

DEPARTMENT OF VETERANS AFFAIRS
MEDICAL CENTER SAN DIEGO

DRAFT ENVIRONMENTAL ASSESSMENT

FOR THE
SEISMIC DEFICIENCY - SCI / CLC PROJECT
Project 664-401

June 19, 2013



Prepared for:
US Department of Veteran Affairs
Office of Construction and Facilities Management

Under Contract to:

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EXECUTIVE SUMMARY

The Department of Veterans Affairs (VA) is proposing to construct a new Spinal Cord Injury (SCI) and Community Living Center (CLC) building, construct a new parking structure, and upgrade the existing SCI building at the VA Medical Center (VAMC) San Diego, California. In accordance with the National Environmental Policy Act (NEPA), the VA prepared this Environmental Assessment (EA) to analyze the potential environmental effects of the proposed action.

The existing SCI building at VAMC San Diego is seismically deficient and does not meet current VA space planning criteria, privacy standards, and infection-control best management practices. To correct these deficiencies, the VA considered the following alternatives: (1) construct new SCI building, (2) renovate existing SCI building, (3) contract out SCI services to outside providers, and (4) take no action. Construct new SCI building was selected as the preferred alternative and will be analyzed in this EA as the proposed action.

The proposed action also includes the following related improvements to the Medical Center. The existing CLC unit at the main hospital building would be relocated to the new SCI building. A new parking structure would be built to mitigate the loss of parking from the footprint of the new SCI/CLC building and to improve the current parking shortage at the Medical Center. The existing SCI building would be upgraded for reuse for administrative space and outpatient services.

VA prepared this EA in accordance with NEPA to analyze the potential environmental effects of the proposed action. The analysis performed in this EA concludes that the proposed action would not have significant adverse impact, either individually or cumulatively, to the human environment, provided mitigation measures consisting of best management practices and regulatory compliance measures described in this EA are implemented. Therefore, this EA concludes that a Finding of No Significant Impact is appropriate and that an Environmental Impact Statement is not required.

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1 INTRODUCTION

The Department of Veterans Affairs (VA) is proposing to construct a new Spinal Cord Injury (SCI) and Community Living Center (CLC) building, construct a new parking structure, and upgrade the existing SCI building at the VA Medical Center (VAMC) San Diego, California. In accordance with the National Environmental Policy Act (NEPA), the VA prepared this Environmental Assessment (EA) to analyze the potential environmental effects of the proposed action.

1.1 Project Background

VAMC San Diego is located at 3350 La Jolla Village Drive, in the La Jolla area of San Diego (figure 1) (VA 2010d). The Medical Center is situated on approximately 26 acres of federally owned property adjacent to the 1,152-acre University of California, San Diego (UCSD) campus. The Medical Center is affiliated with UCSD and shares infrastructure and community services such as roads and parking facilities. Figure 2 shows the VA Medical Center in relation to UCSD facilities, and figure 3 shows the existing layout of the VA Medical Center campus. Figure 4 is an aerial close-up of the VAMC property with the project footprint.

This Environmental Assessment (EA) has been prepared to ensure VA compliance with the regulations set forth by the Council on Environmental Quality (CEQ) implementing the provisions of the National Environmental Policy Act (NEPA), Title 40 Code of Federal Regulations (CFR) Parts 1500-1508; and VA Regulations, Environmental Effects of VA Actions, Title 38 CFR, Part 26 (51 FR 37182, Oct. 20, 1986) (VA 1998). This EA has also been prepared in accordance with the VA NEPA Interim Guidance for Projects (VA 2010c).

An Environmental Assessment looks at the effects of a proposed action and reasonable alternatives to achieve the agency's objectives (VA 2010c). The EA is intended to be a concise document that 1) briefly provides sufficient evidence and analysis for determining the significance of the action and whether to prepare and Environmental Impact Statement (EIS); 2) aides the VA's compliance with NEPA when no EIS is necessary; and 3) facilitates preparation of an EIS when one is necessary. If the analysis finds there are no significant impacts, a Finding of No Significant Impact (FONSI) can be issued concluding the NEPA process.

1.2 Purpose and Need

The existing SCI building at VAMC San Diego is seismically deficient and not in compliance with current VA space planning criteria, privacy standards, and infection-control best management practices. A seismic study conducted by Degenkolb Engineers, Inc., recommended that the building be strengthened. The building is classified as Extremely High Risk (EHR) for seismic vulnerability and has been assigned a VA deficiency category of III, meaning that the building may be damaged in an earthquake. VAMC San Diego has a need to correct this seismic deficiency. In addition, the existing SCI building has thirteen shared inpatient rooms (and only four private rooms) that do not meet current patient privacy

standards; as such, VAMC San Diego has a need to provide all-private rooms to improve overall patient access and to allow for greater infection control. The purpose of the proposed action is to fulfill these identified needs.

The proposed action also includes the following related improvements to the Medical Center. The new SCI building would include space for a CLC unit; VAMC San Diego has a need to relocate the existing CLC unit from the main hospital building to the new SCI building to replace the existing 2-resident and 4-resident per bedroom nursing home configuration with new single occupancy bed/bath room models consistent with modern nursing home privacy standards. A new parking structure is needed to mitigate the loss of parking from the footprint of the new SCI/CLC building and to improve the current parking shortage at the Medical Center. The existing SCI building is needed to be structurally and non-structurally upgraded for reuse for administrative space and outpatient services.

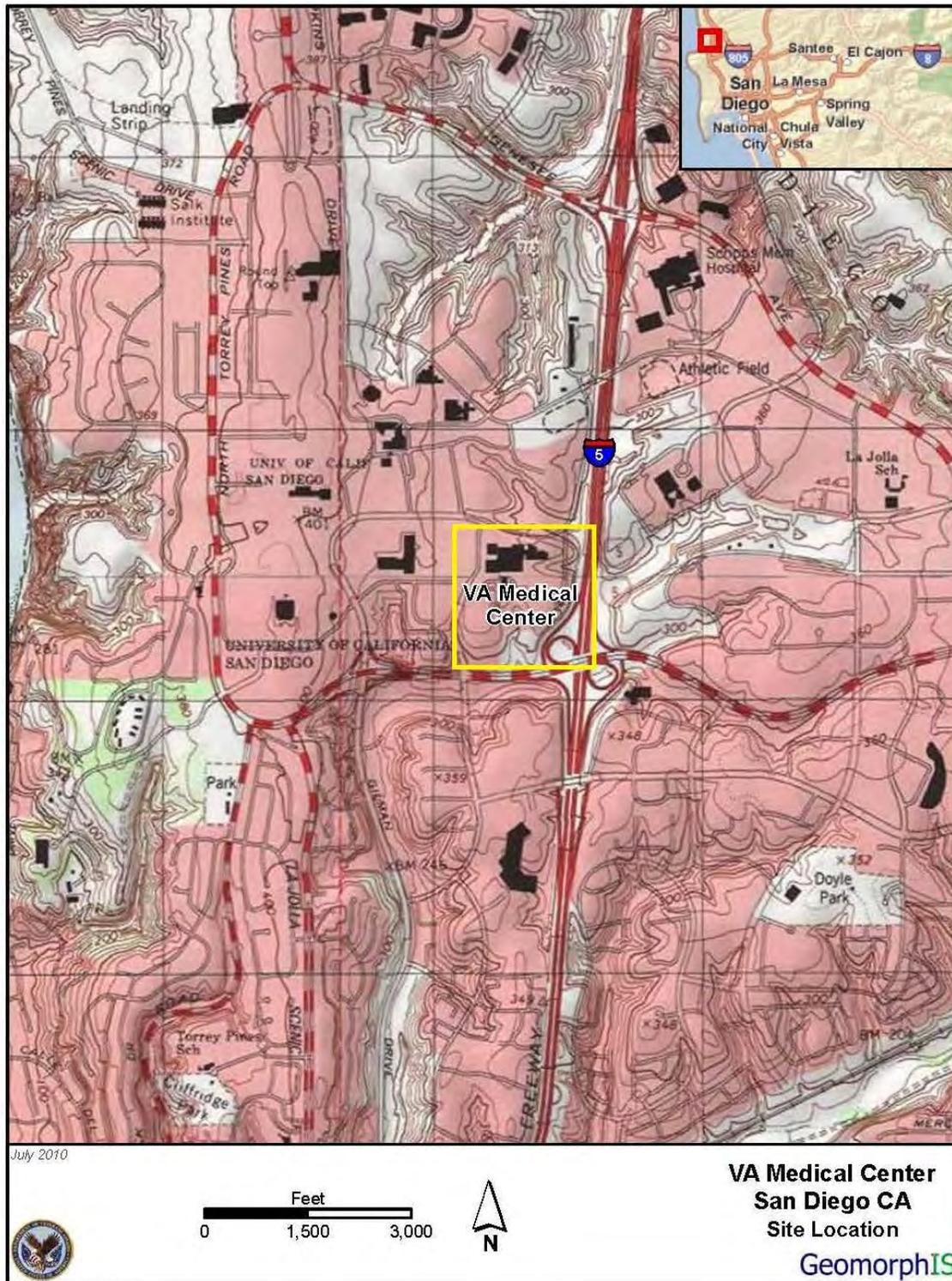


Figure 1. VAMC San Diego project location and vicinity

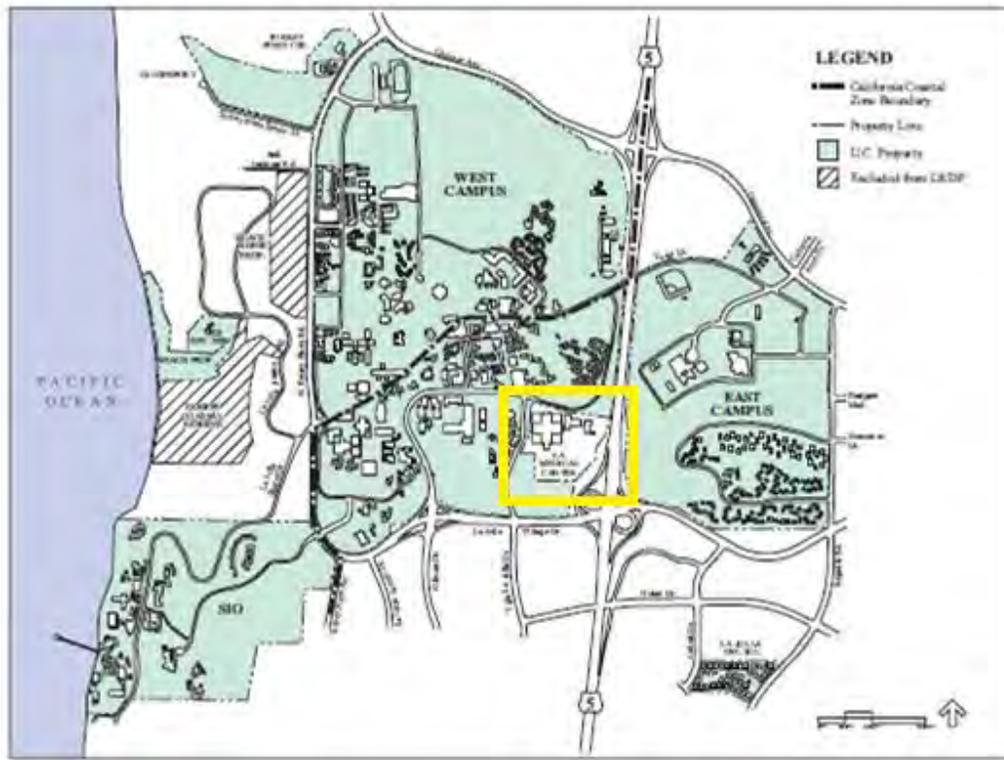


Figure 2. VAMC San Diego location (yellow box) relative to UCSD campus (UCSD 2004)



