Appendix N2
HR&A Economic Study

MEMORANDUM

To:	Environmental Science Associates
From:	HR&A Advisors, Inc.
Date:	June 26, 2020
Re:	Response to Law Foundation Letter regarding Displacement and the Google Project

INTRODUCTION

This memorandum responds to the Law Foundation of Silicon Valley's letter dated November 22, 2019, which addresses the Google Downtown West Mixed-Use Project (the "Project" or "Google project") and the alleged impact that the Project will have regarding displacement of low-income families in San Jose. The Law Foundation's letter requests that the City analyze the environmental impacts of displacement, citing a displacement and housing need analysis from a study conducted by Beacon Economics for Working Partnerships USA ("Beacon Analysis" or "Beacon Report") in June 2019.

The Draft Environmental Impact Report ("Draft EIR") for the Project has subsequently analyzed displacement impacts, including direct displacement, indirect displacement, and secondary impacts of displacement on the environment that may be attributable to the project. The Draft EIR's analysis finds that the impact of displacement directly attributable to the Google Project is less than significant. This memorandum addresses a series of inaccurate or misleading assumptions used in the Beacon Analysis, and correspondingly inaccurate and misleading statements and statistics in the Law Foundation letter, which heavily cites the Beacon Analysis.

The Project will result in the direct displacement (when residents must involuntarily leave their home because of direct action, such as when an apartment building is torn down) of three occupied households containing an estimated seven residents. The Google project is chiefly redeveloping parking lots and other underutilized commercial or industrial parcels. Indirect displacement can be the result of many causes, including rent increase, foreclosure, condominium conversion, increased taxes, or loss of a social network or cultural significance of a place.[1] When indirect displacement is due to rent increase, the rent increase itself is driven by a number of factors including population and job growth, transit or other infrastructure investment and increases in the cost of housing production. Indirect displacement has long been a concern in San Jose and the Bay Area. Historically, rent increases and indirect displacement concerns slow during recessions, and increase as job and wage growth accelerates during an expansion. While the national and Bay Area economy was in the longest economic expansion ever recorded in 2019, COVID-19 has impacted market conditions and economic outlook for the Bay Area, and indirect displacement will be impacted by the market cycle over the coming months and years.

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[1] Miriam Zuk, Ariel H. Bierbaum, Karen Chapple, Karolina Gorska, and Anastasia Loukaitou-Sideris, "Gentrification, Displacement, and the Role of Public Investment," Published in Journal of Planning Literature, 2018, Vol 33 (I), (see https://journals.sagepub.com/doi/abs/10.1177/0885412217716439).

Because indirect displacement has been an ongoing health and equity issue impacting families in San Jose and Santa Clara County, the City of San Jose is developing a citywide anti-displacement strategy. In January 2020, a local team of nonprofit and City staff who participated in the national PolicyLink Anti-Displacement Policy Network ("ADPN") and subsequently released a "Community Strategy to End Displacement" report. The report described a variety of potential anti-displacement tools used nationally, and identified potential short-term and long-term opportunities to protect tenants, preserve existing housing, and produce new affordable housing locally. Solutions could be implemented on a citywide or regional basis by entities such as the City of San Jose, Santa Clara County, and community-based organizations, among others. The report will inform creation of a staff-recommended citywide anti-displacement strategy for City Council decision in the Fall of 2020.

WORKING PARTNERSHIPS USA/BEACON ECONOMICS DISPLACEMENT ANALYSIS

Working Partnerships USA commissioned a study by Beacon Economics that predicts dramatic displacement impacts associated with employment growth in the Diridon Station Area and the Project. The Beacon Economics analysis, which is flawed in many respects as elaborated in the subsequent sections of this memorandum, has been cited and quoted by other parties, including the Law Foundation. The Beacon Report attempts to forecast the Project's likely impact on housing costs, although does not attempt to quantify displacement associated with the Project.

In their analysis, Beacon Economics first describes a "Baseline model: no Google campus" scenario, which projects Santa Clara County (not City of San Jose) housing market conditions between 2024 and 2030 based on current housing production, demographic and labor market trends, and without any changes in market conditions associated with a new Google campus.

