

# PLANNING COMMISSION REGULAR MEETING AGENDA

CITY COUNCIL CHAMBERS  
CIVIC CENTER SOUTH  
470 S. ALLISON PARKWAY  
LAKEWOOD, COLORADO

HOSTED VIRTUALLY AT LAKEWOODSPEAKS.ORG

January 5th, 2022

7:00 PM

- 
- ITEM 1: CALL TO ORDER
- ITEM 2: ROLL CALL
- ITEM 3: OA21-0003 – AMENDMENTS TO ARTICLE 13: SUSTAINABLE  
DEVELOPMENT STANDARDS
- ITEM 4: GENERAL BUSINESS
- ITEM 5: ADJOURNMENT

This meeting will be conducted using Zoom and the recording will be available after the meeting on the City of Lakewood YouTube account. The public may view the meeting live stream online at [lakewoodspeaks.org](http://lakewoodspeaks.org).





## **MEMORANDUM**

**TO:** Planning Commission

**FROM:** Caitlin Long, Senior Sustainability Planner, Planning Department  
Jonathan Wachtel, Sustainability Manager, Planning Department

**DATE:** December 20, 2021

**SUBJECT:** STAFF REPORT: Amendments to Article 13 – Sustainable Development Standards

### **SUMMARY STATEMENT:**

The proposed amendments to Article 13 of the Lakewood Zoning Ordinance will build upon the existing sustainable design standards adopted by Planning Commission and City Council with the intent of continuing to advance the community's adopted Sustainability Plan and Comprehensive Plan goals.

The proposed amendments (see Attachment A) include updates to the existing Enhanced Development Menu, a new Greenhouse Gas Mitigation Program, and supplemental standards for the existing Construction & Demolition waste recycling requirements in the building code. Together, these standards are intended to create new developments that integrate into the community, mitigate emissions impacts, and divert waste from landfills. This holistic approach to development recognizes that sustainability is about more than just energy; it is also about the physical design of a particular site, the greater context within the built environment, and the people who inhabit it.

An overview of each section of proposed amendments is included in this memo, along with background on the process and a summary of Planning Commission feedback to date. More detailed explanations were provided in the meeting packet for the December 15 study session, and the full proposed text of Article 13 is included in this packet as Attachment A, along with a redlined version of changes since the previous meeting in Attachment B.

Upon adoption of the proposed amendments and recommendation that City Council approve them, staff will begin the process with City Council. An initial study session is currently scheduled for April 2022.

## **BACKGROUND INFORMATION:**

The Enhanced Development Menu (EDM) was adopted in May 2019 as Article 13 of the Zoning Ordinance as a tool to help ensure new development supports Lakewood's Comprehensive Plan and Sustainability Plan goals. The EDM also provides a mechanism in which to pilot emerging technologies, design, and building methods in sustainable development in order to assess elements that may be included in future development and building codes. Staff presented preliminary ideas for proposed updates to the EDM in March 2021.

The Lakewood Advisory Commission (LAC) also presented the idea for a Renewable Energy Mitigation Program (REMP) to City Council in February 2021. Staff was directed to explore options for establishing such a program.

Over the last several months, staff has reviewed best practices in sustainable development, created a framework for additional sustainable development standards within the zoning ordinance, and collaborated with other city staff and community representatives to develop the specific standards and language. The result is a proposed holistic Sustainable Development program incorporating updates to the EDM, a Greenhouse Gas (GHG) Mitigation Program, and Construction and Demolition (C&D) waste recycling supplemental standards.

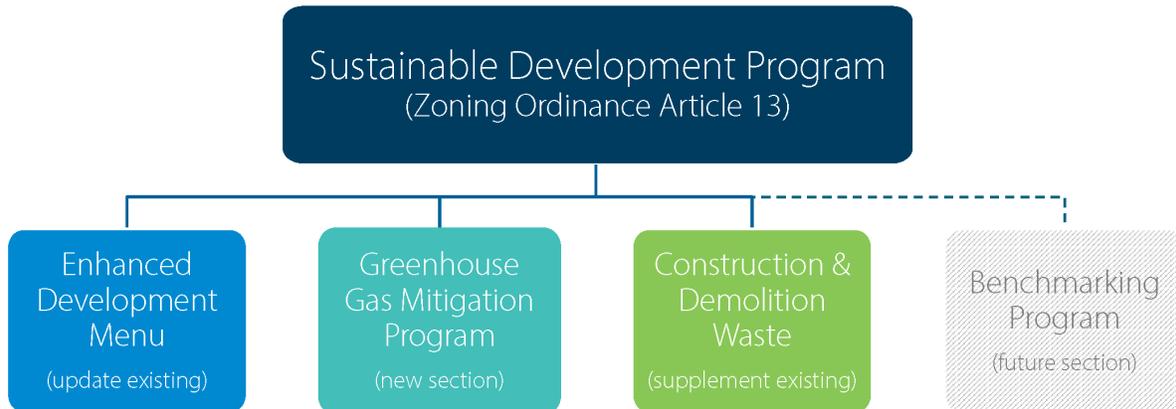
Study sessions were held with the Planning Commission in October, November, and December to discuss the progress of the proposed amendments. The study session on December 15 included a review and discussion of the draft code language, which has been refined based on the feedback provided. Meeting packets and videos are available at [LakewoodSpeaks.org](http://LakewoodSpeaks.org).

The following sections of this memo recap the overall framework and explain the key elements of each component of the proposed Article 13 – Sustainable Development.

## **OVERARCHING FRAMEWORK:**

The framework for the proposed Article 13 – Sustainable Development is based on the premise that sustainability is, by its nature, holistic, and therefore development standards intended to promote sustainability should be holistic as well. To this end, the proposed framework is organized into four sections: the existing Enhanced Development Menu, the new Greenhouse Gas Mitigation Program, the supplemental Construction & Demolition Waste Recycling standards, and the future Benchmarking Program, as shown in Figure 1 below:

**Figure 1. Sustainable Development Framework**



The **Enhanced Development Menu** is designed to be flexible and context-specific, allowing for a wide variety of items to be implemented within a development site that holistically promote city goals. Examples of these items range from energy efficiency and renewable energy sources to local food access and public art.

The **Greenhouse Gas Mitigation Program** has been designed to specifically capture the impact that all developments have on air quality and emissions. These types of impacts cannot be seen and do not stay within the confines of a single property. Mitigation of these impacts is essential for the community to reach its climate goals and commitments.

The **Construction & Demolition Waste Recycling Supplemental Standards** have been developed to aid in enforcement of and compliance with the existing waste diversion requirements adopted in the building code. These standards would support diversion of C&D waste from area landfills, which accounts for approximately 50% of all municipal solid waste in the Denver Metro area.

The future **Benchmarking Program** would provide a way to compare buildings within the city, increase efficiency, and ensure long-term compliance with the city's climate commitments. This part of the Sustainable Development framework is envisioned within 3-5 years, following implementation of the recently-passed statewide benchmarking legislation.

#### **ENHANCED DEVELOPMENT MENU:**

Proposed updates to the existing EDM include:

- Expanded applicability and point structure that scales based on the size of development, with 1 point per 1,000 square feet (10 points minimum, 100 points maximum) for new development over 2,500 square feet in size.
  - Individual single family and duplex construction would be exempt.

- Square footage of affordable housing units would be excluded from the development size for the purposes of determining how many points are required.
- Designated historic landmarks on the local, state, or national registers would be eligible for a 50% reduction in required points.
- A new fee-in-lieu would be offered for required points over 50 at a proposed rate of \$4,000 per point. The final value will be adopted in the Sustainable Development Program Fee Schedule by separate resolution.
- Eleven new items added to the EDM to allow for greater variety, flexibility, and the ability to mitigate greenhouse gas emissions.

### **GREENHOUSE GAS MITIGATION PROGRAM:**

The proposed Greenhouse Gas Mitigation Program evolved from City Council's request for staff to further explore sustainable building programs following a presentation from the Lakewood Advisory Commission. Key elements of the proposed program include:

- Applicability to all new construction of single-family and multi-family residential, and non-residential construction, as well as major alterations/additions requiring Major Site Plan review for multi-family and non-residential developments.
  - This would not apply to alterations or additions to existing single-family dwelling units, such as room additions, detached garages, accessory dwelling units, or basement finishes.
- A Performance Standard for annual greenhouse gas emissions to align the performance of new development with the community's climate goals and commitments.
- A list of mitigation measures that can be used to reduce projected emissions and meet the Performance Standard.
  - A fee-in-lieu of compliance would be available based on 5 years' worth of annual emissions exceeding the performance standard that are not addressed through approved mitigation measures.