Figure 3. VAMC San Diego campus map (VA 2013)



Figure 4. VAMC San Diego, proposed SCI / CLC project site

2 ALTERNATIVES

2.1 Development of Alternatives

The VA considered the following alternatives for correcting the existing SCI building deficiencies: (1) construct new SCI building, (2) renovate existing SCI building, (3) contract out SCI services to outside providers, and (4) take no action.

Alternative 1 – Construct New SCI Building (Preferred Alternative): In this alternative, a new SCI building would be constructed. Along with being built to modern seismic standards, the new SCI building would feature all private inpatient rooms to meet current patient privacy standards and to allow for greater infection control. The new SCI building would include space for a CLC facility with single bed/bath rooms consistent with modern nursing home privacy standards. The existing space vacated by the CLC unit in the main hospital building would allow decompression of the main hospital building for expanded clinical space. A new parking structure would be built to mitigate the loss of parking from the footprint of the new SCI/CLC building and to improve the current parking shortage at the VAMC. The existing SCI building would be structurally and non-structurally upgraded for reuse for administrative space and outpatient services. These facilities would allow VA to more adequately serve Veteran patients with higher quality of care. This option was determined to be the most cost effective, making it the preferred alternative.

Alternative 2 – Renovation: This alternative would renovate the existing SCI facility to withstand seismic impacts, as well as improve the building's current layout and design to better improve patient quality of care. However, this alternative requires temporary space via modular lease buildings and associated activation/relocation into the temporary structure. Impact costs alone make this alternative impractical. In addition, the resultant space challenges of the renovation will preclude the benefit of modern space plans. This option is more costly than other alternatives of new construction and maintaining status quo.

Alternative 3 – Contract Out: This alternative would contract out all services that pertain to this project to local private providers. Based on a cost-effectiveness analysis, this is the most costly option due to the complexity of the SCI and extended care patients' needs. Therefore this option was considered the least preferred.

Alternative 4 – No Action: In this alternative, the facility would remain in its current condition, and only non-recurring maintenance costs would be incurred. The facility would continue to have significant seismic deficiencies, cramped floors, and limited bed capacity. Moreover, the quality of patient care will remain low as patients will be lodged in shared rooms not conducive for patient privacy and infection control.

2.2 Alternatives Retained For Detailed Analysis

Alternative 1, Construct New SCI Building, was selected as the preferred alternative and will be analyzed in this EA as the proposed action. Alternatives 2 and 3 were considered but not carried forward for

reasons discussed above. This EA also evaluates Alternative 4, the No Action Alternative, under which the proposed action would not be implemented.

2.2.1 Proposed Action Alternative (Preferred Alternative)

The proposed action involves: (1) the construction of a new SCI/CLC building adjacent to the existing main hospital building and existing SCI building, (2) the construction of a new parking structure on the site of an existing parking area, and (3) the upgrade of the existing SCI building for reuse for administrative space and outpatient services. Utilities, landscape, parking, and internal traffic routes would be modified to accommodate the new buildings. Figure 5 shows the layout of the proposed new buildings relative to the existing Medical Center buildings. Figures 6, 7, and 8 provide simulated views of the new SCI/CLC building and associated landscaping from various perspectives. Figure 9 gives a simulated view of the new parking structure and figure 10 shows the proposed construction phases. Figure 11 shows a plan view of the proposed new building configuration and traffic pattern. The project will be designed to comply with the VA Sustainable Design and Energy Reduction Manual and to achieve a Leadership in Energy and Environmental Design (LEED) Silver certification.

The proposed new SCI/CLC building would add approximately 175,000 gross square-feet to the existing Medical Center facility. There are currently a total of 30 inpatient beds in 13 shared rooms and 4 private rooms at the existing SCI building; the new SCI building will have up to 50 inpatient beds in all private rooms. The existing CLC unit at the main hospital building currently houses 43 beds in eight 4-person rooms, five 2-person rooms, and one single room; the new SCI building will have space for the same 43 CLC beds but in all private rooms. In total, there would be a net increase of no more than 20 patient beds at the Medical Center.

2.2.2 No Action Alternative

Under the No Action Alternative, the VA would not implement the proposed construction project at the Medical Center in San Diego. The new SCI/CLC building and parking garage would not be constructed and there would be no increase in space for patients and residents, and no addition to parking spaces. The No Action Alternative would not satisfy the purpose and need for the Proposed Action. It is included here to serve as a base-line condition to which the Proposed Action can be contrasted.



Figure 5. Layout of proposed new SCI/CLC and parking structure on the Medical Center campus



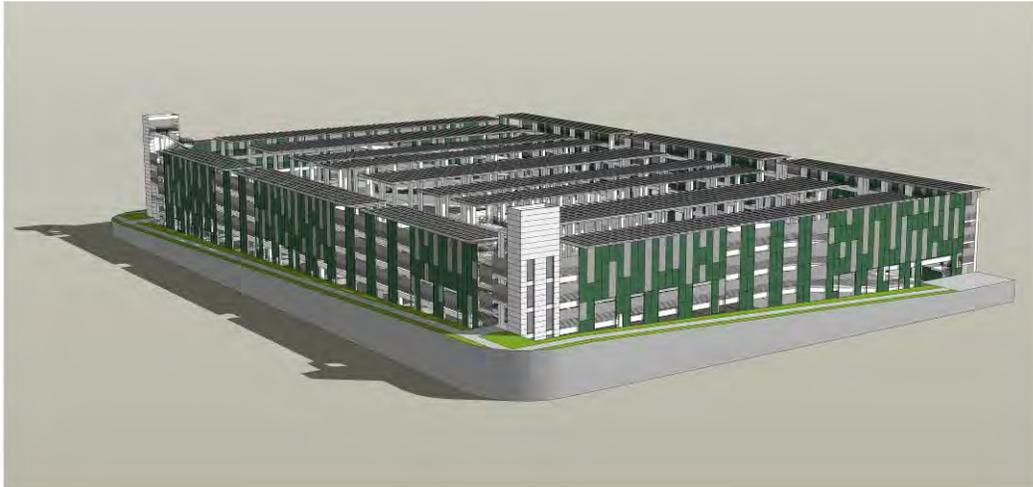
Figure 6. Contextual view of new SCI/CLC building and parking structure from the south



Figure 7. Contextual view of new SCI/CLC building from the southeast



Figure 8. Street-level contextual view of new SCI/CLC building from the southeast



PARKING STRUCTURE - NORTHWEST VIEW

Figure 9. Aerial oblique view of new, fully built-out parking structure from northwest