In a modification to the baseline model, Beacon Economics describes a "Google campus model" that forecasts the impact of adding an additional 20,000 employees and 8,000 subcontracted workers associated with the Project, assuming no additional housing production beyond what was projected in the baseline forecast. Beacon develops a detailed estimate of the likely Google workforce, their household incomes, commuting patterns, and housing needs using industry data. This scenario does not account for the roughly 5,000 units of housing proposed as part of the Google Project.

The Beacon Analysis then analyzes the differences between the baseline model and Google Campus model to estimate how Google's project would impact the local housing market. Under the Google Campus model, no additional housing scenario (including none of the Google Project-proposed housing), Beacon finds that the average renting household in Santa Clara County would pay an additional $765 in rent annually ($63.75 monthly), and the average renting household in San Jose would pay an additional $816 annually ($68.00 monthly) due to demand that Beacon Economics claims would be associated with Google.

The Beacon Analysis then attempts to quantify the amount of housing needed to counteract projected Project-associated rent increases, or in other words, the mitigation of the projected rent growth they attribute to Google under the Google Campus model. The report develops two scenarios for quantifying housing, a "Status Quo Scenario" and a "Sustainable Scenario." The Status Quo Scenario quantifies the minimum housing production Beacon Economics deems necessary to offset rent increases, maintaining ongoing trends in commuting patterns, rent burdens, overcrowding, and the Santa Clara County jobs-to-housing ratio of 1.5 jobs per housing unit. The Sustainable Scenario quantifies the number of homes deemed necessary to offset rent hikes and prevent higher proportions of super-commutes, displacement, and overcrowding. This scenario applies the statewide jobs to housing ratio of 1.35 jobs per housing unit to projected employment growth,

and brings commute patterns for the Google employees in line with average commute patterns in Santa Clara County.

The Status Quo Scenario finds the need for 14,124 housing units in Alameda, San Mateo, and Santa Clara counties, including 10,114 units in Santa Clara County, with 2,045 of the 10,114 housing units affordable. The Sustainable Scenario finds the need for 20,740 housing units in the region, including 17,734 units in Santa Clara County, with 5,284 of the 17,734 housing units affordable. Neither of these scenarios quantifies the need for housing within San Jose, nor does either scenario deduct the 5,000 units of housing proposed as part of the Google project. The Beacon Analysis concludes that Google, in partnership with the City of San Jose, should address these housing needs.

METHODOLOGICAL PROBLEMS WITH THE BEACON ANALYSIS

HR&A finds severe flaws with the methodology, key assumptions and conclusions of the Beacon Analysis. Throughout the report, Beacon does not provide sufficient methodological detail to support their outputs and findings, frequently citing themselves and not showing methodology or intermediate calculations.

Below are some of the major flaws related to methodology and assumptions in the Beacon Analysis and the Law Foundation's references to it.

1. *There is not currently a widely-accepted model to project rent increases or indirect displacement attributed to a specific project, and it would not be possible to effectively isolate individual ongoing and future factors associated with rent increases in Santa Clara County, the City of San Jose, and the project area from rent impacts of the Google Project.*

   The approach Beacon Economics utilizes to attribute rent increases to Google is not recognized by academics as a defensible methodology. Per discussions with Dr. Karen Chapple, Chair of the UC Berkeley City & Regional Planning program and Director of the UC Berkeley Urban Displacement Project, there is not currently a credible methodology to attribute indirect displacement and rent increases to a specific project or employer, because rent increases are mainly a function of the relationship (at a regional and local level) between jobs/wages and housing supply.[2] Although it could be argued that the contributors to regional economic growth should take additional responsibility for inadequate housing supply, it is not possible to attribute displacement impacts to any one regional player or project due to the large number of interrelated factors at regional and local levels. Further, Google is proposing 5,000 residential units as part of the Downtown West project as a contributor to regional economic growth. The residential component of the Google Project is not incorporated into the Beacon analysis or its conclusion.

