

Appendices

Appendix 5.4-1 GHG Technical Study

Appendices

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GHG Emissions Inventory: Option A Buildout

Construction

Year	MTons Total
2018	3,537
2019	362
2020	96
Total Construction Per Phase	3,995
Total Construction For Phases 1 and 3 - 7*	23,971
Total Construction for Phase 2	1,508
2018	1,001
2019	420
2020	87
Total Construction Amortized Emissions**	25,479
	MTCO ₂ e
	849 MTCO ₂ e/year

*For purposes of this analysis, Phase 1 emissions are also assumed to be representative for Phases 3 through 7 as the planned improvements would be similar. Phase 2 improvements are anticipated to include causeway and bridge/accessway construction and assumes CalEEMod default equipment mix for the Building Construction subphase.

**Total construction emissions are amortized over 30 years per SCAQMD methodology; SCAQMD. 2010, September 28. Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting 15. <http://www.aqmd.gov/ceqa/handbook/GHG/2010/sept28mtg/sept29.html>.

Operation Emissions

Source	Buildout MTons/Year			Net Change from Existing	Net Change from Adopted Plan	Option A Exceeds Adopted Plan?
	Existing - 2017	Adopted Plan	Option A			
Area	0.00915	0.00910	0.00910	-0.00005	0	NA
Energy	16	277	137	121	-140	NA
Mobile	6,500	10,050	4,752	-1,748	-5,298	NA
Waste	16	12	13	-3	1	NA
Water	50	52	52	2	0.18	NA
Campfires	384	688	688	304	0	NA
Amortized Construction Emissions	NA	849	849	849	0	NA
Total All Sectors	6,966	11,928	6,491	-475	-5,438	No

*For purposes of this analysis, it is assumed that buildout of the Adopted Plan would require similar construction activities and intensities as the proposed project.

GHG Emissions Inventory: Option B Buildout

Construction

Year	MTons Total	
2018	3,537	
2019	362	
2020	96	
Total Construction Per Phase	3,995	
Total Construction For Phases 1 and 3 - 7*	23,971	
Total Construction for Phase 2*	1,508	
2018	1,001	
2019	420	
2020	87	
Total Construction Amortized Emissions**	25,479	MTCO ₂ e
	849	MTCO ₂ e/year

*For purposes of this analysis, Phase 1 emissions are also assumed to be representative for Phases 3 through 7 as the planned improvements would be similar. Phase 2 improvements are anticipated to include causeway and bridge/accessway construction and assumes CalEEMod default equipment mix for the Building Construction subphase.

**Total construction emissions are amortized over 30 years per SCAQMD methodology; SCAQMD. 2010, September 28. Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting 15. <http://www.aqmd.gov/ceqa/handbook/GHG/2010/sept28mtg/sept29.html>.

Operation Emissions

Source	Buildout MTons/Year			Net Change from Existing	Net Change from Adopted Plan	Option B Exceeds Adopted Plan?
	Existing - 2017	Adopted Plan	Option B			
Area	0.00915	0.00910	0.00910	-0.00005	0	NA
Energy	16	277	126	110	-151	NA
Mobile	6,500	10,050	4,557	-1,943	-5,493	NA
Waste	16	12	13	-3	1	NA
Water	50	52	52	2	0.18	NA
Campfires	384	688	688	304	0	NA
Amortized Construction Emissions*	NA	849	849	849	0	NA
Total All Sectors	6,966	11,928	6,285	-681	-5,644	No

No

*For purposes of this analysis, it is assumed that buildout of the Adopted Plan would require similar construction activities and intensities as the proposed project.



CLIMATE ACTION PLAN CONSISTENCY CHECKLIST INTRODUCTION

In December 2015, the City adopted a Climate Action Plan (CAP) that outlines the actions that City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions. The purpose of the Climate Action Plan Consistency Checklist (Checklist) is to, in conjunction with the CAP, provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).¹

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The CAP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP.

This Checklist is part of the CAP and contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Implementation of these measures would ensure that new development is consistent with the CAP's assumptions for relevant CAP strategies toward achieving the identified GHG reduction targets. Projects that are consistent with the CAP as determined through the use of this Checklist may rely on the CAP for the cumulative impacts analysis of GHG emissions. Projects that are not consistent with the CAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP.