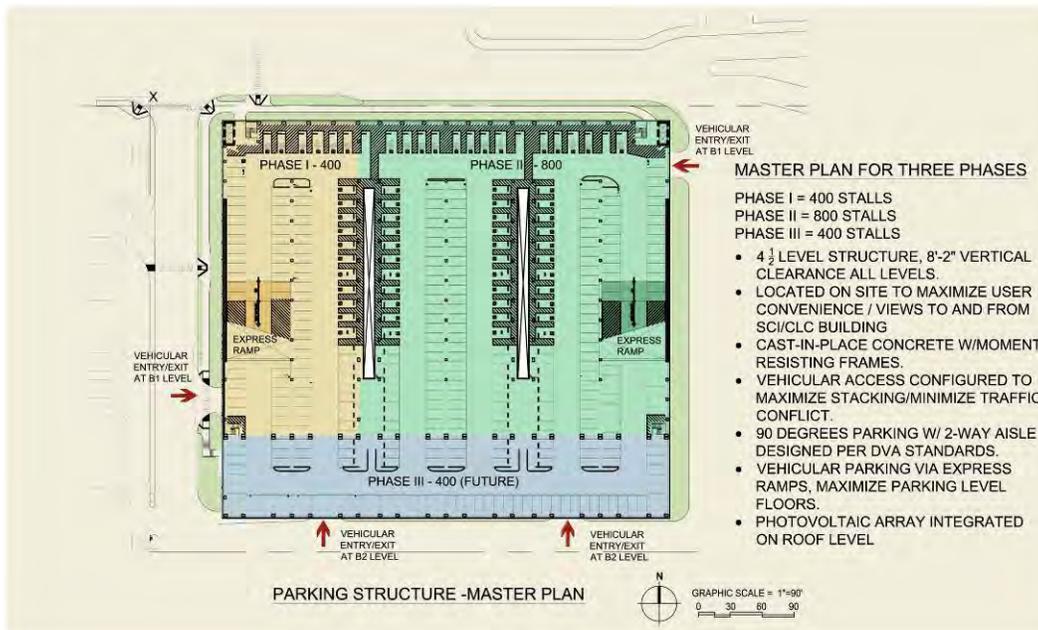


Figure 10. Plan of fully built-out parking structure

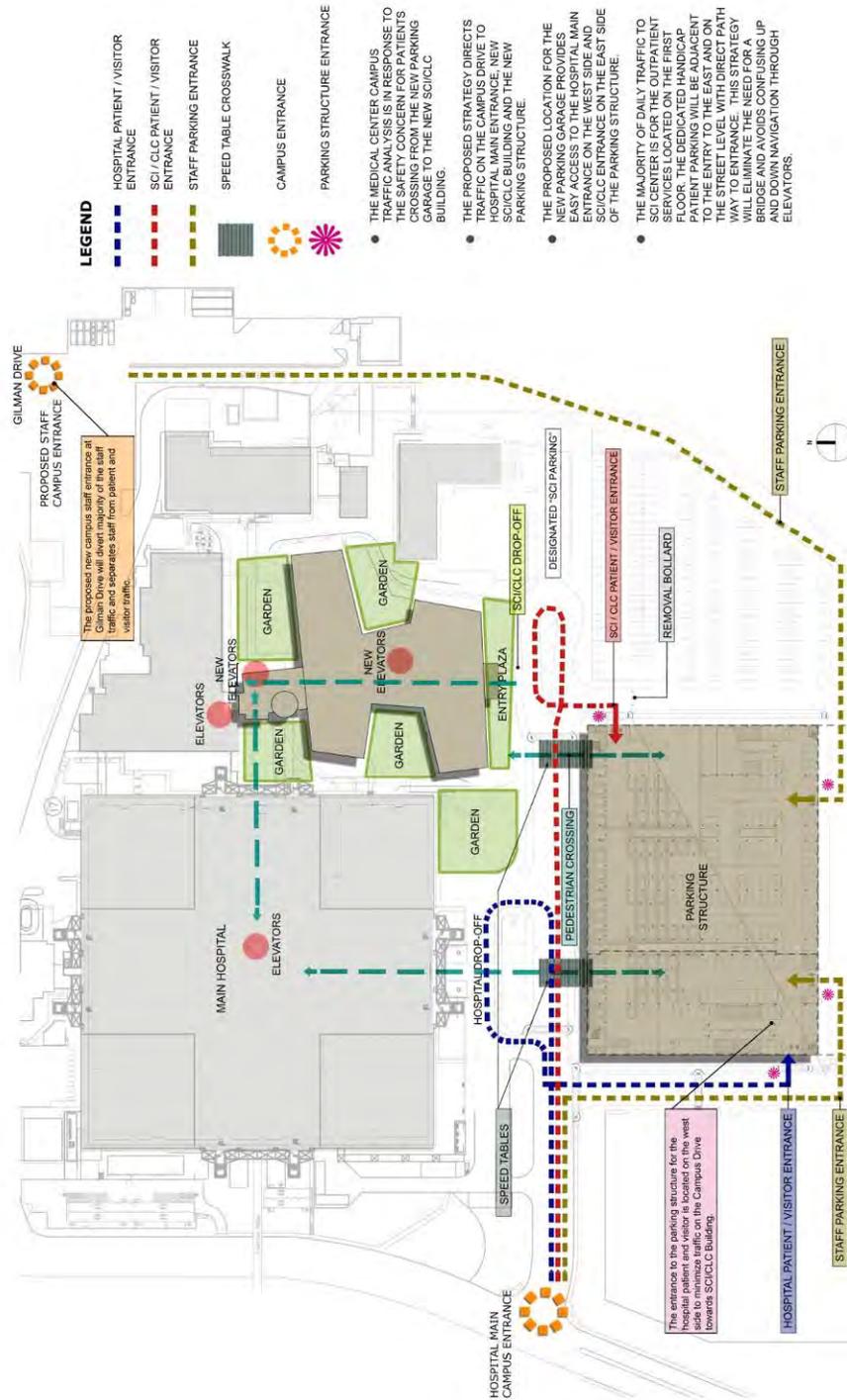


Figure 11. Proposed site layout and traffic patterns

3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

This section describes the existing baseline conditions of the environment affected by the project alternatives and the likely consequences the project alternatives would have on this environment.

3.1 Local Environmental Setting

The VA Medical Center is located off of La Jolla Village Drive near the interchange with Interstate 5 in San Diego. The Project area is in the unsectioned Pueblo Lands of San Diego in Township 15 South, Range 3 West, San Bernardino Base and Meridian, at an elevation of about 350 feet above mean sea level. The VAMC San Diego property consists of three adjacent parcels owned by the federal government bounded by Interstate 5 to the east, La Jolla Village Drive to the south, Villa La Jolla Drive to the west, and Gilman Drive to the north. These three parcels comprise 26 acres and contain the Medical Center buildings; landscaped areas with trees, shrubs, and grass; and paved parking areas (figure 4). The University of California, San Diego campus is adjacent to Medical Center to the west, north, and east. Commercial properties are located south of La Jolla Village Drive. The Medical Center is located on a coastal terrace between the Pacific Ocean to the west and Soledad Canyon to the northeast and Rose Canyon to the southeast. Two parcels leased from UCSD are used for parking by the Medical Center but are not part of the project area (ECORP 2009).

The adjacent University of California, San Diego campus shares many environmental characteristics with the VA Medical Center and has a related land use history. The University completed a Final Environmental Impact Report (FEIR) for their Long Range Development Plan in 2004 (PBS&J 2004b) and, more recently, completed an FEIR for a new medical facility located about a quarter-mile northeast of the VAMC (Helix 2010). The technical reports associated with these projects provide environmental baseline data for the area encompassing or near to the VAMC, and were reviewed to support the initial screening of likely environmental effects of the proposed VAMC SCI/CLC project.

3.2 Resources Analyzed

An initial screening process was used to determine which environmental resources were likely to be significantly adversely impacted by the proposed action. Because the project is specifically designed to produce certain environmental benefits (e.g., aesthetic architecture, reduction of seismic hazard) and to avoid or mitigate others (e.g., reduce energy and water use, increase material recycling), some environmental resources were dismissed from further discussion. In other cases, environmental resources were dismissed from further analysis if they were unlikely to be significantly impacted by the proposed project. The remaining resources were analyzed further to assess the likely impacts of the proposed action and to determine what actions should be taken to mitigate adverse impacts.

Impact Intensity is a measure of the severity of an impact, and is used here to determine the relative significance of the impact for the purpose of screening. The intensity of an impact may be:

- Negligible, when the impact is localized and not measurable or at the lowest level of detection;
- Minor, when the impact is localized and slight but detectable;
- Moderate, when the impact is readily apparent and appreciable; or
- Major, when the impact is severe and highly noticeable.

Table 1 indicates which resources were dismissed or retained for analysis, and the rationale for doing so.

Table 1. Environmental resources assessed in the EA

Resource	Dismissed?	Rationale
Aesthetics	Yes	The proposed SCI/CLC building and parking garage were designed to enhance the (interior and exterior) aesthetic qualities of the medical facilities and improve the healing environment (<i>gkkworks</i> 2010b). The landscaping, open space, and ground amenities design will contribute to this objective. The “split-level” grading and partial subterranean construction will reduce the visibility of the parking garage relative to the existing structures. Because the new construction is consistent with the current appearance of the Medical Center as a built-up facility, the effect on aesthetic values of the area is considered negligible.
Air Quality	No	Construction at the project site will create dust, smoke, and engine emissions. Appropriate VA and other regulatory guidance will be followed during construction. The addition of building space and resident capacity at the Medical Center will increase electrical demand over current base-line conditions. As part of the VA Sustainable Design and Energy Reduction requirements and LEED criteria, the new buildings are specifically designed to allow for long-term reductions in energy use and air emissions compared to conventional building layouts (<i>gkkworks</i> 2010b). Construction of the new facilities will cause a minor, temporary negative impact to local air quality.
Community Services	Yes	As part of the LEED sustainable sites criteria, this project will enhance community connectivity through architectural and landscape design, encourage alternative transportation (e.g., bicycle and electric vehicle facilities), improve public transportation access, and improve walk-ability of the pedestrian paths. These features will have a long-term beneficial effect on Medical Center campus (<i>gkkworks</i> 2010b). Off-site parking and shuttle bus service will be provided during construction of the new buildings to mitigate for temporary loss of on-site parking, resulting in a negligible impact to local community services.
Cultural Resources	Yes	A Phase I historic preservation study was conducted in accordance with the National Historic Preservation Act (NHPA) requirements and found no eligible properties at the Medical Center or other cultural resources of concern. The State Historic Preservation Officer (SHPO) was consulted and agreed with the determination. The proposed action will therefore have a negligible impact on local cultural resources (ECORP 2009; see Appendixes A and B).
Economic Activity	Yes	The project construction phase will have a short-term beneficial impact by providing additional jobs and purchase of goods in the area. The addition of medical staff associated with the increase in SCI/CLC residents will create a long-term increase in the number of jobs at the facility. Potential negative impacts to local economic activity are considered negligible.
Environmental	Yes	Medical Center residents and staff comprise a broad range of economic and ethnic

Table 1. Environmental resources assessed in the EA

Resource	Dismissed?	Rationale
Justice		groups. The Medical Center is bordered to the north, east, and west by the University of California, San Diego, which is designated as having a low median household income (< \$27K) due to the student populations (ESRI 2010). Neighborhoods south of the Medical Center have median incomes between \$40K and \$80K, while areas further to the west include median household incomes between \$80K and \$375K. Given the localized nature of the proposed project, low-income or minority populations will not be disproportionately impacted by this project, and therefore a negligible impact on environmental justice.
Floodplains, Wetlands, Coastal Zone, Etc.	Yes	The Medical Center is outside of the FEMA-designated 100-year and 500-year floodplains, and is not regulated under Executive Order 11988 - Floodplain Management (PBS&J 2004a, 2004b). The project site is outside of a Coastal Zone Management area, although runoff from the Medical Center does enter streams that are partially within the nearby Coastal Management Zone. No wetlands occur on the project site (PBS&J 2004a). The project will not negatively affect floodplains or related resources. Because the new construction does not significantly alter the aesthetics of the area, it does not negatively impact the nearby Coastal Management Zone. Refer to the Aesthetics, and Hydrology and Water Quality sections for additional discussion.
Geology and Soils	Yes	Investigations by Ninyo and Moore (2003, 2005) reported that the project site is situated on fill material overlaying Eocene-age Scripps Formation sediments (marine deposits). There are no active faults or landslides underlying or adjacent to the site; however, the active Rose Canyon fault zone is located about 2 miles away. The potential for strong ground motion is significant. Groundwater was not encountered during the 2005 borings. Since the proposed new SCI/CLC building and parking garage are designed to meet VA seismic design requirements, the project will help mitigate local geologic hazards and enhance the long-term safety of residents and staff at the Medical Center. Potential negative impacts to local geology and soils resources are negligible.
Hydrology And Water Quality	No	During construction and demolition phases, runoff from the project site could contribute silt and pollutants to the storm drain system. This temporary, short-term impact will be prevented by application of construction Best Management Practices (BMPs) and careful monitoring of the construction contractors. The proposed project will incur long-term benefits to water quality through improved stormwater management and stormwater design, water efficient landscaping, and water use (<i>gkkworks</i> 2010b). The overall potential negative effect of this action to water resources is considered minor and mitigable.
Land Use	yes	The Medical Center is bordered on the north and west by the UCSD campus, on the east by highway, and on the south by commercial and residential property. The VAMC campus is part of former Camp Matthews (US Marine Corps) (Parsons 2007, USACE 1999) and, although there is not a specific risk of encountering unexploded ordnance, appropriate caution needs to be exercised during excavation. This proposed construction of a new SCI/CLC building and parking garage will be consistent with current institutional land use. The new buildings and ground improvements will have a long-term beneficial impact on utilities, traffic circulation, and parking at the facility (<i>gkkworks</i> 2010b). The new construction will have a negligible impact on local land use.
Noise	No	This project will cause a temporary, short-term increase in noise during the construction/demolition phases that may have an adverse impact on Medical Center residents and workers, and neighboring communities. As this is a medical facility, additional noise control measures may be required during construction. The new buildings will incorporate noise reduction features that will have a long-term benefit to occupants (<i>gkkworks</i> 2010b). The project will have temporary, minor impact on this resource.
Potential For	Yes	There are no known or anticipated issues likely to generate substantial issues among

