

Office of the City Manager

## WORKSESSION

July 20, 2021

To: Honorable Mayor and Members of the City Council  
 From: Dee Williams-Ridley, City Manager  
 Submitted by: Jordan Klein, Director, Planning and Development  
 Subject: Bayer HealthCare LLC Development Agreement Amendment

### SUMMARY

On February 25, 1992, the City of Berkeley and Miles Inc., now Bayer HealthCare LLC (“Bayer”), entered into a 30-year Long Range Development Program, or Development Agreement (DA). In anticipation of the upcoming February 2022 expiration of the DA, on March 30, 2020 Bayer submitted an application to: 1) extend the terms of the DA for an additional 30 years; 2) include the “South Properties” in the DA; and 3) modify various terms and development standards of the existing DA to better accommodate Bayer’s plans for long term development and investment in biopharmaceutical manufacturing facilities. This report provides a summary of the requested DA modifications, a status update on the project’s environmental review process, Bayer’s community benefit proposal, and the community engagement process. Staff seeks input from City Council to inform the DA update and Bayer’s provision of community benefits in association with the DA.

### CURRENT SITUATION AND ITS EFFECTS

The Bayer HealthCare campus (generally known as the “Bayer Campus”) is the Company’s hub for commercial manufacturing of therapies to treat hemophilia. The Bayer Campus is comprised of approximately forty-six acres and houses biopharmaceutical operations with supporting offices uses. The campus includes two primary areas in south Berkeley that are divided by Carleton Street. The North Properties, generally referred to as 800 Dwight Way, are approximately 31.9 acres and are subject to an existing 30-year DA between Miles, Inc. and the City of Berkeley, which the City approved in February 1992 and is set to expire in February 2022. Miles, Inc. was a subsidiary of Bayer AG at the time and was consolidated into the parent company in 1995. The DA was amended in 1999. The 1999 amendment allowed modification of the site plan, construction of new buildings, and a new phasing plan, among other revisions. The South Properties, generally referred to as 801 Grayson Street, are approximately 14.4 acres and are operating under a Use Permit (UP#00-10000008) approved by the City in July 2000.

The DA’s current Development Plan allows for construction of up to 1,346,000 square feet of new gross floor area with phased construction of new buildings and phased

demolition of existing buildings on the project site over the 30-year lifespan of the agreement. The South Properties Use Permit allows for a total of 540,000 square feet. To date, Bayer has partially built out the entitled floor area: the South Properties are currently developed with approximately 520,000 square feet and the North Properties are currently developed with approximately 567,000 square feet. Under the existing DA, Bayer has proceeded with construction of ten new buildings totaling approximately 250,000 square feet and has received approval for construction of an additional, approximately 100,000 square foot building. In addition, Bayer demolished 32 of the 39 buildings that are permitted for demolition on the North Properties. The DA Amendment project proposes a total maximum buildout of 1,738,000 square feet, a reduction of 148,000 square feet from the current entitlement. See Table 1 below for a summary of existing, entitled, and proposed square footage.

**Table 1: Existing, Entitled, and Proposed Square Footage on the Bayer Campus**

	Existing	Existing Entitlement	Proposed Amendment
<b>North Properties</b>	567,000 sf	1,346,000 sf	---
<b>South Properties</b>	520,000 sf	540,000 sf	---
<b>Campus Total</b>	1,087,000 sf	1,886,000 sf	1,738,000 sf

Bayer plans to use the Berkeley site to consolidate and increase its research and development capabilities in modernized and adaptable facilities. Bayer continues to explore new therapies for alternative treatment approaches in hemophilia A, including the use of gene therapy and protein therapeutic technologies. In addition to hemophilia, Bayer focuses its research and development efforts on other conditions in hematology, cardiology and oncology. Bayer aims to employ technological advances including, for example, the CRISPR gene editing technique. In preparing for these developments, the Berkeley site is actively engaged in readying the campus facilities for the changes that these biotechnologies require.

On March 30, 2020, Bayer submitted an application to amend the current DA. The DA Amendment proposes to: 1) extend the term of the DA for an additional 30 years, until February 2052; 2) include the South Properties in the DA; and 3) modify various terms and development standards of the existing DA to better accommodate Bayer's plans for long term development and investment in biopharmaceutical manufacturing facilities.

The existing DA permits seven specifically defined land uses from which Bayer is requesting no modification as listed and defined in the DA as per below:

- Administration. Administration buildings provide offices for management and

support functions, conference rooms, computer rooms, fitness/health facilities, site security stations, training rooms, a library and a cafeteria. In addition, offices for plant management are placed in buildings throughout the site according to function and discipline.

- **Laboratories.** Laboratories provide areas in which research into production and manufacturing technologies can be accomplished. These areas also provide quality assurance examination and testing of therapeutic pharmaceuticals produced on site. Laboratory related offices and utilities are permitted in these areas.
- **Maintenance.** Maintenance provides areas to conduct necessary repair, replacement and preventive maintenance activities in support of site operations. Generally, these activities require work shops and maintenance bays. Maintenance related offices parking, and utilities are permitted in these areas.
- **Parking.** Parking areas are covered or uncovered parking for vehicles.
- **Production.** Production uses may include pilot plants, production facilities and fill and finishing facilities. Pilot plants are used to develop and scale up processes and to support new drug applications to the Food and Drug Administration. Production facilities are comprised of various processing areas with support offices. The interior spaces are among the most complex in the industry, with numerous data, safety, storage, air-handling, and testing systems technologies equipping the buildings. Fill and finishing areas involve processing the product into transportable containers and final packaging. Production related laboratories, offices and utilities are permitted in these areas.
- **Utility.** Utility buildings are used to house monitored water distillation operations, refrigeration equipment electrical equipment, and steam generation equipment. Additional functions may include a water retention basin. Utilities which support specific buildings may be located adjacent or in close proximity to those buildings which they support.
- **Warehouse.** The warehouse area is used to hold products for distribution on-site and off-site. Warehouse related offices, utilities and parking are permitted in these areas.

Although the proposed uses remained unchanged, as the research and development activities carried out on the site propose to utilize methods and techniques of biotechnology, including recombinant DNA (rDNA) research, Bayer is requesting to lift the restrictions in the current DA that prohibit rDNA research. This would allow Bayer to refine project operations by pursuing the following activities: (1) exploration of new types of organisms as hosts and vectors for transmission of genes, or expression of genes; (2) research to develop new rDNA techniques; and (3) investigations to develop new ways to construct rDNA and new ways to insert rDNA into host cells.

The DA Amendment also proposes to modify the location and massing of permitted uses and new development on the Bayer Campus from that shown in Exhibits C and D of the existing DA. Whereas the existing DA organizes the North Properties into eight “blocks,” each with certain permitted uses, the amended DA would simplify this layout into four blocks that apply to the entire project site (including the Use Permit area of the South Properties). See Attachment 1 for comparison of existing and proposed development standards.

In addition, the current amendment is proposing to update the design review guidelines for new construction and modify the threshold for discretionary land use and design review entitlements. See Attachment 2 for a comparison of existing proposed discretionary levels.

City staff determined that a Subsequent EIR (SEIR) is the appropriate CEQA document for the Bayer DA Amendment Project and released a Notice of Preparation of a Draft SEIR on October 29, 2020, beginning the minimum 30-day review period, which ended on December 3, 2020. Staff held scoping and project update public hearings for the project at the Zoning Adjustment Board on November 12, 2020 and at the Planning Commission on November 18, 2020.

The Draft SEIR was made available for public review on May 21, 2021. The Notice of Availability (NOA) for the Draft Subsequent EIR was distributed to the California State Clearinghouse, Alameda County Clerk, potential responsible agencies, and other interested parties and individuals who have indicated that they would like to review the Subsequent EIR. The Draft Subsequent EIR is available for review at the project website, see Reference Links at the end of this staff report.

On June 3, 2021, staff held a Draft SEIR comment hearing before the Planning Commission, which falls within the state mandated public comment period that ended on July 6, 2021.

The DA, by establishing a shortened land use entitlement timeline and predictability via its vested rights, confers monetary value to Bayer. In early 2021, Bayer submitted to city staff an analysis of the economic value of the amended DA to Bayer, and an estimate of the value of community benefits that Bayer could provide as part of the DA. To assist in its negotiations with Bayer, the City engaged the consulting firm Economic & Planning Systems (EPS) to conduct a review of Bayer’s economic analysis, which EPS provided. The peer review is included as Attachment 3 to this report. In response to the EPS peer review and additional feedback from City staff, on June 18, 2021 Bayer submitted a comprehensive document that includes a summary of benefits provided through the existing agreement, a revised analysis of the economic value of the DA amendment to Bayer, and a proposal for community benefits associated with the DA amendment. In summary, Bayer estimates that the net present value (NPV) for the entitlement and permitting process efficiency gained through extension of the DA is \$14.9 million. This

amount does not include the additional \$1.9 million in impact fees for affordable housing and childcare, or the estimated \$4.7 million in Percent for Art fee.

Although the allocation of the community benefit funding is at the discretion of the City, Bayer has held four community engagement meetings to keep the public apprised of the status of the DA amendment, to answer questions, and to solicit feedback on the proposed amendment and the associated community benefits

(<https://www.bayer.com/en/us/community-engagement-and-virtual-meetings>). Based on feedback Bayer has received through community engagement, Bayer has suggested the following priorities for allocation of community benefits; see Attachment 4 for the full Community Benefits Proposal.

**Table 2: Proposed Allocation of Community Benefits**

Community Benefits Category	% of Total
– STEM/Career Technical Education	60%
– Affordable Housing	20%
– Community Infrastructure Investments & Resiliency Programs	20%

Bayer proposes the following processes to disburse funds in each category.

**STEM / Career Technical Education**

To ensure ongoing relevance of the funding for educational equity initiatives in settings from transitional kindergarten through 8th grade, high school, and community college, Bayer would solicit proposals from local initiatives on a 10-year interval and facilitate a joint review comprised of leaders from Bayer's philanthropic partner (Bayer Fund or successor entity), Berkeley Site Leadership, and subject matter expert appointees made by the Councilmember from District 2 (two appointees) and the Mayor (two appointees).

Recommended allocation across the following programmatic areas:

- |   |     |
|---|-----|
| – TK through 8th grade hands-on science education   | 10% |
| – High School Career Technical Education and/or STEM excellence, including paid internships for high school students at the Bayer campus  | 50% |
| – Community College programming and support for biotechnology and advanced manufacturing/engineering disciplines, including paid internships for community college students on the Bayer campus | 40% |

**Affordable Housing**

Community benefit funds to support Affordable Housing objectives will be paid into the City of Berkeley's Housing Trust Fund and disbursed from there at the discretion of the City Council.

