

***Technical Memorandum:
GREENHOUSE GAS EMISSIONS***

*Kaiser Permanente Riverside Medical Center
Expansion Project*

The expanded facilities and uses would consist of a new, approximately 296,000-square-foot, five-story hospital tower, a new two-story diagnostic and treatment (D&T) building, a multi-story 1,200-stall aboveground parking structure, and upgrades to the existing central utility plant. The project would also include ancillary features such as a new patient drop-off canopy, driveways, walkways, surface parking, landscaping, lighting, and signage.

Existing Conditions

The existing Medical Center is situated on approximately 37.5 acres and includes four main buildings located in the center of the site. The existing buildings are surrounded by surface parking lots and one parking structure to the north (see [Figure 3, Conceptual Site Plan](#)).

The existing Medical Center is comprised of four Medical Office Buildings (MOB) located in the center of the site and surrounded by surface parking lots, and one parking structure to the north; refer to [Table 1, Existing Building Dimensions](#). The existing facilities contain 226 hospital beds, including 51 single occupancy rooms, 78 double occupancy rooms, and 19 NICU rooms. In total, the existing Medical Center currently contains 2,556 parking stalls on-site (1,994 standard stalls, 377 compact, 169 (Americans with Disabilities Act [ADA] compliant, and 16 van spaces). An existing parking structure is located in the northeast portion of the existing Medical Center campus; refer to [Table 2, Existing Parking](#). There are a total of eight electric vehicle (EV) charging stations, two of which are ADA accessible. The existing site has one bicycle rack at the back of the existing employee parking lot.

Table 1, Existing Building Dimensions

Building	Sq. Footage	# of Floors	Height		Beds	Parking Requirements	
			Roof	Screen		Multiplier	Stalls
MOB 1	402,909	5	70'-10"	93'-6"	226	1 per Bed	226
						1 per 180 SF	219
						1 per 180 SF	174
MOB 2	220,000	5	70'-10"	93'-6"	0	1 per 180 SF	1,222
MOB 3	88,000	3	43'-0"	N/A	0	1 per 180 SF	489
MOB 4	6,027	1	15'-0"	N/A	0	1 per 180 SF	34
Total	716,936						2,364

Table 2, Existing Parking

Type	# of Decks	Height	Parking Stalls
Structure	4	38'-6" Top of Parapet	700
Surface	N/A	N/A	1,856
		Total	2,556

The existing Medical Center supports an operational staff of approximately 3,097 full-time employees and generates approximately 2,521 patient visitors per day.

The Medical Center is accessed through five existing driveways. There are two full-access driveways off of Park Sierra Drive, two full-access driveways from Polk Street, and one right-in and right-out driveway off of Magnolia Avenue.

The majority of off-site staging areas are situated on previously developed land that has since been cleared and graded (see [Figure 1, Regional Map](#)). Invasive weeds and other plants have taken root in permeable surfaces and are dispersed intermittently across the staging area parcels. Staging Area 2 [APN 143-180-032] is developed as a paved parking lot with landscaping.

Table 3, Membership Characteristics, provides additional information on the Kaiser Permanente Riverside Hospital and local service area in relation to the surrounding hospital network.

Table 3, Membership Characteristics

City of Riverside	
Average Distance to Nearest KP Facility	4.8 miles
Average Drive Time to Nearest KP Facility	9.9 minutes
County of Riverside (excluding Coachella Valley)	
Average Distance to Nearest KP Facility	6.8 miles
Average Drive Time to Nearest KP Facility	12 minutes
Additional Membership Information	
23% of members in Riverside County (excluding Coachella Valley) live in the City of Riverside	
10% of members in Southern California live in Riverside County (excluding Coachella Valley)	
Coachella Valley accounts for 1% of SoCal membership and 8% of Riverside County membership	

Proposed Project Characteristics

Hospital Tower and D&T Building

The proposed tower would be five stories with a subgrade basement. The proposed power would stand 74.5 feet from ground level to the top of the roof. However, mechanical equipment on the roof would be screened by a parapet and screen which would result in a total building height of 89.5 feet. The proposed tower would provide an additional 152 acute care beds, consisting of 116 single occupancy rooms and 36 NICU rooms. The proposed tower would also include new emergency and surgical departments, 8 operating rooms, 58 emergency department treatment bays, and other hospital related functions, including an inpatient pharmacy. A rotunda connecting the new tower to the existing Medical Center and various outdoor seating areas with meandering pathways and landscaping would also be constructed (see [Figure 3, Conceptual Site Plan](#)).

The D&T building would be two stories, approximately 34 feet tall to the parapet top, and constructed adjacent to the northwestern side of the proposed hospital tower. The D&T building would provide direct support to the new emergency and surgical departments as well as expanded diagnostic services and interventional radiology treatment. Upgrades to the existing central utility plant and utility connections from the central utility plant to the new buildings would also be required.

Parking Facilities

As part of the proposed project, a new parking structure with five stories and rooftop parking would be constructed in the southeast corner of the project site. The maximum proposed height of the parking structure would be 70 feet above the ground surface. The parking structure would include approximately 2,500 square feet of interior office space. The parking structure would be constructed over an existing parking lot and modifications would be made to some of the on-site surface parking lots. In total, 1,200 new parking spaces are proposed. All parking would be provided in conformance with City parking regulations and with respect for the site being in a transit priority area.

Existing Medical Center Modifications

As part of the proposed project, the 19 NICU beds at the existing Medical Center would be delicensed and the area would remain as expanded inpatient services for the labor and delivery department.

Sustainability and Energy-Saving Features

In accordance with Kaiser Permanente's long-term environmental stewardship goals, the proposed facilities would be constructed in accordance with the rating system and performance standards to achieve a minimum of Gold certification under the Leadership in Energy and Environmental Design (LEED) Program. The LEED rating system and certification was developed by the US Green Building Council and serves as a guide for the design, construction, and operation of sustainable green buildings. Buildings are awarded points for environmentally significant practices and sustainable features.

Because the LEED certification program does not include parking structures, the proposed parking structure would be designed and constructed in accordance with the rating system and performance standards for certification under the Green Garage Certification Program, which is the parking industry's equivalent of LEED certification, provided by the Green Parking Council, an affiliate of the International Parking Institute.

The project would also be designed to meet or exceed requirements of the most current version of the Title 24 and CALGreen Building Codes. Energy-saving features incorporated into the proposed development are anticipated to include drought-tolerant landscaping, low water and recycled water irrigation systems, energy-saving lighting, mechanical systems, low-flow plumbing fixtures and fittings, and transportation-related sustainability features, such as EV charging stations and bicycle facilities.

Transportation Demand Management Plan

A transportation demand management (TDM) plan would be developed for the project to identify feasible strategies that result in a more efficient use of transportation resources to help relieve traffic congestion, parking demand, and transportation-related air emissions. The TDM plan would guide the efficient use of the existing transportation system and confirm that the transportation-related sustainability features proposed for the project are designed to maximize sustainable transportation usage. The TDM plan would identify different services, facilities, and actions that combined would result in a reduction of single-occupant vehicle trips and/or emissions. These measures may include employee incentives for rideshare or use of public transportation, EV charging stations, and bicycle facilities.

