

ADAMS COUNTY SUSTAINABLE DESIGN GUIDELINES









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INTRODUCTION

Adams County has, through both their current design and construction standards and the Adams County Sustainability Plan, established sustainability goals that relate to the construction, renovation, maintenance, and operation of municipal facilities. This document completes Strategy 1.4 of the [Adams County Sustainability Plan](#), which directs the County to “Develop sustainable, resilient, and health-focused design and operations guidelines” for the development and redevelopment of County facilities. The focus areas and relevant goals to these Sustainable Design Guidelines from the Sustainability Plan are outlined below.

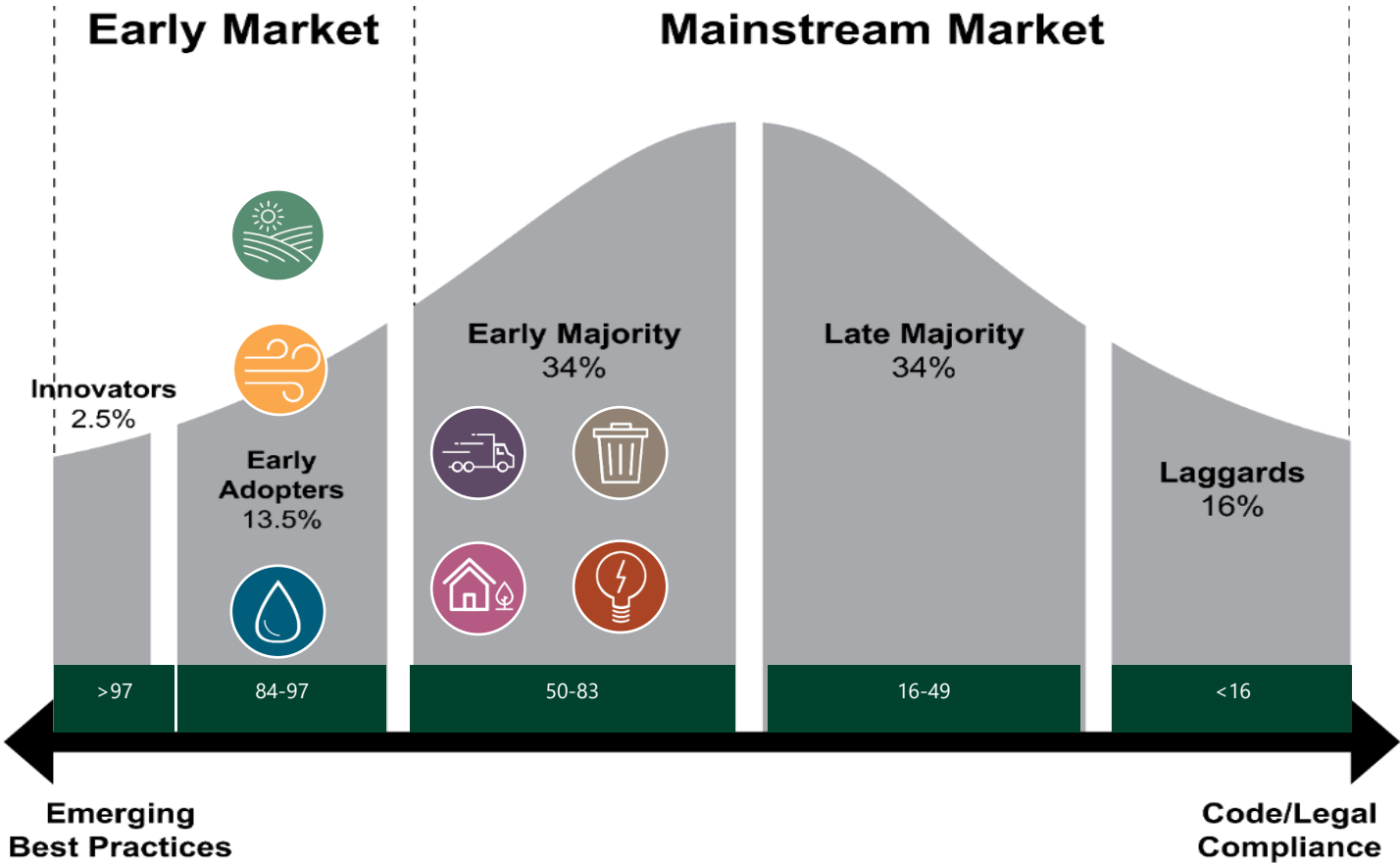
Focus Area	Goal
Whole Building Design Criteria	<i>This section is cross-cutting and does not align with any one focus area or set of goals in the Sustainability Plan – rather, it foundationally supports all of them.</i>
Air Quality 	<ul style="list-style-type: none"> • Goal 16: Reduce indoor and outdoor air quality impacts on disproportionately impacted communities through advocacy and mitigation practices
Energy 	<ul style="list-style-type: none"> • Goal 1: Incorporate energy efficiency and new energy technologies and building practices in new facilities; retrofit eligible existing facilities • Goal 2: Increase use and procurement of renewable energy for County facilities • Goal 3: Expand, create, and advocate for equitable clean energy opportunities for all community members, to reduce our carbon footprint
Healthy and Resilient Employees 	<ul style="list-style-type: none"> • Goal 15: Increase access to resources, opportunities, and services supporting financial, mental, and physical well-being for all community members in Adams County
Land 	<ul style="list-style-type: none"> • Goal 10: Acquire and conserve land that sustains the level of service of parks and open space for economic, social, and environmental benefits
Transportation 	<ul style="list-style-type: none"> • Goal 12: Decrease County fleet emissions through vehicle and operational efficiency and fuel switching • Goal 13: Support EV mobility and infrastructure across all of Adams County • Goal 14: Support alternative modes of transportation and enhance mobility for all Adams County residents
Water 	<ul style="list-style-type: none"> • Goal 8: Improve water use efficiency in County facilities and parks; promote the use of non-potable water supplies where available and feasible (including in public works operations) • Goal 9: Promote water use efficiency for new and redeveloped residential and commercial properties in unincorporated Adams County

<p>Waste</p> 	<ul style="list-style-type: none"> • Goal 4: Reduce waste in County operations through source reduction, sustainable diversion practices, and fostering a waste reduction culture • Goal 6: Achieve 30% waste diversion at County-led events • Goal 7: Expand waste diversion and reduction practices in all new developments
<p>General Policy & Operation</p>	<p><i>This section is cross-cutting and does not align with any one focus area or set of goals in the sustainability plan – rather, it foundationally supports all of them</i></p>

This document is meant to be a living document – it should be edited, updated, and changed continually as priorities and needs change. As you use this document, consider and implement ways it can be improved or clarified.

Methodology

Based on the feedback provided during the Sustainable Design Guidelines (SDG) workshop, we have created a score for each criterion. This score is a combination of the ranked level of ambition of the relevant focus area, as well as the criteria ranking provided. Based on these calculations, each criterion received a score between 1 and 100 and was placed on the technology adoption curve as shown below. These rankings were used to choose the implementation requirements to include, for each criterion to match the desired level of ambition. The ranking for each criterion is available in Appendix A: Criteria Scoring.



About This Document

Adams County's current design and construction standards contain language requiring buildings to consider "Maintenance and Operations along with Life Cycle / Sustainability" as part of any solutions implemented. The current standards specify that "Each project shall take appropriate considerations to utilize best practices to consider Adams County Design and Construction Standard and implement sustainability and energy conservation where feasible. The Professional must work in harmony with its consultants to design new buildings and to remodel existing buildings to make the most efficient use of building materials and energy sources available."

This update to the County's design standards is intended to better define the parameters of sustainable design and construction, in alignment with the focus areas identified in the Adams County Sustainability Plan. Seven of the eight focus areas identified in the plan have direct ties to municipal facilities: Air Quality, Energy, Healthy & Resilient Neighborhoods, Transportation, Land, Water, and Waste. The eighth focus area, Sustainable Infrastructure, is addressed through the Public Works ENVISION process. The updated Sustainable Design Guidelines presented here are based on a combination of widely accepted and implemented sustainability-oriented building design guidelines, including but not limited to:

[LEED Rating System](#) (LEED)

[WELL Building Standards](#) (WELL)

[Boulder County Resilient Design Performance Standard](#) (BCRDPS)

[NBI Building Decarbonization Code \(Overlay for IECC 2021\)](#) (NBI)

[World Green Building Council Embodied Carbon](#) (WGBC)

[Whole Building Design Guide](#) (WBDG)

These Sustainable Design Guidelines are organized by focus area as found in the Adams County Sustainability Plan. This document is designed to be a living document, with the criteria updated and adjusted as needed for continual improvement and alignment with County priorities. It is recommended that the Fleet and Facilities Director review these criteria with staff annually to ensure that they remain relevant and are applied appropriately. All criteria changes should be documented with the date and the reason for the change.

County Values

Adams County's Sustainability Plan set forth a vision of being the most innovative and inclusive county in America for all families and businesses. The Sustainability Plan identified three cross-cutting themes to support this vision: equity, environmental justice, and resiliency. To guide the development of the sustainable guidelines, the project team employed these three values, plus two more: comfortable environments, and reliable systems and spaces. These cross-cutting values are defined as follows:

1. **Equity:** Prioritize solutions that embrace equity - recognizing that each Adams County community member has different circumstances - and correspondingly allocating the opportunities and resources needed for all to equally thrive and succeed.
2. **Environmental Justice:** Emphasize environmental justice by addressing the needs or impacts of sustainability and climate change issues on disproportionately impacted communities. In this context, these communities are those that experience "first and worst" consequences, are typically communities of color, and are also defined as low-income areas. In Adams County, disproportionately impacted areas are generally located in the southwest portion of the county, based on the Colorado Department of Public Health & Environment's [Climate Equity Data Viewer](#).
3. **Resiliency:** Promote resiliency - anticipating, accommodating, and adapting to climate-related hazards to ensure quality of life and continued operations.

When encountering any decision points or conflicts between guidelines, use these values to aid in decision-making.

HOW TO USE THE GUIDELINES

These guidelines should be applied to all projects - new construction or major renovations - with a budget of one million dollars or more, as relevant to the project scope. For smaller projects, key relevant criteria should still be used to guide design and operation. To effectively apply these guidelines, it is recommended that the County establish a team of building stakeholders including the owner(s), architect(s), engineer(s), and facilities management team. This stakeholder team should meet at the start of the project to align on values, goals, strategies, and occupant needs - and should continue to meet regularly throughout the project to ensure that these values, goals, and needs are met. All decisions regarding relevant criteria should be documented in the project matrix (accompanying Excel spreadsheet).

Project Phase

	Schematic Design	Design Development	Construction Document	Construction
Building Stakeholders	<ul style="list-style-type: none"> Review list of relevant criteria Discuss any specifics as they relate to site or building use; provide recommendations as needed. 	<ul style="list-style-type: none"> Discuss any conflicts between criteria or criteria/available budget. Provide recommended solution(s) based on project needs. 	<ul style="list-style-type: none"> Discuss any outstanding issues. Provide recommended solution(s) based on project needs. 	
Project Manager	<ul style="list-style-type: none"> Establish project scope. Identify relevant criteria in tracking matrix. 	<ul style="list-style-type: none"> Review design team's plan for incorporating relevant criteria. Bring any concerns or conflicts to the stakeholder team. Document any changes to relevant criteria in the matrix; add a note describing the reason for the change. 	<ul style="list-style-type: none"> Ensure that all criteria are met as outlined during design development (DD) phase. Bring any outstanding issues to the stakeholder team. Document in tracking matrix how the relevant criteria are met. 	<ul style="list-style-type: none"> Ensure building meets design specifications. Share building documentation with building operators and maintenance Team.
Facilities Manager	<ul style="list-style-type: none"> Approve list of intended criteria and any specific recommendations from stakeholder team. 	<ul style="list-style-type: none"> Approve plan for relevant criteria. 	<ul style="list-style-type: none"> Approve final plan for relevant criteria. 	<ul style="list-style-type: none"> Approve final building commissioning.
Design & Build Team(s)		<ul style="list-style-type: none"> Provide information about how each relevant criterion will be incorporated into design. Identify any potential conflicts between criteria or budgetary concerns. 	<ul style="list-style-type: none"> Include all criteria in building plans. Identify any outstanding issues or decisions. 	<ul style="list-style-type: none"> Include criteria in building as designed. Complete commissioning and verification as required. Provide necessary documentation for ongoing building maintenance.

