing Home	1 per 5 residents, plus 1 per 3 employees	
Medical Practitioners	One per 300 sq. ft.	
Large Vehicle Sales and Rental	MU-LI District: 1.5 per 1,000 sq. ft. All Other Districts: 1 per 1,000 sq. ft. of display floor area plus 1 per 500 sq. ft. of other floor area; 2 per service bay	
Manufacturing	MU-R District: 1.5 per 1,000 sq. ft. All Other Districts: 1 per 1,000 sq. ft. for spaces less than 10,000 sq. ft.; 1 per 1,500 sq. ft. for spaces 10,000 sq. ft. or more	
Storage, warehousing, and wholesale trade	1 per 1,000 sq. ft. for spaces of less than 10,000 sq. ft.; 1 per 1,500 sq. ft. for spaces 10,000 sq. ft. or more	
Live/Work	MU-LI District: 1 per 1,000 sq. ft. of work area where workers/clients are permitted MU-R District: if workers/clients are permitted in work area, 1 per first 1,000 sq. ft. of work area and 1 per each additional 750 sq. ft. of work area	

Notes:

[1] For multiple dwellings where the occupancy will be exclusively for persons over the age of 62, the number of required off-street parking spaces may be reduced to 25% of what would otherwise be required for multiple-family dwelling use, subject to obtaining a Use Permit.

Recommendation #4: Reviewing Berkeley Municipal Code 23.206.080 to ensure that language related to Biosafety Level (BSL) Classes 1-4 is clear and consistent with requirements in neighboring jurisdictions and other cities that support a broad range of

R&D. Consider repealing the section or amending it to permit BSL-2 in all districts where research and development facilities or laboratories are permitted.

BSL lab levels, ranging from BSL-1 to BSL-4, are set by the Centers for Disease Control and Prevention to protect laboratory personnel and the surrounding community. The primary risks that determine levels of containment are infectivity, severity of disease, transmissibility, and the nature of the work conducted.⁹

Chart of Biosafety Levels¹⁰

Biosafety Level	BSL-1	BSL-1 BSL-2		BSL-4	
Description	No Containment Defined organisms Unlikely to cause disease	Containment Moderate Risk Disease of varying severity	High Containment Aerosol Transmission Serious/Potentially lethal disease	Max Containment "Exotic," High-Risk Agents Life-threatening disease	
Sample Organisms	E.Coli	Influenza, HIV, Lyme Disease	Tuberculosis	Ebola Virus	
Pathogen Type	Agents that present minimal potential hazard to personnel & the environment.	Agents associated with human disease & pose moderate hazards to personnel & the environment.	Indigenous or exotic agents, agents that present a potential for aerosol transmission, & agents causing serious or potentially lethal disease.	Dangerous & exotic agents that pose a high risk of aerosol- transmitted lab- oratory infections & life-threatening disease.	
Autoclave Requirements	None	None	Pass-thru autoclave with Bioseal required in laboratory room.	Pass-thru autoclave with Bioseal required in laboratory room.	

Another way of classifying biological agents and organisms is using Risk Groups 1-4. While these two classification methods often align (e.g. BSL-2 equals Risk Group 2), they do not always. Biosafety Levels prescribe the work practices, engineering controls, personal protective equipment, and facility requirements required for working with biological agents. The Risk Group classification is only one factor to consider when determining the appropriate Biosafety Level for a particular agent. Other factors to

⁹ https://www.cdc.gov/training/quicklearns/biosafety/

¹⁰ https://consteril.com/biosafety-levels-difference/

consider include the mode of transmission, pathogenicity, manipulations that will be conducted, volume, experience of staff, and more.¹¹

4 RISK CLASSIFICATIONS OF INFECTIOUS MATERIAL				
Risk Group	Individual	Community	Examples	
(lowest) Basic Laboratory, clean open bench, no BSC needed (unlikely to cause disease in healthy workers/animals/plants)	Low	Low	-non-infectious bacteria -E. coli -Lactobacillus spp.	
2 Biological safety cabinet needed Pathogens spread via ingestion, inoculation and mucous membrane routes	Moderate	Low	-Influenza virus -Herpes simplex -Hepatitis (A, B, C, D, E) -Tetanus	
3 Pathogen transmitted by aerosols HEPA filtration required, respiratory protection	High	Low	-Hepatitis (some C's) -West Nile -Anthrax -TB	
4 (highest) serious human disease that may not be treatable, easily transmitted self-contained lab	High	High	-Ebola virus -Herpes B	

BMC 23.206.080.B.5¹² reads:

Commercial Physical or Biological Laboratories. Commercial physical or biological laboratories using Class 3 organisms are not permitted in the MU-LI district. Use of Class 2 organisms are permitted only in locations at least 500 feet from a Residential District or a MU-R district.