The Checklist may be updated to incorporate new GHG reduction techniques or to comply with later amendments to the CAP or local, State, or federal law.

¹ Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

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CAP CONSISTENCY CHECKLIST SUBMITTAL APPLICATION

- ❖ The Checklist is required only for projects subject to CEQA review.²
- ❖ If required, the Checklist must be included in the project submittal package. Application submittal procedures can be found in [Chapter 11: Land Development Procedures](#) of the City's Municipal Code.
- ❖ The requirements in the Checklist will be included in the project's conditions of approval.
- ❖ The applicant must provide an explanation of how the proposed project will implement the requirements described herein to the satisfaction of the Planning Department.

Application Information

Contact Information

Project No./Name: _____

Property Address: _____

Applicant Name/Co.: _____

Contact Phone: _____ Contact Email: _____

Was a consultant retained to complete this checklist? ☐ Yes ☐ No If Yes, complete the following

Consultant Name: _____ Contact Phone: _____

Company Name: _____ Contact Email: _____

Project Information

1. What is the size of the project (acres)? _____

2. Identify all applicable proposed land uses:

☐ Residential (indicate # of single-family units): _____

☐ Residential (indicate # of multi-family units): _____

☐ Commercial (total square footage): _____

☐ Industrial (total square footage): _____

☐ Other (describe): _____

3. Is the project or a portion of the project located in a Transit Priority Area? ☐ Yes ☐ No

4. Provide a brief description of the project proposed: _____

² Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.



CAP CONSISTENCY CHECKLIST QUESTIONS

Step 1: Land Use Consistency

The first step in determining CAP consistency for discretionary development projects is to assess the project's consistency with the growth projections used in the development of the CAP. This section allows the City to determine a project's consistency with the land use assumptions used in the CAP.

Step 1: Land Use Consistency		
Checklist Item (Check the appropriate box and provide explanation and supporting documentation for your answer)	Yes	No
A. Is the proposed project consistent with the existing General Plan and Community Plan land use and zoning designations? ³ <u>OR</u> , [INSERT FILLABLE BOX]		
B. If the proposed project is not consistent with the existing land use plan and zoning designations, and includes a land use plan and/or zoning designation amendment, would the proposed amendment result in an increased density within a Transit Priority Area (TPA) and implement CAP Strategy 3 actions, as determined in Step 3 to the satisfaction of the Development Services Department?; <u>OR</u> , [INSERT FILLABLE BOX]	<input type="checkbox"/>	<input type="checkbox"/>
C. If the proposed project is not consistent with the existing land use plan and zoning designations, does the project include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations? [INSERT FILLABLE BOX]		

If **"Yes,"** proceed to Step 2 of the Checklist. For question B above, complete Step 3. For question C above, provide estimated project emissions under both existing and proposed designation(s) for comparison. Compare the maximum buildout of the existing designation and the maximum buildout of the proposed designation.

If **"No,"** in accordance with the City's Significance Determination Thresholds, the project's GHG impact is significant. The project must nonetheless incorporate each of the measures identified in Step 2 to mitigate cumulative GHG emissions impacts unless the decision maker finds that a measure is infeasible in accordance with CEQA Guidelines Section 15091. Proceed and complete Step 2 of the Checklist.

³ This question may also be answered in the affirmative if the project is consistent with SANDAG Series 12 growth projections, which were used to determine the CAP projections, as determined by the Planning Department.

Step 2: CAP Strategies Consistency

The second step of the CAP consistency review is to review and evaluate a project's consistency with the applicable strategies and actions of the CAP. Step 2 only applies to development projects that involve permits that would require a certificate of occupancy from the Building Official or projects comprised of one and two family dwellings or townhouses as defined in the California Residential Code and their accessory structures.⁴ All other development projects that would not require a certificate of occupancy from the Building Official shall implement Best Management Practices for construction activities as set forth in the [Greenbook](#) (for public projects).