SUSTAINABLE DESIGN GUIDELINES

The following sections contain the sustainable design criteria to be applied to all new construction and major renovation projects.

How to Navigate This Document

The diagram below shows how to navigate this document to find the criteria and actions relevant to your project. Operation and policy considerations are kept separate from the design and construction guidance for clarity and can be found at the end of the document.



AIR QUALITY DESIGN CRITERIA

Focus Area: This describes the area of influence for the following criteria and aligns with the Adams County Sustainability Plan.

Air quality is a significant priority for Adams County due to its impact on public health. Adams County is in an EPA eight-hour ozone non-attainment area because the region has not met the standards set to reduce air pollution. The design criteria in this section are intended to create and maintain healthy indoor air and the health and wellbeing of building occupants.

Criteria: This describes the specific way the County will promote sustainability. This name aligns with the tracking matrix.

AQ-1 Construction Pollution Management

Implement construction pollution management measures during construction to protect duct work, sensitive materials, finishes, and any occupied areas of the buildings, from particulate matter and other contaminants.

- Seal and protect all newly installed ducts from possible contamination during construction or vacuum them out prior to installing registers, grills, and diffusers.
- Designate a separate area to store and protect absorbent materials, including but not limited to carpets, acoustical ceiling panels, fabric wall coverings, and other materials.
- Isolate all active construction areas from occupied areas by using temporary barriers.
- Use dust guards and other measures to minimize dust generated during construction.
- Negatively pressure construction areas during building; ensure that any conditioned air is directly exhausted.

Actions: These are the specific ways the criteria will be implemented.

Relevant Guidelines:

- **WELL:** Construction Pollution Management
- **WBDG:** Enhance Indoor Environmental Quality (IEQ) - Use Safer Materials That Have Less Hazardous Ingredients and Are Low-Emitting (7)
- **WBDG:** Enhance Indoor Environmental Quality - Maintain Acceptable Indoor Air Quality (8)

Relevant Guidelines: These are the guidelines from which this criterion was originated.

WHOLE BUILDING DESIGN CRITERIA

The following criteria are intended to provide guidance to the whole building design process and to site selection, to ensure sustainability is considered holistically. This section is therefore not aligned with any one focus area, but across all of the focus areas identified in the Adams County Sustainability Plan.

WB-1 Project Site Choice

The following questions are designed to help compare options for new building locations.

Minimum Requirements

Avoid sites that answer “no” to either of these questions.

- 1) Has the site been previously developed?
- 2) Is the site free from any of the following sensitive land features?
 - a. Prime farmland
 - b. Floodplains
 - c. Habitat with endangered species
 - d. Water bodies or wetlands

Preferred Characteristics

Consider selecting a site that answers “yes” to the largest number of questions below. A site that answers “yes” to these questions will more readily support Adams County sustainability priorities, such as high-quality transportation, energy efficiency, and preservation of the natural environment.

- 1) Is the site within a LEED for Neighborhoods Development?
- 2) Does the surrounding area meet the density requirements as shown in the table below?

	Combined Density: Square feet per acre of buildable land	Residential Density: Dwelling unit per acre	Nonresidential Density: Floor-area ratio
Minimum	22,000	7	0.5
Optimal	35,000	12	0.8

More details found in LEED: [Surrounding Density and Diverse Uses](#)

- 3) Is the main entrance within ½ mile from 4 existing publicly available diverse uses (e.g., bank, supermarket, restaurant, gym)? See [LEED diverse uses list](#) for more.
- 4) Does the building address have a high Walk Score®? (to facilitate Transportation Design Criteria)
- 5) Does the site enable access to green energy? (to facilitate Energy Design Criteria)
- 6) Does the site allow optimal building orientation for minimizing energy use? (to facilitate Energy Design Criteria)
- 7) Does the site minimize habitat disturbance, or otherwise allow restoration of a degraded site? (to facilitate Land Design Criteria)
- 8) Is connection to public or active transportation networks feasible at the site? (to facilitate Transportation Design Criteria)

Optimal Opportunity

Strong consideration should be given to sites that answer “yes” to any of these questions, as they are optimal opportunities for a new building.

- 1) Is the location in an infill location in a historic district?
- 2) Is the site listed on one of the following registries?
 - a. Environmental Protection Agency (EPA) National Priorities List

- b. Federal Empowerment Zone
 - c. Federal Enterprise Community
 - d. Federal Renewal Community
 - e. Department of the Treasury (USDT) Community Development Financial Institutions Fund Qualified Low-Income Community
 - f. U.S. Department of Housing and Urban Development (HUD) Qualified Census Tract (QCT)
 - g. Difficult Development Area (DDA)
- 3) Is the site a brownfield site requiring remediation? Only select a brownfield site if the County has or can secure the funding for appropriate remediation.
 - 4) Does the site allow reuse of existing facilities, reduce material use, ensure easy disassembly and reuse/recycling of components, and have options for local sustainable material sourcing? (to facilitate Water Design Criteria)
 - 5) Is there an opportunity to site the building in a location that helps promote environmental justice as outlined in the County Values section? (to facilitate Healthy and Resilient Employees Design Criteria)
 - 6) Does the site minimize vulnerability to natural hazards? (to facilitate Healthy and Resilient Employees Design Criteria)

Relevant Guidelines:

1. **LEED:** High Priority Site
2. **WBDG:** Consider Non-Quantifiable Benefits
3. **LEED:** LEED for Neighborhood Development Criteria
4. **LEED:** Sensitive Land Protection
5. **LEED:** High Priority Site and Equitable Development
6. **LEED:** Surrounding Density and Diverse Uses
7. **LEED:** Access to Quality Transit

WB-2 Site Optimization

Ensure that planning is optimized for maximum benefit.

- Consider operational impact and expenses in site selection process.
- Consider and prioritize projects that enhance existing systems, to provide multiple benefits. For each major aspect of design, ensure benefits that help meet at least two guidelines (excluding this one). Examples include:
 - Stormwater management projects that create new open spaces, increase nearby property values, and increase habitat, among other benefits.
 - Firewise landscaping improves drought resiliency, reduces water use and cost, improves aesthetic characteristics, and acts as an educational example to the public.

Relevant Guidelines:

- **WBDG:** Optimize Site Potential
- **BCRDPS:** Identify Project Design Solutions That Leverage and Enhance the Function of Existing Natural, Social, and Infrastructure System

WB-3 Benefit to Future Generations

In all decisions, account for value and benefit to future generations.

- Utilize cost and value engineering throughout the entire project life cycle. This should include defining the scope, level of quality desired, and budget. Then, ensure that the scope, quality, and budget are aligned.
- Monitor and manage the balance of these components throughout the life of the project.
- Utilize an economic analysis method (Life-Cycle Cost Analysis (LCCA), Value Engineering, or other to account for future generations and others beyond traditional stakeholders.

Relevant Guidelines:

- **BCRDPS:** Account for Value of Benefit to Future Generations When Identifying Preferred Project Designs
- **WBDG:** Use Economic Analysis to Evaluate Design Alternatives
- **WBDG:** Utilize Cost and Value Engineering Throughout the Project Life Cycle

WB-4 Adaptable Spaces for a Changing Workplace

Implement design choices that enable flexibility and accessibility for the current and future needs of the building and its occupants. Spaces should be adaptable to different uses, comfortable for occupants, and designed to consider the changing workplace.

- Build in flexibility and design for the changing needs of the modern workplace. The space should:
 - Accommodate a variety of meeting sizes and types.
 - Enable informal social interaction.
 - Provide quiet spaces to support individual concentration.
 - Provide personal cabinets or storage lockers to minimize clutter and maintain a comfortable, well-organized environment.

Relevant Guidelines:

- **WELL:** Adaptable Spaces
- **WBDG:** Design for the Changing Workplace

WB-5 Sustainable Historic Preservation

Promote proper historic preservation that meets code and balances preservation with County sustainability goals for historical renovation projects.

- Implement historic preservation to meet code requirements or historic designations.
- Install lasting documentation to facilitate historical knowledge transfer of the building to future generations.
- When preserving a historically designated site, follow best practices as outlined in WBDG under the [Sustainable Historic Preservation](#) section - including balancing historical landscaping with water efficiency, using historic louvers for ventilation, and more.
- Preserve historical aspects of the building, ensure that upgrades are reversible, minimize damage to the historic or design aspects of the building, and be respectful and mindful of the original architectural vision.
- Achieve a balance to protect building occupants and assets as well as the preservation of historical spaces, finishes, and collections - specifically in the design and implementation of safety and security measures.
- Accessibility of historical buildings not originally designed for accessibility should be prioritized and performed in a way that matches and respects the historical aesthetics.

Relevant Guidelines:

- **WBDG:** Sustainable Historic Preservation
- **WBDG:** Apply the Preservation Process Successfully
- **WBDG:** Update Building Systems Appropriately & Accommodate Life Safety, Security, and Accessibility Needs



AIR QUALITY DESIGN CRITERIA

Air quality is a significant priority for Adams County due to its impact on public health. Adams County is in an EPA eight-hour ozone non-attainment area because the region has not met the standards set to reduce air pollution. To address these concerns, the Adams County Sustainability Plan includes air quality as a focus area and adopted Goal 16.

Adams County Sustainability Plan Connection: Air Quality

- **Goal 16:** reduce indoor and outdoor air quality impacts on disproportionately impacted communities through advocacy and mitigation practices

Criteria in the air quality focus area center on maintaining healthy indoor air to promote the health and wellbeing of building occupants to help meet the County air quality goal.

AQ-1 Construction Pollution Management

Implement construction pollution management measures during construction to protect duct work, sensitive materials, finishes, and any occupied areas of the buildings, from particulate matter and other contaminants.

- Seal and protect all newly installed ducts from possible contamination during construction or vacuum them out prior to installing registers, grills, and diffusers.
- Designate a separate area to store and protect absorptive materials, including but not limited to carpets, acoustical ceiling panels, fabric wall coverings, insulation, upholstery, and furnishings.
- Isolate all active areas of work from other spaces by sealing doorways or windows, or by using temporary barriers.
- Use dust guards or collectors, on saws and other tools, to capture generated dust.
- Negatively pressurize the construction area in an occupied building; ensure that any conditioned air is directly exhausted.

Relevant Guidelines:

- **WELL:** Construction Pollution Management
- **WBDG:** Enhance Indoor Environmental Quality (IEQ) - Use Safer Materials That Have Less Hazardous Ingredients and Are Low-Emitting (7)
- **WBDG:** Enhance Indoor Environmental Quality (IEQ) - Provide Ventilation and Maintain Acceptable Indoor Air Quality (8)

AQ-2 Moisture Management

Address interior and exterior moisture concerns to avoid mold growth and other indoor air contaminants.