Table 1. Environmental resources assessed in the EA

Resource	Dismissed?	Rationale
Generating Substantial Controversy		Medical Center stakeholders, regulatory agencies, or the general public. The likely negative impact of the project on these resources is negligible.
Solid/Hazardous Waste	No	During demolition and construction phase, various hazardous wastes and other debris will be generated. The potential short-term, temporary adverse impact will be minor and will be avoided and mitigated through close adherence to federal, state, and local regulations, and incorporated into construction contracts. VA sustainable design and LEED design features are incorporated in the new building construction and operation, increasing the amount of recycled and bio-based content, and increasing the salvage and recycling of building materials and demolition debris (<i>gkkworks</i> 2010b). The project will therefore have a beneficial effect on long-term solid/hazardous waste management at the Medical Center.
Transportation And Parking	No	During demolition and construction there will be a temporary, short-term alteration in facility access roads and reduction in parking (AS&G 2009). These minor adverse impacts will be mitigated by implementation of a traffic management plan that will include off-site parking and shuttle services during construction. The completed project will create improved traffic and parking conditions creating a long-term benefit in this category.
Utilities	Yes	The proposed new SCI/CLC building will be constructed to VA sustainable design and LEED design criteria that require increased efficiency in heat generation, air conditioning, lighting, and water systems over existing facilities. Though there will be a net increase in resident population, the more efficient utilities will reduce energy and water consumption, and result in a long-term benefit to the Medical Center. The change to native landscaping, rain harvesting, and high-efficiency irrigation systems will save water. Existing drainage patterns will not be significantly affected. An analysis of water supply and wastewater facilities found that the current utilities were capable of meeting future demands resulting from the new facilities, although some utility lines would need to be rerouted (<i>gkkworks</i> 2010b). The potential negative impact of this project on utilities is considered negligible. See the Hydrology and Water Quality section concerning stormwater utilities.
Vegetation and Wildlife	Yes	The Medical Center is a fully developed facility where native habitats have been replaced by urban landscaping. Habitat maps of UCSD campus show no sensitive wildlife habitat adjacent to the VAMC (Helix 2004). The US Fish and Wildlife Service (USFWS) does not require endangered species assessment for this built-up facility as there will be no effect on listed species. During the demolition/ construction phases, there will be a temporary removal of trees from the SCI/CLC and parking garage sites. However, the project will mitigate the loss of individual trees by planting new mature trees and by the establishment of healing gardens that will increase floral diversity and encourage bird use of the area. The potential negative impact to vegetation and wildlife resources is considered negligible.
US Environmental Regulations	No	The VA will be in compliance with all applicable environmental regulations regarding this project from design, through construction, and operational phases. Contract provisions will call for regulatory compliance during construction/demolition. The VAMC will use its Green Environmental Management System (GEMS) program to ensure regulatory compliance during operation.
Cumulative Effects	No	Expansion of the proposed parking garage (by 400 spaces) beyond the currently planned 1,200 spaces may be implemented as a future project. In addition, the VA has considered installing a large-scale solar photovoltaic system on the existing and proposed Medical Center buildings (Potomac-Hudson 2010). These possible future projects, in combination with the current proposed action may have a minor cumulative effect on the local area, primarily from short-term negative impacts associated with construction activities.

3.3 Air Quality

Air quality in a given location is defined by pollutant concentrations in the atmosphere and is generally expressed in units of parts per million (ppm) or micrograms per cubic meter (g/m^3). One aspect of significance is a pollutant's concentration in comparison to a national and/or state ambient air quality standard. These standards represent the maximum allowable atmospheric concentrations that may occur and still protect public health and welfare with a reasonable margin of safety. The national standards, established by the US Environmental Protection Agency (USEPA), are termed the National Ambient Air Quality Standards (NAAQS). The NAAQS represent maximum acceptable concentrations that generally may not be exceeded more than once per year, except the annual standards, which may never be exceeded. State standards, established by the California Air Resources Board (CARB), are termed the California Ambient Air Quality Standards (CAAQS).

The main pollutants of concern considered in this air quality analysis include volatile organic compounds (VOCs), ozone (O_3), carbon monoxide (CO), nitrogen oxides (NO_x), particulate matter less than or equal to 10 microns in diameter (PM_{10}), and particulate matter less than or equal to 2.5 microns in diameter ($\text{PM}_{2.5}$). Although VOCs or NO_x (other than nitrogen dioxide) have no established ambient standards, they are important as precursors to O_3 formation. The region of influence (ROI) for this air quality analysis is the entire San Diego Air Basin (SDAB), which encompasses San Diego County.

3.3.1 Existing Condition

The following discussions provide information on the regulatory conditions that are applicable to the Proposed Action Alternative.

Ambient Air Quality

The USEPA designates all areas of the U.S. in terms of having air quality better (attainment) or worse than (nonattainment) the NAAQS. An area generally is in nonattainment for a pollutant if its NAAQS has been exceeded more than once per year. Former nonattainment areas that have attained the NAAQS are designated as maintenance areas. Presently, the San Diego Air Basin is in attainment of the NAAQS for all pollutants except O_3 . Additionally, the western portion of the SDAB (the portion of the County generally west of the interior desert region) was historically in nonattainment of the NAAQS for CO. Due to a reduction in emissions caused by national emission standards for new vehicles and a state vehicle emissions testing program, the region has attained the CO standards since 1991. As a result, the region was re-designated to attainment of the CO NAAQS by the USEPA in June 1998, and it is now considered a maintenance area for CO.

Federal Requirements

The Federal Clean Air Act (CAA) of 1969 and its subsequent amendments establish air quality regulations and the NAAQS and delegate the enforcement of these standards to the states. The CAA Amendments of 1990 established new federal nonattainment classifications, new emission control requirements, and new compliance dates for nonattainment areas. The requirements and compliance dates are based on the severity of the nonattainment classification.

The General Conformity Rule (40 CFR 51.850-860 and 40 CFR 93.150-160) requires any federal agency responsible for an action in a nonattainment or maintenance area to determine that the action conforms to the applicable the California State Implementation Plan (SIP). Under existing federal guidelines, the action proponent must establish that the Proposed Action Alternative will not (1) cause or contribute to any new air quality standard violation, (2) increase the frequency or severity of any existing standard violation, or (3) delay the timely attainment of any standard, interim emission reduction, or other milestone (USEPA 2010).

The emission thresholds that trigger requirements for a conformity analysis are called *de minimis* levels. *De minimis* levels (in tons per year) vary from pollutant to pollutant and are also subject to the severity of the nonattainment status. Actions would conform to a SIP if their annual direct and indirect emissions remain less than the applicable *de minimis* thresholds. The rule allows for approximately 30 exemptions that are assumed to conform to an applicable SIP. Emissions of attainment pollutants are exempt from conformity analyses. The applicable *de minimis* levels for the project area are listed in Table 2.

Table 2. *De minimis* thresholds

Pollutant	Nonattainment Classification	<i>De minimis</i> Threshold, tons/year
Oxides of Nitrogen (NO _x) (O ₃ precursor)	Moderate (O ₃)	100
Volatile Organic Compounds (VOCs) (O ₃ precursor)	Moderate (O ₃)	100
Carbon Monoxide (CO)	Maintenance	100

Compliance is presumed if the net increase in direct and indirect emissions from a federal action would be less than the relevant *de minimis* level. However, if the increase in emissions for a nonattainment pollutant exceeds *de minimis* levels, a formal conformity determination process must be implemented. If emissions exceed their respective *de minimis* levels, further analysis of the emissions and their consequences would be performed to assess whether there is a likelihood of a significant impact to air quality.

State Requirements

The CARB enforces air pollution regulations and sets guidelines to attain and maintain the NAAQS and CAAQS within the state of California. These guidelines are found in the California State Implementation Plan.

The California CAA of 1988, as amended in 1992, outlines a program to attain the CAAQS for O₃, nitrous oxide (NO₂), sulfur dioxide (SO₂), particulate matter, and CO by the earliest practical date. Since the CAAQS are more stringent than the NAAQS, emissions reductions beyond what would be required to show attainment for the NAAQS would be needed to show compliance with the CAAQS. CARB delegates the authority to regulate stationary source emissions to local air quality management districts. The CARB requires these agencies to develop their own strategies for achieving compliance with the NAAQS and CAAQS, but maintains regulatory authority over these strategies, as well as all mobile source emissions throughout the state. The San Diego Air Pollution Control District (SDAPCD) is the local agency responsible for enforcement of air quality regulations in the project region.

Local Regulations

The SDAPCD is responsible for regulating stationary sources of air emissions in the SDAB. The SDAPCD Rules and Regulations establish emission limitations and control requirements for stationary sources, based on their source type and magnitude. The SDAPCD and the San Diego Association of Governments are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB, which is the SDAB's input to the SIP. In addition, SDAPCD Conformity Rule 1501 provides general conformity guidance to ensure that federal actions are consistent with the efforts of the SDAPCD to achieve its NAAQS attainment goals.