**Community Infrastructure Investments and Resilience Programs**

To ensure ongoing relevance of the funding, Bayer recommends soliciting proposals from local support programs on a 10-year interval (process similar to educational programs listed above). The projects / investments will align with values shared by Bayer and the Berkeley community including:

- Climate Action – investments or programs designed to advance a carbon neutral community
- Health Equity – investments or programs designed to address inequities in health status among Berkeley residents
- Local Economic Resilience – investments or programs designed to support locally-owned businesses, entrepreneurship and/or generational wealth building for low-income families of color

The Berkeley Mayor and the District 2 Councilmember have convened a panel of community members to review and provide feedback to the city on the allocation of the community benefits associated with the development agreement extension. In addition, staff is seeking input and feedback on the community benefit proposal at the following scheduled Community Benefit workshops:

- July 8, 2021    Zoning Adjustments Board  
July 14, 2021    Planning Commission  
July 20, 2021    City Council

**BACKGROUND**

The Bayer Campus in Berkeley was originally Cutter Laboratories, established in 1903. Cutter served as one of the nation's leading pharmaceutical companies, manufacturing penicillin, vaccines, and animal health medicines, with special expertise in plasma and hematology products. Bayer acquired Cutter in 1974 to develop its hematology business, and the Bayer Berkeley Campus is the sole manufacturing site for Bayer's hemophilia A treatments.

In 1992, Bayer selected Berkeley as its global center for biotech operations and signed a 30-year DA with the City of Berkeley. The DA provided the company with clear, consistent and streamlined site development processes and development standards that are distinct from the underlying zoning district. These processes and standards have carried forward without modification regardless of changes to the underlying Zoning Ordinance, allowing for stable investment on the campus. In return, and in compliance with the Development Agreement Procedures outlined in BMC Chapter 22.16, the 1992 Development Agreement included a community benefits package that

included investments in biotechnology education training, a childcare program, community programs, affordable housing, animal care and usage, public art and historic preservation, and an employment hiring program totaling \$10,170,500 (\$16,650,165 adjusted for inflation) in payments from 1992 through 2020. For more detail on the existing Community Benefits Agreement see Attachment A to the Bayer Community Benefit Proposal found in Attachment 4 to this report.

Bayer's stated objectives for the project are to:

- Maximize Bayer's ability to attract and retain top talent and partners by ensuring that the Berkeley campus facilities are at the forefront of scientific innovation, and that the campus' physical configuration and design support this goal and facilitate and enhance the site's existing and future ability to support the biotech development and manufacture of medicines that improve patient outcomes.
- Promote health of employees through wellness features, such as open green space, pedestrian and bicycle circulation, and other amenities, and create a unified campus with consistent design principles that creates a sense of place within the campus and that integrates with the surrounding community.
- Maximize the productive utilization of the land areas and current buildings to take new treatments through biotech development and manufacturing, with a priority on commercializing new therapies using new and innovative technologies, and ensure that (1) there is sufficient biotech development space to develop advanced therapies that are tailored to individual patients, with development proceeding at a rate that maximizes the ability to deliver successful therapies to patients in a timely manner; (2) there is sufficient biological research and manufacturing capacity to support the production of sufficient quantities of medicine through the numerous phases of clinical trials that are required to prove safety, purity, and efficacy for human use; (3) there is sufficient space to scale up proven medicines for commercial launch in quantities sufficient to meet worldwide demand; (4) the development plan retains flexibility to take advantage of unforeseen opportunities and challenges; and (5) there is an efficient site configuration that maximizes open space and other amenities benefiting employees and the community.

The Bayer DA Amendment is a Strategic Plan Priority Project, advancing the City's goal to foster a dynamic, sustainable, and locally-based economy.

#### **ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS**

The Bayer DA Amendment would be consistent with the Climate Action Plan and other sustainability goals in that the project is located in an existing urban area and the applicant would continue to implement a Transportation Demand Management Program to encourage alternative transportation. In addition, new construction would be required to reduce wasteful and inefficient energy use per the requirements of California Building Code (Title 24, Part 6) and would be subject to the prohibition of natural gas infrastructure in new buildings consistent with BMC Chapter 12.80.

**POSSIBLE FUTURE ACTION**

Staff is anticipating that subsequent to the three City-sponsored Community Benefit workshop meetings, a revised Community Benefit Package would be available in late summer of this year. This proposal would accompany the final revised Development Agreement and the SEIR, to be heard first by the Planning Commission and then the City Council in late fall 2021. At the DA Amendment hearing, the Council may (1) approve the proposed amended DA and associated benefits package, (2) modify the proposed amended DA and/or associated benefits package, or (3) deny the DA amendment. If the latter option is chosen, after the expiration of the existing DA in February 2022, the subject site would be subject to the terms and conditions of the Zoning Ordinance and Landmarks Preservation Ordinance.

**FISCAL IMPACTS OF POSSIBLE FUTURE ACTION**

Approval of the Bayer DA Amendment would be accompanied by approval of a negotiated Community Benefits Package that is anticipated to include a mixture of tangible (e.g. monetary contributions) and intangible (e.g. internship programs) financial benefits for the community.

**CONTACT PERSON**

Jordan Klein, Director, Planning and Development, (510) 981-7534

**Attachments:**

- 1: Development Standards of the Development Agreement: Existing and Proposed
- 2: Entitlement Discretionary Levels: Existing and Proposed Under the DA, plus Existing under the Zoning Ordinance
- 3: Peer Review of Community Benefits Initial Submittal, prepared by Economic & Planning Systems (EPS), dated May 20, 2021
- 4: Bayer Community Benefits Submittal Package, dated June 18, 2021
- 5: Public Correspondence

**Referenced Links:**

- Draft Subsequent EIR:

[https://www.cityofberkeley.info/uploadedFiles/Planning\\_and\\_Development/Level\\_3 - ZAB/Draft%20Subsequent%20EIR%20\\_Bayer%20HealthCare%20DA%20Amendment.pdf](https://www.cityofberkeley.info/uploadedFiles/Planning_and_Development/Level_3 - ZAB/Draft%20Subsequent%20EIR%20_Bayer%20HealthCare%20DA%20Amendment.pdf)

- Appendices A-J:

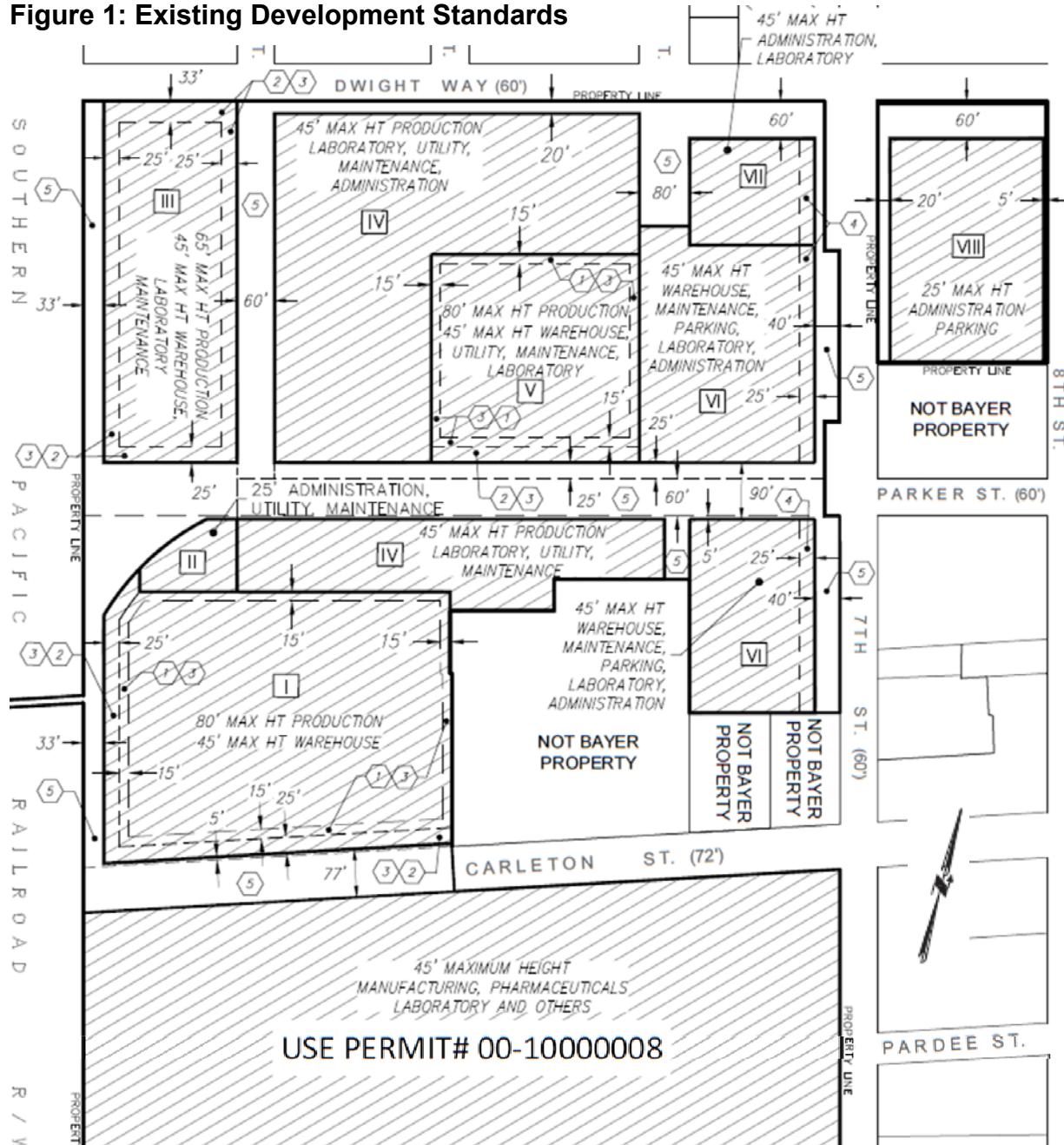
[https://www.cityofberkeley.info/Planning\\_and\\_Development/Zoning\\_Adjustment\\_Board/Bayer\\_Development\\_Agreement.aspx](https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/Bayer_Development_Agreement.aspx)