Step 2: CAP Strategies Consistency			
Checklist Item (Check the appropriate box and provide explanation for your answer)	Yes	No	N/A
Strategy 1: Energy & Water Efficient Buildings			
<p>1. <i>Cool/Green Roofs.</i></p> <ul style="list-style-type: none"> • Would the project include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under California Green Building Standards Code (Attachment A)?; <u>OR</u> • Would the project roof construction have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code?; <u>OR</u> • Would the project include a combination of the above two options? <p>Check "N/A" only if the project does not include a roof component.</p> <p>[]</p> <p>[]</p> <p>[INSERT FILLABLE BOX]</p> <p>[]</p> <p>[]</p> <p>[]</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

⁴ Actions that are not subject to Step 2 would include, for example: a) discretionary map actions that do not propose specific development, b) permits allowing wireless communication facilities, c) special events permits, d) use permits or other permits that do not result in the expansion or enlargement of a building (e.g., decks, garages, etc.), and e) non-building infrastructure projects such as roads and pipelines. Because such actions would not result in new occupancy buildings from which GHG emissions reductions could be achieved, the items contained in Step 2 would not be applicable.

2. *Plumbing fixtures and fittings*

With respect to plumbing fixtures or fittings provided as part of the project, would those low-flow fixtures/appliances be consistent with each of the following:

Residential buildings:

- Kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi;
- Alternate nonpotable water sources are used for indoor potable water reduction and installed per A4.303.2 of the California Green Building Standards Code and the California Plumbing Code;
- At least one qualified ENERGY STAR dishwasher or clothes washer is installed per A4.303.3 of the California Green Building Standards Code;
- Nonwater supplied urinals or waterless toilets are installed per A4.303.4 of the California Green Building Standards Code; and
- One- and two-family dwellings are be equipped with a demand hot water recirculation system per A4.303.5 of the California Green Building Standards Code?

☐☐☐

Nonresidential buildings:

- Plumbing fixtures and fittings that do not exceed the maximum flow rate specified in [Table A5.303.2.3.1 \(voluntary measures\) of the California Green Building Standards Code](#) (See Attachment A); and
- Appliances and fixtures for commercial applications that meet the provisions of [Section A5.303.3 \(voluntary measures\) of the California Green Building Standards Code](#) (See Attachment A)?

Check "N/A" only if the project does not include any plumbing fixtures or fittings.

[REDACTED]

[REDACTED]

[INSERT FILLABLE BOX]

[REDACTED]

[REDACTED]

[REDACTED]

Strategy 2: Clean & Renewable Energy

3. Energy Performance Standard / Renewable Energy

Is the project designed to have an energy budget that meets the following performance standards when compared to the Title 24, Part 6 Energy Budget for the Standard Design Building as calculated by [Compliance Software certified by the California Energy Commission](#) (percent improvement over current code):

- Low-rise residential – 85% of the Title 24, Part 6 Energy Budget or 15% reduction from the Standard Design Building?
- Nonresidential with indoor lighting OR mechanical system, but not both – 95% of the Title 24, Part 6 Energy Budget or 5% reduction from the Standard Design Building?
- Nonresidential with both indoor lighting AND mechanical systems – 90% of the Title 24, Part 6 Energy Budget or 10% reduction from the Standard Design Building?⁵

The demand reduction may be provided through on-site renewable energy generation, such as solar, or by designing the project to have an energy budget that meets the above-mentioned performance standards, when compared to the Title 24, Part 6 Energy Budget for the Proposed Design Building (percent improvement over current code).

Note: For Energy Budget calculations, high-rise residential and hotel/motel buildings are considered non-residential buildings.

Check “N/A” only if the project does not contain any residential or non-residential buildings.

[REDACTED]

[REDACTED]

[INSERT FILLABLE BOX]

[REDACTED]

[REDACTED]

[REDACTED]



⁵ CALGreen defines mechanical systems as equipment, appliances, fixtures, fittings and/or appurtenances, including ventilating, heating, cooling, air-conditioning and refrigeration systems, incinerators and other energy-related systems.

Strategy 3: Bicycling, Walking, Transit & Land Use

4. Electric Vehicle Charging

- Multiple-family projects of 17 dwelling units or less: Would 5% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide electric vehicle charging stations at such time as it is needed for use by residents?
- Multiple-family projects of more than 17 dwelling units: Would 5% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official? Of the total listed cabinets, boxes or enclosures provided, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents?
- Non-residential projects: If the project includes new commercial, industrial, or other uses with the building or land area, capacity, or numbers of employees listed in Attachment A, would 6% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official? Of the total listed cabinets, boxes or enclosures provided, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use?

