PREPARED BY

The City of Stockton Community Development Department with the assistance from PlaceWorks (Climate, Economics, CEQA).

INTRODUCTION

In 2022, the City Council approved two agreements with the State of California Attorney General (AG) and the Sierra Club, respectively, to improve and facilitate approval of the Mariposa Industrial Park Project in particular, and to promote sustainable warehouse development in general going forward. Per the agreements, a new industrial warehouse ordinance must be presented to the City Council for its consideration by December 31, 2023, including proposed new development standards for qualifying warehouse development projects engaged in logistics uses with a building or buildings totaling 100,000 square feet or larger. The Memorandum of Agreement (MOA) with the AG defines qualifying facilities engaged in logistics use as any warehouse or wholesaling and distribution land use which entails facilities to be used for the storage of farm products, furniture, household goods, or other commercial goods of any nature for distribution to wholesalers and/or retails, including cold storage.

Per the Memorandum of Agreement with the AG's office, if any of the conditions included in Exhibit A to the MOA are not included in the proposed warehouse ordinance, an explanation needs be provided to explain: (1) why such condition is infeasible as defined under CEQA; (2) what alternative conditions are being proposed for inclusion in lieu of any omitted conditions; and (3) how such alternative conditions reduce potentially significant environmental impacts. While the MOA refers to "conditions," this report herein refers to them as "standards" for the purpose of preparing an ordinance.

To prepare the proposed warehouse ordinance, City staff conducted extensive research and performed outreach with other municipalities that either prepared or are in the process of preparing logistics warehouse development standards (i.e., City of Fontana, City of Irwindale, San Joaquin County, and City of Tracy). Additionally, staff sought input from Stockton residents, local community advocates, industrial developers and their consultants (i.e., architects, environmental professionals), and representatives from State and local regulatory agencies (i.e., California Air Resources Board, San Joaquin Valley Air Pollution Control District, Attorney General's Office). This was achieved via phone conversations, emails, virtual meetings, Planning Commission workshops, and responses to comments received by staff. A summary of meeting dates is provided below:

- Attorney General's Representative Meetings: 8/30, 9/13, 9/21, 10/5, 10/19
- Environmental Advisor Meetings[1]: 9/11, 9/14, 9/18, 9/21, 9/26, 10/11, 10/16

[1] Representatives from Sierra Club, Catholic Charities of the Diocese of Stockton, and Little Manila Rising

- Industrial Advisor Meeting[2]: 9/6, 9/20, 10/5, 10/11
- Meeting with group of Stockton residents expressing interest in the Ordinance[3] 9/18, 10/17
- Meeting Climate Specialists (PlaceWorks): 10/3, 10/16
- Meeting with Municipalities with Warehouse Ordinance or Considerations: 9/28, 9/29
- Planning Commission Ad-Hoc Committee Meetings[4]: 8/30, 9/7, 9/14, 9/21 (9/21 Release of Ad-Hoc Notes)
- Planning Commission Public Study Sessions: 8/10, 8/24, 9/28, 10/12
- Planning Commission Public Hearing: 10/26

In addition, Working Draft standards were emailed to the above groups and posted on the City's website on 9/15 and 10/12, respectively, for review. This was in addition to drafts presented at the Planning Commission public study sessions in the same months.

Project Description

The Project entails a City initiated amendment of the Stockton Municipal Code, Title 16 (Development Code), Chapter 16.80 (Standards for Specific Land Uses) to add a new Section 16.80.390 (Logistic Warehouse) containing development standards for logistics warehouse development. The MOA outlined 26 items as the basis for new development standards to serve as the foundation of a future ordinance. In accordance with Title 16.116, the City Council is the review authority for amendments to the Development Code, based on the recommendation of the Planning Commission. The process for consideration entails providing public notice of and conducting public hearings, with any decisions needing to be supported by required findings.

Project Objectives

The project objective is to propose an ordinance for adoption that is consistent with the MOA. The proposed ordinance would apply to all qualifying logistics warehouse projects whether discretionary or ministerial and whether CEQA applies or not, and would achieve the following objectives:

- Satisfy obligations of the MOA.
- Reduce potential environmental impacts through enhanced design standards.
- Balance the need for high-quality and sustainable design with the project feasibility
- Continue to streamline reviews and provide clarity in the development review process.
- Create consistency through objective design standards.
- Minimize future legal challenges through enhanced design.

[2] Greenlaw Partners (Rob Mitchell, Mike Souza), Dermody Properties (George Condon), Lazares Companies (Trevor Smith)

[3] Group meetings as well as individual meetings for residents who expressed interest in the effort.

[4] Commissioners Gurneel Boparai, Terry Hull, and Rajan Nathaniel

FINDINGS FOR ALTERNATIVES

Staff performed significant research, outreach, and held meetings as summarized above and concluded that certain MOA standards were infeasible. Per the MOA, if certain standards from the MOA are not included in the proposed warehouse ordinance, an explanation needs be provided to explain:

1) Why such condition is infeasible as defined under CEQA[5];
2) What alternative conditions are being proposed for inclusion in lieu of any omitted conditions; and
3) How such alternative conditions reduce potentially significant environmental impacts.

The following provides findings that incorporate feasibility analysis, explanations, responses to comments, and conclusions of staff's review of all proposed standards that require feasibility consideration consistent with the MOA criteria listed above. This feasibility analysis was prepared by the City with the assistance of outside consultants (PlaceWorks) hired independently by the City.

For this analysis, staff is proposing to incorporate the proposed alternatives into an optional ordinance, referred to in the analysis as "Option B (Adjusted Standards)" and are herein referred to as the "Project" for the purposes of the feasibility analysis presented in this report. The MOA standards (original MOA Exhibit A language) are considered Option A. A third optional ordinance (Option C) is proposed by members of the industrial development community which has several differences from Option B - this analysis does not address (Option C). The analysis for Option C is a separate document.

MOA# 7 Paint Coating[6]:

MOA Original Language (Option A)	Proposed Alternative (Option B)
All architectural and industrial maintenance coatings (e.g., paints) applied on site shall be consistent with a VOC content of <10 g/L. Developer or tenant is not expected to exercise control over materials painted offsite by a third party.	Architectural and industrial coatings (e.g., paints) applied on the qualifying facility(ies) shall be consistent with the Volatile Organic Compound (VOC) content limits set by the San Joaquin Valley Air Pollution Control District (SJVAPCD) or the current edition of the California Green Building Standards Code (CALGreen), whichever is most restrictive. Developer or tenant is not

[5] "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. [CEQA §15364]
[6] The MOA Exhibit A included bullet points and not numbers. For the purposes of tracking changes, those bullet points have been converted to numbers for easier reference. All proposed standards have been kept in the same order.

	required to exercise control over materials painted offsite.

Analysis:

Feasibility
This MOA (Option A) standard is deemed to be infeasible based on legal and economic factors discussed below. This measure is taken directly from the South Coast Air Quality Management District (SCAQMD) Rule Book. The following language was proposed by the California Attorney General's Office on October 9, 2023:

- "Architectural paints and coatings used shall have maximum VOC emissions of 10 g/L or the most current regulatory standard promulgated by the South Coast Air Quality Management District, whichever is lower.
- All other adhesive, sealant, or specialty coating products used shall have VOC emissions meeting the most current regulatory standard promulgated by the South Coast Air Quality Management District.
- [If City staff deem definitions necessary] Define architectural paints and coatings and other adhesive, sealant, and specialty coating products as they are defined by the South Coast Air Quality Management District."