Bayer HealthCare LLC DA Amendment  
Community Benefits Workshop

Attachment 1  
Development Standards Comparison

**Table 1: Development Standards**

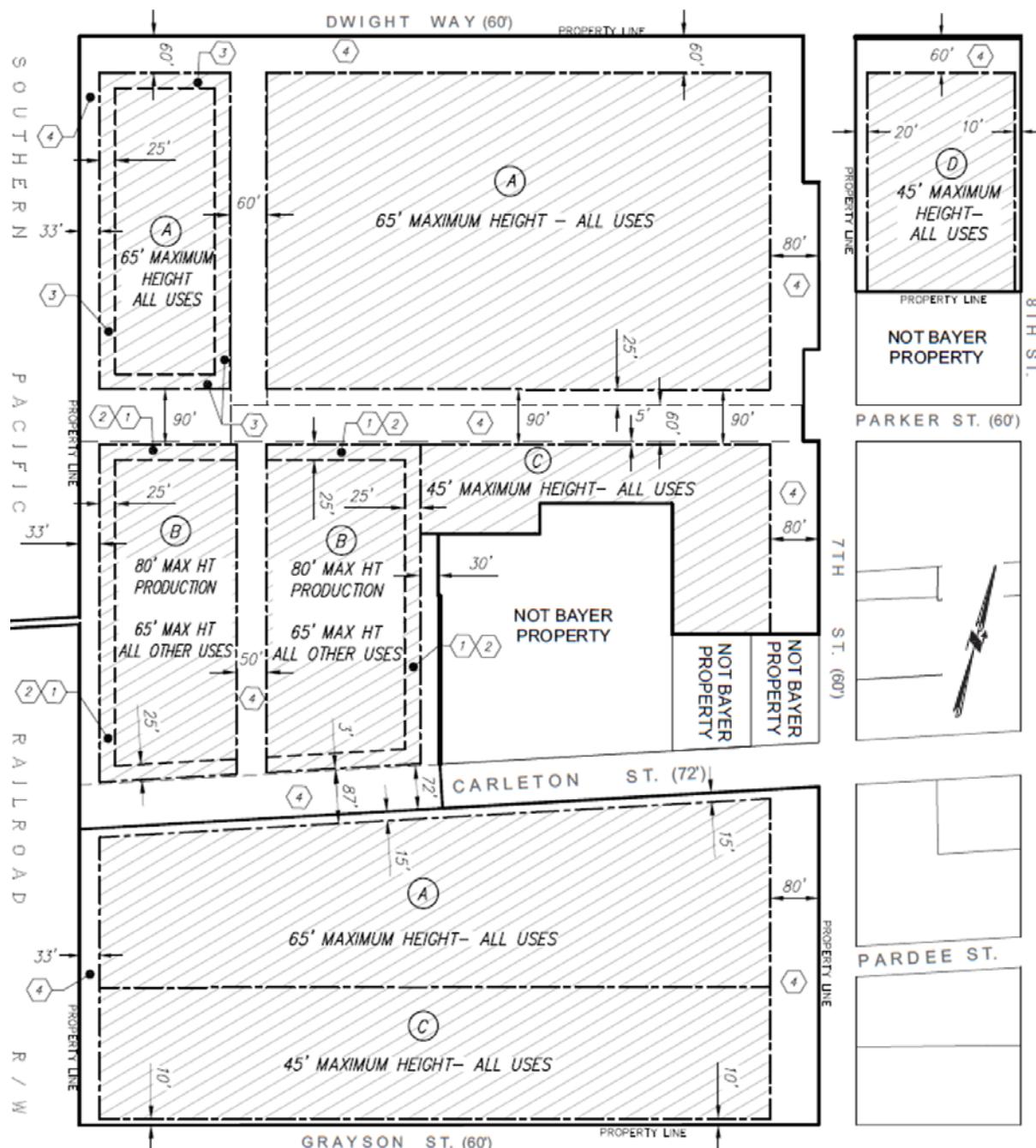
Development Standard	South Campus / MM Zoning BMC 23E.76.070	Existing DA	Proposed Amendment
Max. Height (in ft.)	<b>45'</b>	<b>80'</b> for Production <b>45'</b> Other Uses	<b>80'</b> for Production <b>65'</b> other Uses
Max. FAR	<b>2</b>	<b>0.27</b> (Block VIII) to <b>2</b> (Block V)	<b>0.27</b> (Block D) to <b>1.37</b> (Block B)
Setbacks: Zero Height Zones	none	<p>There are four main 0 ft. height zones, which generally follow street alignments on the project site:</p> <ul style="list-style-type: none"> <li>• West end of Parker St.</li> <li>• 90' wide corridor on Parker St. from Seventh St. to Fourth St</li> <li>• 60' wide corridor on Fourth St from Parker St. to Dwight Way</li> <li>• 80' wide corridor on Sixth St. from Dwight Way to 200 ft. south</li> </ul>	<p>Approximately 500,000 sq. ft. of zero ft. for combined north and south properties, providing enhanced buffers along Seventh Street and other site boundaries. The main zones include:</p> <ul style="list-style-type: none"> <li>• 33' setback on the western boundary, from Dwight Way to Grayson St.</li> <li>• 60' wide corridor on Fourth St. from Dwight Way to Carleton St.</li> <li>• 80' setback on Seventh St., from Dwight Way to Grayson St.</li> <li>• 60' setback on Dwight Way, from the western boundary to Seventh St.</li> <li>• 90' wide corridor on Parker St, from western boundary to Seventh St.</li> <li>• 90' wide corridor on Carleton St. from western to eastern boundary.</li> <li>• 10' setback on Grayson St. from western boundary to Seventh St.</li> </ul>
Parking: Production / Warehousing	<b>1:1,000</b> sq. ft. (floor area <10K) <b>1:1,500</b> sq. ft. (floor area >10K)	Production: <b>1:1,000</b> sq. ft. Warehouse: <b>1:5,000</b> sq. ft.	No Change
Parking: Other Uses	<b>1:500</b> sq. ft.	Laboratory: <b>1.5:1,000</b> sq. ft. Admin: <b>1:500</b> sq. ft.	Laboratory: <b>1:1,000</b> sq. ft. Admin: No Change

**Figure 1: Existing Development Standards**

USE PERMIT# 00-10000008

BLOCK	PERMITTED USES..	MAX. PERMITTED BUILDING HEIGHT <sup>2</sup>	MAX. ALLOWABLE FLOOR AREA PER BLOCK <sup>3</sup>
I	PRODUCTION WAREHOUSE	80 FT 45 FT	500,000 SQ.FT
II	ADMINISTRATION, UTILITY, MAINTENANCE	25 FT	30,000 SQ.FT
III	PRODUCTION WAREHOUSE, LABORATORY MAINTENANCE	65 FT 45 FT 45 FT	260,000 SQ.FT
IV	PRODUCTION, LABORATORY, UTILITY, MAINTENANCE, ADMINISTRATION	45 FT 45 FT	225,000 SQ.FT
V	PRODUCTION WAREHOUSE, MAINTENANCE, UTILITY, LABORATORY	80 FT 45 FT 45 FT	250,000 SQ.FT
VI <sup>4</sup>	WAREHOUSE, MAINTENANCE, PARKING, LABORATORY, ADMINISTRATION	45 FT	160,000 SQ.FT
VII <sup>4</sup>	ADMINISTRATION, LABORATORY	45 FT	75,000 SQ.FT
VIII <sup>5</sup>	ADMINISTRATION, PARKING	25 FT	30,000 SQ.FT

Figure 2: Proposed Development Standards



BLOCK	PERMITTED USES	MAXIMUM HEIGHT	MAXIMUM FLOOR AREA SQ.FT.
<b>(A)</b>	ALL(PRODUCTION, ADMIN, ETC.)	65'	1,500,000
<b>(B)</b>	ALL	80' PRODUCTION, 65' OTHERS	495,000
<b>(C)</b>	ALL	45'	400,000
<b>(D)</b>	ADMIN/PARKING	45'	30,000

Bayer HealthCare LLC DA Amendment  
Community Benefits Workshop

Attachment 2  
Discretionary Levels Comparison:  
Existing DA and Proposed Amendment

**Table 1 – Existing and Proposed Discretionary Levels for New Projects under Bayer Development Agreement**

Existing Development Agreement			Proposed Amendment to Development Agreement		
Development Type	Land Use Permit	Design Review	Development Type	Land Use Permit	Design Review
			Signage not visible from the public right-of-way		
Guard stations	Zoning Certificate	Plan Check Review	Guard stations		N/A
Demolition of buildings	Administrative Use Permit		Demolition of buildings	Zoning Certificate	
Temporary buildings (trailers or structures)	Administrative Use Permit		Temporary buildings (trailers or structures)		
Temporary surface parking	Administrative Use Permit	Staff-Level Review	Temporary surface parking		Plan Check Review
All Signage	Administrative Use Permit		Signage visible from the public right-of-way		
Buildings of less than 40,000 square feet	Administrative Use Permit		Buildings of less than 40,000 square feet	Zoning Certificate	
			Buildings over 45' in height and buildings visible from the right of way		Staff-Level Review
Towers, antennae etc.	Zoning Certificate	Plan Check Review	Towers, antennae etc.		
Buildings of 40,000 square feet or greater	Use Permit	Design Review Committee	Buildings of 40,000 square feet or greater	Administrative Use Permit	
			Parking Garages <sup>1</sup>		Design Review Committee

1. Bayer is proposing that for purposes of discretionary review of a parking garage—staff for the AUP and DRC for the design review—shall have final approval for the projects described in the table above per the DA outlined processes and shall not be subject to administrative appeal.

## MEMORANDUM

To: Jordan Klein, City of Berkeley  
From: Benjamin C. Sigman, Economic & Planning Systems  
Subject: Bayer Community Benefit Valuation Review  
Date: May 20, 2021

*The Economics of Land Use*



The City of Berkeley is engaged in negotiations with Bayer Healthcare LLC (Bayer) over the modification and 30-year extension of an existing Development Agreement between the two parties. The City approved the current Development Agreement (DA) with Bayer in 1992 and amended it in 1999. It expires in February 2022. Bayer submitted a project application to amend and extend the existing DA in the spring of 2020 and environmental review is underway. The City and Bayer currently are in the beginning stages of negotiating the terms of the DA extension.

To assist in its negotiations with Bayer, the City engaged Economic & Planning Systems (EPS) to conduct a review of an economic analysis submitted by Bayer. The Bayer analysis seeks to quantify the company's financial benefit from the proposed DA extension, and ultimately will inform the magnitude of community benefits that Bayer will provide the City in return for the new DA. EPS has reviewed the initial benefit analysis submitted by Bayer, and we understand that Bayer will resubmit its benefits analysis after consideration of EPS and City comments.

The general premise of the community benefits negotiation is that Bayer will size its project-based and/or financial contributions to the City based on the value of benefits generated by the DA for Bayer. To assist the City with verification of DA benefits to Bayer, EPS's review of Bayer's analysis considers:

- Categories of benefit to Bayer;
- Methodology for estimating financial benefits;
- Underlying data and assumptions informing financial benefits; and
- Accuracy of the mathematics employed.

Economic & Planning Systems, Inc.  
1330 Broadway  
Suite 450  
Oakland, CA 94612  
510 841 9190 tel

Oakland  
Sacramento  
Denver  
Los Angeles

EPS conducted this review based on information provided to EPS by Bayer, and in consultation with City staff familiar with the terms of the current DA and proposed DA extension. Key documents provided to EPS for consideration included:

- Letter RE: Development Agreement Extension dated January 14, 2021 – In this communication to the City Bayer provides the key assumptions and the findings of their DA benefits analysis.
- Letter RE: Development Agreement Extension dated February 18, 2021 – In this communication to the City Bayer provides an overview of the global competitive process for its new facilities.
- Development Agreement Extension Value Data Table dated March 23, 2021 – In this communication to the City Bayer provides a detailed quantitative assessment of DA benefits over the term of the agreement.
- Letter RE: Bayer Community Benefits Package Valuation Analyses dated May 3, 2021 - In this communication to the City Bayer provides a supplementary quantitative estimate of the value to Bayer from DA allowance of building heights above the regulatory standard.