- Ensure that the building stormwater management plan considers building penetrations.
 - Related Criteria: LA-3:Stormwater Management
- Design to avoid water vapor condensation, especially on walls and the underside of roof decks, and around pipes, ducts, or windows.
- Choose moisture-tolerant materials or protect moisture-sensitive materials in areas likely to be exposed to moisture, including: entryways; flooring in wet rooms such as basements, bathrooms, and kitchens; and interior sheathing in damp or wet rooms.

- Include controls in HVAC systems to ensure that relative humidity never exceeds 50%, or model humidity levels in the space to meet said requirement for at least 95% of business hours.

Relevant Guidelines:

- **WELL:** Moisture Management
- **WBDG:** Promote Health and Wellbeing
- **WELL:** Humidity Control

AQ-3 Air Infiltration and Contaminant Management

Ensure that the building envelope is tight, to maintain air quality by limiting contaminants, maintain thermal comfort, and optimize energy performance.

- Complete envelope commissioning prior to occupancy.
 - Commissioning should be in accordance with American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Guideline 0-2005 and National Institute of Building Sciences (NIBS) Guideline 3-2012 (for new construction or structural renovation).
- Reach below-code requirement of 0.25 cfm/ft².
- Install walk-off mats or permanent entryway grates/slots or other similar systems.
- Include one of the following: entryway air sealing practices via either entry vestibule with two normally closed doorways, revolving entrance doors, or at least 3 normally shut doors that separate occupied space from the outdoors (if lobby is not regularly occupied).

Relevant Guidelines:

- **WELL:** Air Infiltration Management
- **WELL:** Healthy Entrance
- **WBDG:** Enhance Indoor Environmental Quality (IEQ)
- **LEED:** Enhanced Indoor Air Quality Strategies

AQ-4 Air Filtration and Purification

Leverage HVAC systems - to ensure that indoor air is free of contaminants that can impact occupant health and well-being - through filter and HVAC specifications, maintenance, air sanitation and purification system requirements.

- Install MERV 13 filters on all outside air sources entering the building.
- Demonstrate that ambient air quality outside the building is compliant with EPA National Ambient Air Quality Standards (NAAQS) in the year before building design. Current air quality status: https://www3.epa.gov/airquality/greenbook/anayo_co.html. Based on outside air quality status, implement the appropriate level of advanced filtration/sanitation methods based on air pollutant testing.
 - For all properties: Ensure that rack space is available and rack location is identified for future implementation of carbon filters or a combination particle/carbon filter. Also make sure the mechanical system is sized to accommodate the additional filters.
 - For properties with air pollution above appropriate levels, implement one of the advanced filtration/sanitization methods (e.g., carbon filtration, air sanitization, or other advanced air quality maintenance opportunities) that best fit the building's needs.
- Ensure that all air intakes are at least 25 feet from areas where idling, smoking, or combustion may occur.

Relevant Guidelines:

- **WELL:** Air Filtration
- **WELL:** Advanced Air Purification
- **LEED:** Enhanced Indoor Air Quality Strategies

- **WBDG:** Enhance Indoor Environmental Quality (IEQ)
- **WBDG:** Promote Health and Wellbeing

AQ-5 Combustion Minimization and Electrification

Minimize fossil fuel combustion within the space to reduce indoor air quality impact. This includes combustion in fireplaces, cooking appliances, water heaters, and heating equipment.

- Avoid combustion-based fireplaces, stoves, space-heaters, ranges, and other equipment in regularly occupied indoor spaces. When choosing all-electric stoves, consider induction cookstoves over traditional electric ranges - for better equipment performance, along with compatible cookware.
- Evaluate all-electric options, during the design phase, for space and water heating equipment. All-electric equipment should be chosen when feasible. If deemed not feasible, all combustion equipment (including back-up if used for more than 200 hours per year) should be chosen to minimize emissions.
- Ensure that building, including electrical wiring and related, is capable of supporting both current and potential future electrification efforts and equipment.

Relevant Guidelines:

- **WELL:** Combustion Minimization
- **NBI:** All-Electric and Mixed-Fuel Construction

AQ-6 Ventilation Rates

Reduce CO₂ levels, both indoors and immediately surrounding the building, through demand control ventilation systems or ventilation measures.

- Include either demand control ventilation systems (DCV) to keep CO₂ levels below 800 ppm or increase ventilation rate 30% above code standards for all regularly occupied spaces.
- Meet standards for volatile organic compounds (VOC), Carbon Monoxide, PM_{2.5} and PM₁₀, Radon, and Ozone, as shown below, based on WELL Building standards.
 - Carbon monoxide less than 9 ppm
 - PM_{2.5} less than 15 µg/m³
 - PM₁₀ less than 50 µg/m³
 - Ozone less than 51 ppb
- Ensure cleaning and chemical storage units, bathrooms, and rooms with printers and copiers are closed from adjacent spaces (e.g., self-closing doors) and that air is exhausted so no air from these rooms is recirculated.
- Ensure that ventilation air is effectively delivered to and distributed throughout the breathing zone - between 3 inches and 6 feet above the floor - and more than 2 feet from walls or fixed air conditioning equipment.

Relevant Guidelines:

- **WELL:** Ventilation Effectiveness
- **WELL:** Increased Ventilation
- **WELL:** Direct Source Ventilation
- **LEED:** Minimum Indoor Air Quality Performance
- **WBDG:** Promote Health and Wellbeing



ENERGY DESIGN CRITERIA

Energy is essential to quality of life in any community, provides jobs in Adams County, and presents opportunities for future economic development. Energy also accounts for 59% of greenhouse gas emissions in Adams County, so the Sustainability Plan adopted three energy-specific goals.

Adams County Sustainability Plan Connection: Energy

- **Goal 1:** Incorporate energy efficiency and new energy technologies and building practices in new facilities and retrofit eligible existing facilities
- **Goal 2:** Increase use and procurement of renewable energy for County facilities
- **Goal 3:** Expand, create, and advocate for equitable clean energy opportunities for all community members to reduce our carbon footprint.

Criteria in this section are designed to address these three goals by reducing the energy use impact of the County's buildings through energy efficiency and shifting to clean energy sources.

EN-1 Occupant Thermal Comfort

Design heating and cooling systems to maximize thermal comfort for occupants.

- Use thermostats that meet NBI code minimums, including automatically adjusting setpoints.
- Provide thermal comfort controls for occupants. Allow for either air temp, radiant temp, air speed, or humidity adjustment.
- Ensure that the building provides a thermal gradient of at least 5 °F in rooms with more than 10 people, to allow occupants to select a workspace that meets their desired temperature (see Operations).

Relevant Guidelines:

- **LEED:** Thermal Comfort
- **WELL:** Thermal Comfort

EN-2 Building Energy Performance

Increase energy efficiency of equipment and building systems to above [code](#).

- Incorporate energy modeling during design. Prove that energy performance is at least 15% above code.
- Complete building level commissioning of all systems before building is occupied; complete recommissioning after 2 years of occupancy to ensure the building is operating as modeled.
- Install ENERGY STAR equipment or appropriate equivalent.
- Ensure that workspace areas with intermittent or limited occupancy have manual on/automatic off occupancy sensors for lighting and ventilation fans as appropriate.

Relevant Guidelines:

- **LEED:** Minimum Energy Performance
- **LEED:** Optimize Energy Performance
- **WBDG:** Optimize Energy Use

EN-3 Demand Response

Design and implement systems that utilize demand response capabilities, including load shifting and load shedding.

- Design systems, where feasible, with capacity for real-time and fully automated demand response capability (e.g., lighting, HVAC, water heating, electric vehicles, energy storage).
- Ensure that all relevant control systems and hardware support any demand response needs.
- Include testing of Demand Response systems in commissioning requirements.
- Engage with the local utility to discuss participation in any future demand response programs or pilot programs.

Relevant Guidelines:

- **LEED:** Demand Response
- **NBI:** Demand Response

EN-4 On-Site Renewable Energy Production

All facilities should have on-site renewable energy production or have facilities able to accommodate installation in the future.

- Incorporate electrical panel, conduit, and space to meet future solar and/or other on-site renewable installation needs.
- Install on-site solar generation to meet at least 5% of building's anticipated energy use for all sites, with an appropriate location and a modeled installation payback of less than 15 years.

Relevant Guidelines:

- **NBI:** Solar Energy Production
- **LEED:** Renewable Energy Production

EN-5 Energy Storage-Ready Construction

Ensure that buildings are ready for installation of on-site energy storage.

- Review cost effectiveness of battery storage in lieu of backup generation for critical County facilities during the design phase, install battery storage in place of fossil fuel backup generation whenever possible.
- For facilities where battery storage is deemed to be not feasible, design electrical service panels and infrastructure to be 'energy-storage ready' with adequate space planned for future installation. Construction documents should have location and layout of designated area for future electrical energy storage system. The main electrical service panel shall have a reserved space to allow installation of a two-pole circuit breaker for future electrical energy storage system installation.

Relevant Guidelines:

- **NBI:** Battery Storage

EN-6 Energy Metering

Meter energy use to allow building managers to monitor building performance.

- Install permanent building-level energy meters.
- Sub-meter any systems with energy use that represents 10% or more of total building energy use.
- Ensure that building level and/or submeters provide real time electricity use and alerts, to facilitate demand response.

Relevant Guidelines:

- **LEED:** Building-level energy metering
- **LEED:** Advanced energy metering



HEALTHY AND RESILIENT EMPLOYEES DESIGN CRITERIA

Building with resiliency in mind can help Adams County better adapt to the impacts of climate change, including flooding, extreme heat, and wildfires. The County plays an important role, in both modeling and cultivating resiliency, through its County facilities. Additionally, County facilities can enhance community cohesion and improve communitywide access to goods and services. The Adams County Sustainability Plan adopted a health and resiliency goal to address these issues.

Adams County Sustainability Plan Connection: Healthy and Resilient Employees

- **Goal 15: Increase access to resources, opportunities, and services supporting financial, mental, and physical well-being for all community members in Adams County**

The following criteria have been designed to support and promote the health and resiliency of employees, and to consider health and resiliency impacts on the surrounding community.

HR-1 Olfactory Comfort (Odors)

Prevent bad smells in buildings.

- Install negative pressurization; self-closing doors; and/or hallways, vestibules, or other immediate areas - to prevent migrating odors from restrooms, janitorial closets, kitchens, cafeterias, and pantries.
 - In coordination with Air Quality: Ventilation Rates

Relevant Guidelines:

- **WELL:** Olfactory Comfort

HR-2 Noise and Sound Management

Use building materials and space design to manage noise intrusion to workspaces from outdoor environments, mechanical equipment, and other employees.

- Ensure that the average sound pressure level for regular occupied spaces is below the acceptable maximum Noise Criteria (NC) for the intended use.
 - Open office spaces and lobbies: 40
 - Enclosed offices: 35
 - Conference rooms: 30
- Develop an acoustic plan that identifies loud and quiet zones, noisy equipment in the space, and any potential sources of disruption.
- Meet acceptable reverberation time (related to the time it takes noise to dissipate in rooms) in all relevant rooms.
- Ensure that enclosed offices, conference rooms, and teleconference rooms (if present) have interior partition walls, ceilings, and doors that fall within an acceptable range of Sound Transmission Class (STC) level.
- Ensure that all open workspaces use sound masking systems within an acceptable dBA range (prevents issues with too-quiet spaces disallowing privacy).