### **CONSTRUCTION & DEMOLITION WASTE RECYCLING:**

The Construction & Demolition Waste Recycling Supplemental Standards are intended to increase compliance with the existing requirements in the building code. There is no proposed change to the existing standards in the building code, which apply to all demolition projects and all construction projects greater than 2,500 square feet, and require recycling of concrete, asphalt, metal, untreated wood, cardboard, and interior fixtures/salvageable items. The proposed supplemental standards include:

- Requirements for a comprehensive construction waste management plan (CWMP) and ongoing material tracking for projects also requiring review under the EDM

- Ability to collect a deposit on any project required to comply with construction and demolition standards in the building code.
- A deposit to be paid prior to issuance of building or demolition permit in the amount of \$1 per square foot (minimum \$2,500 – maximum \$100,000).
  - Deposits to be refunded in full upon successful compliance with waste management plan and reporting requirements.
  - Deposits to be partially refunded or forfeited for non-compliance with waste management plan or incomplete reporting.

### **ADMINISTRATIVE IMPACTS:**

Based on the last several years of development project data, 250 – 300 site plans and building permits would be subject to the standards contained within Article 13 each year, as compared with approximately 50 per year under the current standards. With the additional staff time required to review the proposed standards, administration fees would be necessary to help support the effective implementation of the code.

The proposed fees are summarized in Attachment C, and were calculated with consideration of typical staff review time for current EDM projects and anticipated staff time required to administer the GHGMP and C&D programs. A separate fee resolution will be presented to City Council to adopt the Sustainable Development Fee Schedule.

### **CLIMATE PROTECTION & SUSTAINABILITY PROGRAM**

Any fees and forfeited deposits collected from implementation of Article 13 would be directed to a Climate Protection & Sustainability Program. Funds would be used for programs and projects that would reduce the community’s overall greenhouse gas emissions, increase energy efficiency for low to moderate income households, adapt to changing climate conditions, and implement the goals of the Sustainability Plan. Staff is working with the Finance Department to establish a business unit that would collect and expend the funds, which would be appropriated annually through the regular budget process.

### **ENGAGEMENT AND OUTREACH:**

- **Task Force and Internal Working Group:** As part of developing these amendments to Article 13, staff has regularly engaged with an internal staff working group and a task force consisting of key LAC representatives and community members to ensure the standards would be implementable and consistent with the vision originally presented for a Renewable Energy Mitigation Program.
- **Newsletters and Social Media:** The overarching framework was shared in the October 2021 edition of the Lakewood Sustainability newsletter, and more components of these sustainable development programs will be shared in future newsletters.

- **Lakewood Together Project Page:** A project page has also been created on Lakewood Together to share progress to date and invite feedback about the amendments before bringing the draft ordinance to Planning Commission, and staff will be offering one-on-one information sessions upon request.
  - As of December 20, there have been no comments or requests for additional information.

## **SUMMARY OF PLANNING COMMISSION FEEDBACK:**

A summary of Planning Commission feedback from the previous study sessions is included below, along with responses from staff:

### **General:**

- Authority of the Planning Director
  - The proposed language is similar to the authority delegated to the Director in Article 2 to review and decide on Major Site Plan and other land development cases. Since the standards in Article 13 will be reviewed as parts of other processes, and are not specifically identified in Article 2, the statement of authority is reiterated in Article 13 for clarity that these standards fall under the purview of the Planning Department except where indicated otherwise.
  - Based on feedback, staff has removed the proposed increase in the threshold for Planning Commission review for the Open Option of the EDM.

### **Enhanced Development Menu:**

- Battery storage
  - This will be mentioned in the Applicant Resource Guide as a potential candidate for the Open Option, and added to the list of future items to consider adding to the EDM.
- Water reclamation
  - Recognized for its impact; discussed during the study session that graywater policy and infrastructure efforts would likely need to be addressed on a district-wide or city-wide scale, not with individual developments.
- Low-carbon concrete for structural work
  - This has been added to Item 15: Low-Carbon Concrete as a suggested candidate for points under the Open Option.
- Point value of renewable energy
  - The proposed point structure reduces the minimum energy offset to earn points from 25% (currently in the EDM) to 10%, which would increase the value of the points and make it easier for new developments to do any form of renewables. To ensure the EDM remains holistic and does not focus solely on energy, staff recommends leaving the point values as proposed. Beyond the EDM, the GHGMP is designed to incentivize renewable energy as a mitigation measure to reduce overall emissions.

- Point value of public art
  - The proposed point structure for public art was carefully considered in collaboration with Comprehensive Planning & Research staff and the city's Arts Programming Curator to be appropriately scaled in relation to the art budget as well as the tourism and economic impacts of art pieces. As such, staff does not recommend reducing the point value at this time. However, the maximum points for other similar menu items are proposed to increase to allow a greater number of impactful options for large-scale developments.
- Increasing the maximum number of points above 100
  - Staff carefully considered the request to increase the maximum number of points to be higher than the currently proposed 100 points. Based on an analysis of the points available with the proposed menu items, it would be difficult to increase the maximum point threshold above 100 without certain items becoming required by default. Since the proposed maximum cap of 100 points is double the existing cap of 50, and limiting the flexibility of the choices is contrary to the purpose of the EDM, staff recommends not to increase the maximum number of points further. However, if the Planning Commission feels strongly that a higher maximum cap is warranted, staff recommends that it be increased by no more than 20 points (120 maximum) to preserve some flexibility in the menu. An alternative motion has been provided on the Draft Motion attachment
- Value of fee-in-lieu per point
  - \$4,000 per point is currently proposed; since the fee-in-lieu would be adopted as part of a separate fee resolution, the amount may be adjusted without amending the Zoning Ordinance if the value seems to encourage fee payment rather than implementing Menu items.
- Future EDM items for consideration
  - As mentioned during the 12/15 study session, staff maintains a list of potential items for future consideration to add to the EDM. Some examples of items on this list include affordable/workforce housing, interior water benchmarking, and transit passes. Suggestions provided by the Planning Commission which were not incorporated into this round of updates have been added to the list of potential future updates for further evaluation.

### **Greenhouse Gas Mitigation Program**

- Impact of TOD locations on transportation emissions
  - A transportation emissions reduction factor of 20% was added to reduce the projected transportation emissions for developments in Transit context zone districts and for age-restricted communities (senior housing). This is consistent with the difference in minimum parking requirements in Article 8 for multi-family between the urban and transit contexts, and consistent with other allowed parking reductions for age-restricted communities.
- GHGMP fee-in-lieu for 5 years of emissions
  - Staff recognizes that the emissions impact of new buildings lasts much longer than 5 years. However, staff feels that it would not be reasonable to apply a fee-

in-lieu for the lifetime of a building, both in recognition that it would be unfair to project 2021 emissions for the next 50 years since emissions are anticipated to become significantly cleaner in the future, and to prevent hindering economic development in the city with a significant up-front payment. In addition, staff's goal is to establish a benchmarking program within the next 3-5 years so that as buildings reach the age at which they have "pre-paid" for their emissions, they would enter the benchmarking program to ensure long-term efficiency and emissions reductions.

## **PROPOSED REVISIONS TO THE DRAFT ORDINANCE:**

The following list details the substantial revisions that have been made to the draft code language since the December 15 Planning Commission Study Session. A redlined version of the draft is also included as Attachment B.

- **Section 17.13.1.3 Definitions** – Removed exclusion of heat pumps from Renewable Energy Systems & Design definition
- **Table 17.13.2 EDM** –
  - Clarified that points can be earned for either Item 5: On-Site Renewable Energy Systems & Design or Item 6: Building Electrification, but not both, to prevent points being earned for the same technology/system.
  - Added reference in Item 15: Low-Carbon Concrete that structural concrete can be considered under Item 28: Open Option.
  - Clarified that a minimum of 2 amenities are required for Item 20: Bike Amenities.
  - Clarified that points cannot be earned for both Item 21: Public EV Charging and Item 22: Above-Code EV Charging for the same individual EV chargers.
  - Increased the maximum points possible for large developments to earn for Item 22: Above-Code EV Charging, Item 23: Enhanced Streetscapes, and Item 24: Social Connection Amenities.
  - Adjusted language for minimum points for Item 23: Enhanced Streetscapes to clarify that there is no minimum frontage requirement.
  - Reverted maximum number of administratively approved points under Item 28: Open Option back to the existing 14 points.
- **Section 17.13.3.3: Performance Standards** –
  - Clarification of which emissions sectors are included in the Performance Standard calculations, including formula for Target Emissions.