This section is the only place in the BMC where organism classes, presumably referring to BSL, are mentioned other than in the defined terms. The BMC is silent on BSL regulations in districts other than MU-LI, or for non-laboratory uses such as research and development.

A preliminary review finds that the City of Berkeley is more restrictive than other Bay Area cities in our regulation of Biosafety Levels. For example, the Cities of Emeryville,

¹¹ https://www.safetypartnersinc.com/are-biosafety-levels-and-risk-groups-the-same/#:~:text=Biosafety%20levels%20prescribe%20the%20work,level%20for%20a%20particular%20age nt.

¹² https://berkeley.municipal.codes/BMC/23.206.080

San Jose, Mountain View, Alameda, San Leandro, South San Francisco, and San Mateo do not reference BSLs or Risk Groups in their zoning ordinances. The Cities of Fremont, Oakland, Palo Alto, and San Francisco permit BSL-1, BSL-2, and BSL-3 (or the Risk Group equivalents) in varying degrees. See Attachment 2.

Moreover, laboratories that work with Risk Group 1-3 agents are already allowed on the UC Berkeley campus. Most campus experiments use agents classified as Risk Group 1 or 2, although work with Risk Group 3 is permitted with a biological use authorization (BUA) application approved by UC Berkeley's Committee for Laboratory and Environmental Biosafety.¹³

Staff and the Commission should conduct further research into nearby jurisdictions, including Oakland, San Francisco, South San Francisco, Emeryville, Alameda, San Leandro, and Fremont, as well as other cities across the country that support a broad range of R&D, such as Cambridge, MA. This research should provide insight into best practices for BSL zoning regulations that keep the surrounding neighborhood safe while allowing biological research facilities where they make sense, with federally-required protocols and locally-required performance standards or other conditions in place.

Staff and the Commission should return to Council with amendments to this BMC section and other relevant sections that provide clarity for potential applicants, ensure that Biosafety Levels are clearly stated and defined in accordance with the most recent CDC guidelines, and bring the City of Berkeley in alignment with other jurisdictions.

Recommendation #5: Returning to Council with additional recommendations, if any, that would serve to encourage R&D in Berkeley, as determined by staff or that present themselves through the Planning Commission process.

The City Manager and/or Planning Commission may choose to return to Council with additional recommendations that would serve to encourage R&D in Berkeley, in addition to the ones suggested in this item.

FINANCIAL IMPLICATIONS

Staff time.

ENVIRONMENTAL SUSTAINABILITY

There are no identifiable negative environmental impacts associated with this action.

CONTACT PERSON

Councilmember Rigel Robinson, (510) 981-7170 Angie Chen, Legislative Assistant

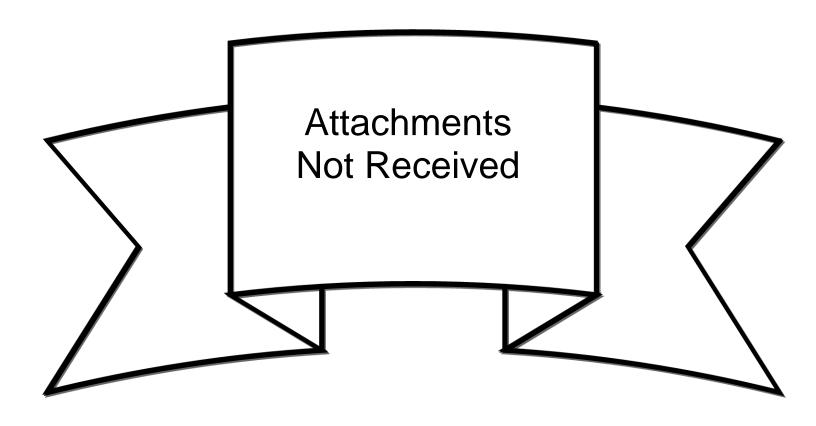
¹³ https://ehs.berkeley.edu/sites/default/files/biosafetymanual.pdf

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Attachments:

- 1: City of Fremont performance standards2: BSL regulations in neighboring jurisdictions



These attachments have not been received from the submitting office.

City Clerk Department

2180 Milvia Street Berkeley, CA 94704 (510) 981-6900

The City of Berkeley, City Council's Web site:

http://www.cityofberkeley.info/citycouncil/