EPS also reviewed additional information provided by the City, including staff memoranda and internal working documents concerning the DA extension.

### **Categories of Benefit**

EPS reviewed key DA terms and discussed potential benefits to Bayer with City staff. In its communications to the City, Bayer initially identified that the DA provides benefits relative to a development scenario without the DA that consist of:

- lower entitlement cost,
- reduced internal process complexity, and
- timeline reduction/surety benefits.

EPS concurs with this categorization of the primary benefits from the DA. In addition, after discussions with EPS and the City, Bayer also acknowledged that the proposed terms of the DA would allow Bayer to develop building at heights that are in excess of codified heights, and that this is a notable benefit of the DA as well. EPS agrees that development streamlining and added height allowances are the major categories of benefit conferred by the DA, and are appropriate for inclusion in the benefits analysis. While EPS also pointed out that there may be unaccounted for benefits to streamlining entitlement of smaller buildings on the campus through Zoning Certificates, Bayer indicated that this is not their intention and committed to revising DA terms to close this potential loophole.

### **Estimating Methods**

EPS reviewed documentation provided by Bayer to assess the estimating methods used in their valuation analysis. Based on the Development Agreement Extension Value Data received, EPS confirmed that Bayer is relying on well-accepted analysis methods. The valuation of reduced entitlement costs establishes a baseline scenario (i.e., no DA) and compares the cost of project development under the baseline to the cost of development with the DA. The difference between the cost of the baseline scenario and the DA scenario provides the measure of cost savings generated by the DA. Project costs (and cost savings) are escalated over the term of the DA and

analytical results are discounted to a net present value, which conforms with standard economic analysis practices.

## **Data and Assumptions**

Estimates of DA benefits to Bayer rely on cost data and streamlining benefits assumptions from Bayer. EPS evaluated the data provided and considered key issues that may affect benefits estimates. Important analytical assumptions include:

- City Permitting: Use Permit cost of \$600,000 and Administrative Use Permit of \$200,000, including all architecture, engineering, legal, and other technical services required (e.g., shadow studies, arborist reports, structural evaluations, parking surveys, traffic studies, historic resource evaluations, environmental site assessments);
- Development Cost: Approximately \$940 million to construct 1.8 million square feet, an average of roughly \$520 per square foot;
- Time Reduction Savings: The DA would generate time savings benefits from reduced delay effects (e.g., idled project team) relative to the baseline no-DA scenario equal to 2.0 percent of construction costs;
- Surety Savings: The DA would generate savings by reducing uncertainty associated with permitting complexity relative to the baseline no-DA scenario, creating benefits for Bayer's internal approval and planning equal to 1.0 percent of construction costs; and
- Cost Escalation and Discounting: The Bayer analysis assumes annual escalation of 2.0 percent and calculates net present value at a discount rate of 8.3 percent, based on the firm's weighted cost of capital.

EPS finds the key analytical assumptions to be reasonable. Permitting and construction cost assumptions appear generally in line with regional norms, and cost savings from project streamlining seem realistic, though no original research has been conducted to verify these assumptions. EPS did review the Bayer Annual Report and found reference to the company's weighted average cost of capital there, which is reported at 6.8 percent (1.5 percentage points lower than the assumption in the analysis). Upon discussing with Bayer representatives, it was agreed that a revised analysis would rely on the cost of capital referenced in the Annual Report.

## ***Height Allowance Considerations***

A potential area of concern is the proposed valuation of benefits from height allowances over the regulatory baseline. The supplemental valuation of this benefit (letter dated May 3, 2021) characterizes the height allowance value as a one-time streamlining benefit. Bayer's position is that in the absence of a DA, the company would be required to use a City approval process to establish development rights for the first project proposed with roof height above the codified limit, and after that initial project the precedent for added height would be established. As such, the inclusion of the desired heights in the DA is valued based on additional cost savings from reduced permitting and entitlement efforts, but only for the first project that goes through the City's variance process.

EPS understands from discussions with City staff that the heights sought by Bayer would require discretionary approval and it is unlikely that, if approved, the first Bayer building to exceed the codified height limit would create a precedent that eliminates the process for subsequent discretionary approvals of additional Bayer building designs that seek to exceed the height limit.

Accordingly, Bayer's assumptions concerning the approval process and precedent setting may be optimistic, and thus their valuation of this benefit may be understated. It may be more reasonable to assume that Bayer would be granted the discretionary height approvals, but that the streamlining benefit should be calculated for all buildings seeking to exceed the height limit for the site.

It also is reasonable to consider a baseline scenario in which the heights sought might not be approved by the City. In this framing of entitlement risk, the DA is providing certainty that Bayer can build at densities that might otherwise not be permitted. In this case, the value of the height allowances granted by the DA would be significantly greater. While Bayer is not seeking to develop a campus that exceeds the overall density allowance for their site, they have indicated a preference for taller buildings that improve operational efficiency, increase on-campus parks and plazas for the benefit of their employees, and also would create view premiums for the commercial real estate they develop. Given these benefits and the fact that the building space they are seeking over the height limit otherwise might not be permitted, the allowance of this development likely will generate a windfall value gain to the Bayer property based on discretionary action by the City.

In Berkeley's Downtown Area Plan (DAP) there is precedent for the consideration of community benefits associated with height bonuses. The DAP includes a provision that requires project applicants to provide "significant community benefits" in return for City approval of buildings that exceed the baseline height restriction. Through this provision, the City seeks to share in the value that is created when project entitlement exceeds the City's base height allowance, and City guidelines for determining the community benefit are based on a calculation of the windfall value that accrues to the landowner when the City approves increased development density. The same logic of value capture can be applied to Bayer's request for increased building heights.

Though neither a formal analysis of comparable land sales or pro forma financial analysis has been conducted to value potential land value increases from added building height at the Bayer site, increases to land value could be on the order of \$50 to \$150 per building square foot.<sup>1</sup> For illustrative purposes, if the City's discretionary approval of added height adds \$100 in land value per square foot of building space, the roughly 430,000 square feet in building space proposed by Bayer to exceed the codified height limit would generate a \$43 million windfall for Bayer. Though additional work would be needed to verify the windfall value, it is clear that the increased building heights allowed by the DA may be significantly more valuable to Bayer than the streamlining benefit included in their analysis.

### **Mathematical Calculations**

Based on the Development Agreement Extension Value Data Table provided by Bayer, EPS conducted an independent replication of the calculations to assess the computational accuracy of the analysis. EPS was able to recreate the analysis and verify most of the data provided by Bayer. EPS found only very minor differences in the annual schedule of benefits estimated and the net present value calculated by Bayer. In Bayer's data table, benefits are valued at a net present value of \$12.5 million and EPS calculations yielded \$12.4 estimate. Bayer initially proposed a \$15 million valuation, which EPS understands is rounded up from their \$12.5 million

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<sup>1</sup> Additional analysis of sales transactions and/or residual land value financial analysis could be used to clarify the increase in land value attributable to relaxation of height restrictions at the Bayer campus.

calculation. This initial valuation excluded the supplementary addition of Bayer's building height valuation, which doubles the streamlining benefit to Bayer from the first building approval, adding \$2.9 million to their valuation benefit.

## **Conclusion**

Bayer's initial benefits valuation of \$15 million and their addition of a \$2.9 million valuation for increased building heights brings their current valuation estimate for benefits conferred by the DA extension to about \$18 million. Given Bayer's framing of the entitlement process and precedent setting that would allow for building heights in excess the codified maximum, this valuation is reasonable. However, if the City determines that either the precedent setting assumption concerning height approvals is unlikely or that height variances are uncertain in the baseline no-DA scenario, Bayer's valuation of the benefit of the DA could be significantly understated. If the precedent setting assumption is unrealistic, the streamlining benefit from the DA would be nearly double the original valuation, based on Bayer's assumption that the streamlining benefit on the first building to seek a height variance would be double the streamlining benefit from other DA provisions. Furthermore, if the City determines that Bayer's perspective on the likelihood of height variances without the DA is unrealistic, the value of the height sought for approval in the DA could be much greater. Based on illustrative EPS calculations, a valuation under this interpretation of baseline no-DA conditions for development of the Bayer campus could be four times Bayer's original estimate of DA benefits, including streamlining and added land value attributable to increased building height. This review finds that the reasonableness of Bayer's DA benefits valuation hinges on the validity of underlying assumptions regarding how the City would treat requests for height variances in a no-DA baseline scenario.

## **Additional Considerations**

Though not directly addressed by this review of benefits valuation, the Bayer proposal to provide community benefits is linked to development impact fees associated with buildout of the campus. Their initial letter to the City describing the benefit valuation work, characterizes their \$15 million valuation as "a 35 percent premium over the current development impact fees mandated for affordable housing, childcare and public art by the City." In discussions with Bayer, EPS and City staff confirmed that Bayer is seeking to satisfy community benefits obligations through payment of impact fees. Though there may be fee adjustments considered in the context of DA negotiations, development impact fees would be paid in no-DA baseline development scenario, and so reducing community benefit obligations for baseline fees has the effect of reducing community benefits from the DA. That is, the proposal to offset community benefits value with mandatory fee payments has the effect of reducing the community benefits package to a level well below the benefit to Bayer from having the DA.

This review finds Bayer's DA valuation estimates to be reasonable and accurately calculated, but based on a regulatory baseline that may be optimistic relative to City code and practice concerning entitlement of buildings that seek to exceed height restrictions. Depending on City assessment of baseline entitlement conditions, it may be argued that the benefits to Bayer conferred by the DA are greater. However, through Bayer's proposal to credit development impact fees against the DA benefits estimate, the company has already signaled that their willingness to pay for DA benefits is limited, and less than the full value measured by them. In addition, in meetings with EPS and the City, Bayer has expressed concern that if development impact fees are not credited against the community benefit valuation, the Berkeley Bayer site

will become cost prohibitive for business growth. There may be merit to this competitiveness concern, and a potential next step in the negotiation process could be for Bayer to fully articulate their cost competitiveness concern. To this end, Bayer might provide additional justification for reaching a community benefits deal with the City that only partially compensates the community for the provisions of the DA, in favor of keeping costs for Bayer in check with their national and global site selection options. Berkeley must remain a cost competitive location for Bayer's business growth, or risk the possibility that the company will exit and the potential for community benefits from campus expansion will be lost.

Mr. David White  
Deputy City Manager  
City of Berkeley  
2180 Milvia Street, 5th Floor  
Berkeley, CA 94704

RE: Bayer Community Benefits Proposal

Dear David,

Thank you for the engagement to date as we work through the Community Benefits associated with the extension of the Bayer Development Agreement (DA).

As discussed, securing the long-term development rights for the Bayer Berkeley site supports Bayer Pharmaceuticals' specialty medicine strategy. These development rights are keys for timely/predictable infrastructure investments on site, enabling realization of Bayer's biotech pipeline in multiple product types (protein therapeutics, cell therapy, gene therapy, mRNA). These rights also ensure that the City of Berkeley remains competitive within the global investment options available to Bayer as it evaluates sites for new facilities.

