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Capital View Casino & Resort will be a certified LEED facility, showcasing the following features of energy efficient and sustainable operation. A description of the LEED features of the Facility is outlined below followed by the LEED Checklist.

Sustainable Sites

Credit 6.1 **Stormwater Design - Quantity Control**

The project will implement a stormwater management plan that protects receiving stream channels from excessive erosion. The stormwater management plan will include channel protection and quantity control strategies.

Credit 6.2 **Stormwater Design - Quality Control**

The stormwater management plan for the site will capture and treat 90% of the average annual rainfall using acceptable best management practices. The stormwater treatment system will be designed in accordance with NY State Regulations to treat runoff and remove 80% of the average annual post development total suspended solids.

Credit 8 **Light Pollution Reduction**

Rather than relying on traditional outdoor lighting high-intensity discharge (HID) lamps, exterior lighting will utilize energy efficient LED lamp technology with individually aim-able LED optics to create exact light patterns that eliminate light trespass and glare.

Water Efficiency

Credit 1 Water Efficient Landscaping

Landscaping selected for the project does not require irrigation. No irrigation system will be necessary for the Casino or for the Hotel.

Credit 3 Water Use Reduction

The project will target a 35% minimum water savings below the baseline. Water use will be reduced by installation of water efficient plumbing fixtures. Water closets will be battery dual flush valve type with 1.6 gpf or 1.1 gpf. Urinals will have a battery flush valve with 1.25 gpf. Lavatories will have solar metered faucets with a tempered supply rated for 0.5 gpm. Showers will have 1.5 gpm shower heads.

Energy and Atmosphere

Credit 1 **Optimize Energy Performance**

The HVAC systems will be served by a Central Heating and Cooling Plant. The chiller system will include three (3) high efficient chillers with variable speed chilled water pumps and variable speed condenser water pumps. A free cooling heat exchanger will utilize the cooling tower water to provide chilled water during off-peak seasons and save hours of operation on the chillers. High efficient low NOx hot water boilers will include variable speed pumps to serve all heating requirements. The heating system will operate



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at a high temperature differential to minimize pumping energy and enable proper control. Closed circuit fluid coolers will serve ice machines, kitchen equipment, and data closet air conditioning requirements. Gaming areas, hotel ventilation and restaurant spaces will be served by energy recovery ventilation units providing code required ventilation in the most efficient manner. The hotel will be served by 4-pipe fan coil units and an energy recovery ventilation unit.

There will be three (3) centrifugal chillers, each sized for 50% capacity resulting in one (1) redundant chiller and three (3) cooling towers, each sized for 50% capacity resulting in one (1) redundant cooling tower. The Heating Plant will also have one (1) redundant boiler. All pumping systems will have one (1) standby pump for redundancy. The Gaming area will be served by two (2) Energy Recovery Ventilation Units and two (2) Rooftop Air Handling Units which will enable the space to be maintained comfortably in the event of one (1) unit failure.

Credit 3 Enhanced Commissioning

Rather than the traditional approach of enlisting the services of a commissioning agent at the end of construction, a commissioning agent will participate during all stages of the project, from design through construction. This will provide many opportunities to ensure that sustainable design intent and energy efficiency goals are shepherded to completion. This approach gives the agent enhanced access for monitoring progress and for making timely suggestions to ensure LEED objectives remain an active part of planning and execution.

Credit 4 Enhanced Refrigerant Management

HVAC equipment and refrigerant types/quantities shall be selected to minimize the contribution to ozone depletion and climate change.

Credit 5 **Energy Measurement and Verification**

A measurement and verification (M&V) plan will be developed and implemented as part of the project's participation in the NYSERDA CCHP program. Hourly production of power and thermal energy will be recorded and submitted to NYSERDA. Monthly and annual reports will be generated. This system will be expanded to include other large energy consuming systems in the building to provide a total energy picture. Monthly reports will be shared with administrative and maintenance staff. Shifts in energy consumption can be noted and investigated to ensure systems are still operating as designed.

Credit 6 Green Power

Owner will engage in a 2-year energy contract for green power through a certified provider.



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Materials and Resources

Credit 2 **Construction Waste Management**

The project team will identify construction debris haulers and recyclers to recycle and/or salvage non-hazardous construction debris. The minimum goal will to recycle or salvage 50% of the construction debris. A waste management plan will be developed during the design phase and implemented by the contractor during the construction phase. Debris will be tracked and a report will be prepared showing percentage of debris recycled and/or salvaged.