Relevant Guidelines:

- **WBDG:** Promote Health and Wellbeing

- **LEED:** Acoustic Performance
- **WELL:** Exterior Noise Intrusion
- **WELL:** Internally Generated Noise
- **WELL:** Reverberation Time
- **WELL:** Sound Barriers
- **WELL:** Sound Masking
- **WELL:** Sound Reducing Surfaces

HR-3 Security for Building Occupants and Assets

Design the project to include elements that protect occupant health and safety.

- Implement crime prevention in the beginning stages of design through environmental design principles
 - Natural Surveillance: Design the placement of physical features, activities, and people in such a way as to maximize visibility and foster positive social interaction. This will cause potential offenders to feel increased scrutiny and perceive few escape routes.
 - Natural Access Control/Territoriality: Use design choices to clearly delineate public space from private space through fences, plantings, signage, and other design choices.
- Develop a comprehensive threat, risk, and vulnerability assessment; apply appropriate countermeasures. Examples include positive pressurization to keep out contaminants; chemical, biological, and radiological monitoring; secured compartmentalization, etc.

Relevant Guidelines:

- **WBDG:** Occupant Safety and Health
- **WBDG:** Security for Building Occupants and Assets

HR-4 Equitable and Inclusive Design

Follow best practices for accessibility compliance, universal design, equal access, and flexibility.

- The design of facilities should incorporate the following universal design principles.
 - Equitable Use: The design is useful to people with diverse abilities.
 - Flexibility in Use: The design accommodates a wide range of individual preferences and abilities.
 - Simple and Intuitive Use: Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.
 - Perceptible Information: The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.
 - Tolerance for Error: The design minimizes hazards and the adverse consequences of accidental or unintended actions.
 - Low Physical Effort: The design can be used efficiently and comfortably and with a minimum of fatigue.
 - Size and Space for Approach and Use: Appropriate size and space is provided for approach, reach, manipulation, and use - regardless of user's body size, posture, or level of mobility.

Relevant Guidelines:

- **WBDG:** Provide Equal Access and Flexibility
- **WBDG:** Best Practices for Accessibility Compliance
- **WBDG:** Accessibility Standards and Guidelines
- **WBDG:** History of Accessible Facility Design
- **WBDG:** Beyond Accessibility to Universal Design
- **WBDG:** Universal Design and Health
- **WELL:** Accessible Design

HR-5 Healthy Spaces That Reduce Injury and Illness for Occupants

Design interior spaces to promote physical wellbeing by reducing microbial contaminants and allergens.

- Ensure that high touch surfaces are cleanable.
- Avoid permanent wall-to-wall carpeting.
- Provide flexible storage space for all movable items, to allow surfaces to be cleaned completely.
- Seal all right angles between walls and windows/floors.
- Provide, at a minimum, the following at all sink locations:
 - Fragrance-free hand soap dispenser
 - Disposable paper towels dispenser
 - Sink column of water at least 10 inches in length.
 - Handwashing basin at least 9 inches in width and length.
- Provide touchless door opening options, such as foot pedals, in high traffic areas.
- Designs should eliminate or reduce hazards and reduce reliance on personal protective equipment, prevent occupational injuries and illnesses, prevent falls, and ensure electrical safety from turnover, through operations and maintenance (O&M).

Relevant Guidelines:

- **WELL:** Antimicrobial Surfaces
- **WELL:** Cleanable Surfaces
- **WELL:** Hand Washing

HR-6 Healthy Spaces That Promote Physical Activity for Occupants

Implement interior and exterior building design choices that encourage occupants to remain physically active throughout the day.

- Ensure that at least one of the following spaces is within walking distance of the main project entrance, with complimentary access:
 - A green space or park with playground features.
 - A workout station or fitness zone.
 - A trail network.
 - An accessible body of water or public swimming pool.
 - A gym, fitness center, or fitness training center.
 - A recreational field.
- In projects with multiple floors, ensure that at least one common staircase meets the following requirements:
 - Is located close to the main project entrance, main entry checkpoint (e.g., welcome/reception desk), the edge of its main lobby, or the edge of its main welcome area.
 - Is clearly visible from the main project entrance area or located visually before any elevators present, upon entering from the main entrance.
 - Stair width set at the maximum width allowable by local code or as close as feasible.
- In projects with multiple floors, ensure that at least one common staircase meets the following requirements:
 - Stairs are accessible to regular building occupants during all regular business hours.
 - Throughout the space, wayfinding signage and point-of-decision prompts are present to encourage stair use (at least one sign per elevator bank).
- In projects with multiple floors, ensure that both common stairs and paths of frequent travel display elements of aesthetic appeal by incorporating at least two of the following throughout:
 - Artwork
 - Music
 - Daylighting, using large windows or skylights.
 - View windows to the outdoors or the building interior

- High light levels when in use
- Biophilic elements

Relevant Guidelines:

- **WELL:** Exterior Active Design
- **WELL:** Physical Activity Spaces
- **WELL:** Fitness Equipment
- **WELL:** Structured Fitness Opportunities
- **WELL:** Interior Fitness Circulation
- **WELL:** Active Furnishings

HR-7 High Quality Lighting

Provide quality indoor lighting to prevent glare, promote healthy human circadian rhythms for building occupants, and reduce solar heat gains in the building.

- Install luminaire shielding, to prevent glare, for all lighting.
- Implement the following recommendations for workstations or desks:
 - Ensure that the ambient lighting system can maintain an average acceptable light intensity
 - Ensure that the ambient lighting system is zoned in independently controlled banks of moderate size
 - If average ambient light is below a certain level, ensure that task lights at the work surface are available upon request
- Ensure that light Reflectance Values are within an acceptable range for ceilings, vertical surfaces, and furniture systems.
- Install interior windows shading or blinds (controllable by occupants or set to automatically prevent glare), external shading systems set to prevent glare, or variable opacity glazing such as electrochromic glass, which can reduce transmissivity by 90% or more. For higher windows, additional options include interior light shelves to reflect sunlight toward the ceiling, or a film of micro-mirrors on the window to reflect sunlight toward the ceiling.
- Choose light fixtures that provide light in the 490nm range, especially in work areas without significant daylighting.
- Choose electric lights, in occupiable spaces, (except for decorative fixtures, emergency lights, and other special-purpose lighting) that meet the acceptable color rendering indexes - to accurately portray colors in the space and enhance occupant comfort.
- Ensure that at least 90% of occupied spaces have dimmable or multi-level lighting.

Relevant Guidelines:

- **WELL:** Circadian Lighting Design
- **WELL:** Automated Shading and Dimming Controls
- **WELL:** Solar Glare Control
- **WELL:** Visual Lighting Design
- **WELL:** Surface Design
- **LEED:** Interior Lighting
- **WBDG:** Universal Design and Health
- **WELL:** Electric Light Glare Control
- **WELL:** Low-Glare Workstation Design
- **WELL:** Color Quality

HR-8 Lighting Control and Quality Views

Provide access to quality views; utilize daylighting and lighting controls to reduce energy consumption and improve occupant visibility.

- Ensure that façades along regularly occupied spaces have a high window-wall ratio and that a portion of windows are high above the floor.
- Ensure uniform color transmittance through windows.
- Provide building occupants with a view to outdoor natural or urban environment for the majority of all regularly occupied floor area.
 - Views must include either (1) nature, urban landmarks, or art; or, (2) objects that are an acceptable minimum distance from the exterior of the glazing
- Consider security implications of window, glazing, and door locations.
 - See (Security for Building Occupants and Assets)

Relevant Guidelines:

- **WELL:** Right to Light
- **WELL:** Daylight Modeling
- **WELL:** Daylight Fenestration
- **LEED:** Daylight
- **LEED:** Quality Views
- **LEED:** Indoor Lighting
- **WBDG:** Promote Health and Wellbeing

HR-9 Beauty and Design

Design should incorporate features of art, open space, and accessible wayfinding in a way that encourages community ownership of the building and incorporates beauty, aesthetics, and appreciation of the community.

- Include features that have the following intention:
 - Celebration of culture, spirit, and place
 - Meaningful integration of public art
- Ceiling height proportional to room dimensions, providing an expansive, comfortable, open feel in the interior space.
- Encourage full collaboration between the architect client, building users, other consultants, and the public on aesthetical decisions.
- Encourage aesthetical decisions that are durable, to inspire uses beyond the original designed use when needed.
- Encourage project design that considers alternatives that follow aesthetics, creating an appreciation of the space in those who take ownership (real or symbolic) - encouraging empathy and emotional resonance for and with the community. Ownership by the community helps improve resilience of the building.

Relevant Guidelines:

- **WELL:** Beauty and Design I
- **WELL:** Beauty and Design II
- **WBDG:** Promote Health and Wellbeing
- **WBDG:** Design Awards
- **WBDG:** Engage the Integrated Design Process
- **BCRDPS:** Create Designs That Foster Community Identity and That Enhance the Experience of Neighbors and Visitors

HR-10 Biophilia

Develop a plan to integrate nature and the outdoors within the interior of the building and to connect the exterior design with the project site.

- Ensure that the project site area features either landscaped grounds or rooftop gardens - that include native plantings, including tree canopies – that are accessible to building occupants. (In coordination with Natural Habitat). These spaces should:
 - Be physically accessible
 - Avoid irrigated turf unless explicit need can be demonstrated. Examples of explicit need include sports fields, dog parks, event grounds, and picnic areas
 - Increase biodiversity
 - Provide year-round visual interest

Relevant Guidelines:

- **WELL:** Biophilia– I - Qualitative
- **WELL:** Biophilia II – Quantitative
- **LEED:** Open Space

HR-11 Natural Hazards Mitigation

Identify likely high risk natural hazards; design the site to mitigate negative impacts.

- Identify natural hazards as relevant to the building site, both current and up to 100 years into the future due to expected changes from the climate crisis; identify the risk of each hazard to building operations. Based on the County’s Natural Hazard Mitigation Plan, the natural hazards with the highest risk are flooding, winter storms, severe thunderstorms, and tornados.
- For high-risk hazards, develop site and building plans to mitigate impacts on building occupants and building structure, including areas of refuge and critical infrastructure considerations. Building a time-to-recovery goal should be considered when developing these plans.
- Determine time-to-recovery requirement for the facility. For facilities with time-to-recovery requirement of less than 1 week, develop on-site strategies to support the facility in case of infrastructure outages including water, wastewater, electricity, natural gas, and transportation.

Relevant Guidelines:

- **WBDG:** Natural Hazards Mitigation
- **BCRDPS:** Align With Time-to-Recovery Performance Goal
- **BCRDPS:** Identify Gaps and Find Solutions for Moving Forward



LAND DESIGN CRITERIA

Land is central to Adams County’s heritage, which is why land was one of eight sustainability topics of focus within the Adams County Sustainability Plan. Within this focus area, the County adopted a land goal.

Adams County Sustainability Plan Connection: Land

- **Goal 10:** Acquire and conserve land that sustains the level of service of parks and open space for economic, social, and environmental benefits

The following sustainability design guidelines will keep Adams County on track to meet the established land goal.

LA-1 Site Assessment

Conduct and document a site survey or assessment.

- Conduct and document a site survey or assessment that includes topography, hydrology, climate, vegetation, soils, human use, and human health effects as defined by LEED in the Site Assessment Section.
- As part of the site assessment, perform a water availability assessment and a grid capacity and reliability assessment.
- Assessment should include a high-level summary of how site features impacted project design and provide reasons for any items that were not addressed.

Relevant Guidelines:

- **LEED:** Site Assessment

LA-2 Fire-Wise Construction

Create a fire break and use fire-resistant materials in building design.