The DA's holistic view of the overall development plan allows for a complete assessment of its impacts and the best ways to support the community over the 30-year term. The current DA has provided consistent support for the community while enabling Bayer to meet its business requirements, and this relationship is one that we would like to continue.

This letter is intended to provide the information requested in the City's correspondence dated May 24, 2021, which included the analysis performed by Economic & Planning Systems (EPS), and serves as a formal proposal of Community Benefit investments by Bayer for inclusion in the DA extension.

#### **Valuation and Payment Structure**

The DA's primary value to Bayer is expedited and predictable permitting for new facilities. This includes the permitting process and the entitled facility uses / heights (including proposed heights that differ from the current zoning which are allowed in the West Berkeley Plan for large sites such as the Bayer campus). Therefore, the valuation of the funding available for Community Benefits is based on the efficiency gained for the overall conceptual development project. We continue to use the Net Present Value of the

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June 18, 2021

Bayer HealthCare LLC  
800 Dwight Way  
Berkeley, CA 94710  
USA

[www.bayer.com/berkeley](http://www.bayer.com/berkeley)

conceptual development technique confirmed by EPS as the appropriate valuation method.

The land use entitlements allow for implementation of the needed capabilities. The entitlements related to the heights above 45' are requested for two specific reasons:

- Our manufacturing processes require vertical adjacencies that are not achievable within a 45' height envelope. Up to 80' is required (above 80' has no additional value). This height increase does not facilitate the creation of additional floors; rather, the additional height for production buildings is necessary to accommodate "taller" floor-to-floor heights allowing for the installation of special equipment and HVAC systems needed for Bayer's therapy development and production processes. These needs are fully documented and supported in the Zoning Adjustments Board's approval in March 2021 of a production Building 69 (B69) along the Bayer campus' western frontage.
- The requested building heights for our manufacturing support facilities enable significant zero build height areas (more than six acres by year 10 of the planning horizon) and the option to integrate parking into functionally purposed buildings. The zero build height zones allow for open green space with a portion being publicly accessible along 7<sup>th</sup> Street and Dwight Way. A constrained envelope of 45' building height not only impacts the business of manufacturing, but it also results in the reduction of publicly available green space and overall open space, retention of surface parking, and an expedited need to construct dedicated parking structures.

Please note that the requested heights have been studied in the CEQA EIR and have less-than-significant impact on views and aesthetics.

The secondary valuation model proposed by EPS describes how additional height provides significant value for residential development and that every increment of additional height increases value for such developers. This residential example is not an effective comparison to Bayer's infrastructure plans, as residential and industrial development create value in disparate manners - that is, sellable square footages that increases in value with height versus allowing space for fundamental operations.

Bayer's height needs are foundational to any future Berkeley site development and, therefore, a fundamental necessity of the entitlements. These building envelope needs are not unique to Bayer, as these height requirements are evident in areas zoned to attract biopharma manufacturing such as the California Biomanufacturing Center in Vacaville, CA where 70-foot buildings are allowed and additional height is simple to entitle.

Also for context, the DA extension would limit the scope of development to densities significantly less than realistically allowed by standard Mixed Manufacturing zoning (i.e., 1.738 million square feet versus more than 2.5 to 3 million square feet), while increasing many setbacks and improving upon other development standards.

Using the methodology reviewed by EPS and incorporating the updated WACC, the net present value (NPV) for the entitlements and permitting process efficiency is \$14.9 million.

In addition, Bayer now understands and agrees that the Development Impact Fees are not included with the entitlement efficiency value. Therefore, the following fees are also considered.

- \$2.25 per sf for Affordable Housing
- \$0.75 per sf for Childcare

The above fees align with the priorities that we have heard from the community (see proposed community investment programs in this document and previous correspondence) and, based on the same development assumptions and methodology used to calculate the entitlement efficiency, have a total NPV of \$1.9 million.

In addition to these fees, an impact fee of 0.8% of facility construction cost is to be paid in support of Art, with a NPV of \$4.7 million (same development method/assumptions).

In total, the net present value of entitlements and process efficiency and the impact fees provides \$21.5 million for community programs, which is significant and summarized below. Bayer recognizes that specific allocation of this total funding may be further detailed and adapted, in order to support the most relevant City budget needs.

Funding Category	Net Present Value (\$m)
DA Entitlement Value	14.9
City Impact Fees ( <i>housing, childcare</i> )	1.9
City Art Fee	4.7
<b>Total NPV</b>	<b>21.5</b>

### Payment Structure and Method

The entitlements and process efficiency funding and the impact fees each provide significant funding for the community. Given that the extended DA includes a conceptual development plan that is contingent on product success in an unpredictable business, the risk that the development might not occur is reasonable. Also, fees paid only when development occurs will mean that funding is sporadic and not conducive to long-term community/City programs.

Clearly, Bayer is planning for success, and therefore we propose calculating process efficiencies and Development Impact Fees on the full 30-year buildup potential using the full present value to set the first-year community benefit investment level (i.e.  $\frac{1}{30}$  of the total theoretical community benefits and impact fees) with annual escalations. We believe that this provides a consistent funding structure that will better support long-term community programs with foreseeable stability and assurance.

The following table offers a simple proposal summary of the community investments that include the calculated Development Impact Fees as well as the community benefit investments.

Item	
Year 1 Impact Fees & Community Investments (2022)	\$720,000
Year 30 Impact Fees & Community Investments (2051)	\$1,300,000

*Annual escalation rate: 2%*

EIR mitigations costs which require payment to the City or community partners *are not* included. Once valued, Bayer would recommend that these funds are also included in the annual funding schedule (1/30 per year).

Under this funding structure, impact fees are included in the annual payments schedule, and are therefore, not required to be paid with the individual facility investments.

For reference and context, the funding provided under the current DA can be found in the attachments to this document (Attachment A).

### **The Economic Benefit of Bayer in Berkeley is Significant**

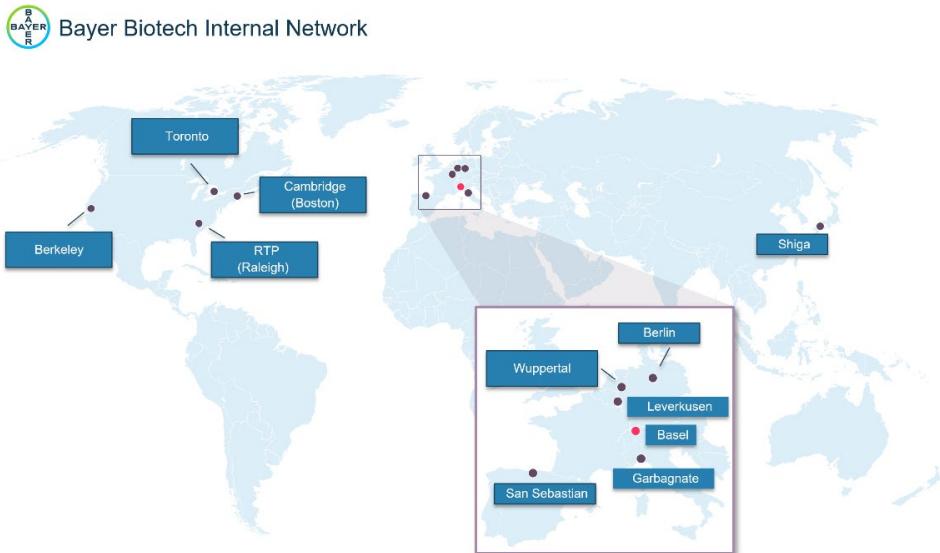
The Bay Area Council Economic Institute has completed an independent evaluation of the economic impact of Bayer's Berkeley operations today and 30 years into the future if the site is fully developed as outlined – [here](#) is the link to the report available online. Extending the DA enables a near doubling (97%) of the economic impact by the year 2052. We encourage you to review and consider the economic impacts of this report as part of the total benefit of retaining and growing Bayer in the Berkeley community.

### **Competitive Environment Creates Limits to Community Benefit Funding**

The Bayer Berkeley site provides a well-established workforce and infrastructure in a region that is a clear leader in the life sciences. Site operations are evolving with investments in flexible manufacturing facilities (B68 and B69 for instance) for new specialty medicine products to expand beyond the existing hemophilia business, which was downsized in recent years due to increased competition in the market. Additional significant investment is required to fully evolve the site and would be enabled by the DA extension.

The DA extension improves Berkeley's ability to attract Bayer investment. Without a DA, the local ability to compete will be significantly limited, as the current standard Mixed Manufacturing zoning process would constrain Berkeley's competitive position in the global Bayer network. Bayer has sites in several viable alternative biotech hubs in the United States and in Europe. The Bayer internal Biotech network diagram (see below), headquartered in Basel, Switzerland, illustrates competing options within Bayer's global network. For instance, facilities in Raleigh, North Carolina and Boston, Massachusetts are both locations rich in biotech talent with lower costs of

doing business. Further, the San Sebastian site in Spain is currently investing in gene therapy production capacity to enhance the Bayer network and will provide a European alternative to Berkeley.



The Bay Area Council Economic Institute and Biocom have provided you information on the competitive landscape for attracting biotech industry infrastructure investment and economic benefits in the United States and how the Bay Area fits (also included with this document as Attachment C). This information shows how valuable this type of investment is to communities. Also, a simple google search of incentives Bayer receives for adding operations or jobs shows how fiercely regions compete for these types of investments. The recent business operations consolidation to St. Louis, Missouri is a good example.

Without a DA, the Berkeley site cannot offer the timing assurances that Bayer's internal project review process requires in order to be competitive among numerous other options in the Bayer network. Other locations in the network would have a competitive advantage in attracting further investments, and one could anticipate that Bayer may make these planned investments elsewhere. Further, absent any additional investment, it is not out of the question that the site could be divested. Like all global corporations, Bayer regularly evaluates where it operates and in the past 15 years has closed two biotech sites in the Bay Area – a research facility in Richmond and a

manufacturing facility in Emeryville. And, as we advised earlier this spring and you've seen in the news, Bayer is closing its Pharma research center in Mission Bay in October and consolidating its US research footprint in Boston where it is making significant investments in the Kendall Center in Cambridge. The land Bayer owns in Berkeley has obvious value; the new facilities (B68 and B69 for example) are designed to support standard flexible manufacturing platforms and have potential resale value and, alternatively, removal of the general infrastructure is not cost prohibitive.

### **Proposed Community Programs Investments**

The allocation of the community benefit funding is at the discretion of the City acting in the interest of the broader community and ensuring no conflict with Bayer's community engagement priorities. The allocations suggested below consider Bayer paying affordable housing and childcare impact fees in addition to the community benefit package.

With that in mind, based on feedback we receive through our ongoing community engagements and the public community forums, and in concert with our Bayer values, we would offer the following priorities:

Community Benefits Category	% of Total
– STEM/Career Technical Education	60%
– Affordable Housing	20%
– Community Infrastructure Investments & Resiliency Programs	20%

Bayer proposes the following processes to disburse funds in each category.