Credit 4 Recycled Content

The project team will establish a goal of 10% recycled content for material during the design and material selection phase and add the LEED requirements in the specifications. The design team will run preliminary calculations during the design phase, then prepare a record list of manufacturers with cut-sheets of materials and maintain a list of the materials to be used to meet the 10% recycle content requirement.

Credit 5 Regional Materials

The project team will establish a goal of 20% regional materials during the design phase include the requirement in the specifications. The architect will work with the contractor during the budgeting phase to ensure that local materials are included in the sub-contractor bids. The contractor will track and document the regional materials installed and the total cost of those materials.

Credit 7 **Certified Wood**

The project team will specify that wood-based materials and products be certified in accordance with the Forest Stewardship Council's principles and criteria for wood building components. The Project team will set a goal of over 50% certified wood and will identify products and suppliers to use that meet that criteria.

Indoor Environmental Quality

Credit 1 Outdoor Air Delivery Monitoring

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m CO}_2$ monitoring and outdoor airflow measurement strategies shall be utilized for ventilation system capacity control.

Credit 2 **Increased Ventilation**

Ventilation equipment shall be provided to exceed the requirements of ASHRAE 62.1-2007 by at least 30%. This additional ventilation will be provided through the roof-mounted energy recovery ventilators.



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Credit 3.1 Construction IAQ Management Plan - During Construction

The contractor will prepare an IAQ management plan that meets the SMACNA and ASHRAE guidelines and standards before the start of construction. During construction a member of the construction team will be selected as the indoor air quality manager and take responsibility for identifying problems and implementing solutions.

Credit 3.2 **Construction IAO Management Plan - Before Occupancy**

After the completion of construction and prior to occupancy a building flush-out will be performed per the LEED requirements. A total of 14,000 cubic feet of outside air will be supplied per square foot of floor area during the flush-out. Flush-out delivery rates, internal temperature and humidity will be recorded and monitored during the flush-out.

Credit 4.1 Low-Emitting Materials – Adhesives and Sealants

During the design phase the design team will prepare specifications for adhesives and sealants that meet the minimum VOC limits as specified in the LEED table. During construction the manufacturers will be required to submit product data showing that the adhesives and sealants to be used meet the standards specified. A list will be maintained of all products used and their VOC rating.

Credit 4.2 **Low-Emitting Materials - Paints and Coatings**

During the design phase the design team will prepare specifications for paints and coatings that meet the minimum VOC limits as specified in the LEED table. During construction the manufacturers will be required to submit product data showing that the pants and coatings to be used meet the standards specified. A list will be maintained of all products used and their VOC rating.

Credit 4.3 **Low-Emitting Materials – Flooring Systems**

The design team will include the project specifications requirements that all flooring elements meet the California Dept. of Health Services Standard Practice for Testing of Volatile Organic Emissions from the Various Source Using Small-Scale Environmental Chambers. During construction the manufacturers will be required to submit product data showing that the flooring materials to be used meet the standards specified. A list will be maintained of all products used.

Credit 5 **Indoor Chemical and Pollutant Source Control**

The design team will employ vestibule entry systems and floor grate system to capture dirt and particulates before they enter the building. The building air filtration media specified will have a minimum MERV of 13 or higher.

Credit 7.1 **Thermal Comfort - Design**

The facility HVAC system and building envelope will be designed to meet ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy.



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Credit 8.1 **Daylight and Views - Daylight**

Through the use of windows and skylights the facility will achieve a minimum daylight illumination level of 25 fc in at least 75% of all regularly occupied areas.

Innovation and Design Process

Credit 1.1 **Hotel Linen Re-use**

In an effort to conserve water, energy and waste water discharge the hotel will post signs in all hotel rooms requesting that guests hang towels to dry after use and re-use towels again.

Credit 1.2 **Green Cleaning Products**

The facility will purchase and implement the Environmentally Preferable Purchase (EPP) guidelines set by the EPA for all cleaning products used.

Credit 1.3 Innovation in Design Recycling of Food Waste

Coordinate with local farms to arrange for the removal of restaurant food waste to be used to feed livestock. The Food Service consultant is designing for this arrangement. Contract with a local biodiesel company to remove frying oil (a program is currently in place for this action). Written plans will need to be developed for both of these programs.

Credit 2 **LEED Accredited Professional**

Several LEED Accredited professionals will be involved in the design of new facilities from JCJ Architecture, M/E engineers, CHA Engineering and Desimone Engineers.



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