Check "N/A" only if the project is does not include new commercial, industrial, or other uses with the building or land area, capacity, or numbers of employees listed in Attachment A.

[REDACTED]

[REDACTED]

[INSERT FILLABLE BOX]

[REDACTED]

[REDACTED]

[REDACTED]

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Strategy 3: Bicycling, Walking, Transit & Land Use

(Complete this section if project includes non-residential or mixed uses)

5. Bicycle Parking Spaces

Would the project provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code ([Chapter 14, Article 2, Division 5](#))?⁶

Check "N/A" only if the project is a residential project.

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[INSERT FILLABLE BOX]

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☐☐☐**6. Shower facilities**

If the project includes nonresidential development that would accommodate over 10 tenant occupants (employees), would the project include changing/shower facilities in accordance with the voluntary measures under the [California Green Building Standards Code](#) as shown in the table below?

Number of Tenant Occupants (Employees)	Shower/Changing Facilities Required	Two-Tier (12" X 15" X 72") Personal Effects Lockers Required
0-10	0	0
11-50	1 shower stall	2
51-100	1 shower stall	3
101-200	2 shower stalls	4
Over 200	2 shower stalls plus 2 additional shower stall for each 200 additional tenant-occupants	1 two-tier locker plus 1 two-tier locker for each 50 additional tenant-occupants

Check "N/A" only if the project is a residential project, or if it does not include nonresidential development that would accommodate over 10 tenant occupants (employees).

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[INSERT FILLABLE BOX]

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⁶ Non-portable bicycle corrals within 600 feet of project frontage can be counted towards the project's bicycle parking requirements.

7. *Designated Parking Spaces*

If the project includes nonresidential use, would the project provide designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles in accordance with the following table?

Number of Nonresidential Parking Spaces Required by the Permit	Number of Designated Parking Spaces
0-9	0
10-25	2
26-50	4
51-75	6
76-100	9
101-150	11
151-200	18
201 and over	At least 10% of total

This measure does not cover electric vehicles. See Question 4 for electric vehicle parking requirements.

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces. The required designated parking spaces are to be provided within the overall minimum parking requirement, not in addition to it.

Check "N/A" only if the project is a residential project.

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[INSERT FILLABLE BOX]

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<p>8. <i>Transportation Demand Management Program</i></p> <p>If the project would accommodate over 50 tenant-occupants (employees), would it include a transportation demand management program that would be applicable to existing tenants and future tenants that includes:</p> <p>At least one of the following components:</p> <ul style="list-style-type: none"> • Parking cash out program • Parking management plan that includes charging employees market-rate for single-occupancy vehicle parking and providing reserved, discounted, or free spaces for registered carpools or vanpools • Unbundled parking whereby parking spaces would be leased or sold separately from the rental or purchase fees for the development for the life of the development <p>And at least three of the following components:</p> <ul style="list-style-type: none"> • Commitment to maintaining an employer network in the SANDAG iCommute program and promoting its RideMatcher service to tenants/employees • On-site carsharing vehicle(s) or bikesharing • Flexible or alternative work hours • Telework program • Transit, carpool, and vanpool subsidies • Pre-tax deduction for transit or vanpool fares and bicycle commute costs • Access to services that reduce the need to drive, such as cafes, commercial stores, banks, post offices, restaurants, gyms, or childcare, either onsite or within 1,320 feet (1/4 mile) of the structure/use? <p>Check "N/A" only if the project is a residential project or if it would not accommodate over 50 tenant-occupants (employees).</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[INSERT FILLABLE BOX]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Step 3: Project CAP Conformance Evaluation (if applicable)

The third step of the CAP consistency review only applies if Step 1 is answered in the affirmative under option B. The purpose of this step is to determine whether a project that is located in a TPA but that includes a land use plan and/or zoning designation amendment is nevertheless consistent with the assumptions in the CAP because it would implement CAP Strategy 3 actions. In general, a project that would result in a reduction in density inside a TPA would not be consistent with Strategy 3. The following questions must each be answered in the affirmative and fully explained.

1. Would the proposed project implement the General Plan's City of Villages strategy in an identified Transit Priority Area (TPA) that will result in an increase in the capacity for transit-supportive residential and/or employment densities?