- Added description and formula to calculate projected emissions, and a reduction factor for projected transportation emissions for developments in Transit contexts and for age-restricted housing.
- Clarified how Performance Standards apply to mixed-use developments.
- **Section 17.13.3.4: Submittal Process**
  - Adjusted application language to better align with development review process.
  - Removed Green Building Certification from list of approved mitigation measures because it is the measures associated with earning certification (such as renewable energy and efficiency) that reduce emissions, not the certification itself.

**STAFF RECOMENDATION:**

Staff recommends that the Planning Commission recommend that the City Council approve the proposed amendments to Article 13 of the Lakewood Zoning Ordinance.

**ATTACHMENTS:**

Attachment A: Proposed Draft Article 13 – Sustainable Development Standards

Attachment B: Redlined Draft Article 13 showing proposed changes since 12/15 study session

Attachment C: Proposed Fee Schedule

Attachment D: Summary of Supporting Documents

**ARTICLE 1: PURPOSE AND ADMINISTRATION**

**ARTICLE 2: PROCEDURES AND APPEALS**

**ARTICLE 3: ZONE DISTRICTS**

**ARTICLE 4: USE AND SUPPLEMENTAL STANDARDS**

**ARTICLE 5: DIMENSIONAL AND DEVELOPMENTAL  
STANDARDS**

**ARTICLE 6: RESIDENTIAL BUILDING AND SITE DESIGN  
STANDARDS**

**ARTICLE 7: INSTITUTIONAL, MIXED-USE, COMMERCIAL,  
AND LIGHT INDUSTRIAL BUILDING AND SITE DESIGN  
STANDARDS**

**ARTICLE 8: PARKING AND LOADING STANDARDS**

**ARTICLE 9: SIGN STANDARDS**

**ARTICLE 10: WIRELESS SERVICES AND COMMUNICATIONS**

**ARTICLE 11: HISTORIC PRESERVATION**

**ARTICLE 12: NONCONFORMITIES**

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# ARTICLE 13: SUSTAINABLE DEVELOPMENT

## 17.13.1: General

### 17.13.1.1: Purpose and Intent

This Article establishes standards for sustainable development in the City of Lakewood. The purpose of these standards is to ensure that development implements the goals articulated in the community's adopted plans for resilient and efficient development that is adaptable to infrastructure changes in the face of climate change, minimizes its impact on limited resources, contributes to communitywide greenhouse gas emissions targets, and becomes a positive asset within the community.

### 17.13.1.2: Authority

Unless otherwise specifically designated, the Director shall have the authority to determine whether a project has met the standards and requirements set forth in this article. Where an applicant seeks to demonstrate compliance with the provisions of this article in a manner not explicitly prescribed herein (such as through an open option, emissions modeling, or similar), the Director may request independent verification of compliance by a consultant of the City's choosing, whose services to complete shall be paid by the applicant. Development proposals under this Article 13 may be referred to the Planning Commission at the Director's discretion.

### 17.13.1.3: Definitions

Notwithstanding the definitions contained elsewhere in this Zoning Ordinance, the following terms, as used in this Article, shall have the meanings ascribed thereto:

**Affordable Housing** means a dwelling unit which is available for rent or home ownership on terms that would be affordable to households earning eighty (80) percent or less of the median income for rental units or one hundred twenty percent (120) of the area median income for for-sale units, as adjusted for family size, for residents paying less than thirty (30) percent of their gross income for housing (including rent or mortgage and utilities) through recorded deed restriction for a minimum period of fifteen (15) years.

**Deconstruction** means the process of methodically disassembling a building or structure in the reverse order from how it was built for the purpose of reusing materials on site, donating materials to a non-profit organization, or recycling waste materials at appropriate recycling facilities. Deconstruction can refer to completely removing a structure, or partially removing a portion of a structure or interior or exterior finishes.

**Renewable Energy Systems and Design** means on-site systems and/or design features that reduce a building's operational energy use from natural gas and grid electricity through the use of renewable energy sources. Examples include solar thermal, geothermal, biomass systems, and passive solar design. For the purposes of Section 17.13.2: Enhanced Development Menu, on-site solar photovoltaic and wind energy installations are excluded from this definition.

**Required Materials** means all materials required to be donated, reused, or recycled as set forth in the Construction and Demolition Recycling Standards in Title 14 of the Lakewood Municipal Code (LMC), as adopted and amended from time to time.

**Social Cost of Carbon (SCC)** is the estimated value of economic damages resulting from one (1) additional ton of greenhouse gas emissions, including increased risk of infrastructure and property damage due to natural disasters, and impacts on human health, agricultural productivity, and ecosystem health. The rate of the SCC is established in state and federal guidance.

## 17.13.2: Enhanced Development Menu

### 17.13.2.1: Purpose and Intent

The Enhanced Development Menu (EDM) is intended to promote development that supports the community goals identified in the Lakewood Comprehensive Plan and Sustainability Plan while minimizing negative impacts on and providing direct benefits to adjacent properties and neighborhoods, helping the community as a whole realize benefits from new development.

### 17.13.2.2: Applicability

- A. The EDM shall be applied to all development projects with cumulative gross floor area of 2,500 square feet or greater for all proposed buildings and parking structures (not including single-level open parking lots) on the site, including new residential subdivisions and alterations to existing sites requiring Major Site Plan review.
1. New construction must achieve 1 point per 1,000 square feet of gross floor area, rounded to the nearest 1,000 square feet, with a minimum of 10 points and a maximum of 100 points, as shown in Table 17.13.1: EDM Applicability.
  2. Existing development undergoing site modifications that require Major Site Plan review shall achieve 1 point per 1,000 square feet of new or modified floor area, rounded to the nearest 1,000 square feet, with a maximum of 100 points, as shown in Table 17.13.1: EDM Applicability.

**Table 17.13.1: EDM Applicability**

<b>Project Cumulative Gross Floor Area (rounded to nearest 1,000 sf)</b>	<b>Required Points</b>
< 2,500 sf	N/A (0 points)
2,500 sf – 9,999 sf	10 points
10,000 sf – 99,999 sf	10 – 100 points (1 point per 1,000 sf)
100,000+ sf	100 points

B. Exceptions:

1. Construction of individual single-family detached and duplex residential units is not subject to the EDM. This exception shall not be interpreted to extend to residential subdivisions requiring Major Site Plan review.
2. The gross floor area of any proposed Affordable Housing, as defined in this article, may be subtracted from the project cumulative gross floor area for the purpose of determining required points. For example, a multi-family residential building that includes 20% affordable units can reduce the total gross floor area by the square footage of those units when determining how many EDM points are required.
3. Proposed projects which include existing designated historic landmarks on the local, state, or national registers and which receive approval of the proposed project from the Lakewood Historic Preservation Commission may reduce the number of required EDM points by 50%.

C. Fee-in-Lieu: Projects required to earn more than 50 points may choose to pay a fee-in-lieu of compliance for any number of those points exceeding 50 at the rate established in the Sustainable Development Program Fee Schedule.

1. A minimum of 50 points shall be achieved as part of the development through selected EDM items.
2. Any fees-in-lieu shall be due upon approval of Major Site Plan.
3. Fees-in-lieu shall be used for the Climate Protection & Sustainability Program, which will support sustainable built environment projects.

D. Miscellaneous:

1. Points earned in excess of the minimum number of points required for a given project shall not receive a monetary refund.
2. For existing development undergoing additions, renovations, or other improvements which require Major Site Plan review, selected EDM items may be located where practical on the site not limited to the area of disturbance, upon approval of the City.

**17.13.2.3: Menu**

Refer to Table 17.13.2: Enhanced Development Menu. All proposed points are subject to review for alignment with existing City plans and site-specific availability. Detailed documentation and methodology requirements are in the EDM Applicant Resource Guide, as may be amended from time to time upon approval of the Planning Director.