Greenhouse Gas Emissions

Greenhouse gases (GHGs) are gases that trap heat in the atmosphere. These emissions occur from natural processes and human activities. The accumulation of GHGs in the atmosphere regulates the earth's temperature. Scientific evidence indicates a trend of increasing global temperature over the past century due to an increase in GHG emissions from human activities. Global climate change is predicted to produce negative economic and social consequences across the globe.

Recent observed changes due to global climate change include shrinking glaciers, thawing permafrost, a lengthened growing season, and shifts in plant and animal ranges (Intergovernmental Panel on Climate Change 2007). Predictions of long-term environmental impacts due to global climate change include sea level rise, changing weather patterns with increases in the severity of storms and droughts, changes to local and regional ecosystems including the potential loss of species, and a significant reduction in winter snow pack. In California, predictions of these effects include exacerbation of air quality problems, a reduction in municipal water supply from the Sierra snowpack, a rise in sea level that would displace coastal businesses and residences, damage to marine and terrestrial ecosystems, and an increase in the incidence of infectious diseases, asthma, and other human health problems (California Environmental Protection Agency 2006).

The most common GHGs emitted from natural processes and human activities include carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Examples of GHGs created and emitted primarily through human activities include fluorinated gases (hydro fluorocarbons and per fluorocarbons) and sulfur hexafluoride. Each GHG is assigned a global warming potential (GWP). The GWP is the ability of a gas or aerosol to trap heat in the atmosphere. The GWP rating system is standardized to CO₂, which has a value

of one. For example, CH₄ has a GWP of 21, which means that it has a global warming effect 21 times greater than CO₂ on an equal-mass basis. Total GHG emissions from a source are often reported as a CO₂ equivalent (CO₂e). The CO₂e is calculated by multiplying the emission of each GHG by its GWP and adding the results together to produce a single, combined emission rate representing all GHGs.

Federal agencies are, on a national scale, addressing emissions of GHGs by reductions mandated in federal laws and Executive Orders, most recently, Executive Order 13423. Several states have promulgated laws as a means to reduce statewide levels of GHG emissions. In particular, the California Global Warming Solutions Act of 2006 directs the State of California to reduce statewide GHG emissions to 1990 levels by the year 2020.

3.3.2 Proposed Action Alternative

Implementation of the Proposed Action Alternative would result in air emissions associated with construction of the parking structure and SCI/CLC building, and associated with operation of the facility. Air quality impacts from proposed construction activities would occur from (1) combustion emissions due to the use of fossil fuel-powered equipment and (2) fugitive dust emissions (PM₁₀) during construction activities including demolition of existing pavement to accommodate the parking structure and SCI/CLC building.

Based on the project description, construction activities were assumed to commence in the latter half of 2013 and continue through 2018. Construction of the Phase 1 parking structure (400 spaces) would occur first, with construction of the Phase 2 parking structure (800 spaces) occurring subsequently, and construction of the SCI/CLC building occurring after completion of the Phase 2 parking structure.

During construction, best management practices to control emissions of fugitive dust would be implemented to reduce potential impacts from earthmoving activities. Best management practices include the following:

- Water active grading sites a minimum of 3 times daily
- Cover loads or use a minimum of 2 feet of freeboard in trucks transporting loose construction materials
- Reduce speeds on unpaved surfaces to 15 mph or less
- Promptly remove spilled or tracked dirt or other materials from paved streets at construction site entrances

Construction emissions were estimated using the CalEEMod Model, Version 2011.1.1 (ENVIRON 2011). The CalEEMod Model is the latest version of the air quality model developed for land use planning projects by the South Coast Air Quality Management District (SCAQMD) for projects within the state of California. The CalEEMod Model uses emission factors from the CARB's EMFAC2007 Model for on-road vehicles and the CARB's OFFROAD2007 Model for off-road construction equipment. Table 3 presents a summary of the estimated annual construction emission by year of construction in comparison with the *de minimis* levels for the SDAB.

Table 3. Proposed Action construction emissions

Year of Construction	Emissions, tons/year					
	VOCs	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2013	0.47	3.36	2.25	0.00	0.30	0.23
2014	1.28	8.02	5.76	0.01	0.74	0.54
2015	1.29	6.91	5.85	0.01	0.71	0.44
2016	0.74	5.30	4.00	0.01	0.49	0.34
2017	0.59	3.91	3.55	0.01	0.32	0.22
2018	1.73	4.74	4.36	0.01	0.41	0.31
<i>De Minimis Emission Thresholds</i>	100	100	100	N/A	N/A	N/A
<i>Above de minimis?</i>	No	No	No	N/A	N/A	N/A

Operational emissions associated with operation of the SCI/CLC building were also calculated using the CalEEMod Model. The CalEEMod Model includes calculations of emissions from area sources such as landscaping and consumer products use, emissions from energy use, and vehicular emissions. Table 4 presents a summary of the emissions calculated for operation of the Proposed Action in comparison with the *de minimis* thresholds.

Table 4. Proposed Action Alternative operational emissions

Source	Emissions, tons/year					
	VOCs	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Sources	0.66	0.00	0.00	0.00	0.00	0.00
Energy Use	0.05	0.41	0.34	0.00	0.03	0.03
Mobile Sources	1.64	3.34	15.65	0.03	0.90	0.20
Total	2.35	3.75	15.99	0.03	0.93	0.23
<i>De Minimis Emission Thresholds</i>	100	100	100	N/A	N/A	N/A
<i>Above de minimis?</i>	No	No	No	N/A	N/A	N/A

As shown in Tables 3 and 4, the emissions for both construction and operation are below the *de minimis* levels. The Proposed Action Alternative would therefore not be subject to the requirements of the General Conformity Rule.

The Proposed Action Alternative would result in emissions of GHGs from construction and operations. Based on the CalEEMod Model, emissions of GHGs from construction would total 4,161 metric tons of CO₂e over the duration of the construction activities. Emissions of GHGs from operation would total

3,449 metric tons of CO₂e annually. Currently, there are no formally adopted or published CAA thresholds for GHG emissions.

On February 18, 2010, the U.S. Council on Environmental Quality (CEQ) released draft guidance on addressing climate change in NEPA documents. The draft guidance, which has been issued for public review and comment, recommends quantification of GHG emissions, and proposes a threshold of 25,000 metric tons of carbon dioxide equivalent (CO₂e) emissions. The CEQ indicates that use of 25,000 metric tons of CO₂e emissions as a reference point would provide federal agencies with a useful indicator, rather than an absolute standard of significance, for agencies to provide action-specific evaluation of GHG emissions and disclosure of potential impacts. The GHG emissions associated with the Proposed Action are well below this proposed CEQ threshold. Construction of the new facilities will cause a minor, temporary impact to local air quality.

3.3.3 No Action Alternative

Under the No Action Alternative, the parking structures and SCI/CLC building would not be constructed. Implementation of the No Action Alternative would result in no change to the ambient air quality or climate. Construction and operations associated with the Proposed Action Alternative would not occur. Ambient air quality would remain unchanged when compared to existing conditions.

3.4 Hydrology and Water Quality

Section 402(p) of the federal Clean Water Act (CWA), as amended, requires National Pollutant Discharge Elimination System (NPDES) permits for storm discharges to waters of the United States. The USEPA promulgated 40 CFR Part 122.26 which establishes requirements for storm water discharges under the NPDES program. The California State Water Resources Control Board (SWRCB) maintains the NPDES general permit for storm water discharges from small municipal separate storm sewer systems (MS4s) under Water Quality Order No. 2003-0005-DWQ, NPDES General Permit CAS000004 (SWRCB 2003). This permit is set to expire June 30, 2013 and will be replaced by Water Quality Order No. 2013-001 DWQ effective July 1, 2013. The VAMC San Diego campus is listed as a “non-traditional” MS4 and will be designated to seek coverage under this new SWRCB general permit.

The VA Medical Center is located within the Rose Creek watershed which drains into San Diego’s Mission Bay (KTU+A 2005). Runoff from this watershed is managed according to the City’s Mission Bay and La Jolla Watershed Urban Runoff Management Plan (City of San Diego 2008a, 2008b). Rose Creek is currently listed as an “impaired waterbody” on the State’s CWA Section 303(d) List of Water Quality Limited Segments for the following pollutants: lead, selenium, toxicity, and eutrophic conditions (RWQCB-SDR 2008). Total Maximum Daily Load (TMDL) values for these pollutants are not yet established for Rose Creek.

Section 438 of the Energy Independence and Security Act of 2007 (EISA) requires sponsors of development or redevelopment projects involving federal facilities to use site planning, design, construction, and maintenance strategies to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to temperature, rate, volume, and

duration of flow (USEPA 2009). The design of the new VAMC facilities provides an opportunity for the VA to improve storm runoff through a combination of rain gardens, infiltration planters, porous pavements, green roofs, rainwater harvesting, and other sustainable design features.

Any discharges associated with hydrostatic testing or dewatering, and construction will follow the terms of San Diego Regional Water Quality Control Board Orders R9-2002-0020 and R9-2001-0096 (RWQCB-SDR 2002 and 2001). The VA construction contractor will seek coverage under the 2009-0009-DWQ Construction General Permit prior to construction and will comply with the permit requirements (SWRCB 2010).

3.4.1 Existing Condition

The Medical Center currently has underground storm drainage piping constructed across the campus to convey drainage from the existing buildings and the open landscape and parking lot areas to points of drainage discharge off-site. The existing drainage patterns, following the terrain of the site, divide the medical campus into three distinct drainage areas over the approximately 33-acre site. The total includes approximately six acres of parking lot area leased from UCSD (Halladay & Mim Mack 2011; *gkkworks* 2010b).

The largest drainage area, approximately 13 acres, conveys drainage from the northerly portion of the site, from Gilman Drive south to the Medical Campus Drive. This drainage area conveys 75 percent of the Building No. 1 site coverage, and all of Building Nos. 2, 11 and 13 (figure 4). This drainage area will completely encompass the new SCI/CLC building footprint. All storm drain runoff from this drainage area is eventually intercepted by underground drain pipes and carried toward the east where existing 12-inch and 18-inch storm drain lines converge to outlet the drainage into the Caltrans right-of-way for Interstate 5 (*gkkworks* 2010b).

