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April 16, 2021

Mayor London Breed
Board of Supervisors President Walton; and
Honorable Members of the Board of Supervisors
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102
Bos.legislation@sfgov.org

RE: Supplemental Brief for Appeal of San Francisco Planning Department's Second CEQA
Exemption for 2651 Octavia Street, (Case No. 2018-011022 PRJ)

Dear Mayor Breed, President Walton and Honorable Members of the Board:

The purpose of this supplemental letter is to highlight four separate expert reports prepared by four professional architectural lighting experts and one renowned architectural historian. The five experts provide unequivocal and substantial evidence showing that the proposed project is not eligible for a CEQA exemption.

1 **Michael Corbett** has decades of experience in environmental and regulatory compliance for historic resources in San Francisco. Mr. Corbett meets the Secretary of the Interior's professional qualifications in history and architectural history, and he is the author of the book, *Splendid Survivors* (1979), and directed the survey on which the book was based. His work was the basis for Article 11 of the San Francisco Planning Code and for preservation features of the Downtown Plan (1986).

2. **Sean A. Timmons** of Verve Sustainable Engineering Design Studio was one of the designers of the 2012 Library renovations. Mr. Timmons is an expert in environmental master planning, economic and integrated building systems design.

3. **Edward Dean** of Bernheim & Dean is an experienced large-project architect, who specializes in low-energy building design. Dr. Dean has acted as lead designer on major projects at nationally recognized firms nationwide.

4. **George Loisos and Susan Ubbelohde** of Loisos & Ubbelohde. The firm has over 40 years of experience in shading and daylighting analysis, and is a leading firm in analysis of sun and daylight conditions. They have conducted research for the US Department of Energy, the California Energy Commission and Lawrence Berkeley National Lab on daylighting performance, published numerous papers on daylighting simulation and design.

All five experts reviewed the Planning Department's (1) Assessment of the project's impacts on the Library's interior light (Daylight Impact Analysis, December 2020); and, (2) the shading analysis of the Library's photovoltaic system. (Shading Impact Analysis, December 2019). As shown below, the evidence is overwhelming that the project will reduce natural light, a character-defining feature, of this historic library and materially reduce light to the Library's solar array, increasing the Library's carbon footprint and violating numerous San Francisco policies and ordinances.

I. Light is a character-defining feature of the GGV Library

The overarching issue in this case is whether the project would impact a character-defining feature of the historic Library immediately next door to the project.¹ Light is unequivocally a character-defining feature of the Library. The Bay Area's renowned architectural historian Michael Corbett conducted an expert review and analysis of the Library; the other three expert reports provided herein; the Planning Department's CEQA exemption; and its April 12, 2021 filing. In Mr. Corbett's expert opinion, "natural light in the Golden Gate

¹ Motion No M20-129, File No. 201076, at p. 4 (The Board directed the Planning Department "to analyze the potential historic resource impacts of the Project on the character-defining features of the adjacent Golden Gate Valley Branch Library.")

Valley Branch Library is a character defining feature.”² Just like light is a character-defining feature in countless historic buildings such as Frank Lloyd Wright work and San Francisco’s City Hall, so too with the Library.³ Specifically, natural light like aesthetics, beauty, views, spatial sequence, and spatial character are well-established, recognized elements in the identification of historic resources.⁴

Mr. Corbett was clear that intangible qualities have been recognized and protected as fundamental elements of historic preservation going back to the inception of the National Historic Preservation Act in 1966.⁵ According to Mr. Corbett, the interactions of light, space, air, and time for someone walking through a space at different times of the day and the year in different kinds of weather are some of the intangibles that create high artistic values and experiences of the power of architecture.⁶ This concept is particularly significant for a library where people intuitively expect and react to high quality natural light while browsing and lingering over library materials. Mr. Corbett concluded that natural light like aesthetics, beauty, views, spatial sequence, and spatial character has a long and well-established place as a recognized element in the appreciation of architecture and in the identification of historic resources.⁷

II. The project will negatively impact the Library’s interior natural light

In the course of this process, the Planning Department sponsored two analyses: Both analyses show the project *would* have negative impacts on the Library to some degree. Therefore, the only issue is the severity of the impacts. Nevertheless, the Planning Department issued a second exemption to CEQA. Because the dispute centers on the severity of the impacts and not their mere existence, relying on a CEQA exemption is illegal. “It is the possibility of a significant effect on the environment which is at issue, not a determination of an actual effect, which would be the subject of a negative declaration or an EIR.”⁸ Moreover, Appellants need not make a showing of unusual circumstances, as the project sponsor claimed, because “a categorical

² Michael Corbett, Golden Gate Valley Branch Library Historical Review at p. 6 (April 12, 2021).

³ Corbett Report, at p. 6.

⁴ Id.

⁵ Id. at p. 5.

⁶ Id. at pp. 5-6.

⁷ Id. at p. 6.