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes	
<b>Energy &amp; Building Systems</b>	1	Green Building Certification	Achieve LEED or NGBS certification.	LEED: Provide documentation of a LEED AP on the project team, LEED registration, pre-certification process completion, and final LEED certificate. NGBS: Provide documentation of NGBS registration, preliminary design checklist, rough and final inspection reports, and final NGBS certificate.	75% - 100% of required points	LEED Gold or Platinum, NGBS Gold or Emerald: 100% of required points  LEED Silver, NGBS Silver: 75% of required points
	2	Energy efficient outdoor lighting	Use outdoor lighting fixtures and bulbs that are ENERGY STAR or DLC certified and are IDA DarkSky certified.	Provide product specifications that include certification listings and identify compliant color temperature.	2	All outdoor lighting fixtures must be compliant to earn points.
	3	Renewable electricity production* – on-site installation	Provide on-site renewable electricity (solar photovoltaic or wind) beyond Xcel Energy’s Colorado Certified Renewable Percentage to reduce the projected electricity use of the project.	1) Demonstrate the projected electricity use of the site and calculate the percentage that will be offset by onsite renewable sources (minimum 10% required)  2) Provide documentation of ownership or a signed lease agreement for a period of at least 15 years and structured to survive a partial or full transfer of ownership of property.	20 – 38	20 points for 10% of electricity use offset by on-site renewable sources. Additional 1 point per additional 5% offset, up to 38 points maximum.

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes	
<b>Energy &amp; Building Systems</b>	4	Renewable electricity production* – off-site subscription or community solar garden	Procure renewable electricity (solar photovoltaic or wind) from off-site sources for electricity use beyond Xcel Energy’s Colorado Certified Renewable Percentage.	1) Demonstrate the projected electricity use of the site and calculate the percentage that will be offset by off-site renewable sources (minimum 10% required).  2) Provide documentation of ownership or a signed lease agreement for a period of at least 15 years and structured to survive a partial or full transfer of ownership of property.	10 – 28	10 points for 10% of electricity use offset by off-site renewable sources. Additional 1 point per additional 5% offset, up to 28 points maximum.
	5	On-site renewable energy systems and design*	Provide on-site renewable energy systems (not including solar or wind electricity production) that reduce energy use intensity (EUI). Examples of specific technologies may include solar thermal, geothermal, and passive solar design.	Demonstrate the projected EUI of the project without renewable energy systems, and calculate the percent reduction in EUI (minimum 10% required) from on-site renewable energy systems.	10 – 28	10 points for 10% EUI reduction through energy use offset by renewable energy systems. Additional 1 point per additional 5% offset, up to 28 points maximum.  Points may be earned for either Item 5 or Item 6, but not both.
	6	Building Electrification*	Use all electric space conditioning, water heating, and appliances to eliminate natural gas usage within the project.	Demonstrate on civil plan that no natural gas utility service will be provided to the site.	50% of required points	Points may be earned for either Item 5 or Item 6, but not both.

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes	
<b>Water &amp; Landscape</b>	7	Hydro zones	Select plants appropriate to the local climate and group them in hydrozones according to water need for efficient landscape irrigation.	On the landscape plan, indicate hydrozones, selected plants, specific water requirements for each zone (gallons per square foot per season), and typical irrigation schedule (routine irrigation every 2-4 days, limited irrigation only during periods of drought, etc.).	2	-
	8	Water budgeting	Provide landscape designs that meet or fall below Denver Water benchmark of 12 gallons per square foot of pervious area annually (GPSF).	Calculate the projected outdoor water use of the site using EPA WaterSense tool. Square footage of landscape areas dedicated to food production and sports fields are exempt.	2 – 6	2 points for not exceeding 12 GPSF, 1 additional point per GPSF reduction up to 6 points (8 GPSF)
	9	Pollinator-friendly landscaping	Use plant materials that provide food and habitat for pollinators such as bees, wasps, butterflies, and birds throughout the landscape plan. Use environmentally-sensitive and pollinator-friendly land management strategies whenever possible. Install interpretive signage to identify the pollinator habitat for the public.	Demonstrate pollinator-friendly landscape design on landscape plan. Native species should be used whenever possible. Indicate what source was used as a plant list. Include a note on the landscape plan describing pollinator-friendly maintenance practices to be implemented throughout the site, not only within pollinator garden areas. Provide detail of signage in site plan demonstrating compliance with 17.9.2.2: Exempt Signs.	2 – 10	2 points per 120 contiguous square feet of pollinator-friendly landscape design, up to a maximum of 10 points (600 square feet). Individual 120 sf pollinator gardens do not have to be contiguous with each other to earn points.

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes	
Water & Landscape	10	Water Quality	<p>For projects not otherwise required to install stormwater drainage improvements, provide water quality capture volume in accordance with Mile High Flood District Urban Storm Drainage Criteria Manual Volume 3, utilizing site-appropriate best management practices to be approved by the City's Public Works Dept.</p> <p>For projects required to install stormwater drainage improvements, particularly innovative or creative drainage solutions or impactful off-site drainage improvements may be eligible for points under EDM Item 28: Open Option.</p>	<p>Identify on-site water quality features on site plan, landscape plan, and relevant engineering documents. Drainage design requires approval from the City's Public Works Dept.</p>	<p>5</p> <p>See EDM Item 28: Open Option</p>	-
	Zero	11	Recycling and composting enclosures	<p>Designate space for recycling and composting collection (or other</p> <p>On the site plan, indicate location and dimensions of dumpster enclosures for a minimum of three waste streams (e.g., trash, recycling, compost). If</p>	5	

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

MENU ITEM		DESCRIPTION	Documentation Required	Points	Scoring Notes
		applicable waste stream based on the building use)	applicable, indicate waste infrastructure internal to the building (e.g., trash and recycling chutes).		
	12 Recycling and composting services*	Contract for recycling and composting collection (or other applicable waste stream based on the building use and management)	Provide documentation of a 2-year minimum contract for a minimum of trash, recycling, and compost pick-up services. Alternative waste stream services can be submitted if applicant demonstrates sufficient volumes. Alternative recycled waste streams cannot be those mandated or otherwise required by other regulatory agencies.	10	
	13 Deconstruction	Use deconstruction instead of demolition services to remove existing structures, and donate or recycle a minimum of 50% of the materials.	Provide a detailed deconstruction plan indicating how deconstruction will be performed, a quote for services from a deconstruction contractor licensed in Lakewood, and final receipts showing quantities of recycled materials.	3 - 12	3 points per 2,500 sf deconstructed, maximum 12 points.  Points for EDM Item 16: Reclaimed/Recycled Materials may include documented deconstructed materials reused on-site.
<b>Material</b>	14 Urban heat island reduction	Use any combination of the following measures to reduce urban heat island effects for roof and hardscaped area: ENERGY	Provide product specifications including SRI or list selected vegetation. Demonstrate on a site plan sheet that a minimum of 50% of the combined total square footage of the	5- 20	5 points for 50% of hardscaped area covered by UHI reduction measures. Additional 3 points per

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

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\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

MENU ITEM		DESCRIPTION	Documentation Required	Points	Scoring Notes
		STAR-compliant roofing; a “green” (vegetated) roof; reflective materials with minimum certified SRI (solar reflective index) of 29 for aged condition; open-grid pavement; or shade trees with a caliper size of 3” or greater.	roof and hardscaped areas use UHI mitigation measures. Public sidewalks meeting the minimum city standard, or along frontages also earning points for EDM Item 23: Enhanced Streetscapes, shall be excluded from the total hardscape.		additional 5% coverage, up to 20 points maximum
15	Low-Carbon Concrete	<p>For all on-site exterior flatwork, use a concrete product with CO<sub>2</sub>e less than or equal to the “Achievable (Low)” category of the Carbon Leadership Forum Material Baselines Report, as amended.</p> <p>Structural uses of concrete products with CO<sub>2</sub>e less than or equal to the “Achievable (Low)” category of the Carbon Leadership Forum Material Baselines Report, as amended, may be eligible for points under EDM Item 28: Open Option.</p>	Provide third-party verified Environmental Product Declaration (EPD) of the specific concrete mix proposed to be used.	5	-
				See EDM Item 28: Open Option	