A smaller drainage area to the west, approximately three acres, conveys drainage westerly toward Via La Jolla Drive. This area includes storm runoff from the southwest quarter of Building No. 1, and Medical Drive descending to Via La Jolla Drive. Drainage in this tributary area is also intercepted by roof drains and onsite basins and conveyed to an offsite storm drain pipe in Via La Jolla Drive. Across the southern side of the campus and including a portion of the UCSD property, the third drainage area directs drainage southerly to the south Medical Center boundary line. Runoff from this 9-acre area is partially intercepted by a 12-inch storm drain line in the central parking lot which drains to the south property line and outlets into the ravine south of the campus. The proposed construction of the new parking structure is entirely within this third drainage area (*gkkworks* 2010b).

The water quality of stormwater runoff from the southern parking lot is not known. There is evidence of historic soil erosion in the ravine below the outfall of the drain line, which is on UCSD property. The current configuration incorporates no specific stormwater "best management practices" other than adequate sizing and distribution of the drainage system.

3.4.2 Proposed Action Alternative

Implementation of the Proposed Action Alternative, to include construction of both the new SCI/CLC buildings and the parking structures, will not alter the overall drainage patterns of the campus. In fact, because the individual drainage areas will remain unchanged and with the addition of new landscape areas the incorporation of “green roof” construction, and the planned implementation of rainfall harvesting of storm runoff in the parking structures, the total storm drain runoff is not expected to change significantly (*gkkworks* 2010b). The establishment of these new water features will ensure the project complies with Section 438 of the EISA.

Both retention and detention of rainfall runoff are possible mitigation measures for storm runoff volumes and for water cleansing. Rainfall harvesting is planned for the areas of the parking structure and where possible, infiltration will be implemented as a means of reducing storm water runoff. Existing 8-inch and 12-inch storm drain lines lie below the future footprint of the SCI/CLC building. These lines will be removed and replaced with new lines to continue to convey storm water runoff easterly toward the existing drainage outlet for the northerly drainage area. New storm drain lines will be installed in the south portion of the site to convey overflow of the parking garage and surface flow from the parking lots to points of outlet into the ravine south of the Medical Center (*gkkworks* 2010b). A hydrologic and hydraulic analysis found that construction of the new SCI building and parking structure will not affect the existing drainage patterns and will have a negligible effect on storm drain runoff (Halliday & Mim Mack 2011).

During construction, surface vegetation will be removed and soils exposed to potential erosion. Any potential sedimentation would be short-term and would not likely cause adverse impacts to downstream water quality. VA CFM construction specifications, Temporary Environmental Controls (01 57 19) and the mitigation measures highlighted in Section 5 will be followed to mitigate any potential contamination of surface waters by the construction activity. Consequently, the overall potential negative effect of the project on water resources is considered minor, mitigated to negligible.

3.4.3 No Action Alternative

Implementation of the No Action alternative would result in no change to the hydrology and water quality at the project sites. Construction of the Proposed Action would not occur and no reduction in water runoff amount or contaminants (from open parking areas) would be realized.

3.5 Noise

Noise, or unwanted sound, was originally managed at the federal level by the Noise Control Act (NCA) of 1972, which was administered by the USEPA. Under this Act, Congress tasked the USEPA with determining the extent and effects of different qualities and quantities of noise and defining acceptable levels of noise toward public health and safety. Since 1982, the responsibility of noise abatement and control has been delegated to state and local governments, but the noise levels and exposure recommendations developed by the USEPA under the Noise Control Act are still relevant (HDR 2009).

Noise is generally defined as unwanted sound. Sound is most commonly measured in decibels (dB) on the A-weighted scale, which is the scale most similar to the range of sounds that the human ear can hear. The Day-Night Average Sound Level (DNL) is an average measure of sound. The DNL descriptor is accepted by federal agencies as a standard for estimating sound impacts and establishing guidelines for compatible land uses. USEPA guidelines, and those of many other federal agencies, state that outdoor sound levels in excess of 55 decibels DNL are “normally unacceptable” for noise-sensitive land uses such as residences, schools, or hospitals (HDR 2009). In San Diego, noise is regulated under the City of San Diego noise ordinances (City of San Diego 1973).

3.5.1 Existing Condition

The VA Medical Center experiences similar noise and vibration conditions as the adjacent University of California, San Diego campus. In 2004, UCSD conducted a campus-wide noise analysis as part of its Long Range Development Plan FEIR (URS 2004). Several of the noise sampling sites were within 1,000 feet of the Medical Center buildings, including sites near La Jolla Village Drive to the south, Villa La Jolla Drive to the west, Gilman Drive to the north, and Interstate 5 to the east.

Vehicle traffic on Interstate 5, nearby thoroughfares, and internal access roads was found to be the primary source of noise on the UCSD campus (URS 2004) and presumably on the VAMC campus. Emergency power plants; heating, ventilation, and air conditioning (HVAC) systems; and parking structures were the next greatest source. The University campus, including the VAMC, is not within two miles of a public airport but is about two miles west of Marine Corps Air Station Miramar. The VAMC area is subject to periodic overflights by commercial, general aviation, and military aircraft. However, the campus is not within the 60 dB Community Noise Equivalent Level (CNEL) contour of any airport and is not subject to aircraft noise in excess of the regulatory limit (URS 2004). Construction on and around the UCSD campus was found to generate noise audible at nearby noise-sensitive land uses. Construction noise levels vary depending on distance between the activity and receptors, and the type of equipment used, how it is operated, and how well the equipment is maintained (URS 2004).

URS (2004) found that the estimated increase in traffic related to UCSD development would not significantly increase noise at existing campus facilities but could have a detrimental effect on any new facilities placed near traffic sources. If facilities need to be built near noise sources, architectural features should be used to mitigate the impact. The establishment of new stationary noise sources, such as HVAC systems and parking garages, could negatively impact nearby noise-sensitive receptors like residences, dormitories, and classrooms. These potential noise impacts can be mitigated by appropriate architectural and engineering design measures. URS (2004) also found that construction equipment noise could be mitigated through standard construction contract management and noise control methods.

The VAMC San Diego facility is adjacent to and partially surrounded by the UCSD campus, and is presumably affected by the same noise sources. Early analysis of the VAMC property indicated that traffic noise was unacceptably high along the eastern edge of the property nearest Interstate 5 (GLHN

2008), which, among other factors, resulted in the new SCI/CLC building being designed closer to the existing hospital tower.

3.5.2 Proposed Action Alternative

A key design criterion for the Proposed Action Alternative is the control of interior and exterior noise so as to enhance the healing environment. The acoustic features of the new buildings will create a long-term benefit to the residents and workers at the facility. Because there will only be a small percentage change in the Medical Center residents and workforce, no long-term increase in traffic-related noise is anticipated on the interior road network or parking areas.

Demolition, excavation, and construction activities will create a temporary, short-term increase in noise within the vicinity of the project. Ambient noise levels associated with construction activities at the site will be minimized by application of the mitigation measures highlighted in Section 5, including the VA CFM standard Temporary Environmental Controls specifications (MF04 Section 01 57 19), which limit the maximum permissible noise levels to 75 dB(A) at 50 feet from most earthmoving or material handling equipment (VA 2010e). The construction contract specifications will also limit the hours of operation for construction equipment in compliance with City of San Diego noise ordinances (City of San Diego 1973). The project would have a temporary, minor impact on local sound resources.

3.5.3 No Action Alternative

Implementation of the No Action alternative would result in no change to the noise levels on the Medical Center or nearby communities. VA Medical Center residents and staff would not benefit from the acoustical improvements designed into the new buildings.

3.6 Solid and Hazardous Wastes

The California Department of Resources Recycling and Recovery (CalRecycle) administers programs formerly managed by the State's Integrated Waste Management Board and Division of Recycling (CalRecycle 2010). CalRecycle oversees regulations and permit requirements related to solid waste disposal and management. The California Department of Toxic Substances Control (DTSC) implements California's hazardous waste management program and enforces the hazardous waste management rules (DTSC 2010). Hazardous waste activities must comply with regulations found in Title 22 of the California Code of Regulation, as well as all applicable Federal regulations under 40 CFR 260-268, 273, and 279 and 29 CFR 1910.

3.6.1 Existing Condition

The VA/*gkkworks* design team reviewed the current and proposed solid and hazardous waste handling procedures and facilities at the Medical Center. The Medical Center does not incinerate its waste. General waste is collected and compacted at the existing loading dock, and is hauled as scheduled by the contract waste hauler. A separate specialized waste contractor is used to pick-up and process Regulated Medical Waste (RMW), sharps containers and hazardous waste, which must be treated prior to disposal in a sanitary landfill. These waste streams are staged for pick-up within the Building 18 Waste

Management Center (WMC) (figure 4). Recyclable waste is also staged at the Building 18 WMC, and is hauled to a recycling center by VA staff for processing (*gkkworks* 2010b).

3.6.2 Proposed Action Alternative

Implementation of the Proposed Action Alternative in accordance with current VA sustainability goals and LEED design criteria will substantially reduce the amount of operational waste generated by the SCI/CLC functions of the Medical Center and increase the amount of material recycling, based on the LEED NC 2009 scorecard developed for the project (*gkkworks* 2010c). There will be a temporary, short-term increase in the amount of solid waste and hazardous waste produced by construction of the new SCI/CLC building and the parking garage. Removal of existing structures, utilities, and asphalt parking surfaces would create additional solid waste. The use of VA sustainability and LEED guidelines in the building design will reduce the amount of waste material produced. The adverse impacts of any necessary waste production will be avoided, minimized, or mitigated by application of the VA CFM construction specifications, including Temporary Environmental Controls (01 57 19), and Construction Waste Management (Section 01 74 19), as well as other mitigation measures highlighted in Section 5. The construction contractor will also comply with San Diego Municipal Code regarding the Collection, Transportation and Disposal of Refuse and Solid Waste (City of San Diego 2007). The project will therefore have a net beneficial effect on long-term solid/hazardous waste management at the Medical Center.

3.6.3 No Action Alternative

Under the No Action Alternative, the VA Medical Center would continue its current operations and would generate the same types and quantities of hazardous and non-hazardous wastes. Wastes would continue to be collected and transported for off-site disposal or recycling in accordance with federal, state, and local regulations. No changes in existing waste streams or adverse effects would occur.

3.7 Transportation and Parking

Transportation and parking are important aspects of the safe and efficient operation of the Medical Center. Ingress and egress to the public road system, and within the internal road and parking network, affect emergency response, security, facility maintenance, and the movement of patients, residents, staff, and visitors within the campus. Traffic is a potential source of noise and air pollution at the Medical Center. The VA sustainability guidelines and LEED criteria encourage the use of alternative transportation (e.g., bicycles, public transport) features in new building design and operation.