Operations

The proposed project would result in the addition of 152 new beds requiring the support of an operational staff of approximately 746 full-time employees. The employees would work in three shifts: day, evening, and night. The day shift supports approximately 439 employees, evening shift approximately 89 employees, and night shift approximately 218 employees. The expanded facilities would generate approximately 535 additional patient visitors per day.

Utilities

Water

Public water service would be provided by the City's public water system via connection to existing pipelines on Magnolia Avenue. Waterline and storage upgrades are not required to supply water to the project as the existing water system has adequate capacity to serve the project.

Sewer

Wastewater treatment for the project would be provided by the City. The proposed project would connect to an existing 21-inch sewer line located on Magnolia Avenue. Expansion or improvements to the City's sewer system is not required as the existing sewer system has adequate capacity to serve the project.

Stormwater Facilities

The proposed project area is predominantly paved in its existing condition. Approximately 10 percent of the total site would be landscaped. The proposed project would maintain existing on-site drainage patterns and be designed to utilize LID bioretention and biotreatment BMPs and landscaping features to redirect, capture, and treat surface runoff from new development prior to entering the existing storm drain system in Park Sierra Street and Magnolia Avenue. Roof runoff from new buildings would drain into landscaped areas prior to entering the existing storm drain system. No increase in stormwater runoff is anticipated with the implementation of the proposed project and no off-site improvements to the existing stormwater system would be required.

Electricity

Riverside Public Utilities currently provides electrical services to the project site. All electrical lines would be undergrounded and would connect to existing connections at the corner of Magnolia Avenue and Polk Street.

Construction**Construction Phases and Schedule**

Project construction would occur over an approximate 58-month time frame in two major build phases comprising seven subphases. Construction of the proposed project has two major phases: one for the parking structure and the other for the new hospital tower and D&T building. [Table 4, Construction Phases](#), describes the activities undertaken in each of the two major construction phases and seven subphases.

Table 4, Construction Phases

Phase	Description	Activities	Construction Duration (Months)
Phases 1-3	Make Ready – Parking Structure	Phases 1 and 2 include reconfiguring the existing hospital ambulance driveway and hospital patient drop-off area. A temporary patient drop-off canopy for the hospital and a new patient drop-off area for MOB 2 will be constructed as part of Phase 2. Following the opening of the new patient drop-off areas, parking reconfiguration and restriping of the ADA parking spots south of MOB 3 and MOB 2 patient drop-off area would be performed as part of Phase 3.	6
Phase 4	Parking Structure	Phase 4 would involve establishing parking structure laydown areas, demolition of existing surface parking, grading, construction of the cast-in-place concrete building structure, construction of the interior 2,500 square feet of office space on the first level, and exterior screening elements.	12
Phase 5	New Ambulance Driveway	Phase 5 involves the reconfiguration of the existing hospital ambulance egress and the construction of the new emergency vehicle driveway that will provide access from Magnolia Avenue.	4
Phases 6-7	New Hospital Tower, D&T Building and Entry Plaza Construction	Phases 6 and 7 involve construction of the new hospital tower and correlating interior and exterior site work, D&T building, upgrades to the existing central utility plant, utility connections from the central utility plant to the new hospital tower and undergrounding of existing aboveground utilities, construction of a new patient entry and drop-off canopy, reconfigured driveways, and landscaping.	36

The construction sequences would be as follows: demolition and grading, underground utility work, construction of building structure, interior buildout, exterior façade work, and final site work such as paving, coating, finishing, and/or landscaping. Construction equipment would be delivered to the site on low-bed trucks (e.g., on boom trucks) unless the equipment can be driven to the site. All construction equipment and materials would be stored on-site in designated staging and laydown areas.

It is anticipated that the work would be completed between the hours of 7:00 a.m. and 7:00 p.m. on weekdays and between the hours 8:00 a.m. and 5:00 p.m. on Saturdays in accordance with the construction time limitations in the City’s Municipal Code Section 7.35.020(G).

Earthwork and Grading

The majority of earthwork would be required during the construction of the basement for the new hospital tower. The total depth of excavation for the basement construction is anticipated to be up to 20 feet below the existing ground surface. Project earthwork would require approximately 70,650 cubic yards of cut and 18,500 cubic yards of fill; thus, approximately 52,150 cubic yards of soil export would be required. The demolished material would be disposed of at an approved landfill facility approximately 5 miles from the project site and the exported soil would be dumped at an approved landfill facility approximately 17 miles from the project site.

Grading would be accomplished with scrapers, motor graders, water trucks, dozers, and compaction equipment. Building materials would be off-loaded and installed using small cranes, boom trucks, forklifts, rubber-tired loaders, rubber-tired backhoes, and other small- to medium-sized construction equipment as needed.

Demolition and New Construction

Demolition and construction would be accomplished with cranes, dozers, and other heavy equipment. Waste materials would be uploaded onto large trucks using small cranes, forklifts, and other construction equipment as needed. Pile driving would not be required for new building construction.

ENVIRONMENTAL SETTING

The natural process through which heat is retained in the troposphere is called the “greenhouse effect.”¹ The greenhouse effect traps heat in the troposphere through a threefold process as follows: Short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHG in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This “trapping” of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

The most abundant GHGs are water vapor and carbon dioxide (CO₂). Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful. For this reason, and to gauge the potency of GHGs, scientists have established a Global Warming Potential (GWP) for each GHG based on its ability to absorb and re-radiate long wave radiation. GHGs normally associated with development projects include the following:²

Water Vapor (H₂O). Although water vapor has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect. Natural processes, such as evaporation from oceans and rivers, and transpiration from plants, contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively. The primary human related source of water vapor comes from fuel combustion in motor vehicles; however, it does not contribute a significant amount (less than one percent) to atmospheric concentrations of water vapor. The Intergovernmental Panel on Climate Change (IPCC), which is a United Nations body for assessing the science related to climate change, has not determined a GWP for water vapor.

Carbon Dioxide (CO₂). Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years,

¹ The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth’s surface to 10 to 12 kilometers.

² All GWPs are given as 100-year GWP. Generally, GWPs were obtained from the Intergovernmental Panel on Climate Change (IPCC) *Fourth Assessment Report* (AR4), with the addition of GWPs from the IPCC’s *Fifth Assessment Report* for fluorinated GHGs that did not have GWPs in the AR4.

CO₂ emissions from fossil fuel combustion increased by a total of 3.7 percent between 1990 and 2018.³ CO₂ is the most widely emitted GHG and is the reference gas (GWP of 1) for determining GWPs for other GHGs.

Methane (CH₄). Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. The United States' top three methane sources are landfills, natural gas systems, and enteric fermentation. Methane is the primary component of natural gas, used for space and water heating, steam production, and power generation. The GWP of methane is 25.

