

Resource Intensive Industrial General Requirements

- Development Sites shall be designed in accordance with Division 10-30.60: Site Planning Design Standards.

Justification: Using established site-planning standards ensures proper circulation, access, grading, drainage, and emergency service accommodation. Adherence to these standards reduces risks related to poor site layout, including emergency response delays, vehicle conflicts, and unsafe pedestrian or service-access conditions.

- Buildings shall be designed to reduce perceived mass through architectural articulation, variation in façade materials, or modulation of building planes as required in Division 10-50.20: Architectural Design Standards.

Justification: Applying Architectural Design Standards helps minimize visual impacts on surrounding neighborhoods and contributes to psychological well-being. Appropriate façade design lowers the likelihood of stress or discomfort associated with imposing structures and improves the overall environmental quality of adjacent residential areas.

- Mechanical, electrical, and cooling equipment shall be fully enclosed or screened from view from rights-of-ways and adjacent properties.

Justification: Screening equipment protects public safety by discouraging unauthorized access and reducing opportunities for injury. Visual screening also minimizes the negative impacts of industrial equipment on surrounding uses and reduces exposure to noise and vibration sources.

- Outdoor storage of equipment or materials shall be prohibited, except during permitted construction or maintenance activities.

Justification: Prohibiting long-term outdoor storage reduces hazards such as windborne debris, chemical exposure, fire risk, and unauthorized interaction with industrial materials. Controlled storage practices also protect adjacent properties from nuisances and accidental releases.

- A minimum 150-foot setback should be provided from a property line abutting a residential use or residential zoning district.

Justification: Large setbacks create separation from noise, vibration, heat exhaust, and operational activity. This buffer reduces exposure to continuous industrial sounds, including low-frequency noise and infrasound, and lowers risk of sleep disturbance, stress, and other environmental health impacts for nearby residents.

- Perimeter fencing, if provided, shall be decorative and integrated with site landscaping.
Justification: Integrated fencing enhances security while reducing the stark visual impact of industrial barriers. Landscaping can mitigate psychological stress associated with large, fortified structures and improves visibility and safety along the perimeter.
- Noise generated by all on-site operations, including cooling equipment and generators, shall not exceed a maximum 55 dBA / 60 dBC during the daytime (7 a.m. to 10 p.m.) and 45 dBA / 50 dBC during the nighttime (10 p.m. to 7 a.m.) at the property line.
Justification: Noise limits are essential to protect neighbors from harmful auditory and low-frequency sound exposure. Excessive noise can contribute to stress, sleep disruption, and reduced cognitive performance. Low-frequency noise and infrasound can cause vibration sensations or pressure disturbances for sensitive individuals. Establishing maximum levels ensures safe, health-protective conditions for residential areas.
- On-site power production including the use of generators must be in compliance with all applicable state and federal regulations. If a development uses diesel generators for back up energy supply, only tier IV or newer generators are permitted. Backup generators shall be used solely for emergency operations, testing, and maintenance, and shall not serve as a primary power source. Generator testing shall be limited to daytime hours and scheduled to minimize impacts on adjacent uses.
Justification: Restricting generator use prevents prolonged exposure to high-decibel noise, diesel emissions, and low-frequency vibration. Daytime-only testing reduces impacts during vulnerable nighttime hours, protecting sleep and reducing cumulative stress for nearby residents.
- 100% renewable energy for all energy needs shall be used to the greatest extent feasible and is attainable through methods including but not limited to on-site generation, virtual power purchase agreements, and purchasing Renewable Energy Certificates (REC) through electric utility providers.
Justification: Renewable energy reduces air pollution, greenhouse gas emissions, and heat output associated with fossil-fuel generation. Reducing combustion-related emissions contributes to safer air quality for surrounding communities and reduces long-term environmental health risks.
- All new or relocated electric lines 12 KV and smaller, communications and cable television and all on premise wiring shall be placed underground in all developments.
Justification: Underground placement enhances safety by decreasing risk of electrical hazards, outages, and storm impacts. It also reduces visual clutter, improving wayfinding and enabling safer access for emergency services.