3.7.1 Existing Condition

AG&S (2009) conducted an initial traffic and parking assessment of the VA Medical Center and, among other things, found the following:

- Currently the hospital has an average daily traffic of close to 10,000 two way trips.

- The existing number of parking spaces is estimated at 2,095 parking spaces in Zones 1 to 3 of the VAMC parking lot.
- The current parking demand exceeds the available parking spaces, particularly in Zone 1.
- The existing parking demand at 85% level per current practice will require an additional 400 to 600 parking spaces.
- The VA Hospital is well served by existing transit service in the area, including the Metropolitan Transit System (MTS) and other public and private operated services.

3.7.2 Proposed Action Alternative

Implementation of the Proposed Action Alternative, to include phased construction of the parking garage associated with the SCI/CLC building, will meet the Medical Center's current transportation and parking needs as well as those associated with the likely increase in residents and staff (AG&S 2009). The increase in new trips to and from the Medical Center resulting from this action was found to be insignificant relative to the total number of existing trips (AG&S 2009). The Proposed Action Alternative incorporates a new traffic circulation pattern that will move traffic efficiently around the facility (see figure 11, above). The new route alignment, designated drop-off area for the SCI/CLC building, and multiple/separate entrances would improve accessibility to visitors and staff (*gkkworks* 2010c).

The construction and demolition activities associated with the Proposed Action Alternative would result in short-term loss of parking and road access. To mitigate for the loss of parking during construction, the VA will lease a remote parking facility for administrative and clinical staff. A shuttle transport will be used to transport staff to campus. The remote parking facility will be approximately five miles from the VAMC campus, and will pick up/drop off passengers every 30 minutes between 6:00 AM and 6:00 PM. Consequently, the project will have a minor negative impact on traffic and parking at the VAMC during construction.

3.7.3 No Action Alternative

Under the No Action Alternative, neither the new SCI/CLC building or the new parking structure would be constructed. The SCI functions would continue to use the seismically deficient Building 11 and parking would continue to be inadequate to meet current resident, visitor, and staffing needs. Consequently, the Medical Center's mission needs would not be met by this alternative.

3.8 US Environmental Regulations

The VA NEPA Interim Guidance for Projects (VA 2010c) provides guidance on compliance with key environmental requirements and pertinent legal authorities under NEPA. Table 5 lists these key legal authorities and the project's compliance status. The project is anticipated to comply with all applicable legal requirements.

Table 5 Project compliance with federal legal authorities

FI	Requires Further Investigation
MR	Mitigation Required, Non Compliance Anticipated
CA	Compliance Anticipated
NA	Not Applicable
CA	Executive Order 12898 – Environmental Justice
CA	Executive Order 13423 –Strengthening Federal Environmental, Energy, and Transportation Management
CA	Executive Order 13514 – Federal Leadership in Environmental, Energy, and Economic Performance
CA	Executive Order 11988 – Floodplain Management
CA	Executive Order 11990 –Protection of Wetlands
CA	National Environmental Policy Act (NEPA)
CA	National Historic Preservation Act (NHPA)
CA	Clean Air Act (CAA)
CA	Safe Drinking Water Act (SDWA)
CA	Clean Water Act (CWA)
CA	Coastal Zone Management Act (CZMA)
CA	Energy Independence and Security Act of 2007 (EISA)
CA	Endangered Species Act (ESA)
CA	Executive Order 13175 –Indian Tribes
NA	Farmland Protection Policy Act (FPPA)
CA	Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (past actions)
CA	Resource Conservation and Recovery Act (RCRA) (ongoing operations)
CA	Emergency Planning and Right to Know Act (EPCRA)
NA	Marine Mammal Protection Act (MMPA)
CA	Migratory Bird Treaty Act (MBTA)
CA	Native American Graves Protection and Repatriation Act (NAGPRA)
CA	Noise Control Act (NCA)
CA	Oil Pollution Act (OPA)
CA	Spill Prevention, Control and Countermeasure Plans (SPCC)
CA	Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
CA	Federal Environmental Pesticide Act (FEPCA)
NA	Food Quality Protection Act (FQPA)
NA	Federal Food, Drug and Cosmetic Act (FFDCA)
CA	Safe Drinking Water Act (SDWA)
CA	Toxic Substances Control Act (TSCA)
NA	Wild and Scenic Rivers Act

3.9 Cumulative Impact

The Council on Environmental Quality defines a cumulative impact as that “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7). In accordance with NEPA and to the extent reasonable and practical, this EA considered the combined effect of the proposed action and other actions occurring or proposed in the project area. In assessing cumulative effects to the environment, this EA considers key factors such as the incremental effects on natural resources, effects on traffic and parking, and any growth-inducing effects of the proposed action. The analysis also considers changes to the area resulting from cumulative effects from projects planned in close proximity of the Medical Center campus.

The VA is considering further expanding the proposed parking garage from 1,200 spaces to 1,600 spaces. The additional 400 spaces would be added as part of a future project. This action is consistent with the current VAMC land use and will not contribute to significant change in the local environment. Assuming similar LEED building design criteria is used for the future project, this project will have a similar overall beneficial effect as the Proposed Action Alternative. The VA has also considered the installation of solar voltaic systems on the rooftops of existing and proposed buildings (Potomac-Hudson 2010). This future project would provide additional energy efficiency to the Medical Center while not significantly impacting environmental resources.

The VA Medical Center San Diego is a built-up, urban medical facility, adjacent to a major university campus, and near to developed shopping and high-density residential areas. The Proposed Action is consistent with the planned land use of the area and development of the University facilities, and does not contribute significantly to cumulative impacts in the area (UCSD 2004, Helix 2010, PBS&J 2004b). Two other potential future projects near to the Medical Center is Caltrans’ proposed construction of a freeway overpass at Gilman Drive (Moffatt & Nichol 2013), and SANDAG’s optional construction of an at-grade trolley station at the Medical Center as part of the Mid-Coast Corridor Transit Project (USDT 2013). Although these projects may have temporary cumulative impacts to local traffic flows and parking availability (if implemented concurrent with Medical Center construction), the long-term effect will be to improve traffic flows, reduce parking needs, and increase public transportation available to the Medical Center.

The Medical Center project will provide incremental improvements to the facility, including increased energy, water, and material use efficiencies (through LEED design features), enhancements to utilities and parking infrastructure, and a long-term increase in health and safety to Medical Center residents and staff. The primary potential negative impacts of this project will occur during building construction and renovation which will be short-term and largely mitigated by best management practices and other environmental controls specified in the construction contracts. No cultural, vegetative, or wildlife resources would be adversely affected. Estimated emissions generated by the Proposed Action would be *de minimis* and would not be regionally significant; therefore, the Proposed Action Alternative would

not contribute significantly to adverse cumulative effects to air quality. The implementation of the Proposed Action is anticipated to have an overall beneficial cumulative impact to the local environment.

4 PUBLIC INVOLVEMENT

A Notice of Availability (NOA) will be published in the San Diego Union-Tribune or other local newspaper with wide-ranging circulation in the San Diego area. The notice will serve to inform the public that this EA is available for review and comment for a period of thirty days. The NOA will also be forwarded to applicable agencies and jurisdictions that may have an interest in the project, including the US Fish and Wildlife Service; California Coastal Commission; San Diego Air Pollution Control District; Regional Water Quality Control Board; University of California, San Diego; and City of San Diego. Paper copies of the EA will be available for review at the VAMC San Diego and the local public library; an electronic version of the document will be posted on a VA website. All public comments received will be addressed and included in the final EA.

5 MITIGATION

The following mitigation measures would be implemented to avoid, reduce, and mitigate for potential environmental impacts caused by construction of the new SCI/CLC building and parking garage, and demolition of existing parking lot pavement. These are in addition to mitigation measures listed in the VA CFM MF04 construction specifications (VA 2010e).

Air Quality

- VA CFM MF04 specifications to mitigate construction and demolition impacts, SECTION 01 57 19, E - Protection of Air Resources, shall be applied.
- Water active grading sites a minimum of 3 times daily.
- Cover loads or use a minimum of 2 feet of freeboard in trucks transporting loose construction materials.
- Reduce speeds on unpaved surfaces to 15 mph or less.
- Promptly remove spilled or tracked dirt or other materials from paved streets at construction site entrances.
- The construction contractor shall apply water every 4 hours to the area within 100 feet of a structure being demolished, to reduce vehicle trackout.
- A gravel apron, 25 feet long by road width, shall be used to reduce mud/dirt trackout from unpaved truck exit routes.
- Dust suppressants (e.g., polymer emulsion) shall be applied to disturbed areas upon completion of demolition.
- Water shall be applied to disturbed soils after demolition is completed or at the end of each day of cleanup.
- Demolition activities shall be prohibited when wind speeds exceed 25 mph.

- A minimum soil moisture of 12 percent for earthmoving by use of a moveable sprinkler system or a water truck shall be required. Moisture content can be verified by lab sample or moisture probe.
- Ground cover in disturbed areas shall be replaced as quickly as possible.

Hydrology and Water Quality

- VA CFM MF04 specifications to mitigate construction impacts, SECTION 01 57 19, C - Protection of Water Resources, shall be applied.
- The project contractor shall preserve existing vegetation as feasible.
- Temporary erosion control measures shall be applied as required by the California Storm Water Quality Association (CASCA) Construction BMPs Manual, Permits, and associated permits.
- During the rainy season (October through April), additional erosion control BMPs (i.e. fiber rolls, straw bale barriers, gravel bag berms) shall be applied at regular intervals to mitigate any impacts resulting from storm-created runoff.
- Areas that are non-active shall be stabilized with vegetation, erosion control blankets and flood control (see following) within 14 days of cessation of construction activities.
- Erosion control measures shall be applied in concentrated flow paths. These measures may include all or some of the following: erosion control blankets, check dams, erosion control seeding, earthen dikes and drainage swales, velocity dissipation devices, slope drains, etc. as required during construction, particularly during the rainy season.
- Physical or vegetative erosion control BMPs (not simply standby BMP measures) shall be installed as soon as grading and/or excavation is completed for any portion of the site during the rainy and non-rainy season.
- Sufficient erosion control measures shall be maintained on site to allow implementation in conformance with Permit requirements as specifically listed in the Storm Water Pollution Prevention Plan (SWPPP).