#### *STEM / Career Technical Education*

To ensure ongoing relevance of the funding for educational equity initiatives in settings from transitional kindergarten through 8th grade, high school, and community college, Bayer would solicit proposals from local initiatives on a 10-year interval and facilitate a joint review comprised of leaders from Bayer's philanthropic partner (Bayer Fund or successor entity), Berkeley Site Leadership, and subject matter expert appointees made by the Councilmember from District 2 (two appointees) and the Mayor (two appointees).

Recommended allocation across the following programmatic areas:

- |   |     |
|---|-----|
| - TK through 8th grade hands-on science education   | 10% |
| - High School Career Technical Education and/or STEM excellence, including paid internships for high school students at the Bayer campus  | 50% |
| - Community College programming and support for biotechnology and advanced manufacturing/engineering disciplines, including paid internships for community college students on the Bayer campus | 40% |

#### *Affordable Housing*

Community benefit funds to support Affordable Housing objectives will be paid into the City of Berkeley's Housing Trust Fund and disbursed from there at the discretion of the City Council.

#### *Community Infrastructure Investments and Resiliency Programs*

To ensure ongoing relevance of the funding, Bayer recommends soliciting proposals from local support programs on a 10-year interval (process similar to educational programs listed above). The projects / investments will align with values shared by Bayer and the Berkeley community including:

- Climate Action – investments or programs designed to advance a carbon neutral community
- Health Equity – investments or programs designed to address inequities in health status among Berkeley residents
- Local Economic Resiliency – investments or programs designed to support locally-owned businesses, entrepreneurship and/or generational wealth building for low-income families of color

The Berkeley Mayor and the District 2 Councilmember have convened a panel of community members to review and provide feedback to the city on the allocation of the community benefits associated with the development agreement extension. This community team will be working into August 2021 and Bayer recommends that this process finish prior to finalizing on program funding allocations.

## **Summary and Closing**

Berkeley has the opportunity to retain a key cornerstone of Bayer's biotech network and its 1,000+ current employees (which include many Berkeley residents). Bayer is not just a corporation; it is a collection of people who live in the region and are a part of its fabric and central to its innovation sector that is a key economic driver. The proposed DA extension, including reasonable Community Benefits, can help ensure this position in Berkeley can endure. Without the DA, alternative locations such as, Raleigh, Boston, and San Sebastian obtain a competitive advantage due to greater predictability than can be expected in Berkeley. Bayer needs the development certainty in order to deliver the necessary infrastructure quickly enough to meet the needs of our patients.

The Bay Area Council Economic Institute (BACEI) Economic Impact Analysis outlined economic benefits of our operations. The joint report by BACEI and Biocom provides an overview of the competitive landscape in which Berkeley must compete. The City's Draft Supplemental Environmental Impact Report concluded that there are no significant environmental impacts resulting from development proposed under a DA extension. Together these robust studies illustrate how we can work together to thrive while our advanced manufacturing operations benefit the community with a de minimis environmental footprint.

Supporting this goal of mutual prosperity, Bayer offers to fund a Community Benefits program and make Impact Fee payments which together total \$30 million over the life of the extended DA, regardless of the level of site development. Any mitigation costs associated with the Draft SEIR are in addition. We consider this a fair level of funding and the maximum that we can justify while remaining competitive within Bayer's global infrastructure investment decision-making process.

Further, although dependent on individual project investments, the real estate tax increases and the building permit fees related to any construction are in addition to this proposal.

We continue to appreciate the engagement from the City and community, working with us collaboratively. This engaged dialogue is critical to the extension of the DA to support the City's ability to compete in Bayer's global site selection process and win significant additional investment from Bayer's European headquarters. In the end, we are all partners.

Thank you for your and the entire City team's continued engagement. We are proud of our history as a local corporate citizen and hopeful that this instrument will continue to serve the Berkeley community into the future.

Yours sincerely,



Drew Johnston  
Vice President, Site Engineering Berkeley

cc: Jordan Klein, City of Berkeley, Director of Planning  
Eleanor Hollander, City of Berkeley, Economic Development (acting)  
Chris Jensen, City of Berkeley, Attorney  
Benjamin Sigman, Economic and Planning Systems, Principal  
Jennifer Cogley, Bayer Community Relations  
Cathy Keck, Bayer Communications  
Jessica Hays, Bayer Project Manager  
Fernando Santos, Bayer Internal Counsel  
Sean Marciniak, Bayer External Counsel  
Niran Somasundaram, Bayer External Counsel

Attachments

- A. Community benefits contributed by Bayer during the life of the current Development Agreement executed in 1992 and amended in 1999
- B. DA Extension Valuation NPV
- C. Bay Area Council Economic Institute and Biocom Competitive Landscape

*What follows is a summary accounting and description of the community benefits contributed by Bayer during the life of the current Development Agreement executed in 1992 and amended in 1999. This section summarizes those payments and outcomes.*

### Community Benefits

Development Agreement code allows a property owner and the host municipality to negotiate additional benefits beyond mitigation to meet local needs. In 1992 and 1999, there appears to have been no affordable housing, childcare, public schools impact fees and no percent for the art ordinance. City leadership negotiated community benefit payments and programs in these areas. A summary of these categories of benefits follows.

Community Benefit Category	1992-2020 Nominal	Inflation adjusted
Biotechnology Education Training ( <i>excluding in-kind</i> )	6,480,000	10,350,000
Childcare program ( <i>excluding in-kind</i> )	1,318,000	2,020,000
Community Programs	1,082,000	1,976,000
Affordable Housing	884,000	1,513,000
Animal Care and Usage	230,000	407,505
Public Art and Historic Preservation	220,000	333,000
Employment - Hiring Program	20,500	40,660
<b>Total</b>	<b>\$10,170,500</b>	<b>\$16,640,165</b>
<i>In-kind support</i>	7,823,642	
<i>Mitigation payments</i>	9,587,758	
<b>Grand total in nominal dollars</b>	<b>\$27,581,900</b>	
<b>Grand Total Inflation adjusted dollars</b>		<b>\$39,173,810</b>

### STEM and Biotech Career Technical Education

Since its inception in 1993, Biotech Partners has prepared Berkeley High school students for meaningful rewarding careers in biotech. Over the course of the program, a large majority of these students have come from low income families, or groups underrepresented in STEM fields. Currently, approximately 75 Berkeley High students participate per year and more than 85% of these students identify as youth of color.

The cornerstones of the high school program are technical and workforce preparation classes, with an emphasis on biotechnology industries, as part of their high school coursework combined with paid internship experiences. The wraparound services for these students prepare them to enter the rigorous work environment of biopharmaceutical manufacturing. To date nearly 3,000 students have participated in the program and hundreds have used the experience to launch their careers in the sciences or other STEM related arenas. The program aims to engage students who

may be at risk of not completing high school or who are otherwise underperforming. Comments from students who have completed the program include

*"I might not have completed high school without [Biotech Partners]"*

*"the experience made me feel smart and confident in my skills and I've been highly employed since then..."*

*"Biotech Partners was a great experience and encouraged me to step out of my comfort zone and into the professional world. It helped me grow as an individual and most importantly develop professional skills that I still carry to this day."*

For students who continue to continue their education in the local community college system, Biotech Partners offers the Biotech Career Institute (BCI). The program maintains wrap around social and academic support for students who may face serious challenges to continuing their studies in the face of family or economic challenges. BCI students may also qualify for Bayer paid internships with a special focus on work conducted in our fully equipped biotech laboratories.

Students, however, are not the only beneficiaries of the program. Bayer has consistently hired Biotech Partners graduates to join our biopharmaceutical production teams and benefitted from their talent, training and dedication. Biotech Partner alumni fill vital management roles in our Factor VIII production and in the new Cell Culture Technology Center.

The DA calls for six-week internships for 15 high school students and year-long internships eight community college students.

The Biotechnology Education and Training Program benefit also defined financial support to underwrite K-8 grade science education related to biotechnology and a commitment to host high school students to visit the Bayer campus for Career Days.

### **Employment – Hiring Program**

The 1992 DA had provisions to give preferential treatment for Berkeley residents in recruiting and hiring decisions. It also required that Bayer pay a fee of \$500 per First Source construction hire whose position lasted for longer than one week. Over the course of the first five years of the Agreement, Bayer paid \$20,500 (\$40,660 in 2020 dollars) in these support fees.

### **Affordable Housing Investments**

From 1992 to 2002 Bayer made annual payments to the City of Berkeley Housing Trust Fund, \$884,000 (*\$1,513,000 in 2020 dollars*). The 1992 Development Agreement affordable housing investments were designed to increase the supply of permanently affordable housing in the City of Berkeley, by 21 units with at least 50% of the funds invested in projects in West Berkeley, emphasizing the area from University Avenue south. Per the terms of Development Agreement, no further payments were required after 2002.

### **Childcare Program**

The 1992 DA called for Bayer to establish a capital facilities fund to convert preschool slots to infant care slots; establish an operations fund to support a vendor-voucher program for affordable childcare slots; subsidize existing sick childcare providers; and to subsidize training for providers in CPR, First Aid and hygiene.

The 1999 Amendment to the DA stipulated that Bayer planned to construct an on-site or near-site childcare center for its employees and make affordable childcare slots available to low-income employees. The center was completed in 2012, and from 1999 to 2012, Bayer paid a calculated in-lieu fee to the State Funded Resource and Referral Agency (RRA). Since 2012, Bayer has continued to pay support the RRA with funds to enable CPR, First Aid and specialized hygiene training in multiple languages to serve the diverse childcare workforce.

### **Public Art and Historic Preservation**

The 1992 DA called for Bayer to assemble and display a historical exhibit about the campus. In 2007, Bayer released a DVD that was distributed along with the DA Annual Report. The piece was called "A Century of Innovation and Caring: The History of Bayer and Cutter Laboratories in Berkeley."

In connection with the completion of the Administration Building, Bayer commissioned a sculpture and fountain to be built on the campus adjacent to the Administration Building (B64). In 2000 the sculpture was installed and is enjoyed by Bayer employees and visitors to this day.

While not a requirement of the Development Agreement, Bayer was proud to fund the creation of the "Helios, Chariot of the Sun" sculpture in 2002 at the corner of Seventh and Grayson Streets. In 2016, Bayer funded the restoration of the piece which included a redesign of the pedestal and the application of vibrant and weather resistant paint.

### **Community Programs Investments**

Bayer committed to providing \$100,000 per year for the first ten years of the Development Agreement to support a West Berkeley Community Programs Board. The West Berkeley Neighborhood Development Corporation fulfilled the role of the Board and they disbursed funds to programs serving at-risk youth, elderly and disadvantaged residents of the neighborhood. The group disbursed a total of \$1,082,000 (or \$1,976,000 in 2020 dollars).