Considerations for this question:

- Does the proposed land use and zoning designation associated with the project provide capacity for transit-supportive residential densities within the TPA?
- Is the project site suitable to accommodate mixed-use village development, as defined in the General Plan, within the TPA?
- Does the land use and zoning associated with the project increase the capacity for transit-supportive employment intensities within the TPA?

2. Would the proposed project implement the General Plan's Mobility Element in Transit Priority Areas to increase the use of transit?

Considerations for this question:

- Does the proposed project support/incorporate identified transit routes and stops/stations?
- Does the project include transit priority measures?

3. Would the proposed project implement pedestrian improvements in Transit Priority Areas to increase walking opportunities?

Considerations for this question:

- Does the proposed project circulation system provide multiple and direct pedestrian connections and accessibility to local activity centers (such as transit stations, schools, shopping centers, and libraries)?
- Does the proposed project urban design include features for walkability to promote a transit supportive environment?

4. Would the proposed project implement the City of San Diego's Bicycle Master Plan to increase bicycling opportunities?

Considerations for this question:

- Does the proposed project circulation system include bicycle improvements consistent with the Bicycle Master Plan?
- Does the overall project circulation system provide a balanced, multimodal, "complete streets" approach to accommodate mobility needs of all users?

5. Would the proposed project incorporate implementation mechanisms that support Transit Oriented Development?

Considerations for this question:

- Does the proposed project include new or expanded urban public spaces such as plazas, pocket parks, or urban greens in the TPA?
- Does the land use and zoning associated with the proposed project increase the potential for jobs within the TPA?
- Do the zoning/implementing regulations associated with the proposed project support the efficient use of parking through mechanisms such as: shared parking, parking districts, unbundled parking, reduced parking, paid or time-limited parking, etc.?

6. Would the proposed project implement the Urban Forest Management Plan to increase urban tree canopy coverage?

Considerations for this question:

- Does the proposed project provide at least three different species for the primary, secondary and accent trees in order to accommodate varying parkway widths?
- Does the proposed project include policies or strategies for preserving existing trees?
- Does the proposed project incorporate tree planting that will contribute to the City's 20% urban canopy tree coverage goal?



CLIMATE ACTION PLAN CONSISTENCY CHECKLIST ATTACHMENT A

This attachment provides performance standards for applicable Climate Action Plan (CAP) Consistency Checklist measures.

Table 1 Roof Design Values for Question 1: Cool/Green Roofs supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan				
Land Use Type	Roof Slope	Minimum 3-Year Aged Solar Reflectance	Thermal Emittance	Solar Reflective Index
Low-Rise Residential	≤ 2:12	0.63	0.75	75
	> 2:12	0.20	0.75	16
High-Rise Residential Buildings, Hotels and Motels	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
Non-Residential	≤ 2:12	0.63	0.75	75
	> 2:12	0.20	0.75	16
<p>Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 residential and non-residential voluntary measures shown in Tables A4.106.5.1 and A5.106.11.2.2, respectively. Roof installation and verification shall occur in accordance with the CALGreen Code.</p> <p>CALGreen does not include recommended values for low-rise residential buildings with roof slopes of ≤ 2:12 for San Diego's climate zones (7 and 10). Therefore, the values for climate zone 15 that covers Imperial County are adapted here.</p> <p>Solar Reflectance Index (SRI) equal to or greater than the values specified in this table may be used as an alternative to compliance with the aged solar reflectance values and thermal emittance.</p>				

Table 2 Fixture Flow Rates for Non-Residential Buildings related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan

Fixture Type	Maximum Flow Rate
Showerheads	1.8 gpm @ 80 psi
Lavatory Faucets	0.35 gpm @60 psi
Kitchen Faucets	1.6 gpm @ 60 psi
Wash Fountains	1.6 [rim space(in.)/20 gpm @ 60 psi]
Metering Faucets	0.18 gallons/cycle
Metering Faucets for Wash Fountains	0.18 gallons/cycle 20 [rim space(in.) @ 60 psi]
Gravity Tank-type Water Closets	1.12 gallons/flush
Flushometer Tank Water Closets	1.12 gallons/flush
Flushometer Valve Water Closets	1.12 gallons/flush
Electromechanical Hydraulic Water Closets	1.12 gallons/flush
Floor-mounted Urinals or Wall-mounted Urinals	0.44 or 0.11 gallons/flush

Source: Adapted from the [California Green Building Standards Code](#) (CALGreen) Tier 1 non-residential voluntary measures shown in Tables A5.303.2.3.1 and A5.106.11.2.2, respectively. See the [California Plumbing Code](#) for definitions of each fixture type.