Noise

- VA CFM MF04 specifications to mitigate construction impacts: SECTION 01 57 19, F -Reduction of Noise, shall be applied.
- Muffled construction equipment shall be used wherever possible.
- The contractor shall ensure that each piece of operating equipment is in good working condition and that noise suppression features, such as engine mufflers and enclosures are working and fitted properly.
- The contractor shall locate noisy construction equipment as far as possible from residential areas.
- Construction hours shall be comply with the San Diego Municipal Code §59.5.0404 (Construction Noise) regarding days and times of day when construction noise is permitted.

- If a sustained high-noise construction activity takes place within 100 feet from noise sensitive uses on campus, measures shall be taken to limit the amount of noise affecting the sensitive receptor.

Solid and Hazardous Waste

- VA CFM MF04 specifications to mitigate construction impacts, SECTION 01 57 19, B - Protection of Land Resources and SECTION 01 74 19 – Construction Waste Management, shall be applied.
- The contractor shall comply with San Diego Municipal Code Article 6: Collection, Transportation and Disposal of Refuse and Solid Waste, and other pertinent regulations when disposing of waste material.
- Demolition and construction inert materials, including vegetative matter, asphalt, concrete, and other recyclable materials shall be recycled to the extent feasible.
- Demolition materials that contain hazardous substances shall be disposed of at certified disposal facilities in strict compliance with all applicable regulations.

Transportation and Parking

- VA will lease a remote parking facility for administrative and clinical staff. A shuttle transport will be used to transport staff to campus. The remote parking facility will be approximately five miles from the VAMC campus, and will pick up/drop off passengers every 30 minutes between 6:00 AM and 6:00 PM.
- A flag person shall be employed as needed to direct traffic when heavy construction vehicles enter the Medical Center campus from main access roads.
- Construction trucks shall avoid travel on residential areas to access the Medical Center campus.
- Construction-related truck traffic shall be scheduled to avoid peak travel time on the I-5 and La Jolla Village Drive, as feasible.
- If major pedestrian or bicycle routes on the Medical Center campus are temporarily blocked by construction activities, alternate routes around construction areas shall be provided, to the extent feasible. These alternate routes shall be posted on campus for the duration of construction.
- If any bus stop or other transit facility on campus is obstructed by construction activity, the Medical Center, in cooperation with the transit service providers, shall temporarily relocate such transit facility on campus as appropriate.

6 CONCLUSIONS

The proposed construction of the new Spinal Cord Injury and Community Living Center building, along with the construction of a new parking structure and upgrade of the existing Spinal Cord Injury building, is not expected to result in significant adverse impacts to the human environment. The improvements in energy and water use efficiencies, the enhancement of indoor environmental quality, improvements in construction and operational material and waste management (largely due to implementation of LEED design standards), and the creation of a more favorable healing environment for the residents will have a long-term beneficial effect on the residents, visitors, and workers in these new facilities.

The major impact of the project will be the short-term and temporary adverse effects caused by the construction and demolition activities. The potential adverse impacts to air quality, water quality, noise, solid and hazardous wastes, and transportation and parking, will be largely avoided or minimized by strict adherence and monitoring of the VA's MF04 construction standards for temporary environmental controls, demolition, and waste management, and application of standard construction Best Management Practices (as listed in Section 5, above).

This EA concludes a Finding of No Significant Impact (FONSI) is appropriate, and that an Environmental Impact Statement (EIS) is not required

7 LIST OF PREPARERS

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VA Office of Construction & Facilities Management

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9 LIST OF ACRONYMS AND ABBREVIATIONS

<u>Term</u>	<u>Definition</u>
BMPs	Best Management Practices
CAA	Clean Air Act (federal)
CAAQS	California Ambient Air Quality Standards (state)
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CASCA	California Storm Water Quality Association
CEQ	Council on Environmental Quality (federal)
CEQA	California Environmental Quality Act (state)
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFM	VA Office of Construction and Facilities Management
CFR	Code of Federal Regulations
CH ₄	methane
CLC	Community Living Center
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CWA	Clean Water Act (federal)
CZMA	Coastal Zone Management Act
dB(A)	decibel, A-weighting. A frequency weighting that relates to the response of the human ear
DNL	Day-Night Average Sound Level
DTSC	California Department of Toxic Substances Control
EA	Environmental Assessment
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act
EO	Executive Order (federal)
EPCRA	Emergency Planning and Right to Know Act
ESA	Endangered Species Act (federal)
ESRI	Environmental Systems Research Institute
FEIR	Final Environmental Impact Report (CEQA)
FFDCA	Federal Food, Drug and Cosmetic Act
FEPCA	Federal Environmental Pesticide Act
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FQPA	Food Quality Protection Act
GEMS	Green Environmental Management System (VA facility)
GHG	greenhouse gas
GSF	gross square feet
GWP	global warming potential
HVAC	heating, ventilation, and air conditioning

<u>Term</u>	<u>Definition</u>
LEED	Leadership in Energy and Environmental Design
LTC	Long Term Care
MBTA	Migratory Bird Treaty Act
MMPA	Marine Mammal Protection Act
MS4	Municipal separate storm sewer systems
MTS	Metropolitan Transit System
NAAQS	National Ambient Air Quality Standards (federal)
NAGPRA	Native American Graves Protection and Repatriation Act
NCA	Noise Control Act (federal)
NEPA	National Environmental Policy Act (federal)
NHPA	National Historic Preservation Act (federal)
NO _x	nitrogen oxide
NO ₂	nitrous oxide
NPDES	National Pollution Discharge Elimination System (federal)
NRHP	National Register of Historic Places
NSF	net square feet
O ₃	ozone
OPA	Oil Pollution Act
PM ₁₀	particulate matter less than or equal to 10 micrometers in size
PM _{2.5}	particulate matter less than or equal to 2.5 micrometers in size
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
RMW	regulated medical waste
ROI	region of influence
SANDAG	San Diego Association of Governments
SCI	Spinal Cord Injury
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDWA	Safe Drinking Water Act
SHPO	State Historic Preservation Officer (California)
SIP	California State Implementation Plan
SO ₂	sulfur dioxide
SPCC	Spill Prevention, Control and Countermeasure Plans
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	California State Water Resources Control Board
TMDL	Total Maximum Daily Load
TSCA	Toxic Substances Control Act
UCSD	University of California, San Diego
USEPA	United States Environmental Protection Agency
USFWS	US Fish and Wildlife Service
VA	Department of Veterans Affairs
VAMC	Veterans Affairs Medical Center
VOC	volatile organic compounds
WMC	waste management center

Appendix A Native American Tribes Correspondence

Correspondence with Native American Tribes is included in the accompanying report:

ECORP. 2009. Phase I archaeological survey, spinal cord injury and seismic deficiency, phase I design project, Veterans Affairs Medical Center, San Diego, City of San Diego, San Diego County, California. Prepared by ECORP Consulting, Inc. for GeomorphIS, LLC and *gkkworks*, San Diego, CA. November 2009.

Appendix B Agency Correspondence

STATE OF CALIFORNIA – THE NATURAL RESOURCES AGENCY

EDMUND G. BROWN, JR., Governor

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov



September 28, 2011

Reply in Reference To: VA110810A

Larry Villaluna, Project manager
US Department of Veterans Affairs
Mare Island Project Manager's Office
1175 Nimitz Avenue, Suite 200
Vallejo, CA 94592

Re: Section 106 Consultation for Spinal Cord Injury and Seismic Deficiency Project, Phase 1,
Veterans Affairs Medical Center San Diego

Dear Mr. Villaluna:

Thank you for initiating consultation on behalf of the Department of Veterans Affairs (VA) regarding their efforts to comply with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f), as amended, and its implementing regulation found at 36 CFR Part 800.

The VA is proposing to construct a 50,000 square foot spinal cord injury facility and community living center and a 145,000 square foot parking structure on the San Diego Veterans Affairs Medical Center San Diego campus. Ground disturbance is not expected to exceed 40 feet in depth.

The San Diego campus was constructed from the late 1960s to the early 1970s and in 1982 my office concurred that the campus was not eligible for National Register (NRHP) inclusion. The results of a record search and archeological assessment of the project area indicate that there is a low possibility of encountering intact archeological resources during ground disturbing activities.

The VA has submitted the following document in support of their determination that no historic properties will be affected by this project:

- *Phase I Archaeological Survey Spinal Cord Injury and Seismic Deficiency Phase I Design Project Veterans Affairs Medical Center, San Diego City of San Diego San Diego County, California (Mason: November 2009)*

After reviewing this document, I have the following comments:

- 1) Although no narrative description of the Area of Potential Effect (APE) was included in your submission, the map provided in the report is adequate for the purposes of this undertaking. I recommend an APE map and narrative justification be prepared for all future submittals. I further recommend that representative color photographs be included with all submittals.
- 2) The report you have provided chiefly addresses the archaeological considerations associated with this undertaking but only cursorily discuss the character of the immediate built environment and its historic context. It is clear that the report's author meets the Secretary of the Interior's Standards for Archaeology but is not qualified to conduct built environment NRHP evaluations. Consequently, the information provided concerning the built environment is inadequate for the majority of Section 106 consultations. In consideration of the facility's age and the previous

28 September 2011

VA110810A

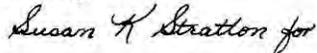
Page 2 of 2

letter from my office concerning the NRHP eligibility of the campus, I am willing to accept this report's findings for the purposes of this undertaking. Please note that all future VA Section 106 submittals to my office must be performed by qualified professionals in their respective fields.

- 3) While my office previously concurred that the VA San Diego campus is not NRHP eligible, I recommend that the VA have a qualified professional historian reevaluate the campus once it reaches 45 years of age.
- 4) I concur that a finding of No Historic Properties Affected is appropriate for this undertaking pursuant to 36 CFR Part 800.4 (d)(1) and that the documentation supporting this finding has been provided pursuant to 36 CFR Part 800.11(d).
- 5) Please be advised that under certain circumstances, such as an unanticipated discovery or a change in project description, you may have future responsibilities for this undertaking under 36 CFR Part 800.

Thank you for seeking my comments and considering historic properties as part of your project planning. If you have any questions or concerns, please contact Ed Carroll of my staff at (916) 445-7006 or at email at ecarroll@parks.ca.gov.

Sincerely,



Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

CC:

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Appendix C List of Environmental Permits / Modifications Required

Order No. R9-2002-0020, NPDES No. CAG679001, General Waste Discharge Requirements for Discharges Of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems within the San Diego Region. California Regional Water Quality Control Board, San Diego Region. Available at:

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