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes
	16 Reclaimed/ recycled materials	Incorporate a minimum of 10% reclaimed and/or recycled materials into the exterior facades, open space hardscape, or other areas as determined by the Director.	Provide third-party verified Environmental Product Declarations (EPD) indicating percent of recycled content, or written and photographic documentation of the source of reclaimed materials. Specific materials are subject to approval by the Planning Department and shall comply with any other applicable design standards.	5	-
Materials	17 Adaptive Reuse	Repurpose existing primary buildings for new uses rather than demolishing and constructing new buildings to help preserve the urban fabric of neighborhoods. Points may be earned for either:  Full Building Reuse - all exterior walls are maintained as part of the proposed development, or;  Partial Building Reuse - a minimum of 50% of the street-facing façade of the existing primary building structure is maintained as part of the street-facing façade of the proposed development.	Demonstrate on the site plan, landscape plan, and architectural elevations how existing building(s) will be incorporated into the design. Include a written narrative and photographs describing the approach to adaptive reuse of the existing building(s) as well as a letter of opinion from a structural engineer licensed in the state of Colorado regarding the suitability of each building for the proposed reuse. Any reuse must meet the International Existing Building Code (IEBC), as adopted or amended in Title 14 of the LMC.	10 – 15, +5 bonus	Full Building Reuse: 15 points  Partial Building Reuse: 10 points for 50% of existing street-facing facade, additional 1 point for each additional 10% up to 15 points (100%).  Bonus: 5 points for concurrent historic landmark designation by the Lakewood Historic Preservation Commission, if eligible.

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes
Transportation	18 Multimodal transportation assessment – Residential	Identify available pedestrian, bicycle, and transit connections from the site to essential destinations in order to inform wayfinding, connectivity with the existing transportation network, and other infrastructure improvements.	Provide a plan sheet indicating multimodal routes to essential destinations within a 0.5-mile radius for suburban and urban contexts and a 0.2-mile radius for transit contexts, or to the nearest location if none exists within the stated radius. Essential destinations to be identified include: grocery stores, parks, schools, libraries, and transit stations/bus stops. Identify transit route and bike route numbers. Include narrative explaining how the project facilitates connections to these destinations and existing and planned multimodal infrastructure.	2	-
	19 Multimodal transportation assessment – Non-Residential	Identify available pedestrian, bicycle, and transit connections to the site in order to inform wayfinding, connectivity with the existing transportation network, and other infrastructure improvements.	Provide a plan sheet indicating multimodal routes to the site within a 0.5-mile radius for suburban and urban contexts and a 0.2-mile radius for transit contexts. Consider how people of all abilities would access the site as pedestrians, by bicycle, and by transit from the surrounding area, such as from transit stops, neighborhoods, and trails. Identify transit route and bike route numbers. Include narrative explaining how the project facilitates connections to and through the site	2	-

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

*TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points*

*\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.*

	MENU ITEM		DESCRIPTION	Documentation Required	Points	Scoring Notes
Transportation	20	Bike amenities	Provide bike amenities that are available to the community, such as fix-it stations with air pumps, bicycle vending machines, bicycle parking cover, e-bike charging station, designated space for dock less bike share parking, water bottle refill stations, custom bike racks in areas of the City where a specific streetscape design package or adopted design guidelines are implemented, etc.	Indicate bike amenities on site plan and provide product specification sheets and a maintenance plan. Must provide a minimum of 2 amenities.	2 – 5	1 point per amenity, up to 5 points maximum. Must provide a minimum of 2 amenities.

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes
	21 Public EV charging infrastructure*	Install publicly available Electric Vehicle (EV) charging infrastructure and designated parking spaces.	Indicate designated public EV spaces on site plan and provide EV charging infrastructure product specification sheets. Must provide a minimum of 1 universal dual port charger (2 parking spaces) in addition to the EV charging minimum required in Article 8 of this Zoning Ordinance. Signage installed at each charging space shall indicate that charging is publicly accessible.	5 – 30	All points below are per universal dual-port charger, and can be combined up to a maximum of 30 points. Chargers earning points in this item do not qualify for points under Item 22.  Level 2: 5 points  DCFC 50kW – 99kW: 10 points  DCFC 100kW+: 15 points
Transportation	22 Above-code EV charging infrastructure*	Install EV charging infrastructure for greater than the minimum number of EV parking spaces required in Article 8 of this Zoning Ordinance. These spaces are not required to be publicly available, and may be reserved for building residents, tenants, and employees.	Indicate designated EV spaces on the site plan and provide EV charging infrastructure product specification sheets. Minimum 2 additional installed spaces (1 universal dual port charger).	5 – 30	5 points per universal dual port charger, up to 30 points maximum (6 dual port chargers/12 parking spaces). Chargers earning points in this item do not qualify for points under Item 21.

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

*TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points*

*\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.*

	<b>MENU ITEM</b>	<b>DESCRIPTION</b>	<b>Documentation Required</b>	<b>Points</b>	<b>Scoring Notes</b>
<b>Transportation</b>	23 Enhanced Streetscapes	<p>Provide enhanced streetscape design in support of and consistent with citywide, neighborhood, or strategic plans within Growth Areas as identified in the Comprehensive Plan. At a minimum, enhanced design shall include a minimum of four (4) of the following elements:</p> <ul style="list-style-type: none"> <li>- Street trees in addition to any required elsewhere in this zoning code</li> <li>- Shrub/perennial beds within the tree lawn</li> <li>- Masonry seat walls</li> <li>- Pedestrian-scale lighting</li> <li>- Transit stop improvements</li> <li>- Pedestrian amenities such as trash receptacles, benches, etc.</li> <li>- Placemaking features as identified in specific area plans.</li> </ul>	<p>Streetscape design will be reviewed for consistency with applicable city plans, studies, and design guidelines. Provide a conceptual streetscape design as a detail site/landscape plan for each proposed enhanced frontage indicating the specific elements proposed. Include product specifications and a note within the site plan identifying the responsible party for ongoing maintenance. All enhanced streetscape elements shall be maintained by the property owner, unless other arrangements are made with the City at time of Site Plan approval. A revocable License Agreement with the City is required for any elements located within the right-of-way.</p>	<p>5 – 40  +5 bonus</p>	<p>5 points for enhanced primary frontage up to 50 linear feet, plus 1 point per additional 10 linear feet of enhanced lot frontage, 40 points maximum (400 linear feet of frontage). Must install complete frontages, starting with the primary frontage, unless otherwise approved.</p> <p>Bonus 5 points for projects in areas of the City where a specific streetscape design package or adopted design guidelines are implemented.</p>

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes	
Community Cohesion & Public Health	24	Social connection amenities	<p>Provide amenities, in addition to other requirements, that support community interaction and are accessible by the general public.</p> <p>Small amenities (&lt;\$5,000) may include little free libraries, community bulletin boards, picnic tables, etc.</p> <p>Medium amenities (approx. \$5,000 - \$15,000) may include outdoor exercise equipment, shade structures, water bottle filling stations, musical instruments, game tables, etc.</p> <p>Large amenities (approx. \$15,000+) may include community meeting room, outdoor classroom, playground equipment, etc.</p>	<p>Indicate amenities on site plan and evidence that amenities are easily visible and accessible by the general public. Include product specifications and a note within the site plan identifying the responsible party for ongoing maintenance. All social connection amenities shall be maintained by the property owner, unless other arrangements are made with the City at time of Site Plan approval. A revocable License Agreement with the City is required for any amenities located within the right-of-way.</p> <p>Where a proposed amenity does not clearly fit within one of the suggested categories at left, the Planning Director shall determine the appropriate category (small, medium, or large) of the proposed amenity.</p>	2 – 20	<p>1 point per small amenity</p> <p>2 points per medium amenity</p> <p>5 points per large amenity</p> <p>Must earn a minimum of 2 points, up to a maximum of 20 points.</p> <p>Developments over 100,000 sf must earn a minimum of 5 points.</p>