Per the SCAQMD, the above language (referencing Rule 1113 – Architectural Coatings) "…is applicable…to any architectural coating that is intended to be field applied within the [SCAQMD] District…[and] The purpose of this rule is to limit the VOC content of architectural coatings used in the [SCAQMD] District." Further, the strictest building codes (CAL Green Tier 2), LEED, and most air district standards throughout the State do not require this mitigation standard. Therefore, the City of Stockton, which is located within the San Joaquin Valley Air Pollution Control District (SJVAPCD), over 300 miles north of SCAQMD, does not find Rule 1113 applicable nor appropriate for utilization in our region as it has not been evaluated as such. Accordingly, use of this standard is not appropriate in Stockton nor legally required.

Additionally, the recent Mariposa Industrial development project attempted to comply with this requirement as a CEQA mitigation measure and determined (from their architect) that a paint that low in VOC (<10 g/L) was not commercially available as the process to manufacture VOC that low involved high production costs due to heating and preparation[7]. Despite market availability, excessive costs are an economic factor, which is recognized by CEQA as a relevant and appropriate factor when determining feasibility.

Further, via a third-party economic consultant (PlaceWorks), it was confirmed that while water-based zero VOC interior paints (defined as <10 g/L) are widely available at comparable costs to widely available higher VOC paints, the commercial availability of

[7] Correspondence from V. Melton BRR Architecture, Letters from PPG & Sherwin Williams (on file)

zero VOC (<10 g/L) exterior paint is generally very limited and expensive (approximately 77% higher cost[8]). It is important to note that, upon consultation with a major paint manufacturer[9], not all paint manufacturers provide exterior zero VOC paint options (only low VOC <50 g/L was more commonly available).

Alternative Standards Proposed
As an alternative, Option B proposes a standard metric for paint VOC that aligns with current California Green Building Standards Code and San Joaquin Valley Air Pollution Control District (SJVAPCD) requirements. Based on feedback from climate and environmental professionals, staff anticipates the Building Code and Air District standards to increase as the State works to implement it's 2045 carbon neutral objectives via enhanced minimum air quality and building standards. Including this language in the proposed ordinance will ensure that more restrictive standards will automatically apply once adopted by CALGreen or SJVAPCD.

Reduction of Environmental Impacts
The proposed standard is consistent with State, local, and best management practices and will automatically correspond with changes to paint VOC requirements adopted by the SJVAPCD and consistent with State Carbon Neutrality objectives.

It is important to note that, absent adoption of the ordinance, ministerial projects would not be required to exceed minimum standards, therefore, these standards will lessen environmental impacts for all future projects and align with the state's objectives on reducing greenhouse gases.

MOA# 10 Building Standards:

MOA Original Language (Option A)	Proposed Alternative (Option B)
Qualifying facilities shall be constructed in compliance with the most current edition of all adopted City building codes, including the adopted Green Building Standards Code. Prior to the issuance of building permits, the applicant/developer of the qualifying facility(ies) shall demonstrate (e.g., provide building plans) that the proposed buildings are designed and will be built to, at a minimum, meet the Tier 2 advanced energy efficiency requirements of the Nonresidential Voluntary Standards of the California Green Building Standards code, Divisions	Logistic warehouses 400,000 square feet and greater shall meet the Tier 1 energy efficient standards of the CALGreen Code Divisions A5.1, A5.2, and A5.5.

[8] Sherwin Williams 5-gallon A-100 low-VOC (<50 g/L) is $277.45 and 5-gallon Emerald zero-VOC (<10 g/L) is $489.95
[9] PlaceWorks met with Behr on November 8, 2023

A5.1, A5.2 and A5.5, Energy Efficiency as outlined under Section A5.203.1.2.	

Analysis:

Feasibility

This MOA Option A standard is deemed to be infeasible based on the economic factors discussed below. There are not many examples of other cities in the State utilizing Tier 1 or Tier 2 for all building standards. Some cities and air districts utilize Tier 1 or Tier 2 standards specific to a select item (i.e., employee parking), but there aren't many examples of this requirement in common practice.

As shown below, the application of California Green Building Standards Code (CalGreen) Tier 2 standards on warehouse development less than 400,000 square feet is not feasible as it could be cost prohibitive for that size development; excessive costs are an economical factor, which is recognized by CEQA when determining feasibility.

Division A5.1—Planning and Design

A5.104.1 Reduce development footprint and optimize open space.

For industrial uses in the IL and IG zoning district, the City's development code requires a landscaped 20-foot setback from any public street and, for an industrial site abutting a residential zoning district, the Code requires a landscaped setback equal to the height of the building. There is no setback specified for side or rear property lines that are adjacent to other industrially zoned properties.

The cost estimate is based on a typical 2.5 million-square foot warehouse site.[10] The area required for landscaping will vary from site to site, based on street frontage, parcel shape, and the presence of adjacent residential zoning districts. This analysis assumes a square site with one side adjacent to a street, with a 20-foot landscaped setback, and a rear property line abutting a residential zone with a 36-foot landscaped setback (reflecting a 36-foot building height). The total landscaped setback area would be 88,348 square feet. Section A5.104.1.1 would require the site to provide an additional 25 percent landscaped open space, an additional 22,087 square feet.

The cost to acquire land for this additional open space, install landscaping, and maintain the landscaping is calculated in Table 1. The analysis estimates that the additional land would cost $331,000 and installing landscaping would cost $248,000. Financed over 20 years, this upfront capital cost would require a monthly debt service payment of $6,700. With a 9.8 percent allowance for vacancies and a 30 percent allowance for operations, the increase in gross rent would need to be $11,240. For the

[10] The size of a typical warehouse site is based on the average lot/parcel size for ten recent large (>100,000 sq. ft.) warehouse development projects identified by city staff: Permit numbers: P19-0189, P20-0114, P20- 0115, P20-0242, P20-0395, P20-0805, P21-0277, P21-0576, P21-0980.

typical 1,072,076-square foot warehouse, the asking lease rate would need to increase by $0.01 per square foot per month, rising from $0.71[11] to $0.72.

Table 1: Cost Calculation for Increased Open Space

Additional required landscaped area (sq. ft.)	22,087
Land acquisition @ $15/sq. ft.	331,305
Landscape Installation @ $11.25[12] per sq. ft.	248,479
Total upfront capital cost ($)	579,784
Monthly debt service ($)	6,691
w/Vacancies and operations ($)	11,114
Warehousing space (sq. ft.)	1,072,076
Increase lease rate ($/sq. ft./month)	**0.01**

Source: PlaceWorks, 2023, using data from industry interviews[13], property sales data, vacancy rate data from CB Richard Ellis, and financing cost data from RealtyRates.com.

The additional open space that would be required under this standard could overlap with other standards in the MOA, namely the increased setback for industrial buildings and the 300-foot buffer between loading docks and potential sensitive receptors. In addition, this standard and others that would result in additional land and/or smaller warehouse footprints will have the effect of spreading warehousing development out and consuming more land over time; in direct conflict with compact development[14] and agricultural preservation[15] policies.

A5.106.3 Low Impact Development (LID)

Drainage and stormwater management will vary considerably from site to site. Onsite facilities would need to be engineered for the 85th percentile 24-hour runoff event or hourly intensity for each individual site and additional land area may have to be acquired.

City of Stockton Municipal Utilities Department (MUD) estimates the cost to comply with SWQCP requirements to be approximately $2,000 per acre for a 1.1 MSF warehouse on a 58-acre site. This assumes the project is connecting to an existing storm drain conveyance system and pump station. For sites required to design master plans and build public storm drain improvements including conveyance systems, basins, and pump stations, the costs would be considerably more.