⁸ *Lewis v. Seventeenth Dist. Agricultural Assn.* (1985) 165 Cal.App.3d 823, 830.

exemption cannot be relied upon to approve a project that may have an impact on a historic resource.”⁹

The Planning Department continues to support a CEQA exemption for this private development at the expense of a public library, even though numerous experts provided substantial evidence showing potentially significant effects on the Library’s interior light and on the solar array:

1. **Sean A. Timmons** of Verve provided expert opinion that the Planning Department’s interior light study wrongly depicted sunlight 3D massing models that conveniently indicated sunlight angles taken in the summer when the sun is at its peak position in the sky. Summer peak would erroneously present a sun position that would not show a project impact on the Library’s interior light.¹⁰ Instead, the greatest impact on the Library would be realized when the sun is in its winter solstice and at low winter sun angles. This has not been presented in any detail, so he therefore opined that the shadow cast on the south facing windows would be egregious if properly analyzed.¹¹

Mr. Timmons further found that the project’s shading impact would result in extensive artificial lighting needed in the Library just to maintain a comfort light level.¹² The Planning Department’s report mentions IES illumination levels of 300 to 500; however, Mr. Timmons’ opinion is that the illumination level should be 500 minimum Lux level at the reading and school child project work surface levels to provide the wellness factor and visual comfort strived for in the original design in 2010.¹³ Mr. Timmons recommended that the Planning Department properly analyze “the sun angles and put forward a design that has zero impact on the Library to ensure that this magnificent, old, and beautiful building is maintained in its current grandeur for now and future generations.”¹⁴

⁹ Motion No M20-129, File No. 201076, at p. 3. *See also* CEQA Guideline 153.00.2 “a categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.”

¹⁰ Email from Sean A. Timmons, Verve Sustainable Engineering Design Studio at p. 2.

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.*

2. **Edward Dean** also found that the Planning Department’s study was distorted and inaccurate because it relied too much on favorable high summer angles when the sun is at a maximum height in the sky.¹⁵ Again, like Mr. Timmons, Mr. Dean opined that the Planning Department’s study was uninformative and misleading because the issue is what effect the project would have from November to February. Mr. Dean’s recommendation was to conduct a “Daylight Autonomy” analysis to show the percentage of time, during the library’s open hours (10:00 am to 8:00 pm), from November 1 to March 1. This analysis would show the project’s true impact. Mr. Dean provided a graph showing why 500 lux should be used for task lighting in library reading areas.¹⁶

Mr. Dean was also critical of the Planning Department’s daylight impact analysis’s use of an averaging of 400 lux across the entire Library floor. Industry standards recommend 500 lux (about 50 footcandles) at the desktop where patrons review written material (text) and 300-400 lux (30-40 fc) elsewhere (aisles, etc.). Industry standards do not recommend averaging across the entire floor.¹⁷ In Mr. Dean’s opinion, averaging as the Planning Department did, choosing 400 lux as an average, was an oversimplification— reading surfaces should be 500 lux, not an average with the light levels of the surrounding floor area.¹⁸

Finally, Mr. Dean agreed with Mr. Timmons concerning the Planning Department’s claim of a 1.8% reduction in light levels (at 400 lux). In Mr. Dean’s opinion, the analysis chose the best-case example generated for June 21st with clear sky, when in reality the 1.8% reduction was for the entire year, not the single-day charts and analysis. This yielded a confusing result, which led the Planning Department to be misled, because seeing a “1.8% impact” one could conclude “no real impact.” But that was inaccurate.¹⁹

3. **George Loisos and Susan Ubbelohde** provided expert opinion on the Planning Department’s interior light analysis, finding it inaccurate in terms of its sky conditions. Specifically, the analysis relied on data collected at SFO, which has different annual skies than

¹⁵ Report from Edward Dean of Bernheim & Dean.

¹⁶ Id.

¹⁷ Id.

¹⁸ Id.

¹⁹ Id.

the Library's location. The analysis should have used more immediate data.²⁰ These experts also found several inaccuracies in the daylight impact analysis. For example, on page 47 it stated: "Because there is no sun on overcast days (worst case, low light levels), there is minimal variability in light levels during the day, thus this sky condition can be applied to any time of the day and any day of the year." These assertions are both false. In fact, a glance at sky data for any overcast sky condition shows changes in the available illumination from the overcast sky by the time of day and also by the day of the year.²¹ Similarly, the Design Sky Value is not a constant from season to season but varies with the day and cloud cover. They concluded that "the sky conditions used in the simulations were not appropriate for this area of San Francisco and were not carefully considered as to application."²²

Mr. Loisos and Ms. Ubbelohde also found that the Planning Department's model omitted the fact that the Library was surrounded by a significant number of mature street trees on the north side of the Library that were left out of the analysis. These trees would completely change the overall daylight intensity and distribution.²³ In fact, the street trees would substantially decrease the illumination provided by the north-facing windows, thereby increasing the relative daylight contribution of the south facing windows that would be impacted by the proposed project.²⁴

4. **Michael Corbett** provided expert opinion that light is a character defining feature for the Library, and based on evidence from the four architectural lighting experts, the project could diminish the Library's interior natural light resulting in a potentially significant impact on an historic resource.²⁵ In Mr. Corbett's opinion, the amount and quality of light in the main reading room are fundamental to the character defining feature of the building.²⁶ Mr. Corbett provided substantial evidence that light is a character defining feature and there is evidence that the project

²⁰ Report by George Loisos and Susan Ubbelohde of Loisos & Ubbelohde at p. 2.