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes	
Community Cohesion & Public Health	25	Public art	Consult with the City's Arts Programming Curator and Comprehensive Planning and Research staff to receive guidelines for the acquisition of public art or a template RFP/RFQ for public art on the site. Artwork acquisition and/or RFP/RFQ must be approved by the City before issuing.	Indicate art location(s), proposed medium, and proposed scale on site plan. The art must be permanent and viewable/accessible from public or semi-public areas. Include any product specifications and a note within the site plan identifying the responsible party for ongoing maintenance. All public art shall be maintained by the property owner, unless other arrangements are made with the City at time of Site Plan approval. A revocable License Agreement with the City is required for any art located within the right-of-way.	2 – 25  +3 bonus points within designated arts or creative districts  +5 bonus points adjacent to the ArtLine  (bonus points shall not be combined)	Points shall be awarded based on the art budget (inclusive of artist fees, materials, and installation) as shown below:  \$5,000: 2 points \$10,000: 4 points \$15,000: 8 points \$25,000: 12 points \$50,000: 15 points \$100,000: 20 points \$150,000: 25 points  Developments over 100,000 sf must earn a minimum of 8 points.
	26	Adaptability / Universal Design	Provide a minimum of 15% of housing units designed to accommodate people of all ages and ability levels in addition to the minimum number of accessible units required by law.	Provide floorplan of residential building(s) meeting the minimum number of required universal design features listed in the EDM Applicant Resource Guide.	5	

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

*TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points*

*\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.*

	MENU ITEM		DESCRIPTION	Documentation Required	Points	Scoring Notes
<b>Community &amp; Health</b>	27	On-site food production	Provide community-serving food plots for vegetable gardens and fruit trees to foster local food production.	On landscape plan, indicate location, size, and number of garden plots, fruit trees, etc. and provide evidence that garden plots are easily accessible, of appropriate slope, and contain appropriate soil for food production, adequate sunlight and an available water source (exempt from water budget). Provide food plots on site for a minimum of 10% of multifamily units (or commercial equivalent). Combined area of plots must equal a minimum of 20 sq. ft. each per unit.	15	
	28	Open Option	Provide enhanced amenities that are in addition to other code requirements and approved by the Director or Planning Commission	Submit a proposal including a description, cost estimate, alignment with City goals and policies, points proposed and any documentation necessary to substantiate the claimed benefits.	2 – 100	2-14 points may be approved by the Director; projects requesting 21 or more points must be approved by Planning Commission

## 17.13.3: Greenhouse Gas Emissions Performance Standard

### 17.13.3.1: Purpose and Intent

The Greenhouse Gas Mitigation Program (GHGMP) is intended to ensure new development is aligned with the City's climate goals and targets to help the community do its part to meet climate commitments by preventing excess greenhouse gas emissions.

### 17.13.3.2: Applicability

- A. All new development, including new single-family residential construction, and all remodels, alterations, and additions requiring a Major Site Plan application, shall comply with the standards of this section. A fee-in-lieu of compliance will be available where full compliance is impractical or infeasible or where preferred by the applicant.
- B. Exceptions:
  - 1. These standards do not apply to remodels, alterations, and additions to existing single-family residential dwellings, including individually-owned detached, duplex, and attached/townhome units. This shall not be interpreted to exclude complete reconstruction (scrape and rebuild) from compliance with the Greenhouse Gas Mitigation Program.

### 17.13.3.3: Performance Standards

- A. Residential Uses – All new residential development shall demonstrate projected annual greenhouse gas emissions not to exceed the Performance Standard, calculated using the following formula:

*Residential Performance Standard (Maximum Permitted Greenhouse Gas Emissions = Target Emissions Per Capita x Projected Residents)*

- 1. "Target Emissions per Capita" equals the sum of emissions from residential energy, residential waste, and transportation as reported in the city's most recent greenhouse gas inventory, divided by the city population of the year of the inventory, and then multiplied by the percentage reduction needed to meet the city's climate commitments (Emissions Reduction Factor).

*Target Emissions per Capita = ((Emissions from: Residential Energy + Residential Waste + Transportation) / Citywide Population) \* Emissions Reduction Factor*

- 2. "Projected Residents" is determined based on the average number of individuals per dwelling unit by number of units in a residential building as calculated from currently available Census Bureau data.

3. Projected annual greenhouse gas emissions for each residential development shall be calculated for the residential energy, residential waste, and transportation sectors using the methodology published in the GHGMP Applicant Resource Guide and regularly updated upon approval of the Director to reflect the most recent available data.
  - a. Projected transportation emissions may be reduced by 20% for residential developments within Transit context zone districts and for age-restricted communities.

- B. Non-Residential Uses – All new non-residential development shall demonstrate projected annual greenhouse gas emissions not to exceed the Performance Standard, calculated using the following formula:

$$\text{Non-Residential Performance Standard (Maximum Permitted Greenhouse Gas Emissions)} = \text{Target Emissions Per Square Foot} \times \text{Proposed Gross Floor Area}$$

1. “Target Emissions per Square Foot” equals the sum the emissions from non-residential energy and non-residential waste as reported in the city’s most recent greenhouse gas inventory, divided by the total citywide non-residential square footage of the year of the inventory, and then multiplied by the percentage reduction needed to meet the city’s climate commitments (Emissions Reduction Factor).

$$\text{Target Emissions per Square Foot} = ((\text{Emissions from Non-Residential Energy} + \text{Emissions from Non-Residential Waste}) / \text{Citywide Non-Residential Square Footage}) * \text{Emissions Reduction Factor}$$

2. Projected annual greenhouse gas emissions for each non-residential development shall be calculated for the non-residential energy and non-residential waste sectors using the methodology published in the GHGMP Applicant Resource Guide and regularly updated upon approval of the Director to reflect the most recent available data.
- C. Mixed-Uses – Developments with a mix of residential and non-residential uses shall demonstrate projected annual greenhouse gas emissions not to exceed the Performance Standards calculated as shown in 17.13.3.3.A and 17.13.3.3.B for the respective square footages of the residential and non-residential portions of the building(s).

#### 17.13.3.4: Submittal Process

- A. Applicants shall submit the City’s Greenhouse Gas Emissions Worksheet with development and/or building permit applications. This worksheet will determine the estimated annual emissions for the size and type of development assuming no mitigation efforts are made. If development proposals exceed the Greenhouse Gas Emissions Performance Standard, there are two pathways for compliance:
1. Mitigation – Use mitigation measures to reduce projected annual emissions in order to meet the Performance Standard. Applicants shall submit their proposed mitigation measures using the Greenhouse Gas Emissions Worksheet and identify such

measures on the Site Plan. Mitigation may be accomplished in one or a combination of the following ways:

- a. Use approved mitigation measures and emission reduction values identified in the GHGMP Applicant Resource Guide, which may be updated annually upon approval of the Planning Director to reflect new data availability. Identified mitigation measures include:
    - i. EDM Items 3-4: Renewable Electricity Production (on-site installation or off-site subscription)
    - ii. EDM Item 5: On-Site Renewable Energy Systems and Design (not including electricity production)
    - iii. EDM Item 6: Building Electrification
    - iv. EDM Item 12: Recycling and Composting Services
    - v. EDM Item 21: Public EV Charging Infrastructure
    - vi. EDM Item 22: Above-code EV Charging Infrastructure (may be private spaces)
  - b. Submit alternative method (such as a building energy model) to demonstrate reduced emissions. Modeling shall conform to IECC or ASHRAE standards or similar as approved by the Director.
2. Fee-in-Lieu – Pay a fee-in-lieu of compliance for five (5) years' worth of annual emissions exceeding the Performance Standard in accordance with the following formula:
- $$\text{Fee-In-Lieu} = ((\text{Projected Emissions} - \text{Performance Standard}) \times 5 \text{ years}) \times \text{Social Cost of Carbon}$$
- a. The fee-in-lieu will be levied at the rate established in the Sustainable Development Program Fee Schedule based on state and federal guidance for the Social Cost of Carbon (SCC), but no less than \$76 per metric ton of CO<sub>2</sub> equivalent emissions, which is the SCC value for 2020 emissions using a 2.5% discount rate.
  - b. Fees-in-lieu shall be used for the Climate Protection & Sustainability program, which will fund programs and projects within the City that reduce the community's overall greenhouse gas emissions, adapt to changing climate conditions, and support workforce and technology innovations.
3. Applicants may use a combination of the Mitigation and Fee-in-Lieu pathways by demonstrating mitigation measures to reduce the development's estimated emissions and paying a fee-in-lieu for the remainder emissions exceeding the Performance Standard.