## DA Extension Proposal

## Attachment B - DA Value Table

**Development Agreement Extension Value**

Year	NPV	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30											
<b>Conceptual Facility</b>		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S																						
Area (000sf)		130	100	100	80	10	22.5	19	6	370	50	20	50	45	100	80	45	80	410	80																						
<b>CapEx (m\$)</b>																																										
Permitted Construction Cost (in 2021 mUSD)		80	60	60	40	10	30	80	10	40	80	50	80	40	60	40	40	40	60	40																						
Inflation Adjusted		82	64	65	44	11	34	92	12	49	101	65	106	54	82	56	57	59	93	67																						
<b>Entitlement and Process Efficiency Value</b>																																										
Entitlement Costs																																										
Without DA - Full Use Permit		0.61	0.6	0.6	0.7	0.2	0.2	0.2	0.2	0.7	0.8	0.2	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0												
With Extended DA - Administrative Use Permit		0.20	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3												
DA Value Assessment																																										
Entitlement Delta		0.41	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6												
Time Reduction		1.6	1.3	1.3	0.9	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.1	1.1	1.6	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2											
Time Surety / lower complexity		0.8	0.6	0.6	0.4	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.1	0.5	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6											
Value per Conceptual Facility		14.9	2.9	2.3	2.4	1.8	0.0	0.0	0.0	0.0	3.6	0.0	3.7	2.2	3.0	2.2	2.3	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
<b>Development Fees</b>																																										
Affordable Housing		0.3	0.2	0.2	0.2	0.0	0.1	0.0	0.0		0.1	0.0	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2									
Childcare		0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1								
		1.9	0.4	0.3	0.3	0.2	0.0	0.1	0.1	0.0		0.2	0.1	0.2	0.1	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2								
Art		4.8	0.7	0.5	0.5	0.4	0.1	0.3	0.7	0.1		0.8	0.5	0.8	0.4	0.7	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5							
<b>Payment Schedule</b>																																										
Total Net Present Value																																										
Annual Funding <sup>2</sup>																																										
		0.72	0.75	0.76	0.78	0.79	0.81	0.82	0.84	0.86	0.87	0.89	0.91	0.93	0.95	0.97	0.99	1.00	1.02	1.05	1.07	1.09	1.11	1.13	1.15	1.18	1.20	1.22	1.25	1.27	1.30											
<b>Basis + Constants</b>																																										
<b>Bayer Estimates/Variables</b>																																										
Berkeley Impact Fees																																										
Inflation		2%																																								
Establish DA (m\$)		(1.0)																																								
WACC (disc. rate)		6.8%																																								
Entitlements w/ DA (m\$)		0.6	2021 value																																							
Entitlements w/o DA (m\$)		0.2	2021 value																																							
Time Reduction w/ DA		2%	CapEx preplanning ↑																																							
Time Surety w/ DA		1%	CapEx complexity ↓																																							
<b>Assumptions + Notes</b>																																										
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A Joint Product of:

**Bay Area Council Economic Institute and  
Biocom California**

# The Competitive Landscape for Life Sciences and Biotechnology Corporate Investments

## INTRODUCTION

The San Francisco Bay Area is well known as a national leader in life sciences and biotechnology.<sup>1</sup> In fact, *Genetic Engineering and Biotechnology News* ranks the Bay Area as the number two biopharmaceutical cluster in the United States, behind only Boston/Cambridge. Today, numerous Fortune 500 companies, such as Amgen, Bayer, Gilead, Johnson & Johnson, Merck, and Thermo Fisher Scientific have a significant presence in the region, while hundreds of other biotech and life sciences firms call the Bay Area home.

The biotech sector has been one of the few economic bright spots for the nine-county Bay Area region in 2020 and 2021. While many parts of the economy suffered job losses, the biotech sector saw its employment remain stable between December 2019 and December 2020.<sup>2</sup> This stability can be attributed to more research and development opportunities taking place around the COVID-19 pandemic and a growing need for health solutions for unmet medical needs.

While 2020 also saw numerous large companies downsizing office spaces or moving out of the Bay Area altogether, biotech and life sciences companies have been doubling down on their investments in the Bay Area. Notably, both Bayer and Genentech have announced significant infrastructure investment plans in Berkeley and South San Francisco, respectively.

As a follow-on to the Bay Area Council Economic Institute's April 2021 economic impact analysis of Bayer in Berkeley, this short paper seeks to outline the competitive environment around biotech and biopharmaceutical corporate investments in the United

States. We will complete two short analyses: first highlighting the Bay Area's biotech and life sciences strengths and the reasons that companies want to invest here, and second analyzing the incentives that other states and locales are providing to entice investments. We hypothesize that the combination of rising costs of new life sciences development in the Bay Area and large incentives offered in other regions may begin to erode the Bay Area's biotech advantage over time.

## PART ONE: WHY INVEST IN BIOTECH IN THE BAY AREA?

It is well known that the Bay Area is an expensive place to build, with one report showing it has the highest costs for commercial development on the entire globe.<sup>3</sup> High housing costs push up construction labor costs, and long development processes lead to higher expenses and uncertain timelines. Even with these headwinds, the Bay Area's continued biotech prowess comes down to a key characteristic that all large sector clusters have: agglomeration.

Agglomeration—a mass or collection—is the momentum that keeps the region competitive. A large base of biotech and life sciences companies comes with a large base of talent that is needed to innovate and a large base of potential investment capital to spur new innovations. Life sciences companies often require a specialized set of capital and human inputs, meaning they would have difficulty surviving in isolation. Instead, there are benefits in locating in regions with a thriving ecosystem, such as access to talent, capital, and physical space that would be difficult to organically grow in a place with no biotech presence.

## The Competitive Landscape for Life Sciences and Biotechnology Corporate Investments

### **Life Sciences by the Numbers**

Only Boston can match the Bay Area in terms of its life sciences scope and scale, and successful companies have attracted even more investment to the region. According to Biocom California, an advocate for California's life science sector, the nine-county Bay Area had nearly 150,000 people employed in life sciences-related occupations in 2019. These individuals worked across nearly 1,500 companies (1,189 companies in research and lab services, 151 in biopharmaceutical manufacturing, 138 in medical device and diagnostic equipment, and eight in biorenewables). Life sciences companies are located throughout the Bay Area but specific concentrations of life science establishments can be found in San Francisco's Mission Bay, South San Francisco, the lower Peninsula, Berkeley/Emeryville, and the Tri-Valley region.

### **Access to Talent**

These companies would not locate in the region if they could not find the talent necessary to provide their products and services. With nearly 50% of residents in the nine counties holding a bachelor's degree, the Bay Area is the second-most-highly-educated region in the United States behind Boston. In addition to generating new workers, the region's world-class universities and other public research institutions play a critical role in research and development, as they received nearly \$2 billion in National Institutes of Health grants in 2019. This work helps to drive new biotech innovation in the region that can be commercialized by existing companies or spun out into new ones. It is important to note that an advanced degree is not required to obtain employment in the life sciences industry. In California, the industry offers employment spread across educational attainment levels from no high school diploma to PhD.<sup>4</sup>

### **Access to Capital**

While some of the Bay Area's largest life sciences companies were once the beneficiaries of venture capital, they now rely on traditional debt and equity markets for their finances. But where the venture capital industry does play a major role in biotech is the development of new companies and new ideas, thus

leading to further cluster development and attraction of talent to the region. In 2020, 38.6% of all venture capital investments in the United States were made into a Bay Area-based company, for a total of more than \$50 billion invested in the region during the year. Life science appears to be a growing portion of that investment pie, as \$6.6 billion was invested in the sector in the Bay Area during the first quarter of 2021 (more than one-quarter of all regional venture capital investment).

### **Access to Physical Space**

Research and development and the manufacture of any new biotech product requires specialized lab space, which may involve unique air filtration systems, clean rooms, and other technical requirements that are not found in traditional industrial buildings. According to Cushman and Wakefield, the Bay Area has over 33 million square feet of laboratory space, second to only the Boston/Cambridge area. More space is also rapidly coming online, with approximately 3.71 million square feet of life science space under construction in the Bay Area, according to Kidder Matthews. The largest of which is Kilroy Realty's Oyster Point campus in South San Francisco, currently in its first phase of development. It will add 636,000 square feet by the end of 2021 in three buildings and is pre-leased to biotech tenant Cytokinetics.<sup>5</sup> Further down the Peninsula, Alexandria's District for Science & Technology in San Carlos, a two-building campus, is scheduled to deliver 556,000 square feet by mid-2021 and is fully leased to several tenants including Atreca, Allakos, ChemoCentryx, and Nautilus. The market for biotech space is so strong right now that investors have made purchases of buildings in Mountain View, Emeryville, and Pleasanton with plans to convert them into life science uses.

These characteristics combine to make the Bay Area a top destination globally for biotech investments from companies big and small. New expenditures in biotech facilities clearly have a strong return on investment in the Bay Area, but that return begins to be eroded as more costs are piled onto the development process. The region may eventually hit a tipping point where all of its advantages can no longer outweigh its own rising costs and the benefits put forth by other locations. The next section will explore these incentives further.

## The Competitive Landscape for Life Sciences and Biotechnology Corporate Investments

### PART TWO: WHAT DO OTHER REGIONS OFFER?

When a company decides to make investments in physical space, monetary or tax incentives are almost always part of the equation. While California does have the California Competes Tax Credit that incentivizes certain new types of job creation as well as a partial sales tax exemption for equipment used in research and development, the state largely shies away from competing for jobs on the basis of incentives.

Other jurisdictions, however, open their coffers to lure new jobs and investment and the potential future fiscal benefits they can provide. Below we highlight various incentive programs and packages in locations that are also competing for life sciences investments—Boston, Raleigh-Durham, Washington, D.C., Southern California, and the New York/New Jersey area. While these regions are vying for jobs, the discussion largely focuses on state programs as the main form of incentive. According to the Biotechnology Innovation Organization, 36 states offer sales tax exemptions on equipment for both research and development (R&D) and manufacturing with several exemptions specifically for biomanufacturing.<sup>6</sup>

#### Boston

Massachusetts, which has long been a hub for biotech, offers a host of tax benefits through its Life Sciences Tax Incentive Program. The program, established in 2008 as part of the state's 10-year, \$1 billion Life Sciences Initiative, authorizes up to \$25 million in tax incentives each year for companies engaged in life sciences research and development, commercialization, and manufacturing. The primary goal of the program is to incentivize life sciences companies to create new long-term jobs in Massachusetts. Under the tax incentive program, several refundable credits are offered, including a research and development credit, an investment tax credit for the acquisition or construction of qualifying property, and a credit for user fees paid to the Food and Drug Administration. The state is also building up the life sciences ecosystem by approving \$462 million in bonds for the Massachusetts Life Sciences Investment Fund, which doles out grants to increase diversity and opportunity in Massachusetts' life

sciences and biotech industries. The funding has three objectives: job creation, workforce development, and promoting biomanufacturing and scientific research.