Nitrous Oxide (N₂O). Nitrous oxide is produced by both natural and human related sources. Primary human related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. The GWP of nitrous oxide is 298.

Hydrofluorocarbons (HFCs). Typically used as refrigerants for both stationary refrigeration and mobile air conditioning, use of HFCs for cooling and foam blowing is increasing, as the continued phase out of chlorofluorocarbons (CFCs) and HCFCs gains momentum. The 100-year GWP of HFCs range from 12 for HFC-161 to 14,800 for HFC-23.

Perfluorocarbons (PFCs). PFCs are compounds consisting of carbon and fluorine and are primarily created as a byproduct of aluminum production and semiconductor manufacturing. PFCs are potent GHGs with a GWP several thousand times that of CO₂, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years). The GWP of PFCs range from 7,390 to 12,200.

Sulfur hexafluoride (SF₆). SF₆ is a colorless, odorless, nontoxic, nonflammable gas. SF₆ is the most potent GHG that has been evaluated by the IPCC with a GWP of 22,800. However, its global warming contribution is not as high as the GWP would indicate due to its low mixing ratio compared to CO₂ (4 parts per trillion [ppt] in 1990 versus 365 ppm, respectively).

In addition to the six major GHGs discussed above (excluding water vapor), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances were previously identified as stratospheric ozone (O₃) depletors; therefore, their gradual phase out is currently in effect. The following is a listing of these compounds:

Hydrochlorofluorocarbons (HCFCs). HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the Montreal Protocol are subject to a consumption cap and gradual phase out of HCFCs. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year GWPs of HCFCs range from 77 for HCFC-123 to 2,310 for HCFC-142b.

1,1,1 trichloroethane. 1,1,1 trichloroethane or methyl chloroform is a solvent and degreasing agent commonly used by manufacturers. The GWP of methyl chloroform is 146 times that of CO₂.

Chlorofluorocarbons (CFCs). CFCs are used as refrigerants, cleaning solvents, and aerosols spray propellants. CFCs were also part of the U.S. Environmental Protection Agency's (EPA) Final Rule (57 Federal Register [FR] 3374) for the phase out of O₃ depleting substances. Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents. Nevertheless, CFCs

³ United States Environmental Protection Agency, *Inventory of United States Greenhouse Gas Emissions and Sinks 1990 to 2018*, 2020, <https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf>, accessed February 24, 2021.

remain suspended in the atmosphere contributing to the greenhouse effect. CFCs are potent GHGs with 100-year GWPs ranging from 4,750 for CFC-11 to 14,400 for CFC-13.

REGULATORY SETTING

Federal

To date, no national standards have been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007. The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S. Environmental Protection Agency Endangerment Finding. The U.S. Environmental Protection Agency's (EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO₂, CH₄, N₂O, hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF₆]) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

Presidential Executive Order 13783. Presidential Executive Order 13783, Promoting Energy Independence and Economic Growth (March 28, 2017), orders all federal agencies to apply cost-benefit analyses to regulations of GHG emissions and evaluations of the social cost of carbon, nitrous oxide, and methane.

State

Various statewide and local initiatives to reduce the State's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;

- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (Cal/EPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary also submits biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of Cal/EPA created the California Climate Action Team, made up of members from various State agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through State incentive and regulatory programs. Since 2016, the team's progress has been tracked annually through the Climate Action Team Report Card, and the most recent Report Card documents reductions of 76 MMTCO₂e that occurred in 2019.

Executive Order S-13-08. Executive Order S-13-08 seeks to enhance the State's management of climate impacts including sea level rise, increased temperatures, shifting precipitation, and extreme weather events by facilitating the development of the State's first climate adaptation strategy. This Executive Order requires development of climate adaptation strategies and results in consistent guidance from experts on how to address climate change impacts in the State of California.

Assembly Bill 1493. AB 1493 (also known as the Pavley Bill) requires that CARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHG emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State." To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) in 2004 by adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 and adoption of 13 CCR Section 1961.1 require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty weight classes for passenger vehicles (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily to transport people), beginning with the 2009 model year. Emissions limits are reduced further in each model year through 2016. The near-term standards were intended to achieve a reduction of about 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term standards were intended to achieve a reduction of about 30 percent.

Assembly Bill 32 (California Global Warming Solutions Act of 2006). The California Legislature passed the California Global Warming Solutions Act of 2006 (AB 32; *California Health and Safety Code* Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Senate Bill 32 (SB 32). Signed into law on September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15, which established an interim statewide GHG reduction target of 40 percent below 1990 levels by 2030. The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

Executive Order S-1-07. Executive Order S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least ten percent by 2020. This order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32. The development of the 2017 Scoping Plan Update has identified the LCFS as a regulatory measure to reduce GHG emissions to meet the 2030 emissions target. In calculating statewide emissions and targets, the 2017 Scoping Plan Update has assumed the LCFS be extended to an 18-percent reduction in carbon intensity beyond 2020. On September 27, 2018, CARB approved a rulemaking package that amended the Low Carbon Fuel Standard to relax the 2020 carbon intensity reduction from 10 percent to 7.5 percent and to require a carbon intensity reduction of 20 percent by 2030.

Senate Bill 100 (SB 100). As an update of the California's Renewables Portfolio Standard (RPS), SB 100 (Chapter 312, Statutes of 2018) requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt-hours (kWh) of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, 60 percent by December 31, 2030, and 100 percent by December 31, 2045. The bill requires the California Public Utilities Commission (CPUC), CEC, state board, and all other state agencies to incorporate that policy into all relevant planning. In addition, SB 100 requires the CPUC, CEC, and state board to utilize programs authorized under existing statutes to achieve that policy and, as part of a public process, issue a joint report to the Legislature by January 1, 2021, and every 4 years thereafter, that includes specified information relating to the implementation of the policy.

CARB Scoping Plan. On December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap to achieve the California GHG reductions required by AB 32 through subsequently enacted regulations. CARB's Scoping Plan contains the main strategies California would implement to reduce the projected 2020 "Business-as-Usual" (BAU) emissions to 1990 levels, as required by AB 32. These strategies are intended to reduce CO₂e emissions by 174 million metric tons. This reduction of 42 million metric tons carbon dioxide equivalent (MTCO₂e), or almost ten percent from 2002 to 2004 average emissions, would be required despite the population and economic growth forecasted through 2020.

CARB's Scoping Plan calculated 2020 BAU emissions as those expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, commercial and residential, industrial, etc.). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. When CARB's Scoping Plan process was initiated, 2004 was the most recent year for which actual data was available. The measures described in CARB's Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32.

AB 32 requires CARB to update the Scoping Plan at least once every five years. CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes recent science related to climate change, including anticipated impacts to California and the levels of GHG reduction necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The Scoping Plan update also looks beyond 2020 toward the 2050 goal, established in Executive Order S-3-05, and observes that "a mid-term statewide emission limit will ensure that the State stays on course to meet our long-term goal." The Scoping Plan update did not establish or propose any specific post-2020 goals, but identified such goals in water, waste, natural resources, clean energy, transportation, and land use.