Division A5.2—Energy Efficiency

[11] CB Richard Ellis' *Central Valley Industrial Figures Q3 2023* report

[12] Averages from $10 to $12.50 per square foot

[13] Industry representatives: Greenlaw Partners, Cushman Wakefield, Dermody Properties, and Lazares Companies

[14] SJCOG 2022 Regional Transportation Plan/Sustainable Communities Strategy, Sierra Club California Urban Growth Management Policy Guidelines

[15] San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), Sierra Club California Urban Growth Management Policy Guidelines

A5.203.1.1 Tier 1 and Tier 2 Prerequisites

To comply with Tier 2, Two (2) efficiency measures (listed under CalGreen Section A5.203.1.1.1/4/5) are required. Said measures are formatted menu-style where developers can select which measures to utilize to meet CalGreen Tier 1 and Tier 2 thresholds.

The Tier 1 standard would require a new warehouse development to implement one of the efficiency measures referenced above. Tier 2 would require a new warehouse to implement a second efficiency measure. The analysis assumes that the outdoor lighting efficiency measure (available under CalGreen Sections A5.203.1.1.1/4/5) would be the easiest to implement and would be chosen to satisfy the Tier 1 requirement. The analysis assumes that the second easiest measure (available under CalGreen Sections A5.203.1.1.1/4/5) to implement would be the warehouse dock seal doors. Thus, the analysis estimates the cost for this measure as the cost to satisfy the MOA standard to require Tier 2 compliance.

The South Coast Air Quality Management District (SCAQMD)'s High Cube Warehouse Truck Trip Study from 2014 found that the average warehouse has 1.8 dock doors per 10,000 square feet of warehousing floor area. Based on this rate, the typical 1,072,076 square foot warehouse would be expected to have 193 dock doors. With an estimated cost of $10,000 per dock seal door, Table 2 provides the estimated cost to implement this standard.

The analysis estimates that the total cost for this measure would be $1.93 million. To finance this amount, the lease rate would need to increase by $0.03 per square foot per month, which represents a 4.9 percent increase over the asking lease rate of $0.71; an increase of $32,162.28 per month.

Table 2: Cost Calculation for Dock Seal Doors

Number of Dock Doors	193
Cost per Dock Seal ($)	10,000
Total Cost ($)	1,930,000
Monthly Debt Service ($)	22,272
Gross Monthly Income w/Vacancies and operations ($)	36,996
Warehousing Floor Area (sq. ft.)	1,072,076
Increased Lease Rate ($/sq. ft./month)	**0.03**

Source: PlaceWorks, 2023, using data from industry interviews, vacancy rate data from CB Richard Ellis, and financing cost data from RealtyRates.com.

A5.203.1.2 Performance Standard

To reduce a building's energy usage below code minimums by 10-15% as required, upgrades to building components would be necessary such as: exterior wall/roof assemblies, higher efficiency mechanical units, reduction in lighting power, high efficiency water heating appliances. Determining compliance with this standard requires

detailed engineering analysis of a specific building, its components, and its intended tenant, which is beyond the scope of this analysis. However, most buildings are designed to meet code minimums for envelope and mechanical, electrical, plumbing designs and would therefore require upgrades, increasing construction costs.

Section A5.211 Renewable Energy

If a new warehouse facility provides solar power and battery storage under MOA #13, then it would appear that A5.211.1 would be satisfied. For MOA #13, the analysis estimated that providing onsite solar power generation would cost $6.41 million. If an alternative to MOA #13 is adopted and this standard is adopted, then the electric generation would be generally about 1 percent of the cost for MOA #13, or about $641,000. This would be a negligible cost increase. However, the standard described above requires additional calculation beyond the simple percentage adjustment used here, and it also requires electric power generation equivalent to 1 percent of the natural gas and propane use, so the final cost could be somewhat larger.

A5.211.3 Green power

With Ava Community Energy expected to begin offering service in Stockton in 2025, this standard can be implemented. There would be a slight increase in utility rates for Ava's Renewable 100 service plan. On their website, they estimate that participation in this plan would cost about 0.7 percent more than standard PG&E rates for a small commercial business.

For a 1,072,076 square-foot warehouse, the base power requirement is 5,038,756 kWh per year[16] for non-refrigerated warehouses and 31,733,465 for refrigerated warehouses. With Ava's rate being ¼ cent more per kilowatt hour than PG&E[17], this equates to a monthly utility cost increase of $1,049.74 and $6,611.14 for non-refrigerated and refrigerated warehouses (respectively) over PG&E.

Section A5.212 Elevators, Escalators and Other Equipment

Based on interviews with industry representatives, elevators and escalators are generally not installed in typical warehouses. Thus, the analysis does not estimate a cost for this standard.

Section A5.213 Energy Efficient Steel Framing

Based on interviews with industry representatives, we have not been able to identify how this standard would affect warehouse construction, so the analysis does not estimate a cost for this standard. However, there might be a substantive cost to comply with this standard or it might be negligible.

[16] See MOA #13 for calculation

[17] https://avaenergy.org/service-plans-business/

Division A5.5—Environmental Quality

A5.504.2.1 IAQ Testing
There is the potential to incur additional costs in meeting the standards if indoor air flushing alone is not sufficient (and the premise of this standard is that an engineer has determined that flushing out is not feasible), and, because this testing occurs after construction and before occupancy (the provision to allow occupancy after four days applies to facilities in which flushing out is feasible), there is also the potential to delay occupancy, which itself imposes a cost.

A5.504.4.7 Resilient flooring systems
Under base CALGreen, 80 percent of the floor space receiving resilient flooring would have to be constructed with VOC-specific flooring material. The Tier 2 standard increases the coverage from 80 percent to 100 percent. Based on interviews with industry representatives, the costs to comply for the final 20 percent of the floor area receiving resilient flooring would be negligible.

A5.507.1 Lighting and thermal comfort controls
Based on interviews with industry representatives, it appears that the costs to comply with this standard for the office space would be negligible and the standard would not be applicable to warehousing space. The cost estimates analysis has not calculated a cost to comply with this standard.

A5.507.3 Views
Based on interviews with industry representatives, it appears that the costs to comply with this standard for office space would be negligible relative to the financial feasibility of warehousing development. However, it is not clear if or how this standard would apply to occupants in the warehousing space. The cost estimates analysis has not calculated a cost to comply with this standard.

Based on discussion with industry experts and the City's consultant, Tier 2 standards are not commonly applied by most municipalities throughout California as the primary means to reduce greenhouse gas emission for industrial warehouses. While some municipalities and agencies have selected components of CAL Green Tier 2 standards for various items (i.e., EV parking amount), using the standards on a comprehensive basis does not appear to be a standard in common usage.

In conclusion, the application of Tier 2 standards on warehouse development less than 400,000 square feet is currently infeasible as the known costs would increase overall construction cost, building user costs and leasable spaces, and put the City at a competitive disadvantage for attracting industrial warehouse projects compared to surrounding jurisdictions that do not have these requirements.

Alternative Standards Proposed
Option B changed the original MOA measure of Tier 2 to Tier 1 and applied only to buildings 400,000 square feet or larger. All other warehouse facilities would have to

maintain compliance with current state and local standards. Since larger facilities (i.e., greater than 400,000 square feet) typically have large businesses that can accommodate the increased cost, the threshold was proposed to provide cost savings for smaller companies with facilities less than 400,000 square feet.