2. *The baseline forecast uses an aggressive job growth assumption not aligned with credible sources for employment projections, and assumes no changes to the current rate of economic growth through 2030.*

   In the Baseline Model, Beacon Economics describes housing market assumptions and a projection of market conditions between 2024 and 2030, which are based on current housing production, demographic and labor market trends. Beacon states that "workforce will increase by 8.5% from 2024-2030, or approximately 1.4% each year." This employment projection was developed by Beacon Economics, without an explanation of how or why it is more aggressive than employment projections developed by the Association of Bay Area Governments ("ABAG") or other frequently-

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[2] Email from Dr. Karen Chapple, "Methodology to attribute market effects," March 1, 2020 at 10:24pm PST.

cited forecasts. Projections by ABAG indicate a much lower rate of job growth: overall job growth in Santa Clara County of 7.0% between 2020 and 2030 (versus Beacon's 8.5% over 6 years).

This is a major methodological issue, and it is clear as of June 2020 that COVID-19 has caused an economic slowdown, and the unprecedented rates of economic growth in the Bay Area are unlikely to continue through 2030.

3. *The analysis assumes all San Jose Google employees are new to Santa Clara County.*

The Beacon Analysis assumes that all San Jose Google employees (20,000 employees and 8,000 subcontracted workers) will be new to Google and Santa Clara County. This assumption significantly affects the jobs/housing ratio utilized in the model, and is both highly unlikely and not defended in the Beacon Analysis.

San Jose, known for being a "bedroom community," already is home to many Google employees. San Jose has a jobs to housing ratio of 1.2 as compared with the Countywide jobs to housing ratio of 1.5, the Mountain View ratio of 2.5, and the Palo Alto ratio of 3.5 jobs per housing unit. In fact, the City's historic pattern of producing relatively more homes and more affordable homes while lagging in job production has had a fiscal impact on the City and its ability to provide an adequate level of services to its residents. It is reasonable to assume that a number of Google's future hires will also already be living in San Jose or southern Santa Clara County. The tech ecosystem has thrived in Silicon Valley in part because Santa Clara County's population represents a skilled labor force that serves as a talent pool for tech companies. The assumption that no existing residents take jobs associated with the Google Mixed-Use Development generates an unrealistic "worst case" scenario of potential rent hikes in San Jose resulting from the project.

4. *The analysis assumes no overlap between the baseline employment growth projection for the region and the job growth attributed to the project.*

The analysis also assumes that the 28,000 jobs that are part of the Google project are not included in the baseline economic forecast. Any credible Bay Area or Santa Clara County employment forecast would account for the tech industry's projected job growth, including that of Google in Santa Clara County. Significant employment in and adjacent to the DSAP area has been planned for more than ten years, and long-range forecasts would include consideration of major planning efforts and development projects. Furthermore, there will necessarily be a reallocation of jobs from Downtown San Jose to the Diridon Station Area as part of County-level planning to allow for the growth of the Google project and other projects in the pipeline; the Diridon Station Area growth cannot be assumed to be additive to County projections. The relationship between the total jobs figure in Beacon's baseline forecast and the Google project's 28,000 employees is made further unsubstantiated by the opacity of the Beacon Economics methodology. The analysis refers to the forecast Beacon developed without citing a source for baseline growth and without noting actual employment projection figures produced by the forecast.

5. *The analysis assumes that if Google does not deliver the housing directly, there will be no market response to satisfying the additional demand created by Google employees.*

Beacon Economics uses the same housing forecast in the Google campus model as in the Baseline model, assuming that there will be "no direct housing response" to the Google project. This approach is described as a way to "provide a benchmark against which to measure Google's future

proposals," but the report concludes that Google should be responsible for meeting the entirety of the housing need. By assuming there would be no market response to Google's project to meet the new demand created by the Project ignores the basic economics of supply and demand.

6. *Beacon applies historic rates of housing production to develop its baseline housing projection, which is inconsistent with its development of employment projections and does not account for emerging demographic, market, or policy trends.*

Beacon uses the historic rate of housing unit projection as reported by the California Department of Finance from 2010 to 2018, 0.7% average annual growth. Using historic housing growth patterns ignores the relationship between projected jobs and the production of housing units, as well as ignoring relevant market forces and policy decisions that have increasingly supported the development of more housing Statewide. In its projections, ABAG forecasts that Santa Clara County will have 757,690 households in 2030, which is to some extent a projection of housing development on appropriately zoned land. The overall growth rate from 2020 to 2030 is 11.52% (1.1% annual average), which is significantly higher than the historic 0.7% average annual growth.