## **17.13.4: Construction & Demolition Waste Recycling**

### **17.13.4.1: Purpose and Intent**

The Construction & Demolition (C&D) Waste Recycling Supplemental Standards are intended to achieve reduction and/or recycling of debris generated by construction and demolition projects, thereby diverting debris from area landfills, reducing environmental impacts, and advancing Lakewood's waste diversion goals. Additionally, these standards support compliance with construction and demolition waste recycling requirements set forth in LMC Title 14.

### **17.13.4.2: Applicability**

The standards in this section shall apply to any development project that must also comply with section 17.13.2 Enhanced Development Menu. Upon six (6) months written notice posted on the City's website, the Director may expand this applicability to any project subject to the construction and demolition recycling standards set forth in LMC Title 14.

### **17.13.4.3: Comprehensive Waste Management Plan**

Prior to issuance of a building or demolition permit, the applicant shall submit a comprehensive waste management plan which shall, at a minimum, contain the following information:

- A. Designated employee to be the on-site construction waste recycling manager and point of contact for waste-related issues;
- B. Acknowledgment of all Required Materials to be donated, reused, or recycled as set forth in the building code, and the identification of the specific Required Materials that will be generated by the project.
- C. Collection and disposal strategy for all Required Materials and landfilled waste including:
  - 1. The method of collection
  - 2. Waste hauler(s)
  - 3. Disposal, recycling or reuse facilities
- D. Strategy for training and education of subcontractors and employees to support compliance
- E. Compliance tracking and reporting strategy

### **17.13.4.4: Performance Security Deposit**

The applicant shall post a performance security deposit prior to issuance of a building or demolition permit in accordance with the following:

- A. New construction, additions, and remodels: one dollar per square foot of interior building space, with a maximum deposit of \$100,000.
- B. Demolition projects: one dollar per square foot for the area of disturbance as identified in the permit application, including any parking areas to be removed, with a maximum deposit of \$100,000.

#### **17.13.4.5: Performance Security Deposit Refund Procedures**

Any project required to submit a comprehensive waste management plan or performance security deposit shall submit a final Compliance Report within sixty (60) days of issuance of a certificate of completion (for demolition projects) or the last certificate of occupancy (for construction projects).

- A. The Compliance Report shall contain documentation showing that the diversion requirements for the project have been met, including the following:
  - 1. Copy of the approved Comprehensive Waste Management Plan
  - 2. Individual weight tickets from the vendor or facility that received each Required Material clearly listing the type of material that was recycled and the actual volume or weight of that material. Receipts/weight tickets for landfill disposal are also required.
  - 3. Narrative and photographic documentation of the applicant's reuse/salvage activities not accounted for with receipts or weight tickets.
- B. Upon receipt of the completed Compliance Report, the City will have sixty (60) days to confirm that the diversion requirements have been met and will request release of the applicant's security deposit.
- C. The security deposit will be refunded according to the following schedule, based on how well the project met the diversion requirements identified in the comprehensive waste management plan and the completeness of the documentation provided in the compliance report:
  - 1. Full compliance and complete documentation: 100% refund
  - 2. Partial compliance: Refund prorated based on the percentage of Required Material weight tickets provided in the Compliance Report as compared to the number of Required Materials identified in the comprehensive waste management plan. The city may also conduct on-site inspections to verify compliance and may pro-rate the refund based on the results of the inspection.
  - 3. Non-compliance or incomplete documentation: 0% refund
- D. If an applicant fails to submit a Compliance Report and final documentation within the required 60-day reporting period, the entire security deposit will be forfeited.
- E. Any fully or partially forfeited deposits shall be used for the Climate Protection & Sustainability Program to promote waste diversion, material recovery and reuse, and related projects and programs.

## **17.13.5: Reserved for Benchmarking Program & Building Performance Standards**

### **17.13.5.1: Reserved**

## **17.13.6: Climate Protection & Sustainability Program**

### **17.13.6.1: Purpose and Intent**

The Climate Protection & Sustainability Program (Program) is intended to offset the impacts of development and climate change on the community. It will fund programs and projects that reduce the community's overall greenhouse gas emissions, adapt to changing climate conditions, and implement the goals of the Sustainability Plan.

### **17.13.6.2: Program Established**

- A. The Program is hereby established to collect fees-in-lieu of compliance from the Enhanced Development Menu (EDM) and Greenhouse Gas Mitigation Program (GHGMP), and to hold deposits from the Construction & Demolition (C&D) waste recycling supplemental standards.
- B. The funds shall be tracked separately by their source, and expended on programs and projects within the following Program Areas:
  - 1. EDM fees-in-lieu: sustainable built environment
  - 2. GHGMP fees-in-lieu: emissions reduction and adaptation
  - 3. C&D forfeited deposits: waste diversion, material recovery and reuse
- C. Funds from more than one source may be expended on programs or projects that span multiple Program Areas.
- D. Funds may also be used to support administration of the Program.

### **17.13.6.3: Administration**

- A. Funds collected into the Program shall be appropriated annually through the City's usual budgeting process to fund programs and projects in accordance with the intended purpose of this Program.
- B. The Program shall be administered by the Sustainability Planning Division, with approval by the Planning Director.

**ARTICLE 1: PURPOSE AND ADMINISTRATION**

**ARTICLE 2: PROCEDURES AND APPEALS**

**ARTICLE 3: ZONE DISTRICTS**

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# ARTICLE 13: SUSTAINABLE DEVELOPMENT

## 17.13.1: General

### 17.13.1.1: Purpose and Intent

This Article establishes standards for sustainable development in the City of Lakewood. The purpose of these standards is to ensure that development implements the goals articulated in the community's adopted plans for resilient and efficient development that is adaptable to infrastructure changes in the face of climate change, minimizes its impact on limited resources, contributes to communitywide greenhouse gas emissions targets, and becomes a positive asset within the community.

### 17.13.1.2: Authority

Unless otherwise specifically designated, the Director shall have the authority to determine whether a project has met the standards and requirements set forth in this article. Where an applicant seeks to demonstrate compliance with the provisions of this article in a manner not explicitly prescribed herein (such as through an open option, emissions modeling, or similar), the Director may request independent verification of compliance by a consultant of the City's choosing, whose services to complete shall be paid by the applicant. Development proposals under this Article 13 may be referred to the Planning Commission at the Director's discretion.

### 17.13.1.3: Definitions

Notwithstanding the definitions contained elsewhere in this Zoning Ordinance, the following terms, as used in this Article, shall have the meanings ascribed thereto:

**Affordable Housing** means a dwelling unit which is available for rent or home ownership on terms that would be affordable to households earning eighty (80) percent or less of the median income for rental units or one hundred twenty percent (120) of the area median income for for-sale units, as adjusted for family size, for residents paying less than thirty (30) percent of their gross income for housing (including rent or mortgage and utilities) through recorded deed restriction for a minimum period of fifteen (15) years.

**Deconstruction** means the process of methodically disassembling a building or structure in the reverse order from how it was built for the purpose of reusing materials on site, donating materials to a non-profit organization, or recycling waste materials at appropriate recycling facilities. Deconstruction can refer to completely removing a structure, or partially removing a portion of a structure or interior or exterior finishes.

**Renewable Energy Systems and Design** means on-site systems and/or design features that reduce a building's operational energy use from natural gas and grid electricity through the use of renewable energy sources. Examples include solar thermal, geothermal, biomass systems, and passive solar design. For the purposes of Section 17.13.2: Enhanced Development Menu, on-site solar photovoltaic and wind energy installations ~~and heat pumps~~ are excluded from this definition.

**Required Materials** means all materials required to be donated, reused, or recycled as set forth in the Construction and Demolition Recycling Standards in Title 14 of the Lakewood Municipal Code (LMC), as adopted and amended from time to time.

**Social Cost of Carbon (SCC)** is the estimated value of economic damages resulting from one (1) additional ton of greenhouse gas emissions, including increased risk of infrastructure and property damage due to natural disasters, and impacts on human health, agricultural productivity, and ecosystem health. The rate of the SCC is established in state and federal guidance.

## 17.13.2: Enhanced Development Menu

### 17.13.2.1: Purpose and Intent

The Enhanced Development Menu (EDM) is intended to promote development that supports the community goals identified in the Lakewood Comprehensive Plan and Sustainability Plan while minimizing negative impacts on and providing direct benefits to adjacent properties and neighborhoods, helping the community as a whole realize benefits from new development.