- Assess site’s wildfire risk.
- If site has a high wildfire risk, implement fire-wise construction best practices such as those recommended by the [Colorado State Forest Service](#) (CSFS) or the National Fire Protection Association’s (NFPA) [Fire Protection in WUI Areas – Best Practices Guide](#). These include:
 - Establish fire zones around structures
 - Establish a fuel-free zone within 3-5 feet of all structures
 - Minimize vegetation near combustible fences and utility lines
 - Remove dead materials and dry grasses directly near structures
 - Separate accessory structures from other structures
 - Incorporate fire-wise design into drought resistant landscaping; consider impact on relevant guidelines
 - Use one-hour fire resistant materials; discourage use of metal siding
 - Install double-paned or small-paned windows
 - Use designs that do not collect leaves/needles and do not need regular cleaning
- Consider implementing low-cost fire-wise measures, even in low fire risk areas.

LA-3 Stormwater Management

Manage stormwater effectively, through green infrastructure management systems to prevent pollution - including erosion and runoff - from construction activity and to increase resiliency to flooding.

- Develop a stormwater management plan for the site that does the following:
 - Accounts for peak flow volumes above and beyond state and County code through the implementation of [green stormwater management systems](#), especially those that are xeric in design (e.g., xeric rain gardens, native grass vs. traditional detention basins)
 - Accounts for potential future site and surrounding area changes due to growth and expansion
 - Prioritizes design that reduces impervious cover – ensuring that the project impervious surface area is 50% or less
 - Includes a subsurface system, as appropriate, that considers soil, bedrock, water table, buffers, and setbacks, and any utility or other system configurations - with post construction monitoring and an associated inspection and maintenance plan
 - Reviews stormwater patterns on-site and optimizes land use for stormwater infiltration
 - Includes an erosion and sedimentation control plan for all construction activities
- Retain onsite runoff to match the runoff volume under natural land cover conditions via infiltration, evapotranspiration, or collected and reused water- using low impact development green infrastructure practices.
- Align with the Department of Energy (DOE) Federal Energy Management Program (FEMP) [Best Management Practice #14](#)— Alternate Water Sources.
- Based on on-site assessment, provide adequate design considerations for building performance during extreme flooding events.

Relevant Guidelines:

- **WBDG:** Protect and Conserve Water
- **LEED:** Rainwater Management
- **LEED:** Stormwater Design – Quality Control
- **LEED:** Construction Activity Pollution Prevention
- **NYC Environmental Protection:** [Guidelines for the Design and Construction of Stormwater Management Systems](#)
- **City and County of Denver:** [Rules and Regulations Governing Green Building Requirements](#)

LA-4 Natural Habitat

Preserve, protect, or restore native habitats onsite while using green infrastructure and native, natural system functions to incorporate nature and habitats into site design.

- Retain, enhance, reintroduce, or mimic natural processes and habitats. This includes:
 - Salvaging and reusing topsoil according habitat type
 - Using deep friable soils
 - Increasing biodiversity
 - Seeking to extend green networks throughout urban areas
 - Increasing vegetation, growing food, or growing habitat for pollinators via strategies linked to transportation corridors
- If feasible, connect habitat systems via wildlife corridors.
- Buffer natural areas from human activities including noise, light, and material pollution.
- Preserve and protect 40% of the greenfield area onsite (if such areas exist) from all development and construction activity.
- Include native buffer zones. Where developments are within 500 feet of a natural habitat, establish a native buffer zone.
- Choose Dark Sky Approved exterior lighting options when available.

Relevant Guidelines:

- **LEED:** Site Development – Protect or Restore Habitat

- **BCRDPS:** Consider If the Project Can Maintain and Enhance Connectivity Between Habitat Systems and Provide Appropriate Buffers to Allow Habitat to Serve Beneficial Functions for Plants and Wildlife
- **LEED:** Light Pollution Reduction
- **BCRDPS:** Consider If Natural System Functions Can Be Included in Project Design and Operations
- **WELL:** Pesticide Management

LA-5 Heat Island Reduction

Reduce impact of heat island via reflective surfaces or increased landscaped area.

- Utilize high-reflectance roofing, vegetated roofing, solar generation, or reflective pavement.
- Plant shade-providing plants/trees while maintaining existing tree canopy as much as possible. Implement solutions that align with stormwater guidelines.
- Consider covered parking, with cover made of either high reflectance material, plantings, solar panels, or other materials that reduce the heat island effect.

Relevant Guidelines:

- **LEED:** Heat Island Reductions



TRANSPORTATION DESIGN CRITERIA

Transportation is one of the leading contributors to GHG emissions (GHG) and air pollutants in Adams County. This plan adopted three transportation goals (Goals 12, 13, and 14), which state that Adams County should “Decrease County fleet emissions through vehicle and operational efficiency and fuel switching”, “Support EV mobility and infrastructure across all of Adams County”, and “Support alternative modes of transportation and enhance mobility for all Adams County residents.”

Adams County Sustainability Plan Connection: Transportation

- **Goal 12:** Decrease County fleet emissions through vehicle and operational efficiency and fuel switching
- **Goal 13:** Support EV mobility and infrastructure across all of Adams County
- **Goal 14:** Support alternative modes of transportation and enhance mobility for all Adams County residents.

The following sustainability design guidelines will ensure that new County facility development helps make progress toward established transportation goals.

TR-1 Bicycle Facilities

Provide bike and other active transportation repair, maintenance, storage, and other support.

- Provide short-term bicycle storage for a percentage of peak visitors, with a minimum of two storage spaces.
 - Short-term bicycle storage should be within short walking distance of any main entrance
- Provide long-term bicycle storage for at least 5% of regular building occupants.
 - Long-term bicycle storage must be within short walking distance of any functional entry
- Provide shower(s) for building occupants.
- Provide basic bicycle maintenance tools, including tire pumps, patch kits, and hex keys, on-site or within walking distance of the main project entrance.

Relevant Guidelines:

- **WELL:** Active Transportation Support
- **LEED:** Bicycle Facilities
- **BCRDPS:** Consider if the Project Can Enhance the Range of Mobility Connections

TR-2 Reduced Parking Footprint

Provide only the minimum required parking capacity, to encourage the use of other modes of transportation.

- Do not exceed the minimum parking capacity required by code.

Relevant Guidelines:

- **LEED:** Reduced Parking Footprint

TR-3 Electric Vehicles

Provide designated parking for Electric Vehicles (EVs).

- Designate parking spaces with electric vehicle charging infrastructure as parking for electric vehicles only, with clear permanent identification and plans for parking enforcement.
- Install either a percentage of parking or a minimum number of charging ports per building, following the table below (as determined by the Boulder County Energy Code Cohort Workgroup). Prioritize priority location for these parking spaces.

Building Type	Minimum EVSE Spaces	Minimum EV Ready Spaces	Minimum EV Capable Spaces
Single-family, Duplex, Townhome	NA	1 space	NA
Group A, B, E, M	10%	5%	10%
Group F, I, R-3, R-4	2%	0%	5%
Group R-1, R-2 ^b	15%	5%	40%
Group S-2 Parking Garages	10%	5%	NA

- Terminology follows I-code standards, including the following: Group A is Assembly, B is Business, E is Education, F is Factory & Industrial, I is Institutional, M is Mercantile, R-1 is Transient Residential, R-2 is Apartments and other Non-transient Residential, R-3 and R-4 are Small Group Homes, and S is Storage.
 - Where all (100%) parking serving R-2 occupancies are EV ready spaces, requirements for EVSE spaces for R-2 occupancies shouldn't apply.
- Ensure that all sites with electric vehicle charging infrastructure have at least one (or more if required by code/law) accessible parking space with electric vehicle charging infrastructure that meets ADA requirements and has additional considerations for making charging infrastructure accessible and easy to use. Additional considerations include:
 - Acceptable width of parking space as well as room to maneuver around the charging station
 - Ramps
 - Protective poles or structures positioned to allow wheelchair users to get close enough to the charger to access it.
 - Cradle holding charging cable positioned at a low, accessible height
 - Charging cable long enough to meet charging port regardless of vehicle orientation and port location
 - As safe and feasible, light and flexible charging cable with spring mechanism at top of cable to reduce apparent weight and allow ease of handling
 - If payment is required, RFID payment and screen at low, accessible height and oriented or shielded to prevent glare; larger text size to ensure easy readability
 - Consider charging systems that have load balancing/demand management capabilities.
 - Consider potential demand management capabilities if implementing on-site energy storage (e.g., batteries)
 - Consider potential impact or connection to on-site renewable generation.
 - Ensure electric vehicle charging infrastructure is separately metered or otherwise trackable.

Relevant Guidelines:

- **LEED:** Green Vehicles
- **NBI:** Electric Vehicles
- **LEED:** Green Vehicles



WATER DESIGN CRITERIA

Water is one of the most critical resources needed in our daily lives and is a cornerstone of Adams County's heritage. As such, the Adams County Sustainability Plan set two associated goals.

Adams County Sustainability Plan Connection: Water

- **Goal 8:** Improve water use efficiency in County facilities and parks and promote the use of non-potable water supplies where available and feasible (including in public works operations)
- **Goal 9:** Promote water use efficiency for new and redeveloped residential and commercial properties in unincorporated Adams County

The following sustainability design guidelines were crafted to help meet these goals.

WA-1 Cooling Tower Water Use

Ensure optimized operation of cooling towers and evaporative condensers.

- For all cooling towers and evaporative condensers, conduct a potable water analysis within a few years after construction completion to verify that maximum concentrations for parameters in the condensed water are met as outlined by LEED.
- Additionally, achieve a minimum cycle of concentration (COC) of 5 for makeup, with a total hardness equal to or exceeding 11 grams/gallon (188 mg/L).
- Consider the use of sulfuric acid.
- Inspect makeup float to ensure it is performing at optimal level.
- Set cooling towers to shut down during off hours (typically 21:30 - 5:00 for an 8am to 6pm workday).
- Install water-conserving cooling towers designed with delimiters to reduce drift and evaporation; consider hybrid cooling towers to allow dry-cooling when climatic conditions allow.
 - Consider use of side-stream filtration
- Install submeters (makeup and blowdown) and conductivity meters.
- Consider reusing cooling water (bleed off) for other (non-potable) needs.
- Align installation or retrofit with FEMP [Best Management Practice #10](#)—Cooling Tower Management.

Relevant Guidelines:

- **LEED:** Cooling Tower Water Use
- **WBDG:** Protect and Conserve Water

WA-2 Outdoor Water Use Reduction

Reduce water used for irrigation.

- Develop an Irrigation and Landscape plan that:
 - Follows Irrigation Association and American Society of Irrigation Consultants (ASIC) [Landscape Irrigation Best Management Practices](#), including proper maximization of the use of efficient landscape design (e.g., grouping plants by water and shade requirements) and irrigation equipment such as drip irrigation, smart controller, high-efficient rotors, pressure reducing valves, flow sensors)

- Prioritizes drought resistant, native plant selection (in order of priority: drought resistant and native to Adams County, drought resistant and native to Colorado, drought resistant and native to the West)
 - As feasible, considers mutual benefits to other guidelines such as fire-wise landscaping practices and pollinator habitat plantings
 - Follow all recommendations provided by [Adams County Colorado State University Extension](#)
 - Utilize existing tools to select plantings, design, and source, including [Plant Select](#)
- Includes a water budget, utilizing best practices from the following as feasible:
 - The Green Industries of Colorado ([GreenCo](#))
 - Model Water Efficient Landscape Ordinance ([MWELo](#))
- Prioritize use of non-potable water; consider any pre-treatment, including salinity, which may be necessary.
- Reduce the landscaping water requirement to below the calculated baseline for the site's peak month.