On January 20, 2017, CARB released the proposed Second Update to the Scoping Plan, which identifies the State's post-2020 reduction strategy. The Second Update was approved on December 14, 2017 and reflects the 2030 target of a 40 percent reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. The 2017 Scoping Plan Update establishes a new statewide emissions limit of 260 million MTCO_{2e} for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030. The 2017 Scoping Plan Update contains the following goals:

1. SB 350
 - Increases renewable electricity procurement goal from 33 percent to 50 percent by 2030.
 - Doubling of energy efficiency savings by 2030.
2. Low Carbon Fuel Standard (LCFS)
 - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
3. Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
 - Maintaining existing GHG standards for light- and heavy-duty vehicles.
 - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
 - Increase ZEV buses, delivery and other trucks.
4. Sustainable Freight Action Plan
 - Improve freight system efficiency.
 - Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
 - Deploy over 100,000 zero-emission trucks and equipment by 2030.
5. Short-Lived Climate Pollutant (SLCP) Reduction Strategy
 - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
 - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
6. SB 375 Sustainable Communities Strategies
 - Increased stringency of 2035 targets.
7. Post-2020 Cap-and-Trade Program
 - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
 - CARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements.
8. 20 percent reduction in GHG emissions from the refinery sector.
9. By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Senate Bill 375. Acknowledging the relationship between land use planning and transportation sector GHG emissions, SB 375 was passed by the State Assembly on August 25, 2008 and signed by the Governor on September 30, 2008. The legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32. Reductions in GHG emissions can be achieved by, for example, locating employment opportunities close to transit. Under SB 375, each Metropolitan Planning Organization (MPO) is required to adopt a Sustainable Communities Strategy (SCS) to encourage compact development that reduces passenger vehicle miles traveled (VMT) and trips so the region can meet a target, created by CARB, for reducing GHG emissions. If the SCS is unable to achieve the regional GHG emissions reduction targets, then the MPO is required to prepare an alternative planning strategy that

shows how the GHG emissions reduction target can be achieved through alternative development patterns, infrastructure, and/or transportation measures.

Regional

2020–2045 RTP/SCS

On September 3, 2020, the Regional Council of Southern California Association of Governments (SCAG) formally adopted *The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments – Connect SoCal (2020–2045 RTP/SCS)*. The SCS portion of the 2020-2045 RTP/SCS highlights strategies for the region to reach the regional target of reducing GHGs from autos and light-duty trucks by 8 percent per capita by 2020, and 19 percent by 2035 (compared to 2005 levels). Specially, these strategies are:

- Focus growth near destinations and mobility options;
- Promote diverse housing choices;
- Leverage technology innovations;
- Support implementation of sustainability policies; and
- Promote a green region.

Furthermore, the 2020-2045 RTP/SCS discusses a variety of land use tools to help achieve the state-mandated reductions in GHG emissions through reduced per capita vehicle miles traveled (VMT). Some of these tools include center focused placemaking, focusing on priority growth areas, job centers, transit priority areas, as well as high quality transit areas and green regions.

Local

Riverside General Plan 2025

The *Riverside General Plan 2025* (General Plan) is intended to implement the community’s vision for what Riverside can be by guiding decisions and actions and allowing for strategic planning. Specific to GHG emissions, the General Plan Air Quality Element identifies the role the City can play in reducing global warming. The following are relevant objectives and policies from the Air Quality Element.

- **Objective AQ-1:** Adopt land use policies that site polluting facilities away from sensitive receptors and vice versa; improve job-housing balance; reduce vehicle miles traveled and length of work trips; and improve the flow of traffic.
 - **Policy AQ-1.11:** Locate public facilities and services so that they further enhance job creation opportunities.
 - **Policy AQ-1.15:** Establish land use patterns that reduce the number and length of motor vehicle trips and promote alternative modes of travel.
 - **Policy AQ-1.20:** Create the maximum possible opportunities for bicycles as an alternative work transportation mode
- **Objective AQ-2:** Reduce air pollution by reducing emissions from mobile sources.
 - **Policy AQ-2.3:** Cooperate with local, regional, State and Federal jurisdictions to reduce vehicle miles traveled (VMT) and motor vehicle emissions through job creation in job-poor areas.
 - **Policy AQ-2.6:** Develop trip reduction plans that promote alternative work schedules, ridesharing, telecommuting and work-at-home programs, employee education and preferential parking.

- **Objective AQ-8:** Make sustainability and global warming education a priority for the City's effort to protect public health and achieve state and federal clean air standards.
 - **Policy AQ-8.4:** Develop a Climate Action Plan that sets a schedule to complete an inventory of municipal and private greenhouse gas (GHG) emissions, sets targets for reductions and methodologies to reach targets.
 - **Policy AQ-8.10:** Establish the 1990 GHG emission baseline for the City government on a per capita basis by the end of 2008.
 - **Policy AQ-8.11:** Implement a climate action plan that will reduce GHG emissions by 7% of the 1990 municipal baseline by 2012.
 - **Policy AQ-8.12:** Develop a calculation for and establish the 1990 GHG emissions baseline on a per capital basis for the City of Riverside as a geographic locale by the end of 2009.
 - **Policy AQ-8.13:** Utilizing the City boundaries as defined in 2008, implement a climate action plan to reduce GHG emissions by 7% of the 1990 City baseline by 2012.
 - **Policy AQ-8.14:** Establish programs that comply with the South Coast Air Quality Management District (AQMD) and the City's General Plan 2025 to increase the quality of air in Riverside.
 - **Policy AQ-8.15:** Aggressively support programs at the AQMD that reduce GHG and particulate matter generation in the Los Angeles and Orange County regions to improve air quality and reduce pollution in Riverside.

Magnolia Avenue Specific Plan

The project is located within the La Sierra District of the *Magnolia Avenue Specific Plan* (Specific Plan; dated November 10, 2009). The vision for the Specific Plan is to designate Magnolia Avenue as a four-lane arterial and a transit corridor; create new zoning categories that promote mixed-use development; condense retail uses into specific areas; develop clear boundaries for districts along the corridor; and revise zoning provisions to be specific to each district.

Riverside Restorative Growthprint

The *Riverside Restorative Growthprint* (dated January 2016) consists of the City's *Economic Prosperity Action Plan* and *Climate Action Plan* (CAP), which work in conjunction to spur entrepreneurship and smart growth while advancing the City's GHG emission reduction goals through the year 2035. The CAP prioritizes the implementation of policies that enable the City to fulfill the requirements of State initiatives, Assembly Bill 32 and Senate Bill 375. The CAP includes a baseline GHG inventory for local government operations and for the community as a whole and establishes emission reduction targets consistent with State law. Through stakeholder engagement and cost-benefit analysis, the CAP resulted in strategies, measures, and actions for reducing emissions that align with the City's planning priorities and its vision of a future economy based on clean, green businesses and business practices.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) THRESHOLDS

Based on Appendix G of the State CEQA Guidelines, a project may have a significant adverse impact related to air quality if it would do any of the following:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (refer to Impact Statement GHG-1); and/or

- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (refer to Impact Statement GHG-2).