Reduction of Environmental Impacts
The proposed alternative is effective as the increased building standards for warehouses larger than 400,000 square feet will help with energy efficiency and greenhouse gas reduction and exceed current practices. The proposed standard is consistent with state, local, and best management practices and will automatically correspond with changes in minimum building requirements (CAL Green) adopted by the state, consistent with State Carbon Neutrality objectives. These standards will lessen environmental impacts for all future projects and align with the state's objectives on reducing greenhouse gases.

It is important to note that, absent adoption of the ordinance, ministerial projects would not be required to exceed minimum standards, therefore, these standards will lessen environmental impacts for all future projects and align with the state's objectives on reducing greenhouse gases.

MOA #11 Loading Docks:

MOA Original Language (Option A)	Proposed Alternative (Option B)
Qualifying facilities and their associated loading docks must be located no closer than 300 feet from sensitive receptors, and the City staff should consider the public health and safety benefits of requiring a larger buffer, up to 1,000 ft. All such setbacks will be measured from the loading dock or any building edge, whichever is closer to the property line of any nearby sensitive receptors using the straight-line method. The setbacks and buffers required in this ordinance shall prevail over any less-stringent standards in the City's Development Code. Sensitive receptor shall be defined as any residence including private homes, condominiums, apartments, and living quarters, schools, preschools, daycare centers, correctional facilities, parks/recreation facilities, in-home daycares, and health facilities such as hospitals, long term care facilities, retirement, and nursing homes.	Building Setbacks: 2:1 ratio of building setback to building height shall be required when adjacent to sensitive receptors. Loading Dock Setback: Unless determined to be physically impossible, when adjacent to sensitive receptors, a 300-foot buffer shall separate all truck loading docks unless the areas within the 300-foot buffer utilize zero emission trucks and equipment. Sensitive receptor shall be defined as schools, health care facilities, libraries, churches, correctional facilities, parks/recreational facilities, in home daycare, health facilities (hospitals, long term care facilities, retirement, and nursing homes) or more than two directly contiguous residential units.

Analysis:

Feasibility

This MOA Option A standard is deemed to be infeasible based on the practical, technological, and economic factors discussed below. An analysis conducted by staff using Geographic Information Systems (GIS) mapping indicated that, a proposed 300-foot and 1,000-foot buffer consistent with that metric, would have a significant impact on what new facilities industrially designated properties would be allowed to develop. Exhibits shown to the Planning Commission at public study sessions provided examples of actual local industrial parcels that would see their respective building area reduced by 60-80 percent. Parcels that were large enough and not next to receptors that would trigger the buffer requirement were located within the City's sphere of influence, but not in a legal position to be annexed into the City as they were not contiguous to the City limits. Contiguous location is defined as "territory adjacent to an agency to which annexation is proposed" and is a State (Local Government Reorganization Act) and local requirement for annexation consideration. Since the total amount of warehouse space would be significantly reduced by the MOA's 300- and 1,000-foot buffers, it is infeasible due to its impracticality, technological and economic factors. Therefore, staff is proposing an alternative.

As discussed elsewhere in the analysis, this requirement could result in the effective loss of all viable use of some industrial parcels in Stockton. The other question is what is the economic impact of requiring a 300 or 1,000 buffer on industrial properties adjacent to potential sensitive receptors when such parcels are not large enough to physically accommodate such a buffer. Generally, an industrial developer makes full use of a site, given the needs for truck movement onsite, employee parking, stormwater management and so forth. The required buffer would necessitate the developer purchasing additional land area for a warehouse and this land area would provide no economic benefit for the property owner or tenant.

PlaceWorks reviewed ten recent warehouse projects[18],four of which appear as though a buffer would be required if developed under the MOA language. PlaceWorks estimates the total property line length for these four buffers would be 13,135 feet. Across the four sites, the 300-foot buffer would require the purchase of an additional 90.5 acres of land (assuming the developer builds similarly sized warehouses and simply purchases additional land to accommodate the buffer). This additional land area would be a 28 percent increase in site area for the four projects, with the individual sites requiring an increase ranging from 23 to 52 percent. A 1,000-foot buffer area would require the purchase of an additional 301.5 acres of land, or an increase of 93 percent.

Based on an analysis of industrial property sales in San Joaquin County from 2021 to 2023, PlaceWorks, estimates the cost to acquire industrial zoned land at $699,000 per acre. As this land value, the 300-foot buffer would increase the cost of development by

[18] Permit numbers: P19-0189, P20-0114, P20-0115, P20-0242, P20-0395, P20-0805, P21-0277, P21-0576, P21-0980.

$15.8 million based on a weighted average for the four projects evaluated. The 1,000-foot buffer area would increase the cost of development by $52.7 million, on average.

If these projects were developed under the MOA language and had to purchase additional land to accommodate a 300-foot buffer, these lease rate would need to increase by $0.09 per square foot per month (based on a permanent loan for the full cost[19] of the additional land, with an interest rate of 7.07 percent, and a debt service coverage ratio of 1.45, representing third quarter 2023 market conditions as reported by RealtyRates.com). This would represent a 13 percent increase in the average lease rate, $0.71 per square foot per month, as reported by CB Richard Ellis for Stockton in their *Central Valley Industrial Figures Q3 2023* report. Currently, Stockton has the third highest lease rates in the Central Valley, and an increase of $0.09 would push it into second place, just behind Tracy, where the average lease rate is $0.82. If a 1,000-foot buffer were required, lease rates would have to increase by $0.31, or 43 percent, to $1.02. However, this accounts just for the cost of the land; the cost to provide landscaping still needs to be considered.

In addition to economic impacts to the developer, this would also result in the permanent elimination of farmland, in direct contradiction with San Joaquin County General Plan (SJC GP)[20], the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), and Sierra Club California Urban Growth Management Policy Guidelines[21]. Further, the premature conversion of farmland could create pressure to develop on surrounding agricultural lands, conflicting with SJC GP Goal LU-7 *Provide for the long-term preservation of productive farmland*.

Alternative Standards Proposed
Consistent with the MOA, Option B proposes a 300-foot loading dock setback but is reducing the building setback to align with the proposed height of the building. This 2:1 ratio of setback to height (i.e., 50ft tall building=100ft setback) maintains a larger than currently required setback based on proposed height.

Reduction of Environmental Impacts
The proposed standard is consistent with State, local, and best management practices. The new loading standard maintains the intent of the MOA 300-foot buffer and increases the setback distance from the building to the sensitive receptors which will reduce noise, visibility, and possible odor impacts.

It is important to note that, absent adoption of the ordinance, ministerial projects would

[19] Typically, a construction loan might provide half the cost of land acquisition, with the developer's equity investment making up the remainder. It is very unlikely that a warehouse would be financially feasible if the developer is required to invest an additional $7.9 million to purchase land that generates no economic activity. However, it is also not certain whether a developer would be able to finance the full buffer-area acquisition through the construction loan or permanent loan.
[20] Goal LU -1.7 *Farmland Preservation*
[21] https://www.sierraclub.org/sites/default/files/sce/mother-lode-chapter/Website/Growth%20Management%20Guidelines.pdf

not be required to exceed minimum standards, therefore, these standards will lessen environmental impacts for all future projects and align with the state's objectives on reducing noise, visibility, and possible odor impacts to sensitive receptors.