Relevant Guidelines:

- **LEED:** Outdoor Water Use Reduction
- **WBDG:** Protect and Conserve Water
- Irrigation Association and ASIC [Landscape Irrigation Best Management Practices](#)

WA-3 Indoor Water Use Reduction

Implement water conservation and efficiency measures indoors, including for appliances and fixtures.

- Meet a total project indoor water use reduction at or below an established equivalent to new building and plumbing standards/metrics.
 - Exceptions allowed when high flow is required by code or for operational needs such as toilets in detention cells and schools
- Ensure that all appliances meet standards as listed in LEED under the [Indoor Water Use Reduction](#) section or in [FEMP Best Management Practices](#).
- Size piping correctly for lower flows, due to high-efficiency water fixture use in buildings, as compared to traditional sizing methodology.

Relevant Guidelines:

- **LEED:** Indoor Water Use Reduction
- **WBDG:** Protect and Conserve Water

WA-4 Indoor Drinking Water Promotion

Provide drinking water that is controlled for taste and odor compounds.

- Ensure that all water delivered to the project area designated for human contact has low turbidity and that total coliforms (including E. coli) are not detected in the sample.
- Provide at least one water dispenser within 100 ft of all parts of regularly occupied floor space (minimum one per floor).

Relevant Guidelines:

- **WELL:** Fundamental Water Quality
- **WELL:** Drinking Water Promotion
- **WELL:** Public Water Additives
- **WELL:** Inorganic Contaminants
- **WELL:** Organic Contaminants
- **WELL:** Agricultural Contaminants
- **WELL:** Periodic Water Quality Testing

WA-5 Water Metering

Install permanent building-level water meters and submeters on relevant systems to monitor water use of facilities and watch for water leaks.

- Install permanent water meters that, combined, allow for measuring total potable water use for the facility (indoor and outdoor).
- Include metering for raw water and well-water sources.
- Ensure that meter readings can be automated.
- Install permanent water meters for three or more sub-systems, as outlined in LEED [Water Metering](#) (e.g., irrigation, domestic hot water, boilers).
 - Consider submetering as recommended for all systems recommended in [FEMP Best Management Practices](#)

Relevant Guidelines:

- **LEED:** Building-level water metering
- **LEED:** Water Metering



WASTE DESIGN CRITERIA

The portion of GHG emissions attributable to solid waste in Adams County considers only the landfill emissions of waste; it does not include the supply chain impacts of production, which can be significant. The emissions from processing waste are included in other sectors, such as energy. Therefore, reducing consumption and increasing diversion can have significant impacts on climate by reducing emissions in multiple sectors. The Sustainability Plan identified two goals associated with waste in municipal facilities.

Adams County Sustainability Plan Connection: Waste

- **Goal 4:** Reduce waste in county operations through source reduction, sustainable diversion practices, and fostering a waste reduction culture
- **Goal 5:** Ensure all Adams County residents in unincorporated areas have access to recycling
- **Goal 6:** Achieve 30% waste diversion at county-led events
- **Goal 7:** Expand waste diversion and reduction practices in all new developments

The following criteria are designed to reduce the total carbon impact of building materials and waste during construction and operation.

WS-1 Raw Materials

Source raw materials from sustainable products with 3rd party certifications; prioritize materials with low embodied carbon.

- State a preference for low embodied carbon building materials.
- Preference sourcing of materials that have reporting of cradle-to-cradle certification, health product declarations, or other relevant reporting.
- Ensure easy disassembly and reuse/recycling of components.
- Prioritize locally sourced materials.
- As feasible, ensure that products have labeling - around compliance or any relevant certification - directly on the products and in view of occupants.

Relevant Guidelines:

- **WGBCEC:** Embodied Carbon Disclosure Requirements
- **WGBCEC:** Disclose Lifecycle Carbon Measurements
- **WGBCEC:** Incorporate a Price on Carbon for Embodied Carbon Decisions
- **WGBCEC:** Set Embodied Carbon Reduction Targets
- **WGBCEC:** Low Carbon Public Procurement Targets and Timelines
- **WGBCEC:** Set Targets and Timelines for Low Carbon Public Procurement
- **LEED:** Sourcing of Raw Materials
- **LEED:** Environmental Product Declarations
- **LEED:** Material Ingredients
- **WELL:** Enhanced Material Safety
- **WELL:** Material Transparency

WS-2 Refrigerant Management

Utilize less harmful refrigerants and minimize leakage.

- Eliminate all refrigerant usage as feasible.
- When refrigerant usage is necessary, use those that have an ozone depletion potential (ODP) of zero and a global warming potential (GWP) of less than 50. Alternatively, select refrigerants so that the combination meets the formula listed in LEED under [Enhanced Refrigerant Management](#).
- Do not use CFC-based refrigerants in new base building HVAC&R systems.
- When reusing existing base building HVAC equipment, complete a comprehensive Chlorofluorocarbons (CFC) phase-out conversion prior to project completion.

Relevant Guidelines:

- **LEED:** Fundamental Refrigerant Management
- **LEED:** Enhanced Refrigerant Management

WS-3 Construction and Demolition Waste Management Planning

Develop and implement a waste management plan.

- Establish waste diversion goals for the project, with at least five materials (structural and non-structural) targeted for diversion.
- Provide an estimated percentage of the overall project waste accounted for by these materials.
- Specify any separation or commingling of waste, describe diversion strategies, and describe where the materials will be taken and how the recycling facility processes the material.
- Provide final documentation around all major waste streams and diversion rates.

Relevant Guidelines:

- **LEED:** Construction and Demolition Waste Management Planning

WS-4 Storage and Collection of Recyclables and Compost

Establish dedicated areas for storing and collecting recyclable materials and hard to dispose of materials.

- Provide dedicated areas accessible to both building occupants and waste haulers for collecting and storing recyclable materials and compost for the entire building.
 - Ensure that this includes mixed paper, corrugated cardboard, glass, plastics, and metals.
 - Additionally, ensure that this includes two of the following: batteries, mercury-containing lamps, and electronic waste.

Relevant Guidelines:

- **LEED:** Storage and Collection of Recyclables

GENERAL POLICY AND OPERATION

To maximize and maintain the impact of a sustainable building, County policy and operations must align with the same goals and values that were presented during building design. This section outlines Countywide policy and operational recommendations based on the priorities shown in this plan as well as the values described in the Sustainability Plan.

Policy Considerations

The following are Countywide policy recommendations to support sustainable building operations.

Employee Wellbeing

These policies include opportunities for the County to support employee mental and physical wellbeing.

- Workplace policies should encourage sick employees to stay home or work remotely.
- Provide, in addition to generous health insurance, Flexible Spending Accounts (FSAs), Health Savings Account (HSAs), on-site immunizations, or time off during the workweek to receive immunizations.
- For business travel, book employees at hotels with free fitness centers or reimburse for any gym usage fees incurred during travel.
- Provide the option of non-red-eye flights for business travel or give the option to work remotely on the day of arrival from a red-eye flight.
- Provide an Employee Assistance Program (EAP) offering short-term treatment and referrals to qualified professionals for depression, anxiety, substance abuse, addiction, and co-occurring mental health issues.
- Provide a stress management program to employees through a qualified counselor offering group or private workshops and referrals.
- Provide paid paternal leave, as well as leave for the care of a seriously ill child, spouse, domestic partner, parent, parent-in-law, grandparent, grandchild, or sibling (and/or provide the option to use paid sick time for the care of any of the above people).
- Provide a quiet and comfortable location and 2-3, 15–30-minute daily breaks to allow nursing mothers to pump breast milk.
- Provide guidelines for employee office equipment and furniture, including equipment that will be provided by the County upon request, as well as items employees can/cannot choose to bring from home. Consider prohibiting mini-fridges and space heaters, for energy savings benefits.
- Ensure that all computer screens, including laptops, are adjustable in terms of height and distance from the user.
- Where workstations are at seated height or similar, ensure that users have the ability to alternate between sitting and standing through one of the following:
 - Adjustable height sit-stand desks
 - Desk-top height adjustment stands
 - Pairs of fixed-height desks or standing and seated heights (which need not be located adjacent to each other)

Relevant Guidelines:

- **WELL:** Building Health Policy
- **WELL:** Healthy Sleep Policy
- **WELL:** Business Travel
- **WELL:** Self-Monitoring
- **WELL:** Stress and Addiction Treatment
- **WELL:** Workplace Family Support
- **WELL:** Altruism
- **WBDG:** Universal Design and Health
- **WELL:** Ergonomics: Visual and Physical

Anti-Idling Policy Enforcement

Prevent vehicles from idling near County facilities during normal operations by creating an anti-idling policy for all County facilities, posting signage in anti-idling zones, and enforcing the policy.

- Develop a plan for enforcement of the anti-idling policy.
- Install signage in anti-idling zones.
- Ensure that anti-idling zones include those near openings of the building envelope and HVAC intakes.

Relevant Guidelines:

- **WBDG:** Enhance Indoor Environmental Quality (IEQ) - Provide Ventilation and Maintain Acceptable Indoor Air Quality
- **WBDG:** Enhance Indoor Environmental Quality (IEQ)

Graywater Ordinance Adoption

Allow graywater reuse in the County as allowed by water rights.

- Explore adoption of graywater ordinance language that allows for graywater reuse as related to [state regulation 86](#).

Relevant Guidelines:

- FEMP [Best Management Practice #14](#)—Alternate Water Sources
- [Pitkin County Ordinance](#)

Operational Guidelines

The following guidelines are designed to help maintain the sustainability benefits from the design criteria included in this document.

Air Quality Monitoring and Feedback

Monitor and remediate indoor air quality issues and keep occupants and building managers informed of indoor air quality.

- Force air through building to reduce pollutants, prior to occupancy, after all interior finishes have been installed.
- Replace, prior to occupancy, filters used during construction.
- Monitor some combination of PM 10, CO2, ozone, and humidity (minimum 1 per floor, interval max of 1 hour).
- Turn down building ventilation rates during unoccupied periods; set building systems to perform a full building flush about 1 hour prior to building occupation.
- Utilize UV lamps on cooling coils and drain pans of mechanical system supplies.
- Conduct mold inspections and ensure there are no signs of discoloration or mold on ceilings, walls, or floors, or signs of water damage or pooling.

Relevant Guidelines:

- **WELL:** Air Quality Monitoring and Feedback
- **WELL:** Air Flush
- **LEED:** Indoor Air Quality Assessment
- **WELL:** Microbe and Mold Control

Cleaning Equipment and Protocol

Develop a cleaning plan that includes high performance, sustainable cleaning equipment and supplies.

- Develop a cleaning plan with a specified frequency of cleaning, along with specified approved cleaning products.
- Install proper chemical storage (e.g., separate ammonia and bleach bins, with proper signage and color coding).
- Use [non-toxic cleaning products](#), including products with the [Safer Choice label](#).

Relevant Guidelines:

- **WELL:** Cleaning Equipment
- **WELL:** Cleaning Protocol

Sustainable Landscaping Best Practices

Develop a landscaping management plan that minimizes environmental impact.