METHODOLOGY

Amendments to CEQA Guidelines Section 15064.4 were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions. Consistent with existing CEQA practice, Section 15064.4 gives lead agencies the discretion to determine whether to assess those emissions quantitatively or qualitatively. The amendments do not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7(c)). The California Natural Resources Agency (CNRA) has also clarified that the CEQA Guidelines amendments focus on the effects of GHG emissions as cumulative impacts, and therefore GHG emissions should be analyzed in the context of CEQA's requirements for cumulative impact analyses (see CEQA Guidelines Section 15064(h)(3)).⁴ A project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements to avoid or substantially lessen the cumulative problem within the geographic area of the project.⁵

The City has not adopted a numerical significance threshold for assessing impacts related to GHG emissions. Nor have the South Coast Air Quality Management District (SCAQMD), CARB, or any other State or regional agency adopted a numerical significance threshold for assessing GHG emissions that is applicable to the project. Since there is no applicable adopted or accepted numerical threshold of significance for GHG emissions, the methodology for evaluating the project's impacts related to GHG emissions focuses on its consistency with Statewide, regional, and local plans adopted for the purpose of reducing and/or mitigating GHG emissions. This evaluation of consistency with such plans is the sole basis for determining the significance of the project's GHG-related impacts on the environment.

Notwithstanding, for informational purposes, the analysis also calculates the amount of GHG emissions that would be attributable to the project using recommended air quality models, as described below. The primary purpose of quantifying the project's GHG emissions is to satisfy CEQA Guidelines Section 15064.4(a), which calls for a good-faith effort to describe and calculate emissions. The estimated emissions inventory is also used to determine if there would be a reduction in the project's incremental contribution of GHG emissions as a result of compliance with regulations and requirements adopted to implement plans for the reduction or mitigation of GHG emissions. However, the significance of the project's GHG emissions impacts is not directly based on the amount of GHG emissions resulting from the project.

The project-level analysis calculates the amount of GHG emissions that would be attributable to the project using recommended models, including the most recent version of the California Emissions Estimator Model (CalEEMod), version 2020.4.0. GHG emissions from on-road transportation were calculated using trip generation data and vehicle miles traveled (VMT) data within the *Traffic Impact Analysis, Kaiser Permanente Riverside Medical Center Expansion* (Traffic Impact Analysis) prepared by LSA Associates (dated June 2021)⁶, and project-specific land use data. GHG emissions from other sources were calculated using CalEEMod default emission rates for Riverside County and project-specific land use

⁴ See Generally California Natural Resources Agency, *Final Statement of Reasons for Regulatory Action*, pp. 11-13, 14, 16, December 2009; see also Letter from Cynthia Bryant, Director of the Office of Planning and Research to Mike Chrisman, Secretary for Natural Resources, April 13, 2009. Available at <https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/C01.pdf>, accessed February 24, 2021.

⁵ 14 CCR Section 15064(h)(3).

⁶ LSA Associates, *Traffic Impact Analysis, Kaiser Permanente Riverside Medical Center Expansion*, dated June 2021.

data. One CalEEMod model run was conducted to quantify the anticipated GHG emissions from the operation of the proposed hospital tower and parking structure.

GREENHOUSE GAS EMISSIONS IMPACTS ANALYSIS

Impact GHG-1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Impact GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact.

Project-Related Sources of Greenhouse Gases

The proposed project would result in direct and indirect emissions of CO₂, N₂O, and CH₄, and would not result in other forms of GHGs that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms of GHG emissions. Direct project related GHG emissions include emissions from construction activities, area sources, and mobile sources, while indirect sources include emissions from energy consumption, water demand, and solid waste generation.⁷ CalEEMod was used to calculate direct and indirect project related GHG emissions. [Table 5, Estimated Greenhouse Gas Emissions](#), presents the estimated CO₂, N₂O, and CH₄ emissions of the existing uses and the proposed project. CalEEMod outputs are contained within [Appendix A, Greenhouse Gas Emissions and Energy Data](#).

Table 5, Annual Estimated Greenhouse Gas Emissions

Source ⁶	CO ₂	CH ₄		N ₂ O		Total Metric Tons of CO ₂ e ³
	Metric Tons/yr ¹	Metric Tons/yr ¹	Metric Tons of CO ₂ e/yr ²	Metric Tons/yr ¹	Metric Tons of CO ₂ e/yr ²	
Direct Emissions						
Construction ⁵	131.47	0.01	0.37	0.01	2.14	133.97
Area Source	0.04	<0.01	<0.01	0.00	0.00	0.04
Mobile Source ⁴	1,131.45	0.12	2.98	0.07	21.96	1,156.39
<i>Total Direct Emissions³</i>	<i>1,257.50</i>	<i>0.13</i>	<i>3.34</i>	<i>0.08</i>	<i>23.84</i>	<i>1,290.40</i>
Indirect Emissions						
Energy	3,180.72	0.12	3.03	0.04	10.46	3,194.20
Solid Waste	349.05	20.63	515.70	0.00	0.00	864.75
Water Demand	157.79	1.05	26.23	0.03	7.60	191.62
<i>Total Indirect Emissions³</i>	<i>3,687.55</i>	<i>21.80</i>	<i>544.96</i>	<i>0.06</i>	<i>18.06</i>	<i>4,250.56</i>
<i>Total Project-Related Emissions³</i>	<i>5,540.96 MTCO₂e/yr</i>					

⁷ According to EPA, Scope 1 GHG emissions are direct emissions from sources that are owned or controlled by the Agency, including on-site fossil fuel combustion and fleet fuel consumption. Scope 2 GHG emissions are indirect emissions from sources that are not owned or controlled by the Agency, including emissions that result from the generation of electricity, heat or steam purchased by the Agency from a utility provider.

Notes:

MTCO₂e/yr = Metric Tons Carbon Dioxide Equivalent per year

1. Emissions calculated using the CalEEMod version 2020.4.0.
2. Consistent with CalEEMod version 2020.4.0, carbon dioxide equivalent values were calculated using global warming potentials from the 2007 Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report, https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf, accessed February 24, 2021.
3. Totals may be slightly off due to rounding.
4. The mobile source emissions were calculated using the trip generation and VMT data provided in the *Traffic Impact Analysis, Kaiser Permanente Riverside Medical Center Expansion* prepared by LSA Associates (dated June 2021).
5. Total project construction GHG emissions equate to 4,019.21 MTCO₂e. Value shown is amortized over the lifetime of the project (assumed to be 30 years).

Refer to [Appendix A, Greenhouse Gas Emissions and Energy Data](#), for detailed model input/output data.