²¹ Id.

²² Id. at p. 2

²³ Id. at p. 3

²⁴ Id. at p. 3.

²⁵ Corbett Report at pp. 6.-7

²⁶ Id. at p. 6.

would diminish the natural light that enters the library. In Mr. Corbett's opinion, because the project would diminish natural light, it may have a significant impact on a historic resource.²⁷

In sum, there is substantial evidence in the record by four professional architectural lighting experts showing the project presents potentially significant impacts on the Library. Accordingly, the proposed project may not be exempted from CEQA. Instead, the City must prepare an environmental document that proposes feasible project alternatives and/or mitigation measures to the project that would reduce or eliminate impacts on the Library.

III. The proposed project would negatively impact the Library's photovoltaic system

The Planning Department is wrong that the Board cannot now consider negative effects on the PV system.²⁸ It is well settled that members of the public may comment on, and the Board may consider, any CEQA matter up until the final vote and the administrative record is closed.²⁹ The Planning Department's own shading study showed the project would partially block the south-facing photovoltaic system on the library's rooftop. The only issue is how severely the project would undermine the system's effectiveness. On this, no one can be sure because just this week the applicant revised downward the severity of the reported impacts on the PV system.

According to the 2019 shading report: "Of note, the photovoltaic system is broken down into two arrays. The Eastern array is quite a bit more impacted than the Western array, with a 69% increase in shading on the Eastern array versus a 26.4% shading increase on the Western array. Similarly, the Eastern array would see its incident solar radiation reduced by 9.7%, versus a solar radiation decrease of 2.7% on the Western array." As shown below, this would be a significant impact on the PV system. However, the applicant recently revised those numbers downward as reflected in a table rather than textual explanation that reduced the projected impacts, again, without adequate clarification. In short, neither the Planning Department nor the applicant have provided concrete evidence on the severity of the impacts to the PV system.

²⁷ Id. at p. 7.

²⁸ Planning Department Memo at p. 9.

²⁹ *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 567-568 (holding that a reviewing court may consider the entire administrative record when assessing whether substantial evidence supports the Board's findings).

Nevertheless, two independent experts analyzed the shading analysis for the photovoltaic system and both found the Planning Department's claim of an averaged *reduction* misleading and incorrect. According to Mr. Loisos and Ms. Ubbelohde, the report did not address the key issue of the extent to which the proposed project would reduce the energy delivered to the PV arrays.³⁰ Thus, the Planning Department's study that solarity would be reduced by an average of 5.8% or thereabouts was misleading. This is due to the fact that solar panels work together not separately. According to expert Mr. Dean, "this is straight forward: if the panel gets shade on even a portion, it essentially gets shut down. So, the new project is cutting off part of your renewable energy supply and effectively increasing your carbon footprint."³¹

Mr. Loisos voiced the same expert opinion: "A shadow that falls on one panel of the array will shut off energy production from all other panels in the same circuit."³² This is because even if the east and west arrays are separate, PV panels in one array are typically connected in series to the other arrays.³³ Mr. Timmons likewise opined that he could "safely say that the shadow cast on the south facing windows will be egregious and could also impact the efficiency of the roof mounted PV system."³⁴ Finally, the Planning Department's Shading Report failed to incorporate the complexity of shadow impacts on PV arrays.³⁵

It is mystifying why the Planning Department would seek to approve the expansion of a private development at the expense of the City's considerable investment in renewable energy at the Library. This Board holds the inherent power of the City and County of San Francisco "to exercise reasonable control over persons and property within its jurisdiction in the interest of the general security, health, safety, morals, and welfare except where legally prohibited."³⁶ The Planning Department is simply wrong in its assertion that the Board has no discretion to protect the Library's PV array in conformance with the General Plan and numerous other policies and objectives to "promote the use of renewable energy sources."³⁷

³⁰ Loisos + Ubbelohde, at p. 1.

³¹ Bernheim + Dean, at p. 4.

³² Loisos + Ubbelohde, at p. 2.

³³ Id.

³⁴ Email from Sean A. Timmons, Verve Sustainable Engineering Design Studio at p. 2.

³⁵ Loisos + Ubbelohde, at p. 2.

³⁶ See www.merriam-webster.com/dictionary/police%20power

³⁷ https://generalplan.sfplanning.org/I6_Environmental_Protection.htm#ENV_EGY_12

THE LAW OFFICES OF GLORIA D. SMITH

A handwritten signature in black ink, appearing to read "Gloria D. Smith". The signature is fluid and cursive, with the first name "Gloria" and last name "Smith" clearly distinguishable.

By: Gloria D. Smith