- Mechanical cooling systems shall utilize air-cooled heat rejection systems only. The use of evaporative or water-based heat rejection systems, including but not limited to cooling towers, evaporative condensers, adiabatic systems, and water-cooled chillers, is prohibited.

Justification: Air-cooled systems eliminate risks associated with large-scale water storage and discharge, including Legionella growth, chemical leaks, water vapor plumes, and excessive water consumption. This protects both public health and local water resources.

- Hazardous materials including fuel storage shall be limited to those necessary for operation and shall be stored and handled in accordance with applicable regulations.

Justification: Limiting hazardous materials reduces fire risk, accidental release potential, and contamination concerns. Compliance with regulations ensures safe storage, handling, and containment, protecting workers, emergency responders, and neighboring properties.

- Proposed Development shall not emit smoke, dust, odors, or vibrations detectable beyond the property boundary, except during emergency generator operation.

Justification: Controlling emissions prevents air quality degradation, respiratory irritation, nuisance conditions, and harmful vibration exposure. Limiting detectable off-site impacts protects nearby residents and maintains safe urban environmental conditions.

- Developments that have ceased operations for a continuous period of 12 months shall be considered abandoned and must be decommissioned. Within 90 days of the end of operations, the owner or operator shall submit a decommissioning plan to the City for review and approval. Decommissioning must be completed within 12 months of abandonment and shall include

- a. Removal of all equipment, structures, and above-ground facilities; and
- b. Proper disposal of any hazardous materials in accordance with applicable state and federal regulations; and
- c. Restoration of the site to a safe, stable condition, including grading and seeding of disturbed areas.

Justification: Timely decommissioning prevents deteriorating structures from becoming safety hazards, reduces risks associated with unsecured industrial equipment, and ensures hazardous materials are safely removed. Restoring the site to a stable condition prevents erosion, unauthorized access, and unsafe conditions.

Additional Required Analysis

- A baseline noise study establishing existing noise levels prior to project construction including a Low-Frequency Noise Impact Report prepared by a licensed acoustical engineer including a noise contour exhibit depicting the anticipated noise levels (including low frequency noise) to be generated by the development.
- An assessment of current and future energy needs for the site. The applicant must include an estimate of annual energy consumption over all phases of the project, expected peak demand, and the percentage of energy demands that will be met by carbon-free energy, during each year of project operations.
- Identification of the proposed energy source(s) and documentation from the utility provider(s) affirming sufficient power exists to serve the site.
- An estimate of peak day, average day, and annual water consumption and wastewater discharge for the site.
- Identification of the source of water requested for the proposed development, reclaimed water or potable water, and documentation from the Water Services Division affirming sufficient water resources to serve the development under its Designation of Adequate Water Supply. A Water and Sewer Impact Analysis (WSIA) must be approved by the Water Services Division. The use of 100% non-potable and/or recycled water for non-potable needs is preferred.
- Identification and concentration of constituents in the wastewater stream that may have negative effects on the Publicly Owned Treatment Works (POTW). Effluent from the facility must meet the requirements of City Code 7-02-001-007 and 7-02-001-008.
- A Hazard Mitigation Analysis (HMA) should identify potential hazards associated with a development and evaluate measures to eliminate, reduce, or control those risks. This may include hazard identification, fire and explosion scenario evaluation, shutdown procedures, assessments of fire protection systems, hazardous materials management, emergency response planning, environmental mitigation, and recommended strategies for enhancing life safety.
- A Fire Department Impact Analysis (FDIA) should evaluate how a proposed development may affect emergency response operations and broader community risk. This evaluation may consider response time impacts, staffing or deployment changes, specialized equipment needs, training requirements, water supply adequacy, access or operational concerns, the potential for long-duration incidents, mutual aid demands, and any applicable cost recovery or mitigation measures.