Direct Project-Related Source of Greenhouse Gases

Construction Emissions. Because impacts from construction activities occur over a relatively short-term period of time, they contribute a relatively minimal portion of the overall lifetime project GHG emissions. To adequately include GHG emission from construction in the lifetime/operational GHG estimates, construction emissions are amortized over a 30-year project lifetime.⁸ Construction GHG emissions are amortized (i.e., total construction emissions divided by the lifetime of the project, assumed to be 30 years),⁹ then added to the operational emissions. As seen in [Table 5](#), construction of the proposed project would result in an annual total of 133.97 MTCO₂e (amortized over 30 years) which represents a total of approximately 4,019.21 MTCO₂e from the overall construction activities.

Area Source. The project would result in nominal area source emissions; refer to [Table 5](#). Area source emissions would be generated due to an increased demand for natural gas and fuel associated with the development of the proposed project. The primary use of natural gas and fuel producing area source emissions by the project would be for consumer products, architectural coating, natural gas hearth, and landscaping.

Mobile Source Emissions. According to the Traffic Impact Analysis, the proposed project would result in a maximum of 4,464 daily trips and a net increase of 9,316 daily VMT, which equates to approximately 1,156.39 MTCO₂e/year of mobile source-generated GHG emissions as modeled in CalEEMod; refer to [Table 5](#).

Indirect Project-Related Source of Greenhouse Gases

Energy Consumption. Energy consumption emissions were calculated using the CalEEMod model and project-specific land use data. Electricity would be provided to the project site via Riverside Public Utilities (RPU). The project would indirectly result in 3,194.20 MTCO₂e/year of GHG emissions due to energy consumption; refer to [Table 5](#).

Water Demand. The proposed project's operations would result in a demand of approximately 47.57 million gallons of water per year. Emissions from indirect energy impacts due to water supply would result in 191.62 MTCO₂e/year; refer to [Table 5](#).

Solid Waste. Solid waste associated with operations of the proposed project would result in 864.75 MTCO₂e/year; refer to [Table 5](#).

⁸ South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008, [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgattachmente.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf), accessed February 24, 2021.

⁹ Projected GHGs from construction have been quantified and amortized over 30 years, which is the number of years considered to represent the life of the project. The amortized construction emissions are added to the annual average operational emissions.

Project Sustainable Design

The proposed project includes design features that would reduce project related GHG emissions. The project would install water-efficient fixtures in compliance with 2019 CALGreen Code. The proposed project would include recycling services per Assembly Bill 341, which would divert at least 50 percent of the solid waste generation. The project would comply with the 2019 Title 24 standards, which would reduce energy usage by approximately 30 percent compared to nonresidential buildings constructed under the 2016 Title 24 standards.¹⁰ These sustainable design features have been incorporated in CalEEMod and shown in [Table 5](#). In addition, although not quantified, the project would achieve Leadership in Energy and Environmental Design (LEED) Gold certificate or better, which would further increase the project's energy efficiency.

Total Project-Related Sources of Greenhouse Gases

As shown in [Table 5](#), the total amount of project related GHG emissions from direct and indirect sources would total 5,540.96 MTCO₂e/year.

Consistency with Applicable GHG Plans, Policies, or Regulations

The GHG plan consistency for the project is based on the project's consistency with the 2017 Scoping Plan Update, the SCAG 2020-2045 RTP/SCS, the City's CAP, and applicable General Plan goals and policies. The 2017 Scoping Plan Update describes the approach the State will take to reduce GHG emissions by 40 percent below 1990 levels by the year 2030. The SCAG 2020-2045 RTP/SCS includes strategies for the region to reach the regional target of reducing GHG from the transportation sector. The City's CAP and General Plan contain strategies, goals, and policies that would help implement energy efficient, transportation, water efficient, and waste reduction measures and would subsequently reduce GHG emissions within the City.

Consistency with the 2017 CARB Scoping Plan Update

The 2017 Scoping Plan Update has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program. The 2017 Scoping Plan Update identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the First Update to the Scoping Plan (2013). Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions will be adopted as required to achieve statewide GHG emissions targets. [Table 6, Project Consistency with the 2017 Scoping Plan Update](#), evaluates the project's consistency with applicable reduction actions and strategies by emissions source category to determine how the project would be consistent with or exceed reduction actions and strategies outlined in the 2017 Scoping Plan Update.

Table 6, Project Consistency with the 2017 Scoping Plan Update

Actions and Strategies	Project Consistency Analysis
<p>SB 350 Achieve a 50 percent Renewables Portfolio Standard (RPS) by 2030, with a doubling of energy efficiency savings by 2030.</p>	<p>Consistent. The proposed project would not be an electrical provider or would delay the goals of SB 350. Furthermore, the project would utilize electricity from Riverside Public Utilities which would be required to comply with SB 350. As such, the project would be in compliance with SB 350.</p>

¹⁰ California Energy Commission, *2019 Building Energy Efficiency Standards Fact Sheet*, March 2018.

Actions and Strategies	Project Consistency Analysis
Low Carbon Fuel Standard (LCFS)	
<p>Increase stringency of carbon fuel standards; reduce the carbon intensity of fuels by 18 percent by 2030, which is up from 10 percent in 2020.</p>	<p>Consistent. Motor vehicles driven within the project area would be required to use LCFS compliant fuels, thus the project would be in compliance with this goal.</p>
Mobile Source Strategy (Cleaner Technology and Fuels Scenario)	
<p>Maintain existing GHG standards of light and heavy-duty vehicles while adding an addition 4.2 million zero-emission vehicles (ZEVs) on the road. Increase the number of ZEV buses, delivery trucks, or other trucks.</p>	<p>Consistent. The proposed project is a medical center expansion which may include occasional light-, medium-, and heavy-duty truck trips. Truck uses associated with the project would be required to comply with all CARB regulations, including the LCFS and newer engine standards. The proposed project would not conflict with the CARB's goal of adding 4.2 million zero-emission (ZEVs) on the road. Furthermore, development within the project area would be required to comply with the most current version of the Title 24 and CALGreen Code at the time of construction. Therefore, the project would install electric vehicle (EV) charging stations and EV parking spaces on-site. As such, the project would not conflict with the goals of the Mobile Source Strategy.</p>

Table 6 (Continued)
Project Consistency with the 2017 Scoping Plan Update

Actions and Strategies	Project Consistency Analysis
Sustainable Freight Action Plan	
Improve the freight system efficiency and maximize the use of near zero emission vehicles and equipment powered by renewable energy. Deploy over 100,000 zero-emission trucks and equipment by 2030.	Consistent. As described above, truck uses within the project area would be required to comply with all CARB regulations, including the LCFS and newer engine standards. Additionally, the project would not conflict with CARB's goal to deploy over 100,000 zero-emission trucks and equipment by 2030, as the project would comply with all future applicable regulatory standard adopted by CARB. The project would also install EV charging stations and parking spaces on-site, which would encourage the use of zero-emission vehicles.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy	
Reduce the GHG emissions of methane and hydrofluorocarbons by 40 percent below the 2013 levels by 2030. Furthermore, reduce the emissions of black carbon by 50 percent below the 2013 levels by the year 2030.	Consistent. The project does not involve sources that would emit large amounts of methane (refer to Table 5). Furthermore, the project would comply with all CARB and SCAQMD hydrofluorocarbon regulations. As such, the proposed project would not conflict with the SLCP reduction strategy.
SB 375 Sustainable Communities Strategies	
Increase the stringency of the 2035 GHG emission per capita reduction target for metropolitan planning organizations (MPO).	Consistent. As shown in Table 7 , the project would be consistent with the SCAG's 2020-2045 RTP/SCS and would not conflict with the goals of SB 375.
Post-2020 Cap and Trade Programs	
The Cap-and-Trade Program will reduce greenhouse gas (GHG) emissions from major sources (covered entities) by setting a firm cap on statewide GHG emissions while employing market mechanisms to cost-effectively achieve the emission-reduction goals.	Not Applicable. As seen in Table 5 , the project would not generate GHG emissions over 25,000 metric tons per year cap and trade emission threshold. Therefore, the project would not conflict with this goal.
Source: California Air Resources Board, 2017 Scoping Plan, November 2017.	