#### Raleigh-Durham

The Research Triangle Park—a research and innovation center equidistant from Raleigh, Durham, and Chapel Hill—has made a number of recent biotech-related announcements of company expansions and investments:

- Eli Lilly announced plans to invest \$474 million over five years in a new manufacturing facility that will generate 462 jobs. Eli Lilly secured a Job Development Investment Grant from North Carolina for the development of the facility. The 12-year grant will see the company receive a reimbursement of up to \$8.7 million. The company is also expecting to receive local incentives of up to \$2.55 million from Durham County. North Carolina Community Colleges will also contribute \$1.15 million to provide personalized training support.
- GRAIL, a venture-backed biotech startup that makes blood tests for cancer, will bring 390 jobs to Durham over five years. The company will invest \$103 million into facilities in exchange for a tax incentive package, which is valued at \$5.7 million. Durham County is also pledging \$678,000 in incentives.
- BioAgilytix, a Durham-based firm that does clinical research on experimental drugs, will receive an \$18.9 million incentive package from the state and \$500,000 from Durham County as part of its plan to add 878 jobs between 2023 and 2027.

#### Maryland / Virginia / Washington, D.C.

The self-branded BioHealth Capital Region (BHC) consists of Maryland, Virginia, and Washington, DC. The BHC encompasses more than 1,800 life sciences companies, over 70 federal labs, and numerous academic and research institutions. Maryland has led the charge in the formation of this cluster, focusing on venture capital and seed stage investments to grow the biotech sector. In 2005, Maryland approved a tax credit to lure investment and angel funds. Angel or private investors putting \$50,000 into a small biotech company

## The Competitive Landscape for Life Sciences and Biotechnology Corporate Investments

with fewer than 50 employees get a 50% tax credit on their investment, as do venture capitalists or institutions investing up to \$250,000 in small biotechnology companies.

### New York / New Jersey

The New Jersey R&D tax credit has been in effect since 1992, and it has propelled the growth of Johnson & Johnson, Merck, and Celgene within the state. The tax credit provides a refund of 10% on qualified research expenses over a base amount. Eligible expenditures generally include salaries and wages of engineers working on a project, the cost of supplies, materials, and scrap consumed in the R&D work, and in many cases even third party contractor fees incurred for the research. In New York, the state has created a \$620 million life science initiative that funds research and development and commercial infrastructure, incubators, medical school and entrepreneur grants, and a life science tax credit program. At the city level, a recently-announced program in New York City will invest \$1 billion in life science over 10 years, including \$450 million in research and development facilities at research institutions, \$430 million for lab and incubator space construction, and \$20 million in workforce development. The initiative is expected to generate 40,000 jobs.

### Southern California

San Diego offers a wide array of benefits to the life science industry through incentives managed by the air pollution, hazardous materials, and water departments. As one example, the Hazardous Materials Division at the San Diego County Department of Environmental Health, along with Biocom California, developed a program to benefit the life science industry called EPIC+. This program allows life science companies to experience less frequent inspections and lower fees when they demonstrate a record of clean inspections and participate in regular training. San Diego has also provided targeted tax rebates to companies on a case-by-case basis. In 2014, the San Diego City Council unanimously approved a deal to keep the manufacturing facilities of Illumina, a medical device company, in the city for 10 years in exchange for a \$1.5 million tax rebate.

The City of Thousand Oaks has made extensive efforts to support life science companies. Thousand Oaks City Council developed a biotech-first economic development strategic plan, and the city has increased its commitment to the industry over the last five years. Industry describes city officials as a facilitator or partner that understands what life science companies need and the benefits they bring to a city. Economic development staff and the city manager provide wide-ranging assistance to companies looking to locate or expand in Thousand Oaks, from site selection, to connecting growing companies with developers, to fast-tracking permitting.

### Bay Area City Examples

Local governments in the Bay Area region are recognizing life sciences and biotech as important employment generators. To facilitate growth, multiple cities have implemented incentives for job creation and industrial development:

- In **Fremont**, city staff provides direct assistance with site identification, relocation and expansion, city permits, and coordination with utility providers and other regional agencies.
- One of the **Pleasanton** City Council's two-year work priorities is expanding the life sciences industry. The city has supported a life sciences summit and has partnerships with business organizations targeting technology and life sciences.
- **South San Francisco** is known as a friendly environment for life science, and its economic development department employs a Biotech Advocate to facilitate site selection, tenant improvements, and new construction for life science companies. The city partners with real estate investment trusts to promote available and future properties on 15 campuses located on approximately 500 acres in the industrial area of the city.
- **Vacaville** is aggressively re-designing zoning and permitting processes specifically to attract biotech manufacturing investment through greater predictability and surety of the permitting process.

## The Competitive Landscape for Life Sciences and Biotechnology Corporate Investments

### CONCLUSION

Even as the Bay Area life sciences ecosystem continues to thrive, the region and its cities must take stock of their competitive positioning. Business decisions in biotech and life science companies are made on a national scale. With multinational corporations, global location decisions also consider incentives provided by other countries. While not detailed in this report, many countries including Germany, Canada, China, Ireland, Japan, and the UK offer incentives for the biotech sector.<sup>7,8,9,10</sup> Geographies are pitted against each other, and the investments with the highest return will win out.

This analysis does not seek to find the tipping point where the Bay Area loses its dominant position in

the biotech space, but it does seek to highlight the ingredients that make the region a viable investment opportunity for so many companies. By highlighting the incentive packages that other states and regions are offering, we hope to put better context around how business location decisions are being incentivized around the globe.

**Historically, the Bay Area has succeeded on its fundamentals alone. While those fundamentals will not deteriorate overnight, other locales are catching up and they are offering significant packages that will allow them to begin to build the agglomeration of companies, investment, and physical space that have made the Bay Area a top destination for life science and biotech investment.**

### ENDNOTES

1. This analysis will use the term life sciences to broadly refer to all health and life science related fields, while biotech and biopharmaceutical are more narrow terms that relate to industries where research and development and product development are the primary functions.
2. For the purposes of this statement, biotech is narrowly defined as NAICS sector 3254, pharmaceutical and medicine manufacturing.
3. <https://www.turnerandtownsend.com/en/perspectives/international-construction-market-survey-2019/>
4. <https://www2.biocom.org/get-the-2020-EIR-databook>
5. Online payment company Stripe is also leasing office space, as the entire development is not committed to lab space.
6. [https://www.bio.org/sites/default/files/legacy/bioorg/docs/Bioscience-Economic-Development-Report\\_Final\\_6-5-15.pdf](https://www.bio.org/sites/default/files/legacy/bioorg/docs/Bioscience-Economic-Development-Report_Final_6-5-15.pdf)
7. <https://assets.kpmg/content/dam/kpmg/ch/pdf/site-selection-for-life-sciences-companies-europe-en.pdf>
8. [https://www.ic.gc.ca/eic/site/lsg-pdsv.nsf/eng/h\\_hn01725.html](https://www.ic.gc.ca/eic/site/lsg-pdsv.nsf/eng/h_hn01725.html)
9. <https://www.internationaltaxreview.com/article/b1fbzrmh83rdsp/china-to-offer-biotech-incentives>
10. <https://hbr.org/sponsored/2018/02/how-japan-is-creating-new-opportunities-for-life-sciences-companies>

### ABOUT THE ECONOMIC INSTITUTE

Since 1990, the Bay Area Council Economic Institute has been the leading think tank focused on the economic and policy issues facing the San Francisco Bay Area. A forum for stakeholder engagement and a source of fact-based analysis, the Institute is a trusted partner of business leaders and government officials. It is guided by a Board of Advisors drawn from leaders in the corporate, academic, non-profit, and government sectors.

### ABOUT BIOCOM CALIFORNIA

Biocom California is the leader and advocate for California's life science sector. We work on behalf of more than 1,400 members to drive public policy, build an enviable network of industry leaders, create access to capital, introduce cutting-edge STEM education programs and create robust value-driven purchasing programs. Founded in 1995 in San Diego, Biocom California provides the strongest public voice to research institutions and companies that fuel the local and statewide economy. Our goal is simple: to help our members produce novel solutions that improve the human condition. In addition to our San Diego headquarters, Biocom California operates core offices in Los Angeles and the San Francisco Bay Area, satellite offices in Washington, D.C. and Tokyo, and has a continuous staff presence in Sacramento.



415.943.9375  
[BayArea@biocom.org](mailto:BayArea@biocom.org)

1 Tower Place  
Suite 150  
South San Francisco, CA 94080

To:  
Members of the Planning Commission  
City of Berkeley  
Land Use Planning Division  
1947 Center Street  
Berkeley, CA 94704

June 30, 2021

**Subject: Support for Draft Subsequent Environmental Impact Report  
for the Bayer HealthCare LLC Development Agreement Amendment**

I am writing to express Biocom California's support for the proposed Development Agreement between Bayer and the City of Berkeley.

The Bay Area is known for its life science sector, which has also been one of the few sectors to grow in Berkeley during the pandemic. Bayer is an anchor for the local life science community, helping to sustain industry growth, supporting external research projects, and off shooting countless new companies to tackle medical and scientific challenges. Bayer also offers a wide range of employment opportunities at all levels of educational attainment.

For a project of the scope that Bayer is proposing, potential environmental impacts appear to be limited in scale and duration. Proposed mitigation measures are effective in mitigating greenhouse gas emissions and protecting the surrounding environment.

This project provides opportunities for Berkeley residents across the social and economic spectrum in terms of direct project benefits, future employment, community amenities, and potential new health treatments.

I respectfully ask you to support Bayer's SEIR and thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe D. Panetta".

**Joe Panetta**  
President & CEO

June 29, 2021

Land Use Planning Division, City of Berkeley,  
1947 Center St, Berkeley, CA 94704

**Re: Draft Subsequent Environmental Impact Report (SEIR) for the Bayer HealthCare LLC  
Development Agreement Amendment**

Dear Planning Commissioners,

After reviewing the SEIR, I would like to express my strong support for the proposed Development Agreement between Bayer and the City of Berkeley.

For a project of this scope, the potential environmental impacts are limited in scale and duration, with the majority occurring during the demolition of existing structures and subsequent construction. The modernization of the existing facility is necessary for Bayer to remain competitive in the biotech arena. This project is comparable to many redevelopment projects occurring throughout our city, and we should support Bayer, which provides many good paying jobs and substantial contributions to Berkeley's tax base.

The proposed mitigation measures are well thought out and effective in avoiding greenhouse gas emissions while protecting birds, flora, water quality and the environment. In some instances, there is potential to enhance existing environment quality, such as the proposed increase in native plantings and the new open space on the remodeled campus.

The report concludes that *all environmental effects in those areas were found to be less than significant or less than significant with mitigation incorporated.* Based on the clean finding and the scope of the mitigations proposed, I strongly support the Project Amendment.

Bayer has been a good corporate citizen. The 1992 Development Agreement between Bayer and the City of Berkeley created an innovative thirty-year partnership that encouraged ongoing investment in Berkeley. Over the last three decades, Bayer has made ~\$1 billion in capital investments and ~\$30 million in community payments to dozens of community organizations and STEM Education programs. In 2018 alone, through a paid leave program, 400 Bayer employees volunteered 2,100 hours of service to support non-profits in the Bay Area.

I respectfully ask you to support Bayer's SEIR Amendment. A modernized Bayer campus, producing cutting edge research and new therapies, is good for the Country, good for California, and good for Berkeley!

Sincerely,

*Gordon Wozniak*

Gordon Wozniak

Former Berkeley City Councilperson