MOA# 12 Landscaped Buffer:

MOA Original Language (Option A)	Proposed Alternative (Option B)
Qualifying facilities must include an onsite landscape buffer, measured from the property line of all adjacent sensitive receptors. The width of the buffer shall be proportionate to the height of the warehouse building with specified minimums as set forth below unless infeasible. Landscaping shall be installed at the periphery of the qualifying facility(ies) site along adjacent rights of way and the landscaping buffer area shall not include the right of way itself. Landscape buffers shall not be required on interior boundaries of the qualifying facility(ies). a) The width of the buffer shall be set at a 2:1 ratio for all warehouses–for every 1 foot of building height, the buffer shall be 2 feet. The landscaping portion of this buffer shall not be less than 50% of this buffer, but may include areas to be used for bioswales, retention/detention areas and/or other stormwater and water quality management areas. b) The buffer area(s) shall include, at a minimum, a solid decorative wall(s) adjacent to sensitive receptors, natural ground landscaping, and solid screen buffering trees, as described below, unless there is an existing solid block wall. Onsite buffer areas shall not include deceleration lanes or right-turn lanes. To the extent allowed by other applicable City codes, policies, and regulations the height of the decorative wall shall be at least 14 feet, except in buffer areas adjacent to	• A 40-foot landscaped planter (buffer) shall be installed along the property line adjacent to a sensitive receptor. • The buffer shall be landscaped, and not be less than 50% of the total buffer size with two rows of 15-gallon trees planted along the length of the property line adjacent to the sensitive receptor. • The buffer landscape can include areas to be used for bioswales, retention/detention areas and/or other stormwater and water quality management areas in compliance with SMC Section 16.56 (Landscaping). • The buffer area shall include a minimum 10-foot solid decorative wall(s), or landscaped berm and wall, or landscaped berm adjacent to sensitive receptors unless a noise analysis indicates an alternative height is needed for sound attenuation. • All on and off-site landscaping shall comply with SMC Chapter 16.56 (Landscaping). • All landscaping shall be drought tolerant and, to the extent feasible, comprised of species with low biogenic emissions. Palm trees shall not be utilized. • All landscaping areas shall be properly irrigated for the life of the facility to allow for plants and trees to maintain growth with no undue pruning. • Tree maintenance shall comply with SMC Section 16.56 as a certified Landscape Architect must prepare the Preliminary and Final Landscape plan

sensitive receptors. For areas adjacent to sensitive receptors, the decorative wall shall be a minimum of 14 to 18 feet to the extent otherwise permitted by city codes, policies, and regulations. c) Trees shall be used as part of the solid screen buffering treatment. Trees used for this purpose shall be evergreen, drought tolerant, and shall be spaced in two rows along the length of the buffer, with trees in each row offset, and each tree no greater than 15 feet on center. Spacing up to 20 feet may be allowed if wide canopy trees are used sufficient to create wall of vegetation that filters warehouse pollution. The property owner, tenant, operator, and any successors in interest shall maintain these trees for the duration of ownership, ensuring any unhealthy or dead trees are replaced with a similar tree as soon as possible. d) All landscaping shall be drought tolerant, and to the extent feasible, species with low biogenic emissions. Palm trees shall not be utilized. e) All landscaping areas shall be properly irrigated for the life of the qualifying facility(ies) to allow for plants and trees to maintain growth with no undue pruning.	and certify the planting is water efficient at the time of construction permit approval. • Trees shall be installed in automobile parking areas to provide at least 35% shade cover of passenger vehicular parking areas within fifteen years. Trees shall be planted that can meet this requirement. The 35% shade trees amount can be substituted for solar canopy upon approval by the Director.

Analysis:

Feasibility

This MOA Option A standard is deemed to be infeasible based on the practical and economic factors discussed below. As further explained here, for certain properties, 1,000 feet of landscape buffer would render the property undevelopable for warehouse development.

The landscaping required for this standard would vary from one project to the next. To provide an assessment of the economic feasibility, the analysis assesses the impact of the cost to provide landscaping in the buffer area as described in the analysis for MOA #11. The actual area requiring landscaping for MOA #12 could be different because it is

based on the height of the building and it also allows stormwater management facilities, which would not be a new cost item.

PlaceWorks' landscape architects recommend using a generalized cost estimate of $10 per square foot for the cost to install irrigation and landscaping, and to include an upper range of $12.50 per square foot. The analysis for MOA #11 evaluated a 300-foot and a 1,000-foot buffer. Because the standard would be 2 feet of buffer for every one foot of building height, a 300-foot buffer would be applicable to a building that is 150 feet in height or less. This analysis is based solely on the 300-foot buffer width and the assumption that it would be landscaped in its entirety.

Based on PlaceWorks' analysis of four recent warehouse projects that would require a buffer adjacent to sensitive receptors, the average cost to install landscaping for a 150 to 300-foot-wide buffer area would range from $4.95 million to $12.3 million.

If the four projects were developed under the MOA language and had to install landscaping for a 300-foot buffer, lease rates would need to increase by $0.06. to $0.07 per square foot per month (based on a permanent loan for the full cost[22] of the additional land, with an interest rate of 7.07 percent, and a debt service coverage ratio of 1.45, representing third quarter 2023 market conditions as reported by RealtyRates.com). This would represent an 8.1 to 10.1 percent increase in lease rates.

Taken together with the added land cost for a buffer area, the combined impact of the buffer and landscaping would be an increase in monthly lease rates from $0.71 to $0.86, an increase of 21 percent. This would also push the cost for new warehousing space in Stockton to the highest in the region, exceeding asking lease rates in Tracy by 5 to 6.5 percent.

It is important to note that the economic/market conditions between Tracy and Stockton differ, with Stockton facing higher unemployment, lower household income, and higher poverty rates (among other factors as sampled below):

7/7/2022[23]	Tracy	Stockton	
Population	97,328	321,819	330% ↑
Employment Rate	67.7	59.6	12% ↓
Retail Sales Per Capita 2017 ($1,000)	$16,195	$12,715	21.5% ↓

[22] Typically, a construction loan might provide half the cost of land acquisition, with the developer's equity investment making up the remainder. It is very unlikely that a warehouse would be financially feasible if the developer is required to invest an additional $7.9 million to purchase land that generates no economic activity. However, it is also not certain whether a developer would be able to finance the full buffer-area acquisition through the construction loan or permanent loan.

[23] Typically, a construction loan might provide half the cost of land acquisition, with the developer's equity investment making up the remainder. It is very unlikely that a warehouse would be financially feasible if the developer is required to invest an additional $7.9 million to purchase land that generates no economic activity. However, it is also not certain whether a developer would be able to finance the full buffer-area acquisition through the construction loan or permanent loan.

Median Household Income	$102,336	$63,916	37.5% ↓
Poverty Rate	9.8%	16.3%	166% ↑

U.S. Census QuickFacts - U.S. Census Bureau QuickFacts: Tracy city, California; Stockton city, California

Alternative Standards Proposed
Consistent with examples provided by the state attorney office and other cities within the state, a 40-foot landscape buffer is proposed. A minimum 10-foot sound wall is also proposed unless a noise analysis indicates a taller wall is needed to bring noise levels into compliance with nighttime and daytime standards. In addition, staff added an alternative based on other city examples. That addition requires that trees be installed in automobile parking areas to provide at least 35% shade cover of passenger vehicular parking areas within fifteen years. Trees shall be planted that can meet this requirement; however, parking area trees could be substituted for solar canopies to help provide shade and energy efficiency consistent with current practices in the state.

Reduction of Environmental Impacts
The proposed alternative measure will provide environmental enhancements similar to the MOA standards and will exceed current local standards. The increase in landscaping will provide a larger and enhanced buffer between operational uses and the adjacent receptors that will mitigate noise, visual, and potential odor impacts from the facilities. It is important to note that, absent adoption of the ordinance, ministerial projects would not be required to exceed minimum standards, therefore, these standards will lessen environmental impacts for all future projects and align with the state's objectives on reducing noise, visual, and potential odor impacts to adjacent receptors.