Consistency with the SCAG 2020-2045 RTP/SCS

On September 3, 2020, the Regional Council of SCAG formally adopted the 2020-2045 RTP/SCS. The 2020-2045 RTP/SCS includes performance goals that were adopted to help focus future investments on the best-performing projects, as well as different strategies to preserve, maintain, and optimize the performance of the existing transportation system. The SCAG 2020-2045 RTP/SCS is forecast to help California reach its GHG reduction goals by reducing GHG emissions from passenger cars by eight percent below 2005 levels by 2020 and 19 percent by 2035 in accordance with the most recent CARB targets adopted in March 2018. Five key SCS strategies are included in the 2020-2045 RTP/SCS to help the region meet its regional VMT and GHG reduction goals, as required by the State. [Table 7, Consistency with the 2020-2045 RTP/SCS](#) shows the project's consistency with these five strategies found within the 2020-2045 RTP/SCS. As shown therein, the proposed project would be consistent with the GHG emission reduction strategies contained in the 2020-2045 RTP/SCS.

Table 7, Consistency with the 2020-2045 RTP/SCS

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
Focus Growth Near Destinations and Mobility Options		
<ul style="list-style-type: none"> • Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations • Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets • Plan for growth near transit investments and support implementation of first/last mile strategies • Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses • Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods • Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations) • Identify ways to “right size” parking requirements and promote alternative parking strategies (e.g. shared parking or smart parking) 	<p>Center Focused Placemaking, Priority Growth Areas (PGA), Job Centers, High Quality Transit Areas (HQTAs), Transit Priority Areas (TPA), Neighborhood Mobility Areas (NMAs), Livable Corridors, Spheres of Influence (SOIs), Green Region, Urban Greening.</p>	<p>Consistent. The project involves expansion of a medical center located in a TPA, including a HQTC. The project site is located within a pedestrian-oriented area given that it fronts existing sidewalks to the north, south, and west, and there are existing Riverside Transit Agency (RTA) bus stops along the project’s western frontage. Furthermore, the project site is located in an urbanized area and in close proximity to existing residential and commercial development. The proposed project would also be within walking and biking distance of residential and commercial uses. The project would provide bicycle parking spaces in accordance with CALGreen Code. Therefore, the project would focus growth near destinations and mobility options.</p>
Leverage Technology Innovations		
<ul style="list-style-type: none"> • Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space • Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a “mobility wallet,” an app-based system for storing transit and other multi-modal payments • Identify ways to incorporate “micro-power grids” in communities, for example solar energy, hydrogen fuel cell power storage and power generation 	<p>HQTA, TPAs, NMA, Livable Corridors.</p>	<p>Consistent. The project would be required to install electric vehicle (EV) charging stations, designated EV parking, as well as bike parking in accordance with the 2019 Title 24 standards and CALGreen Code. Therefore, the proposed project would leverage technology innovations and help the City, County, and State meet its GHG reduction goals. The project would be consistent with this reduction strategy.</p>

Table 7, Consistency with the 2020-2045 RTP/SCS

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
Support Implementation of Sustainability Policies		
<ul style="list-style-type: none"> • Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions • Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations • Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space • Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies • Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region • Continue to support long range planning efforts by local jurisdictions • Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy 	<p>Center Focused Placemaking, Priority Growth Areas (PGA), Job Centers, High Quality Transit Areas (HQTAs), Transit Priority Areas (TPA), Neighborhood Mobility Areas (NMAs), Livable Corridors, Spheres of Influence (SOIs), Green Region, Urban Greening.</p>	<p>Consistent. As previously discussed, the proposed project would be located in a TPA, which would promote alternative modes of transportation. The project would include outdoor areas with landscaped planters, trees, and seating. Further, the project would comply with sustainable practices included in the 2019 Title 24 standards and CALGreen Code and achieve Leadership in Energy and Environmental Design (LEED) Gold certificate or better. Thus, the project would be consistent with this reduction strategy.</p>
Promote a Green Region		
<ul style="list-style-type: none"> • Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards • Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration • Integrate local food production into the regional landscape • Promote more resource efficient development focused on conservation, recycling and reclamation • Preserve, enhance and restore regional wildlife connectivity • Reduce consumption of resource areas, including agricultural land • Identify ways to improve access to public park space 	<p>Green Region, Urban Greening, Greenbelts and Community Separators.</p>	<p>Consistent. The proposed project involves expansion of an existing medical center in an urbanized area and would therefore not interfere with regional wildlife connectivity or concert agricultural land. The project would be required to comply with 2019 Title 24 standards and CALGreen Code and achieve LEED Gold certificate or better, which would help reduce energy consumption and reduce GHG emissions. Thus, the project would support efficient development that reduces energy consumption and GHG emissions. The project would be consistent with this reduction strategy.</p>
<p>Source: Southern California Association of Governments, 2025-2040 Regional Transportation Plan/Sustainable Communities Strategy – Connect SoCal, September 3, 2020.</p>		

Consistency with Riverside General Plan 2025

The General Plan Air Quality Element identifies objectives and policies that encourage a reduction in the City's overall GHG emissions. [Table 8, Project Consistency with the Riverside General Plan 2025](#), evaluates the project's consistency with applicable General Plan policies.