7. *The analysis inappropriately applies a statewide jobs-to-housing ratio to incremental development in Santa Clara County, and does not account for housing incorporated in Google's plan.*

Applying the statewide jobs-to-housing ratio to Santa Clara County is not appropriate given the stark demographic and economic differences between the County and the entirety of the State of California. The California ratio is an average of dense urban centers, suburban bedroom communities, and rural areas. As one of the nation's preeminent employment hubs, it is not reasonable to assume a jobs-to-housing ratio in line with California State averages. Jobs across California are highly concentrated in urban areas, so using a statewide average is inappropriate for Santa Clara County or San Jose. The City of San Jose's General Plan anticipates and can accommodate the addition of roughly 95,000 new residential dwelling units by 2040, which even with substantial job growth will result in a substantially lower jobs-to-housing ratio than Santa Clara County. The Google Project also includes up to 5,000 housing units, which are not accounted for in the Beacon Analysis.

It should further be noted that the analysis uses a jobs-to-housing ratio metric despite a jobs-to-employed resident ratio being the prevailing metric used in Santa Clara County and the City of San Jose. By correlating jobs with local workers, this metric allows for an understanding of the potential for individuals to both live and work within the City. San Jose currently has fewer jobs than employed residents (0.8:1), meaning that residents need to leave the City to find work, and a jobs-to-employed resident ratio makes this point clearly.

8. *There is no methodology to analyze for Beacon's rent increase conclusion.*

Beacon's estimate of how Google's project would impact the local housing market under a "no additional housing" scenario is not substantiated with a methodology or technical appendix, despite the conclusions of this piece of analysis being the headline of the report. In addition to not describing the analysis that resulted in the rent increases of $816 and $765 in San Jose and Santa Clara County between 2024 and 2030, respectively, the report's baseline rents begin in 2024 without explanation of how rent growth was estimated between 2018 (the last data year from REIS shown in the report) and 2024. Technical appendices to understand this analysis were requested and not received.

9. ***The analysis does not account for Google's residential proposal.***

While Google's proposal is not finalized, there is no recognition that the Google project may ultimately include roughly 5,000 residential units. Earlier in the report Beacon indicated that it is "analyzing the differences between the baseline model and the scenario with the Google campus but no extra housing." However, when the estimates of "needed" housing at the Google campus are calculated, there is no acknowledgement of the planned housing. Thus, under the Status Quo Scenario, the 14,124 "needed" housing units calculated by Beacon are not offset by any housing units in the Google project.

MISSTATEMENTS IN THE LAW FOUNDATION LETTER

Law Foundation confuses the geographies associated with housing need quantification in the Beacon Analysis.

As noted above, the Beacon Analysis found that in a "Sustainable Scenario" an additional 17,734 housing units will be needed in Santa Clara County to mitigate rent hikes caused the Google project, including 5,284 affordable units and another 12,450 market-rate units. Law Foundation misquotes this study's conclusion and says that "an additional 5,284 affordable units and another 12,450 market-rate units will be needed in the Diridon Station area to prevent rapid rent increases." The Beacon Analysis does not attempt to quantify need in the Diridon Station Area, or even the City of San Jose.

Law Foundation misquotes the rent increase conclusion in the Beacon Analysis.

Law Foundation again incorrectly quotes the Beacon Analysis in saying that "without significant commitment from Google to produce housing, renters could be paying rents that are "five times higher." The Beacon Analysis projects rent increases due to Google's presence in the City of San Jose of $816 annually (or $68 monthly). Although these projections are an unsubstantiated, worst-case scenario, they are nowhere close to "five times higher" as described by the Law Foundation. In 2018, median multifamily rents in San Jose were $1,970. An average increase of $68 monthly would represent a three percent increase, or rents that are only marginally higher than today's average rents.

CONCLUSION

The Beacon Analysis is not credible, and therefore the Law Foundation letter is invalid. In terms of measurable direct displacement, the Google Project will displace three households, a statistic that is cited in the project's EIR. Beyond this direct displacement, there is a challenge of measuring indirect displacement caused by a single project, as indirect displacement is caused, and mitigated, by a series of regional market forces and policy decisions over time. The Beacon Analysis and Law Foundation letter attempt to establish this causational relationship with unsubstantiated claims and conclusions, not grounded in any credible methodology. Google's proposal for housing supports the mitigation of indirect displacement.