MOA# 13: Solar, Battery Energy System:

MOA Original Language (Option A)	Proposed Alternative (Option B)
Solar Power/Battery Energy Storage Systems: a) The building permit application for qualifying facilities must demonstrate sufficient solar panels to provide power for the operation's base power use at the start of operations and as base power use demand increases. The application shall include analysis of plans to meet (a) projected power requirements at the start of operations and as base power demand increases corresponding to the implementation of the "clean fleet" requirements, and (b) generating capacity of the solar installation.	• The building permit application for qualifying facilities must demonstrate sufficient solar panels to provide power for the operational base power use at the start of operations. When available, applicants will be permitted to utilize "clean energy" sources in-lieu of providing onsite energy production. "Clean Energy" sources include programs such as, but not limited to, Ava Community Energy. • Operational base power is defined as the amount of power required to supply loads for all ordinary operational uses of the site. Loads for all ordinary operational uses of the site

a) The photovoltaic system(s) shall include a battery energy storage system to serve the qualifying facility(ies) in the event of a power outage to the extent required by the most current edition of the California Building Standards Code. b) Stockton's Community Development Department (CDD) shall verify the size and scope of the solar project based upon the analysis of the projected power requirements and generating capacity as well as the available solar panel installation space. c) In the event sufficient space is not available on the subject lot to accommodate the needed number of solar panels to produce the operation's base or anticipated power use, the applicant of the qualifying facility(ies) shall demonstrate how all available space has been maximized (e.g., roof, parking areas, etc.) for photovoltaic and battery energy storage system use. Areas which provide truck movement may be excluded from these calculations unless otherwise deemed acceptable by the supplied reports and applicable building standards. d) The owners, operators or tenants, or qualified solar system contractor engaged by the developer or tenant, shall install the system when the City has approved building permits and the necessary equipment has arrived. The tenant/operator of the qualifying facility(ies) shall commence operation of the system only when it has received permission to operate from the utility. The photovoltaic system owner shall be responsible for maintaining the system(s) at not less than 80% of the rated power for 20 years. At the end of the 20-year period, the owners, operators, or tenants shall install a new photovoltaic system meeting the capacity and operational requirements of this measure, or continue	include, as non-exhaustive examples, loads for minimal heating for fire sprinklers, primary office space lighting, HVAC, warehouse power, warehouse lighting, site lighting, minimum power for dock positions (including chargers for yard equipment and any plug-ins for transport refrigeration units), and the amount of light-duty electric vehicle supply equipment required by CalGreen. Loads for all ordinary operational uses of the site exclude, as non-exhaustive examples, loads for specialized equipment, non-standard automation or material handling systems, and chargers for heavy-duty trucks. • Projects shall be allowed to utilize alternative energy means that achieve comparable energy or greenhouse gas offsets. This includes Near Zero Emission (Near ZE) technology when commercially available.

to maintain the existing system, for the life of the qualifying facility(ies).	

Analysis:

Feasibility

This MOA Option A standard requiring solar power to power multiple components of the building operation and provide battery backup power is deemed to be infeasible for the practical and economic factors discussed below. There has been much uncertainty as to what the base power of operation consists of. Additionally, there are concerns from the industry that the placement of solar power on the roofs of warehouse buildings is a risk for potential fire hazard. This has triggered some instances of ligation and safety concerns for workers.

To define the energy needed for base power, which is not yet fully defined per building standards, the analysis uses average energy consumption. The US Energy Information Administration conducts the Commercial Buildings Energy Consumption Survey every five years (https://www.eia.gov/consumption/commercial/), with the most recent report being from 2018. At that time, they calculated the average electricity use at non-refrigerated warehouses at 4.7 kWh per square foot per year, which jumps 29.6 kWh per square foot per year for refrigerated warehouses. For the ten recent warehouses used in the economic analysis, the average size is 1,072,076 sq. ft. To assess the economic impact of this standard, the analysis defines the base power requirement as 5,038,756 kWh per year (4.7 kWh X 1,072,076 square feet) for non-refrigerated warehouses, which is equal to 13,805 kWh per day. For refrigerated warehouses this increases to 86,941 kWh per day.

The number of solar power panels is based on the average number of hours of peak sunlight. There are a variety of sources that estimate this, and in general, the analysis found that the average that would apply to Stockton is 5.38 hours per day, averaging over the course of a year. Solar panels generate electricity in DC, which then must be converted to AC. Typically, there is an 80 percent efficiency for the conversion. To provide base power (as defined above) solar panels would need to generate 3,207 kW (or 20,200 kW for refrigerated warehouses): 13,805 kWh per day ÷ 5.38 peak hours of sunlight per day ÷ 80 percent efficiency in converting from DC to AC.

A 72-cell solar panel generates 0.375 kW and costs $750. For an average size warehouse as analyzed for this report (1,072,076 sq. ft.) needing solar power to generate 13,805 kWh per day, it would take 8,553 72-cell solar panels (3,207 kW ÷ 0.375 kW per panel), which would cost $6,414,876 (8,553 panels X $705 per panel). For a refrigerated warehouse, 53,867 72-cell solar panels would be required, costing $40,400,067.

A solar power analysis for an 890,000 square foot warehouse on Mariposa Road found that it would require 13.21 acres to accommodate the solar panels needed for base power generation. That plan would use solar panels over car parking areas for 31.2 percent of the required area, with the remaining solar panels over unused land on the

site. Assuming the same proportions for the typical warehouse, 1,072,000 square feet, analyzed above, the typical project would require 15.9 acres to accommodate the solar panels, and 11.7 acres would need to be accommodated on unused land. For a non-refrigerated warehouse, the cost to acquire the additional unused land area needed to accommodate the solar panels would be $8.2 million.

This MOA standard also requires a battery energy storage system. To evaluate this cost, the assessment analyzes battery units that store 2,288 kWh and cost $2,471,0405. For the non-refrigerated warehouse's average daily electricity need, 13,805 kWh, 6.03 battery storage units would be required. The cost would be $14.9 million. For a refrigerated warehouse, 38 battery units would be needed at a total cost of $93.9 million.

The total cost of this MOA standard for a 1,072,076-square foot warehouse would be $29.5 million, with $6.4 million for solar panels, $8.2 million for the land area for the solar panel installation, and $14.9 million for battery energy storage. A developer incurring this cost on a new warehouse would need to increase the lease rate by $0.27 per square foot per month, or 37.6 percent, going from $0.71 to $0.98 per square foot per month (based on a permanent loan for the full cost of the solar panels and battery storage, with an interest rate of 7.07 percent, and a debt service coverage ratio of 1.45, representing third quarter 2023 market conditions as reported by RealtyRates.com).

Alternative Standards Proposed
The solar requirement remains as staff has added a definition of what "base power" is as it was lacking from the original standards and is not a definition commonly used in planning and building profession. While the battery component was considered, due to the potential cost and additional detail missing from the MOA (length of charge, and location of batteries), that requirement has been removed due to the potential cost associated with the different types and needed capacity of the batteries beyond base power. In addition, Option B is proposing an option for the use of "clean" energy sources as an alternative to installing solar equipment when they become available for use in projects. Option B is proposing to remove the monitoring component for the upgrades and will rely on changes to state law or projects specific reviews.

Reduction of Environmental Impacts (MOA #13)
The proposed alternative will still result in positive environmental effects on the environment, there are simply more options being provided for the industry to have greater flexibility to determine what is best for their individual project. The proposed alternative will exceed current standards and increase energy efficiency to reduce greenhouse gases and impacts on the City's energy systems. This includes an increase in required solar or mandate to purchase clean energy, both of which are not current requirements. The proposed standard is consistent with state, local, and best management practices for energy production, management, and coordination with clean energy providers throughout the state.