Table 8, Project Consistency with the Riverside General Plan 2025

Relevant Objectives and Policies	Project Consistency
Air Quality Element	
Objective AQ-1: Adopt land use policies that site polluting facilities away from sensitive receptors and vice versa; improve job-housing balance; reduce vehicle miles traveled and length of work trips; and improve the flow of traffic.	
Policy AQ-1.11: Locate public facilities and services so that they further enhance job creation opportunities.	Consistent. The proposed project would expand existing hospital services provided by Kaiser Permanente Riverside Medical Center and generate approximately 746 jobs. Thus, the project would be consistent with Policy AQ-1.11.
Policy AQ-1.15: Establish land use patterns that reduce the number and length of motor vehicle trips and promote alternative modes of travel.	Consistent. The project would generate 746 jobs in the La Sierra District of the City, which is built out and urbanized with a variety of land uses, including commercial, single-family residential, and medium-high density residential. Additionally, the La Sierra Metrolink Station is located south of the site and runs parallel to SR-91. As such, the project would introduce a substantial number of jobs within a dense, mixed-use area, thereby contributing towards land use patterns that reduce vehicle trips and VMT and promote alternative travel modes.
Policy AQ-1.20: Create the maximum possible opportunities for bicycles as an alternative work transportation mode.	Consistent. The project would provide bicycle parking spaces in the proposed parking structure, thereby increasing opportunities for bicycling as an alternative transportation mode to work.
Objective AQ-2: Reduce air pollution by reducing emissions from mobile sources.	
Policy AQ-2.3: Cooperate with local, regional, State and Federal jurisdictions to reduce vehicle miles traveled (VMT) and motor vehicle emissions through job creation in job-poor areas.	Consistent. While the La Sierra District is not considered a jobs-poor area, the project would expand the existing medical center and create approximately 746 jobs. Thus, creating jobs in a dense, mixed-use area of the City would contribute towards reducing VMT and associated emissions.
Policy AQ-2.6: Develop trip reduction plans that promote alternative work schedules, ridesharing, telecommuting and work-at-home programs, employee education and preferential parking.	Consistent. The project would provide electric vehicle parking spaces to promote the use of alternative travel modes and reduce VMT.
Source: City of Riverside, <i>Riverside General Plan 2025 Air Quality Element</i> , November 2007.	

Consistency with City of Riverside Climate Action Plan

The City's CAP provides a roadmap for the City to achieve deep GHG emissions reductions through the year 2035. The CAP prioritizes the implementation of policies that enable the City to fulfill AB 32 and SB 375 requirements. CAP Table B.3-2, *2020 and 2035 Reductions from Local Measures*, lists local GHG reduction measures. [Table 9, Project Consistency with the City of Riverside Climate Action Plan](#), compares the proposed project to applicable reduction measures from the CAP.

Table 9, Project Consistency with the City of Riverside Climate Action Plan

Applicable Measures	Project Consistency
Measure T-1: Bicycle Infrastructure Improvements. Expand on-street and off-street bicycle infrastructure, including bicycle lanes and bicycle trails.	Consistent. The project does not involve any on-street infrastructure improvements. However, the project would provide bicycle parking spaces in the proposed parking structure.
Measure T-2: Bicycle Parking. Provide additional options for bicycle parking.	Consistent. Refer to discussion on Measure T-1.
Measure T-3: End of Trip Facilities Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters.	Consistent. End of trip commuter facilities can include showers, changing rooms, lockers, and bicycle storage/parking which encourage employees to walk and bike to work. As stated, the project would provide bicycle parking spaces in the proposed parking structure, thereby encouraging alternative travel modes.
Measure T-4: Promotional Transportation Demand Management. Encourage Transportation Demand Management strategies.	Consistent. Examples of Transportation Demand Management (TDM) strategies include alternative work schedules/flex-time; preferential parking for carpool vehicles; rideshare vehicle loading areas; vanpool vehicle accessibility; bus stop improvements; and on-site amenities such as cafeterias, restaurants, automated teller machines and other services that would eliminate the need for additional trips. The project proposes multiple TDM strategies that would reduce VMT and associated emissions.
Measure T-6: Density. Improve jobs-housing balance and reduce vehicle miles traveled by increasing household and employment densities.	Consistent. The proposed expansion of the existing medical center would involve the construction of a new hospital tower to accommodate additional hospital beds, operating rooms, treatment bays, and ancillary support. Overall, the project would generate approximately 746 new jobs and would therefore increase employment density in the project area.
Measure T-19: Alternative Fuel & Vehicle Technology and Infrastructure. Promote the use of alternative fueled vehicles such as those powered by electric, natural gas, biodiesel, and fuel cells by Riverside residents and workers.	Consistent. As stated, the proposed parking structure would provide electric vehicle charging stations and parking spaces to promote use of alternative fuel vehicles.
Source: City of Riverside, <i>Restorative Growthprint Economic Prosperity Plan and Climate Action Plan</i> , January 2016.	

Conclusion

In summary, the project's characteristics render it consistent with statewide, regional, and local climate change mandates, plans, policies, and recommendations. More specifically, the GHG plan consistency analysis provided above demonstrates that the project complies with the regulations and GHG reduction goals, policies, actions, and strategies outlined in the 2017 Scoping Plan Update, 2020-2045 RTP/SCS, General Plan, and the City's CAP. Consistency with these plans would reduce the impact of the project's incremental contribution of GHG emissions. Accordingly, the project would not conflict with any applicable plan, policy, regulation, or recommendation adopted for the purpose of reducing GHG emissions. Impacts in this regard would be **less than significant**.

Mitigation Measures: No mitigation measures are required.

CUMULATIVE IMPACTS

Project-related GHG emissions are not confined to a particular region; instead, GHG emissions are dispersed worldwide. No single project is large enough to result in a measurable increase in global concentrations of GHG emissions. Therefore, impacts identified under Impact Statement GHG-1 and Impact Statement GHG-2 are not project-specific impacts to global climate change, but the proposed project's contribution to this cumulative impact. As discussed above, the proposed project would be consistent with statewide, regional, and local climate change mandates, plans, policies, and recommendations, and therefore would not impede implementation of AB 32 or SB 32. Therefore, the proposed project would not cumulatively contribute to GHG impacts and impacts in this regard would be **less than significant**.

REFERENCES

Documents

1. California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, January 2008.
2. California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, accessed February 24, 2021.
3. California Energy Commission, *2019 Building Energy Efficiency Standards Fact Sheet*, March 2018.
4. California Natural Resources Agency, *Final Statement of Reasons for Regulatory Action*, pp. 11-13, 14, 16, December 2009.
5. City of Riverside, *Riverside General Plan 2025*, November 2007.
6. City of Riverside, *Riverside Restorative Growthprint, Economic Prosperity Action Plan and Climate Action Plan*, January 2016.
7. Letter from Cynthia Bryant, Director of the Office of Planning and Research to Mike Chrisman, Secretary for Natural Resources, April 13, 2009. Available at <https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/C01.pdf>, accessed February 24, 2021.
8. LSA Associates, *Traffic Impact Analysis, Kaiser Permanente Riverside Medical Center Expansion*, June 2021.
9. United States Environmental Protection Agency, *Inventory of United States Greenhouse Gas Emissions and Sinks 1990 to 2018, 2020*, <https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf>, accessed February 24, 2021.
10. Intergovernmental Panel on Climate Change (IPCC), *Fourth Assessment Report*, https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf, accessed February 24, 2021.
11. South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008, [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgattachmente.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf), accessed February 24, 2021.

Websites / Programs

1. Google Earth, 2021.
2. South Coast Air Quality Management District, California Emissions Estimator Model (CalEEMod), version 2020.4.0.

Appendix A: Greenhouse Gas Emissions Data