# <To the OPR Writer: The following narrative is a simple template that contains the major categories required for the Owner’s Project Requirements under the California Energy Code and the USGBC (if striving for a LEED certification). Edit each paragraph of this template to suit the project. This narrative should be expanded with additional Owner expectations in any of the categories. Add additional categories if specific requirements outside of those listed below have been cited by the Owner.

# An additional sample OPR spreadsheet <FILENAME: SAMPLE SPREADSHEET OPR> with interactive tabs has been included with this draft OPR for more information. The sample could be used in lieu of this narrative, and it can also be used for guidance in adding additional considerations or categories not covered in this simple template.>

# Click or tap here to enter text.

# Owner’s Project Requirements

# Project Program

1. The project is a Click or tap here to enter text. project with a construction budget of $ Click or tap here to enter text. million. Click or tap here to enter text. Construction is estimated to be complete by Click or tap here to enter text..
2. Intended Use: The building will be used primarily to <OPR writer: expand with details from CSU CPDC Form 1-4>
3. Future expandability: There are no future expansions anticipated at this time. Any future expansion will be an addition to the space.
4. Quality and durability: The building and electrical distribution are expected to last 40-50 years. The HVAC and lighting equipment will have individual equipment lifespans and will be repaired and replaced as needed.
5. Budget/Operational Constraints: The project will be constrained to the project budget. The building systems shall only operate to accommodate occupancy schedule.
6. Applicable Codes:
   1. <OPR writer: fill in current codes applicable for this project, the codes in force when plans are submitted for plan check>

# Owner and User Requirements

1. The building will be operated mainly by the Owner’s Facilities staff. The building and its systems shall be simple to operate and maintain.
2. The building will be controlled remotely via the building management system that conforms to the Owner’s standard. The operator interface shall be simple enough on its surface to permit the simple adjustment of set points and schedules and integrated with the campus Energy Information System via a REST-API.
3. Lighting systems and fixtures should be of standard, energy efficient, long-lamp life design, such that the maintenance staff can replace fixtures or components easily and with little or no down time.
4. Light fixtures and drivers should meet Owner’s standards for purchase in large quantities and ease of replacement. All lighting fixtures shall be LED to reduce maintenance and energy costs and improve light quality.
5. The owner will hire an independent commissioning agent to review the plans, observe construction activities, and perform functional testing for the mechanical equipment and associated controls, lighting controls, domestic hot water system and irrigation system. Outstanding commissioning items should be addressed by the contractor before project closeout and should not be carried over into the warranty period.
6. Submetering of electrical, gas, water, hot water and chilled water service should be provided for the base building and retail tenants (if applicable). Monitoring and trending shall be available through the building automation system and integrated with campus Energy Information System. This will enable the facilities to implement and monitor measures that will improve the buildings’ energy and water efficiency over time.
7. <Provide an energy dashboard that can upload all the utility data and provide user friendly graphics showing the performance of the building. This shall be integrated into the campus existing energy dashboard when it already exists.>

# Environmental and Sustainability Goals

1. The building will be required to be LEED Silver under the applicable and current version of LEED Click or tap here to enter text.for New Construction. LEED points will be pursued under Sustainable Site Development, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation and Design, and Regional Priority credit categories.
2. <Strive for a net zero energy ready building.>

# Energy Efficiency Goals

1. At minimum, the buildings and their HVAC, domestic hot water and lighting controls systems should comply with the requirements of the energy code in effect when the building is submitted for plan check.
2. Additional energy efficiency measures that provide cost effective energy savings shall be included whenever feasible. Cost effective is defined as less than a 10-year simple payback or 25% of building Expected Useful Life (EUL), whichever is better.
3. The heating, ventilating, and air conditioning (HVAC), domestic water heating and lighting controls systems, which comprise the major energy consuming systems in the buildings, shall be commissioned as required as required by code and/or the requirements of the LEED certification process.
4. <Strive to achieve a building Energy Use Intensity of \_\_\_kBtu/ft2/per year>

# Indoor Environmental Quality Requirements

1. Indoor lighting requirements: Provide a lighting environment that will enhance the building architecture and furnish proper lighting levels per IESNA for the occupants so they may efficiently conduct their day-to-day business. Refer to the CSU Indoor Lighting Design Guide for further requirements.
2. Occupant lighting control requirements: Provide lighting controls that comply with the requirements of Title 24 and that will aid in reducing operating cost by using natural light and by allowing scheduling so lights can be turned off when the spaces are unoccupied and contribute to demand response capabilities of the campus. Refer to the CSU Outdoor Lighting Design Guide for further requirements.
3. Provide enhanced lighting controls in common areas and corridors that allow user adjustment of lighting levels.
4. Thermal comfort requirements: Provide a comfortable environment that will allow the residents and other occupants a reasonable measure of control over their space temperature. Design team shall specify ASHRAE Standard 55-2016 thermal comfort conditions in the Basis of Design for the various building spaces.
5. Ventilation requirements: Provide mechanical ventilation to the space to comply with <OPR writer: insert applicable code requirements>. <If applicable and feasible, the conditioned spaces should utilize natural ventilation while complying with the mechanical code.>
6. Acoustical privacy is important. Sound power levels should be appropriate for the room type and should at least meet ASHRAE Design Guidelines for Sound Levels. Crosstalk between adjacent common areas should be minimized or eliminated.

# Equipment and Systems Expectations

**Heating, Ventilation, and Air Conditioning (HVAC)**

1. Provide systems that are energy efficient and provide for occupant comfort and productivity.
2. Provide sufficient zoning to allow good temperature control without exceeding the project budget.
3. Provide a building automation system that will allow the mechanical equipment to be monitored and controlled from the Owner’s remote graphical user interface. The automation system and the Owner’s electrical, gas and water submeters should be used for monitoring the energy consumption in the building.
4. Air distribution to the building shall be provided by <OPR writer: indicate type of air distribution system that is contemplated>.
5. Cooling shall be provided by electricity and the CSU desires to reduce its reliance on fossil fuels for heating so heat recovery and electric sources should be evaluated. <OPR writer: indicate type of heating and cooling plant>

**Domestic Hot Water System**

1. Provide water efficient, ADA compliant fixtures for the restrooms.
2. Water heating: Provide an energy efficient system within the project budget for low carbon emissions domestic water heating. The system must comply with the requirements of Title 24.

**Lighting and Lighting Controls**

1. Lighting should be designed to enhance both the overall building architecture and provide proper lighting levels for the building occupants and tasks.
2. Lighting controls should be provided that can turn lights on and off according to scheduling needs; that will allow lights to be turned off if no occupants are in the spaces; provides demand response capability and that allows daylight dimming control where daylight is available.
3. All lighting and lighting controls should meet the current requirements of Title 24 Energy Code.
4. <Provide lighting controls with Click or tap here to enter text. interface for communication with the building automation system (including displaying the lighting controls on building floor plans through the BAS). Provide the network capability required by coordinating with the Owner’s IT department.>
5. <Provide lighting controls that can be monitored and adjusted through a web interface. Provide the network capability required by coordinating this with the Owner’s IT department>
6. Provide proper egress and exit lighting according to applicable codes.

# Building Occupant Operations and Maintenance Personnel Requirements

1. The mechanical and plumbing equipment should be provided with adequate access so proper maintenance of the equipment can occur without excessive effort or inconvenience.
2. Provide requirements in the construction documents for facilities staff training on the newly installed systems.

# Building Envelope

1. The Title 24 Performance Certificate of Compliance energy use summary shall indicate that envelope component energy usage meets or is better than the Title 24 Standard.
2. Building envelope commissioning shall be provided.