- As feasible, minimize pesticide and herbicide use through either the creation of a pest management plan instead of pest/herbicide use and/or use of only pesticides with hazard tier ranking 3 (least hazardous) as identified in WELL. If chemical use is necessary:
 - Implement best practices as feasible, based on [chapter 3 of San Francisco Environment Code IPM program](#). These include:
 - Determine the most effective treatment time, based on pest biology and other variables such as weather, seasonal changes in wildlife use, and local conditions
 - Design and construct indoor and outdoor areas to reduce and eliminate pest habitats
 - Use physical controls such as traps and barriers
 - Use biological controls (introducing or enhancing pests' natural enemies)
 - Post notification, for an appropriate time after use, at treated areas
 - Only apply pesticides in low-wind conditions and in such a manner as to minimize wind-drift
 - Avoid inhalation potential of pesticides through proper personal protective equipment by the applicator; avoid application when people are nearby
- Develop maintenance and landscaping operational plan to ensure flammable materials are consistently cleared from area within five feet of building and within project boundary as appropriate to mitigate fire risk.
- All staff or contractors performing landscaping work should: be certified by the [Irrigation Association](#), be a Qualified Water Efficient Landscaper (QWEL), belong to the [National Association of Landscape Professionals \(NALP\)](#), or be part of a [WaterSense labeled program](#) in order to design, install or maintain, and audit irrigation systems.
- Monitor and ensure compliance with the water budget.
- Develop a long-term management plan that includes details such as watering schedule, weeding and mowing schedule, and plant replacement.

Operational and Maintenance Practices

Develop an Operations and Maintenance plan with embedded sustainability practices.

- Develop an operations and maintenance plan/program to include training on other plans (product purchasing, commissioning, or anything else relevant), regular testing, scheduling of energy audits and recommissioning, and building upgrades.
- Develop a demand response program, including reviewing building automation system (BAS) programming or operations, which alerts relevant personnel when electricity use spikes and outlines the process for addressing anomalous electricity demand spikes.
- Designate regular maintenance checks for bicycle maintenance tools and charging infrastructure, to ensure equipment is still operational.
- Develop a Distribution audit, leak detection, and repair plan that aligns with FEMP [Best Management Practice #3](#)— Distribution System Audits, Leak Detection and Repair. Include a method for staff to easily report leaks or related issues.
- Every 5 years, reassess building use patterns and determine if there are additional opportunities for water use reduction
 - Example: a sink previously used for dishwashing is now only used for handwashing and could have a low flow aerator installed.
- Perform operation, maintenance, and user education as found in [FEMP Best Management Practices](#), including BMP [#6](#), [7](#), [8](#), [9](#), [11](#), [12](#), and [13](#).
- Develop and implement a test plan for organic, inorganic, and agricultural contaminants in drinking water.
 - If levels above WELL limits: Organic Contaminants, Inorganic Contaminants, or Agricultural contaminants sections; or WELL Periodic Water Quality Testing are detected, consider implementation of one of the following treatment methods as appropriate, depending on the level of non-compliance:

- Inorganic contaminants may require reverse osmosis (RO) systems or Kinetic Degradation Fluxion (KDF) filters at point of delivery
 - Organic contaminants may require activated carbon filters
 - Agricultural contaminants may require activated carbon filters
 - Presence of other contaminants such as lead may require more extensive testing and communication with the local water utility to determine the cause as well as possible remediation steps
- Test plan should include required testing for all listed contaminants at a frequency of at least once per year and after any prolonged building shutdown, major renovation, or operational changes that may impact water delivery
- Lead, arsenic, mercury, and copper should all be tested at least quarterly
- The components of drinking water dispensers (mouthpieces, protective guards, and collective basins) should be cleaned daily; outlet screens and aerators should be cleaned quarterly.
- All legal requirements for testing, recordkeeping, and repairing refrigerant leaks should be met. Where feasible, more frequent leak checks than required by code/law should be performed.

Relevant Guidelines:

- **WBDG:** Optimize Operation and Maintenance Practices

Welcoming and Flexible Workspace

Ensure that all employees feel welcome and comfortable using the workplace and that the workplace can adapt to changing employee needs.

- For open offices with occupants performing tasks that require similar workstations, allow for at least 50% free workstations to allow occupants to select a workspace with a desired temperature.
- Allow occupants to have personal comfort devices such as fans and lap blankets (excluding space heaters).
- Ensure that instructions for use of office equipment and communal spaces are clearly communicated.
- Provide employees with the option of at least one of the following workstation types: standing desk, treadmill desk, bicycle desk, or portable desk pedal or stepper machine.
- Provide transit route maps onsite for reference, and directions to the nearest transit stops.
- Develop signage for awareness and location of bicycle parking for visitors and regular occupants.
- Communicate and enforce EV-only parking at charging stations.
- Establish a flexible work-from-home policy that allows workers to work remotely most of the time (with exceptions for those whose job could not be adequately completed remotely). For days where workers are commuting to the site, allow flexibility to arrive and leave at times earlier or later than normal to avoid rush hour traffic.
- Provide free, reduced cost, reimbursements, or other financial incentives as a staff benefit for on-site electric vehicle charging.
- Implement a program that encourages carpooling by staff. This may include priority parking, financial incentives, friendly competitions, or other incentives.
- Implement a program that encourages public transit use, including financial incentives, bus passes, friendly competitions, or other incentives.
- For buildings with 10 or more occupants, have occupants periodically complete the Indoor Environmental Quality (IEQ) survey from the Center for the Built Environment (CBE) at UC Berkely, or an approved alternative. The survey covers topics such as acoustics, thermal comfort, and layout. Results should be reported promptly to owners, managers, and building occupants upon request.

Relevant Guidelines:

- **WELL:** Adaptable Spaces
- **WBDG:** Design for the Changing Workplace
- **WELL:** Activity Incentive Programs
- **Alternative Fuels Data Center:** [Workplace Charging for Electric Vehicles](#)
- **WELL:** Post-Occupancy Surveys

Quality Assurance Team

Establish a quality assurance team that requires verification of the building meeting performance objectives from design to post-construction. This team will be responsible for the following actions.

- Compile energy and water use data - with monthly and annual summaries - and review based on benchmarks or budgets developed during design.
- Communicate energy and water use to building occupants, along with ways employees can support sustainability efforts based on findings (i.e., indoor water use was higher than expected due to leaks, so if you see a leak report it.)
- As feasible, implement both internal and external information and education options as listed in FEMP [Best Management Practice #2](#)—Information and Education Programs

Relevant Guidelines:

- **WBDG:** Meet Performance Objectives

Hazard Response Plans and Training

Ensure that the facility and its employees are prepared to respond to anticipated hazards.

- Conduct regular testing of all building safety systems to ensure functionality and responsiveness.
- Communicate hazard and emergency response plans to all employees, to ensure that building occupants understand appropriate response activities in the event of a hazard.
- Define storage needed for energy, food, and water, and anything else required for long-term building operation.
- Align with the [Adams County Hazard Mitigation Plan](#).

Relevant Guidelines:

- **BCRDPS:** Consider if Project Can Store and Restore Capacity of Reserves at Each Scale So Isolated Elements Can Survive for a Period on Their Own.

Cooling Tower Water Optimization

Ensure that cooling towers are operating efficiently to minimize water use.

- Perform monthly cleaning and checks of cycles of concentration; confirm they are free of leaks; check all seals' pumps, casings, and ducts; check all meter readings; perform general visual inspection. Check the water distribution feedline to ensure it is clean and maintains even, consistent flow across the cooling system (this includes across multiple towers). Clean conductivity probes to ensure reduction of unnecessary blowdown. Clean blowdown line to avoid biofouling.
- Once a year, completely disassemble all components of cooling towers. Clean, repair, or replace all components as necessary, then reassemble.
- Align maintenance and operation with FEMP [Best Management Practice #10](#)—Cooling Tower Management.
- Ask local utility if volume used in cooling towers can be deducted from sewer water charges (referred to as Evaporative Cooling Credits).

Water Shortage Action Planning

Develop a water shortage action plan.

- Develop a water shortage action plan to determine specific actions at various levels of water shortage.
- Tie plan into regional water shortage and drought response planning efforts.

Relevant Guidelines:

- **CWCB:** [Drought Management Planning](#)
- **Washington State Dept. of Health:** [Preparing Water Shortage Response Plans](#)
- **Fort Collins Utilities:** [Water Shortage Action Plan](#)
- **Denver Water:** [Water Shortage Response Implementation Plan](#)
- **FEMP Best Management Practice 1:** [Water Management Planning](#)

Composting Program

Develop a composting program that includes a training component.

- Make at least one composting bin available per floor. Locate a composting bin in each kitchen area.
- Locate composting bins of adequate size where waste is generated.
- Ensure that compost bins are accessible and ADA compliant.
- Provide clear, up-to-date labeling on all composting bin areas regarding what can be composted.
- Integrate the composting program into custodial operations.
- Develop a composting program, with training for regular building occupants. Offer training at least annually, require for new personnel, and combine (where possible) with recycling training.

Recycling Program

Develop a recycling program with training.

- In all spaces with trash cans, locate recycling bins in the same area so they are next to each other.
- Locate recycling bins of adequate size where waste is generated.
- Ensure that recycling bins are accessible and ADA compliant.
- Provide clear, up-to-date labeling on all recycling bin areas regarding what can go into each bin, as well as directions on how to handle hard-to-recycle items such as batteries and plastic bags.
- Integrate the recycling program into custodial operations.
- Develop a recycling program with training for regular building occupants. Offer training at least annually, require once for new personnel, and combine (where possible) with composting training.

Healthy Food Options

Design eating areas and provide food options onsite to promote healthy choices.

- Provide eating spaces with tables and chairs, as well as the following:
 - Refrigerator
 - Device for reheating food
 - Sink
 - Amenities for dish washing
 - At least one cabinet or storage unit available for occupant use
 - Reusable eating utensils including spoons, forks, knives, and microwave-safe plates and cups (reusable)
- Using prominent displays such as educational posters, brochures, or other visual media, include in designated eating areas or common areas at least 3 different instances of messaging per project, intended to achieve either or both of the following requirements:
 - Encourage the consumption of whole, natural foods and cuisine
 - Discourage the consumption of sugary or processed foods and beverage
- Ensure that all foods provided on a daily basis on premise are:
 - Clearly labeled - on packaging, menus, or signage - to indicate artificial colors, flavors, or any common allergens as listed (e.g., peanuts, fish, and soy).
 - Include nutritional labeling of total calories, macronutrient content (total protein, total fat, and total carbohydrate in weight or as a percent of the estimated daily requirements), and total sugar content
- If foods are sold or provided on a daily basis on premises by (or under contract with) the project owner, ensure that the selection includes at least one of the following:
 - At least 2 varieties of fruits (containing no added sugar) and at least 2 varieties of non-fried vegetables
 - Fruit (containing no added sugar) and/or non-fried vegetables are at least 50% of the available options
- Place fruits or fruit dishes in a bowl or stand at checkout location.
- For food served daily on-site:
 - Ensure that at least half of all main course options have a version or portion option that is low calorie at a lower cost compared to the larger, regular version

- Ensure that dishware is reasonably sized, to promote portion control.
- Ensure that meals sold on premise (or provided by the project owner on a daily basis, or catering provided at least once a month) includes at least one main course option for each of the following criteria as necessary (by request):
 - Free from peanuts, gluten, lactose, egg, animal, seafood, or dairy products, and free from seafood or animal products except for eggs and dairy.

Relevant Guidelines:

- **WELL:** Artificial Ingredients
- **WELL:** Food Allergies
- **WELL:** Nutritional Information
- **WELL:** Food Advertising
- **WELL:** Fruits and Vegetables
- **WELL:** Processed Foods
- **WELL:** Mindful Eating
- **WELL:** Serving Sizes
- **WELL:** Special Diets

Healthy Food Preparation and Storage

Ensure that food prepared and sold on-site is safe and healthy.