Where complying faucets are unavailable, aerators rated at 0.35 gpm or other means may be used to achieve reduction.

Acronyms:

gpm = gallons per minute

psi = pounds per square inch (unit of pressure)

in. = inch

Table 3 Standards for Appliances and Fixtures for Commercial Application related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan

Appliance/Fixture Type	Standard	
Clothes Washers	Maximum Water Factor (WF) that will reduce the use of water by 10 percent below the California Energy Commissions' WF standards for commercial clothes washers located in Title 20 of the <i>California Code of Regulations</i> .	
Single Tank Conveyor Dishwashers	0.70 maximum gallons per rack (2.6 L) (High-Temperature)	0.79 maximum gallons per rack (4.4 L) (Low-Temperature)
Multiple Tank Conveyor Dishwashers	0.54 maximum gallons per rack (2 L) (High-Temperature)	0.54 maximum gallons per rack (2 L) (Low-Temperature)
Stationary Single Tank Door Dishwashers	0.89 maximum gallons per rack (3.4 L) (High-Temperature)	1.18 maximum gallons per rack (4.5 L) (Low-Temperature)
Undercounter-type Dishwashers	0.86 maximum gallons per rack (3.3 L) (High-Temperature)	1.19 maximum gallons per rack (4.5 L) (Low-Temperature)
Pot, Pan, and Utensil Dishwashers	0.58 maximum gallons per square foot of rack	
Single Tank Flight Type Dishwashers	$GPH \leq 2.975x + 55.00$	
Multiple Tank Flight Type Dishwashers	$GPH \leq 4.96x + 17.00$	
Combination Ovens	Consume no more than 1.5 gallons per hour per pan, including condensate water.	
Commercial Pre-rinse Spray Valves (manufactured on or after January 1, 2006)	Function at equal to or less than 1.6 gallons per minute (0.10 L/s) at 60 psi (414 kPa) and <ul style="list-style-type: none"> • Be capable of cleaning 60 plates in an average time of not more than 30 seconds per plate. • Be equipped with an integral automatic shutoff. • Operate at static pressure of at least 30 psi (207 kPa) when designed for a flow rate of 1.3 gallons per minute (0.08 L/s) or less. 	

Source: Adapted from the [California Green Building Standards Code](#) (CALGreen) Tier 1 non-residential voluntary measures shown in Section A5.303.3. See the [California Plumbing Code](#) for definitions of each appliance/fixture type.

Acronyms:

L = liter

GPH = gallons per hour

X = square feet of conveyor belt/minute (max conveyor speed sf/min as tested and certified to NSF/ANSI Standard 3)

L/h = liters per hour

L/s = liters per second

psi = pounds per square inch (unit of pressure)

kPa = kilopascal (unit of pressure)

Table 4 Size-based Trigger Levels for Electric Vehicle Charging Requirements for Non-Residential Buildings related to Question 4: Electric Vehicle Charging supporting Strategy 3: Bicycling, Walking, Transit & Land Use of the Climate Action Plan

Land Use Type	Size-based Trigger Level
Hospital	500 or more beds OR Expansion of a 500+ bed hospital by 20%
College	3,000 or more students OR Expansion of a 3,000+ student college by 20%
Hotels/Motels	500 or more rooms
Industrial, Manufacturing or Processing Plants or Industrial Parks	1,000 or more employees OR 40 acres or more of land area OR 650,000 square feet or more of gross floor area
Office buildings or Office Parks	1,000 or more employees OR 250,000 square feet or more of gross floor area
Shopping centers or Trade Centers	1,000 or more employees OR 500,000 square feet or more of gross floor area
Sports, Entertainment or Recreation Facilities	Accommodate at least 4,000 persons per performance OR Contain 1,500 or more fixed seats
Transit Projects (including, but not limited to, transit stations and park and ride lots).	All

Source: Adapted from the Governor's Office of Planning and Research's (OPR's) [Model Building Code for Plug-In Electric Vehicle Charging](#)