It is important to note that, absent adoption of the ordinance, ministerial projects would

not be required to exceed minimum standards, therefore, these standards will lessen environmental impacts for all future projects and align with the state's objectives regarding energy efficiency.

MOA# 14/17 EV Fleet and Monitoring

MOA Original Language (Option A)	Proposed Alternative (Option B)
#14- The lease agreement should include requirements for sustainable business practices, such as the use of trucks from 2014 or newer that transition to zero-emission vehicles. Clean fleet standards must be met by all other vehicles on-site. (SEE MOA FOR FULL TEXT)	Electric Vehicle Chargers Stations (EVCS) Infrastructure for Trucks: provide conduits to provide EVCS to meet future needs. Conduit should be provided on the site to serve 50% of the number of truck docking stations. Location of conduit is at the discretion of the developer (e.g., truck trailer parking spaces or docking stations).
#17- (REMOVE) Facilities need to purchase electric vehicles to comply with clean fleet rules. Reports are due every two years until requirements are met. Public hearings will evaluate compliance. Annual reports are required if requirements aren't met by December 31, 2027. After achieving a 100% clean fleet, reports are due every three years. Display signs prohibiting off-site parking and truck idling. Report complaints about dust, fumes, odors, and parking to designated representatives and the air pollution control district. Complaints must be addressed within 72 hours. (SEE MOA FOR FULL TEXT)	No standard is recommended since the California Air Resources Board (CARB) is responsible for regulating manufacturers of EV heavy duty and medium duty vehicles and enforcing state standards for electric vehicle (EV) heavy duty and medium duty fleet compliance requirements.

#14 and #17 Analysis:

Feasibility

Both of these MOA Option A standards are deemed to be infeasible based on the economic, technological, and practical factors discussed below. The California Clean Air Resources Board (CARB) is the responsible state agency for mandating Medium and Heavy-Duty electrical vehicle (EV) fleet conversions throughout the State of California. As concerns over adequate vehicle charging infrastructure being ready to support the implementation of EV fleets, the State entered into agreements with vehicle manufacturers to roll out this technology by certain timelines (by 2035 and later). CARB is currently responsible for monitoring the vehicle manufacturing industry to ensure heavy duty vehicles become more commercially available in the coming future.

MOA #14 would require all heavy-duty trucks domiciled at a warehouse subject to these standards to be zero-emission vehicles by December 31, 2025, or when commercially available. For medium-duty trucks, the requirement has a more structured phasing requirement, with 80 percent of the domiciled fleet to be zero emission by December 31, 2025, and 100 percent by December 31, 2027. MOA #17 provides requirements for reporting and monitoring compliance with MOA #14. There would be administrative costs for reporting, but these costs would be negligible relative to the costs that affect the financial feasibility of warehouse development and warehouse operations.

Electrifying a commercial fleet requires a significant amount of upfront capital investment. Compared to their diesel counterparts, list prices for Class 6 and Class 7 electric trucks can be anywhere from two to three times as much, depending on the manufacturer. PlaceWorks found that a Class 6 diesel truck (cab and chassis only) can cost between $80,000 and $120,000, whereas the equivalent electric model costs between $225,000 and $280,000. A Class 7 diesel truck (cab and chassis only) can cost between $95,000, whereas $140,000 and their electric equivalent can cost between $250,000 and $320,000. The price difference is larger for Class 8 trucks, primarily driven by the limited options currently available on the market. A Class 8 diesel truck (day cab only) costs between $140,000 and $150,000. The equivalent Class 8 electric truck (day cab only) can cost upwards of $525,000, more than three and a half times as much.

Despite the high sticker prices, incentives from local, state, and regional agencies can make upgrading to an electric fleet more feasible. CARB's Hybrid and Zero-Emission Truck and Bus Voucher Program (HVIP) offers vouchers worth $85,000 per Class 6 / 7 truck and $120,000 per Class 8 truck through a formal application process. The San Joaquin Valley Air Pollution Control District (Valley Air District) administers a Standard Truck Replacement Program that offers up to $180,000 for surrendering an eligible Class 6 or 7 truck and up to $410,000 for surrendering an eligible Class 8 truck. In addition, the HVIP and Valley Air District incentives may be stacked but may not exceed 80% of the new vehicle base cost (excluding taxes and fees) for fleets 10 trucks or smaller, or 50% of the new vehicle base cost (excluding taxes and fees) for fleets with more than 10 trucks.

Based on information from Mack Trucks, the added cost to purchase a Class 6 electric truck in lieu of purchasing a diesel truck would be about $137,000 ($225,000 electric truck cost minus the $87,700 diesel truck cost). With the CARB voucher, the difference declines to $52,000, or about a 59.6 percent increase in cost. Stacking the CARB incentive, $85,000, with the Valley Air District incentive, up to $180,000, would cover up to 80 percent of the cost for a warehouse operator for surrendering a Class 6 diesel truck and replacing it with a new Class 6 electric truck. This would bring the cost of the electric truck to about $45,000 or 33 percent of the cost of a new diesel truck. While this may result in cost benefits on an individual basis, the rebates are not guaranteed, and current state and local funding sources are not sufficient to guarantee fully funded fleets. In addition, many facilities rely on outside vendors for distribution purposes and

there is no way to require those vendors to comply with the requirement for the facility. These outside vendors could be coming from outside the region and state and operate equipment that would violate the requirements of the facility for a 100% EV fleet.

Freightliner indicated that the cost for its Class 8 electric truck starts at $525,000. With the CARB $120,000 voucher, the starting cost, $405,000, would exceed the cost for a comparable diesel truck by $255,000 or 170 percent more expensive than the diesel. Stacking the CARB incentive, $120,000, with the Valley Air District incentive, up to $410,000, would cover up to 80 percent of the cost for a warehouse operator for surrendering a Class 6 diesel truck and replacing it with a new Class 6 electric truck. This would bring the cost of the electric truck to about $105,000 or 70 percent of the cost of a new diesel truck.

For both medium duty and light duty trucks, there would be a substantial cost increase to outfit a new warehouse operation with new electric trucks rather than diesel trucks. The extent of this added cost will vary from one operation to the next depending on how many trucks in their fleet would meet the definition of being domiciled at the warehouse facility; however, PlaceWorks was unable to quantify what an expected average number of domiciled trucks would be to estimate a cost.

For standard #17, the City does not have the technological and staffing resources to monitor or review reporting of warehouse operators' fleet mixes to determine compliance. Further, the City is not informed when warehouse ownership or tenants change over time which further makes this impractical to monitor.

Alternative Standards Proposed
Since no other viable or comparable alternative could be found, Staff is proposing the following alternative standard that requires conduits to be installed at building construction to provide for future opportunities to direct electrical power to charge heavy duty trucks at docking stations.

Reduction of Environmental Impacts
The proposed standards in Option B still include enhanced building standards to improve energy efficiency through encouraging alternative fuel use that is either zero or near zero emission vehicles. These improvements help to reduce greenhouse gases and achieve the State's goal for carbon neutrality.

It is important to note that, absent adoption of the ordinance, ministerial projects would not be required to exceed minimum standards, therefore, these standards will lessen environmental impacts for all future projects and align with the state's objectives on reducing greenhouse gases.