- Ensure that if raw meat, fish, or poultry is prepared or stored on-site, cold storage spaces contain the following:
 - At least one removable, cleanable drawer or container - located at the bottom of the unit - that is designated and labeled for storing raw meat, fish, or poultry
 - A visual display of holding temperatures to ensure accurate representation of storage temperatures
- Ensure that pots, pans, dishware, and other cooking tools (except cutting boards) used to prepare food are made entirely of one or more of the following inert materials:
 - Ceramics, except those containing lead
 - Cast iron
 - Stainless steel
 - Glass
 - Coated Aluminum
 - Solid (non-laminated) wood that is untreated or is treated with food-grade mineral or linseed oil
- Ensure that all cutting boards are made from the following materials, and replaced when they become excessively worn or have deep grooves from cutting:
 - Marble
 - Plastic
 - Glass
 - Pyroceramic
 - Solid (non-laminated) wood that is untreated or is treated with food-grade mineral or linseed oil
 - Bamboo

Relevant Guidelines:

- **WELL:** Food Storage
- **WELL:** Food Contamination
- **WELL:** Food Production
- **WELL:** Safe Food Preparation Materials

APPENDIX A: CRITERIA SCORING

The following table details the scoring completed, during the first workshop by Adams County staff, of proposed guidelines. Guidelines that appear in this appendix differ from the finalized versions due to further refinement and feedback from Adams County staff. Staff performed qualitative rankings that were then converted to an equivalent quantitative score for reference when developing and refining this document. This score was applied to the adoption curve as discussed in the Methodology section of this document, as seen in the Curve Segment column.

New Building Criteria Criteria

Energy		Criteria Score	Curve Segment
Supply	Energy Storage-Ready Construction: Ensure buildings are ready for installation of on-site energy storage.	50	Late Majority
	On-Site Renewable Energy Production/Solar-Ready New Construction: All facilities should have on-site renewable energy production, or have facilities able to accommodate installation in the future.	69	Early Majority
Efficient Energy Systems, Controls, and Metering	Optimize Building Energy Performance: Increase energy efficiency of equipment and building systems above code requirements.	81	Early Majority
	Occupant Thermal Comfort: Follow relevant codes and standards to provide the systems and controls needed to meet thermal comfort for occupants.	83	Early Majority
	Building Level Energy Metering: Install permanent building-level energy meters.	65	Early Majority
	Advanced Energy Metering: Sub-meter appropriate energy systems or building areas.	66	Early Majority
	Demand Response: Design and implement systems that utilize demand response capabilities, including load shifting and load shedding.	72	Early Majority
Lighting	Solar Glare Control: Implement systems to prevent glare and solar heat gain, through shading and dimming.	71	Early Majority
	Electric Light Glare Control: Provide quality indoor lighting to prevent glare for building occupants.	62	Early Majority
	Circadian Lighting Design: Ensure that proper melanopic lux is present throughout the year.	58	Early Majority
	Lighting Control and Quality Views: Provide access to quality views and utilize daylighting and lighting controls to reduce energy consumption and improve occupant visibility.	64	Early Majority
	Light Pollution Reduction: Minimize exterior light pollution of the night sky to improve nighttime visibility; reduce development impact from lighting on nocturnal environments.	50	Early Majority

New Building Criteria Criteria

Air Quality		Criteria Score	Curve Segment
Heating, Ventilation, and Air Conditioning (HVAC) Systems	Construction Pollution Management: Require construction pollution management measures during construction to protect duct work, sensitive materials, finishes, and any occupied areas of the buildings from particulate matter and other contaminants.	89	Early Adopters
	Air Filtration and Purification: Leverage HVAC systems, to ensure that indoor air is free of contaminants that can impact occupant health and well-being, through filter and HVAC specifications, maintenance, air sanitation, and purification system requirements.	85	Early Adopters
	Combustion Minimization & Electrification: Ban combustion via appliances and personal heaters in regularly occupied spaces, and have stringent air quality requirements for other combustion sources.	81	Early Majority
	Ventilation Rates: Require for Demand Control Ventilation and recommendations to reduce CO2 levels indoors and immediately surrounding the building.	78	Early Majority
	Humidity Control: Require proper humidity control in all buildings.	55	Early Majority
Facility	Air Infiltration Management: Require air leakage testing prior to occupancy to identify and repair air infiltration.	88	Early Adopters
	Enhanced Indoor Air/Environmental Quality Strategies & Healthy Entrances: Require advanced air quality strategies, including entryway systems, enhanced HVAC filtration, cross-contamination prevention, and natural ventilation.	72	Early Majority
	Moisture Management: Address interior and exterior moisture concerns - from building penetration to plumbing leaks.	89	Early Adopters
	Operable Windows: Provide operable windows and occupant notification of unacceptable air quality.	49	Late Majority

Criteria Breakout

0	Innovators
12	Early Adopters
54	Early Majority
4	Late Majority
0	Lagards

New Building Criteria Criteria

Healthy and Resilient Employees		Criteria Score	Curve Segment
Physical Wellbeing	Healthy Spaces that Reduce Illness for Occupants: Design interior spaces to promote physical wellbeing by reducing microbial contaminants and allergens.	63	Early Majority
	Healthy Spaces that Promote Physical Activity for Occupants: Implement interior and exterior building design choices that encourage occupants to remain physically active throughout the day.	63	Early Majority
	Equitable and Inclusive Design: Follow best practices for accessibility compliance, universal design, equal access, and flexibility.	73	Early Majority
Mental Wellbeing	Adaptable Spaces for a Changing Workplace: Implement design choices that enable flexibility and accessibility for the future needs of the building and its occupants.	66	Early Majority
	Beauty and Design: Design should incorporate features of art, open space, and accessible wayfinding.	61	Early Majority
	Biophilia – Qualitative and Quantitative: Develop a plan to integrate nature and the outdoors within the interior of the building and to connect to the exterior design and site.	54	Early Majority
	Olfactory Comfort (Odors): Prevent bad smells in buildings.	81	Early Majority
	Noise and Sound Management: Use building materials and space design to manage noise intrusion to work spaces from outdoor environments, mechanical equipment, and other employees.	77	Early Majority
Secure/Safe	Building Fire Protection: Meet fire protection requirements, and incorporate an uncomplicated and accessible building layout into the design.	78	Early Majority
	Natural Hazards Mitigation: Identify and design the site to mitigate negative impacts of natural hazards.	58	Early Majority
	Security for Building Occupants and Assets: Design includes elements to protect health and safety of occupants.	78	Early Majority

Resiliency	Establish a Hazard Time-to-Recovery Goal: Based on building need and environmental hazards, determine a goal to recover from downtime as a result of hazards.	61	Early Majority
	Consider Project and Site Alternatives: Consider project alternatives to augment capacity and/or increase buffers from high-risk locations.	58	Early Majority
	Minimize Disproportionate Impacts to the Community: Avoid creating disproportionate negative impacts to vulnerable populations in the surrounding community.	63	Early Majority
	Foster Community Identity through Design: Encourage community ownership of the building through building and site design that incorporates beauty, aesthetics, and appreciation to the community.	58	Early Majority
	Aesthetics: Pursue design awards to incorporate lessons learned from past award-winning building designs.	46	Late Majority

New Building Criteria Criteria

Waste		Criteria Score	Curve Segment
Life-cycle Impact of Materials	Fundamental and Enhanced Refrigerant Management: Utilize less harmful refrigerants and minimize leakage.	83	Early Majority
	Embodied Carbon Lifecycle, Pricing, and Disclosure: Calculate, track, and disclose embodied carbon for building design and products; standardize around a price on carbon to incorporate into design decisions.	56	Early Majority
	Optimize Building Space and Material Use: Select project site that maximizes re-use of facilities, reduce material use, ensure easy disassembly and reuse/recycling of components, and source building materials sustainably and locally.	72	Early Majority
	Building Life-Cycle Impact Reduction: Reuse historic, abandoned, or blighted buildings, or perform a life-cycle impact assessment and make decisions to reduce total impact of project.	58	Early Majority
	Sourcing of Raw Materials: Encourage use of products and materials that have life cycle information available and have preferable impacts.	61	Early Majority
Waste Management	Construction and Demolition Waste Management Planning: Establish waste diversion goals for construction material; specify construction waste management strategies.	68	Early Majority
	Storage and Collection of Recyclables: Establish dedicated areas for storing and collecting recyclable materials and hard-to-dispose of materials.	66	Early Majority

New Building Criteria Criteria

Land		Criteria Score	Curve Segment
Resiliency	Stormwater: Build stormwater to handle increased participation.	89	Early Adopters
	Firewise Construction: Firebreak and fire-resistant materials.	93	Early Adopters
	Drought Resistant Landscaping: Design to adapt to drought conditions.	81	Early Majority
	Extreme Weather: Consider snow/hail, tornados, and other weather events for the building design.	82	Early Majority
Site	Heat Island Reduction: Reduce impact of heat island via reflective surfaces or increased landscape area.	74	Early Majority
	Optimize Site Potential: Ensure site selection and planning is optimized for a variety of factors.	84	Early Adopters
	Site Assessment: Conduct and document a site survey or assessment.	91	Early Adopters
	Incorporate Native, Natural Habitats in Site Design: Utilize green infrastructure and native, natural system functions to incorporate nature and habitats into the site design.	73	Early Majority
	Leverage Existing Site for Design Co-Benefits: Identify design solutions that harmonize existing systems with site design in a way that provides co-benefits.	69	Early Majority
	Inorganic, Organic, and Agricultural Contaminants: Control for contaminants in water designated for human consumption.	90	Early Adopters
	Open Space: Provide quality open space on site.	67	Early Majority
	Protect or Restore Habitat: Preserve, protect, or restore native habitats on site.	74	Early Majority
	Construction Activity Site Pollution Prevention: Prevent pollution, including erosion and runoff, occurring from production activity.	87	Early Adopters

New Building Criteria Criteria

Transportation		Criteria Score	Curve Segment
Alternative Transportation	Access to Quality Transit: Locate the project within easy access to quality transit, or advocate and add transit options for the project.	73	Early Majority
	Bicycle Facilities & Active Transportation Support: Provide bike and other active transportation repair, maintenance, storage, and other support.	59	Early Majority
	Reduced Parking Footprint: Provide only the minimum required parking capacity.	57	Early Majority
Electric Vehicles	Green Vehicles: Provide designated parking for green vehicles.	50	Late Majority
	Electric Vehicle Charging Infrastructure: Require Electric Vehicle (EV) charging infrastructure.	80	Early Majority

New Building Criteria Criteria

Water		Criteria Score	Curve Segment
Outdoor	Rainwater Management: Manage rainwater effectively.	56	Early Majority
	Outdoor Water Use Reduction: Reduce irrigation water use.	80	Early Majority
	Cooling Tower Water Use: Ensure optimized operation of cooling towers and evaporative condensers.	91	Early Adopters
Metering / Monitoring	Building-Level Water Metering: Install permanent building-level water meters.	53	Early Majority
	Advanced Water Metering: Sub-meter appropriate systems.	67	Early Majority
Indoor	Protect and Conserve Water for Reuse: Implement water efficiency, re-use, recycling, and other best management practices.	73	Early Majority
	Indoor Water Use Reduction: Implement water conservation and efficiency measures indoors, including for appliances and fixtures.	86	Early Adopters
	Drinking Water Promotion: Provide accessible water dispensers, properly clean, and control taste and odor compounds in drinking water.	70	Early Majority