MOA# 18 Transport Refrigeration Units (TRUs):

MOA Original Language (Option A)	Proposed Alternative (Option B)

For qualifying facilities at which cold storage and associated transport refrigeration units (TRUs) are proposed or may be a future use, unless the owner of the facility records a covenant on the title of the underlying property ensuring that the property cannot be used to provide cold storage, a conduit shall be installed during construction of the building shell from the electrical room to 100% of the loading dock doors that have potential to serve the refrigerated space. If tenant improvement building permits are issued for any such cold storage space, electric plug-in units shall be installed at every dock door servicing the cold storage space to allow TRUs to plug in and truck operators a with TRUs shall be required to utilize the electric plug-in units when at loading docks serving such refrigerated space.	Where transport by temperature-controlled trucks or trailers is proposed, on-site electrical hookups shall be provided at loading docks. Idling or use of auxiliary truck engine power to power climate-control equipment shall be prohibited.

Analysis:

Feasibility

This MOA Option A standard is deemed infeasible based on the technological and practical factors discussed below. The requirement for electrified TRUs remains, however the requirement to record a covenant on the title of the underlying property to ensure the property cannot be used for cold storage is technologically and practically infeasible for City staff to monitor for warehouse buildings that are not proposing cold storage. Property recordings occur at the County recorder's office which is independent from the City of Stockton. The County Recorder's technology does not have the ability to notify the City of recordings that affect properties in the City. As such, City staff would be unaware if any recorded covenant was removed by a subsequent recording performed by the property owner.

Alternative Standards Proposed

The proposed language removes the covenant requirement. The proposed standard would still require all TRUs onsite to be plugged into electricity thus prohibiting gas powered units onsite. The covenant to prohibit future gas powered TRUs would be redundant as the code would not allow it. Further, the addition of the covenant would require more time and money for the applicant and would not significantly help should a code enforcement case arise from unpermitted gas powered TRUs onsite.

Reduction of Environmental Impacts

No change in impact as the TRU requirement and prohibition of gas powered TRUs would still be in place. Where transport by temperature-controlled trucks or trailers is

proposed, on-site electrical hookups shall be provided at loading docks. Idling or use of auxiliary truck engine power to power climate-control equipment shall be prohibited.

MOA #25: (REMOVE) Development Agreement Monitoring

MOA Original Language (Option A)	Proposed Alternative (Option B)
Every development agreement, approved and executed in conjunction with the applicable warehouse, shall be subject to periodic review of the applicant's/contracting party's compliance with the agreement, by the Commission, during the full term of the agreement, as specified in the agreement, but in no case less frequently than once every 12 months as required per SMC 16.128.110 (Periodic Review). Appropriate fees to cover the City's cost(s) to conduct the periodic reviews in compliance with the Council's fee resolution shall be collected from the applicant/contracting party.	Staff proposes removal. Annual compliance reviews are already required by State Law and the Development Code.

Analysis:

Feasibility

Since State regulation and the Stockton Municipal Code Section 16.112.110 requirements already require conducting annual reviews of Development Agreements, it is not necessary to include a redundant regulation in the proposed Warehouse Ordinance.

Alternative Standards Proposed

Option B proposes removal of the MOA standard, since the State regulation and Stockton Municipal Code Section 16.112.110 requirements already require conducting annual reviews of Development Agreements.

Reduction of Environmental Impacts

No impact as staff will conduct the annual reviews consistent with the MOA.

MOA #26: (REMOVE) Community Engagement

MOA Original Language (Option A)	Proposed Alternative (Option B)
A neighborhood meeting shall be required for one or more discretionary permits for qualifying facility(ies) application requiring Council review. At the discretion of the Director, a neighborhood meeting may be	Staff proposes removal. Conflicts with ministerial reviews and already required for approvals requiring public hearings and annexations.

required for other applications consistent with SMC section 16.88.025 (Neighborhood Meetings).	

Analysis:

Feasibility

Staff currently requires neighborhood meetings for projects that require Council review and public notices sent to all properties within 300 feet of a project for discretionary actions subject to the Brown Act. All submitted projects are Public Record regardless of Ministerial or Discretionary.

Alternative Standards Proposed?

None needed as the City already conducts outreach and notices for project approvals.

Reduction of Environmental Impacts

No impact as staff will conduct neighborhood outreach and noticing consistent with the agreement.

FINDING SUMMARY

The City finds that the Project would have the following environmental and economic benefits:

Feasibility Finding

- Most of the Option A standards have been maintained and included within Option B (Option C discussed in a separate report).
- Option A standards for 10, 11, 12, 13, 14, and 18 have been revised but maintain original components of the Option A request by the MOA. These revisions will exceed current practices and standards for regulating industrial warehouse design and operation.
- Option B proposes to remove three standards (MOA#17, 25, 26) as they are infeasible, conflict with current practices and/or standards, or are achieved by current standards.
- The remaining measures that do not implement the original MOA Option A standards are still consistent with state, local, and best management practices and will automatically correspond with changes in minimum building requirements (CAL Green) and air quality standards adopted by the state, consistent with State Carbon Neutrality objectives. This includes project reviews, applicable construction standards and practices, and monitoring from regional and state agencies.
- If the following MOA standards are applied, Industrial asking lease rates are projected to increase by 64.8 percent.

	Amount	Percentage
Base Asking Lease Rate	**$0.71**	
MOA #10 – Open Space	+ 0.01	1.4
MOA #10 – Dock Seal Doors	+ 0.03	4.2

MOA #11 – 300' Loading Dock Buffer land costs	+ 0.09	12.7
MOA #12 – 300' Landscaped Buffer	+ 0.06	8.5
MOA #13 – Solar/Battery Costs	+ 0.27	38
Increased Asking Lease Rate ($/sq. ft./month)	**$1.17**	**+64.8%**

Alternative Standards Finding

- The adjusted conditions will provide enhanced mitigation for future project review that will lead to greenhouse gas reduction via more energy efficient buildings. The Project includes enhanced designs standards that reduce future impacts from projects. The standards have been designed to be objective and applied to all applicable projects.
- The proposed standards are more agreeable to the development community as many of the original standards in the MOA included measures that were not quantifiable and had many unforeseen impacts as they involved enforcement of standards that have not been established by the state or its enforcement agencies. Some of the standards not included in the Option B standards (#7, 10, 13, 14, 17) require the abundant use of technology that is not in common usage or monitoring that exceeds city staff resources and expertise or conflicts with internal review or noticing processes.

Reduction of Environmental Impacts Finding

- Option B standards exceed the City's current standards and will add enhanced design features to further mitigate future warehouse design and operations.
- The proposed measures are consistent with many General Plan policies for environmental review, enhanced design standards, and balance requirements that do not adversely impact existing industries and property owners in the City.
- The proposed standards are consistent with the provisions of the Municipal Code and do not conflict with other industrial and zoning standards and would supersede any conflicting measure as they are specific to logistic warehouses of a certain size.
- The adjusted conditions will provide enhanced mitigation for future project review that will lead to greenhouse gas reduction via more energy efficient buildings. The Project includes enhanced designs standards that reduce future impacts from projects. The standards have been designed to be objective and applied to all applicable projects.
- The proposed standards are more agreeable to the development community. Many of the original standards in the MOA included measures that were not quantifiable and had many unforeseen impacts as they involved enforcement of standards that have not been established by the state or its enforcement agencies. It also included standards that required technology that is not in common usage or monitoring that exceeded city staff resources and expertise.
- The State and Regional Agencies will continue to enforce stricter climate change requirements regarding air quality, water quality, and building standards. All future projects will have to comply with state and local air quality and climate standards. This includes ministerial projects not subject to CEQA.
- Absent adoption of the ordinance, ministerial projects would not be required to

exceed minimum standards, therefore, these standards will lessen environmental impacts for all future projects and align with the state's objectives on reducing greenhouse gases.