### 17.13.2.2: Applicability

- A. The EDM shall be applied to all development projects with cumulative gross floor area of 2,500 square feet or greater for all proposed buildings and parking structures (not including single-level open parking lots) on the site, including new residential subdivisions and alterations to existing sites requiring Major Site Plan review.
1. New construction must achieve 1 point per 1,000 square feet of gross floor area, rounded to the nearest 1,000 square feet, with a minimum of 10 points and a maximum of 100 points, as shown in Table 17.13.1: EDM Applicability.
  2. Existing development undergoing site modifications that require Major Site Plan review shall achieve 1 point per 1,000 square feet of new or modified floor area, rounded to the nearest 1,000 square feet, with a maximum of 100 points, as shown in Table 17.13.1: EDM Applicability.

**Table 17.13.1: EDM Applicability**

<b>Project Cumulative Gross Floor Area (rounded to nearest 1,000 sf)</b>	<b>Required Points</b>
< 2,500 sf	N/A (0 points)
2,500 sf – 9,999 sf	10 points
10,000 sf – 99,999 sf	10 – 100 points (1 point per 1,000 sf)
100,000+ sf	100 points

B. Exceptions:

1. Construction of individual single-family detached and duplex residential units is not subject to the EDM. This exception shall not be interpreted to extend to residential subdivisions requiring Major Site Plan review.
2. The gross floor area of any proposed Affordable Housing, as defined in this article, may be subtracted from the project cumulative gross floor area for the purpose of determining required points. For example, a multi-family residential building that includes 20% affordable units can reduce the total gross floor area by the square footage of those units when determining how many EDM points are required.
3. Proposed projects which include existing designated historic landmarks on the local, state, or national registers and which receive approval of the proposed project from the Lakewood Historic Preservation Commission may reduce the number of required EDM points by 50%.

C. Fee-in-Lieu: Projects required to earn more than 50 points may choose to pay a fee-in-lieu of compliance for any number of those points exceeding 50 at the rate established in the Sustainable Development Program Fee Schedule.

1. A minimum of 50 points shall be achieved as part of the development through selected EDM items.
2. Any fees-in-lieu shall be due upon approval of Major Site Plan.
3. Fees-in-lieu shall be used for the Climate Protection & Sustainability Program, which will support sustainable built environment projects.

D. Miscellaneous:

1. Points earned in excess of the minimum number of points required for a given project shall not receive a monetary refund.
2. For existing development undergoing additions, renovations, or other improvements which require Major Site Plan review, selected EDM items may be located where practical on the site not limited to the area of disturbance, upon approval of the City.

**17.13.2.3: Menu**

Refer to Table 17.13.2: Enhanced Development Menu. All proposed points are subject to review for alignment with existing City plans and site-specific availability. Detailed documentation and methodology requirements are in the EDM Applicant Resource Guide, as may be amended from time to time upon approval of the Planning Director.

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

MENU ITEM		DESCRIPTION	Documentation Required	Points	Scoring Notes	
<b>Energy &amp; Building Systems</b>	1	Green Building Certification	Achieve LEED or NGBS certification.	LEED: Provide documentation of a LEED AP on the project team, LEED registration, pre-certification process completion, and final LEED certificate. NGBS: Provide documentation of NGBS registration, preliminary design checklist, rough and final inspection reports, and final NGBS certificate.	75% - 100% of required points	LEED Gold or Platinum, NGBS Gold or Emerald: 100% of required points  LEED Silver, NGBS Silver: 75% of required points
	2	Energy efficient outdoor lighting	Use outdoor lighting fixtures and bulbs that are ENERGY STAR or DLC certified and are IDA DarkSky certified.	Provide product specifications that include certification listings and identify compliant color temperature.	2	All outdoor lighting fixtures must be compliant to earn points.
	3	Renewable electricity production* – on-site installation	Provide on-site renewable electricity (solar photovoltaic or wind) beyond Xcel Energy’s Colorado Certified Renewable Percentage to reduce the projected electricity use of the project.	1) Demonstrate the projected electricity use of the site and calculate the percentage that will be offset by onsite renewable sources (minimum 10% required)  2) Provide documentation of ownership or a signed lease agreement for a period of at least 15 years and structured to survive a partial or full transfer of ownership of property.	20 – 38	20 points for 10% of electricity use offset by on-site renewable sources. Additional 1 point per additional 5% offset, up to 38 points maximum.

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

MENU ITEM		DESCRIPTION	Documentation Required	Points	Scoring Notes	
<b>Energy &amp; Building Systems</b>	4	Renewable electricity production* – off-site subscription or community solar garden	Procure renewable electricity (solar photovoltaic or wind) from off-site sources for electricity use beyond Xcel Energy’s Colorado Certified Renewable Percentage.	1) Demonstrate the projected electricity use of the site and calculate the percentage that will be offset by off-site renewable sources (minimum 10% required).  2) Provide documentation of ownership or a signed lease agreement for a period of at least 15 years and structured to survive a partial or full transfer of ownership of property.	10 – 28	10 points for 10% of electricity use offset by off-site renewable sources. Additional 1 point per additional 5% offset, up to 28 points maximum.
	5	On-site renewable energy systems and design*	Provide on-site renewable energy systems (not including solar or wind electricity production) that reduce energy use intensity (EUI). Examples of specific technologies may include solar thermal, geothermal, and passive solar design.	Demonstrate the projected EUI of the project without renewable energy systems, and calculate the percent reduction in EUI (minimum 10% required) from on-site renewable energy systems.	10 – 28	10 points for 10% EUI reduction through energy use offset by renewable energy systems. Additional 1 point per additional 5% offset, up to 28 points maximum.  <u>Points may be earned for either Item 5 or Item 6, but not both.</u>
	6	Building Electrification*	Use all electric space conditioning, water heating, and appliances to eliminate natural gas usage within the project.	Demonstrate on civil plan that no natural gas utility service will be provided to the site.	50% of required points	<u>Points may be earned for either Item 5 or Item 6, but not both.-</u>

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes	
<b>Water &amp; Landscape</b>	7	Hydro zones	Select plants appropriate to the local climate and group them in hydrozones according to water need for efficient landscape irrigation.	On the landscape plan, indicate hydrozones, selected plants, specific water requirements for each zone (gallons per square foot per season), and typical irrigation schedule (routine irrigation every 2-4 days, limited irrigation only during periods of drought, etc.).	2	-
	8	Water budgeting	Provide landscape designs that meet or fall below Denver Water benchmark of 12 gallons per square foot of pervious area annually (GPSF).	Calculate the projected outdoor water use of the site using EPA WaterSense tool. Square footage of landscape areas dedicated to food production and sports fields are exempt.	2 – 6	2 points for not exceeding 12 GPSF, 1 additional point per GPSF reduction up to 6 points (8 GPSF)
	9	Pollinator-friendly landscaping	Use plant materials that provide food and habitat for pollinators such as bees, wasps, butterflies, and birds throughout the landscape plan. Use environmentally-sensitive and pollinator-friendly land management strategies whenever possible. Install interpretive signage to identify the pollinator habitat for the public.	Demonstrate pollinator-friendly landscape design on landscape plan. Native species should be used whenever possible. Indicate what source was used as a plant list. Include a note on the landscape plan describing pollinator-friendly maintenance practices to be implemented throughout the site, not only within pollinator garden areas. Provide detail of signage in site plan demonstrating compliance with 17.9.2.2: Exempt Signs.	2 – 10	2 points per 120 contiguous square feet of pollinator-friendly landscape design, up to a maximum of 10 points (600 square feet). Individual 120 sf pollinator gardens do not have to be contiguous with each other to earn points.

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

*TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points*

*\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.*

	<b>MENU ITEM</b>	<b>DESCRIPTION</b>	<b>Documentation Required</b>	<b>Points</b>	<b>Scoring Notes</b>
<b>Water &amp; Landscape</b>	10	Water Quality	<p>For projects not otherwise required to install stormwater drainage improvements, provide water quality capture volume in accordance with Mile High Flood District Urban Storm Drainage Criteria Manual Volume 3, utilizing site-appropriate best management practices to be approved by the City's Public Works Dept.</p> <p>For projects required to install stormwater drainage improvements, particularly innovative or creative drainage solutions or impactful off-site drainage improvements may be eligible for points under EDM Item 28: Open Option.</p>	<p>Identify on-site water quality features on site plan, landscape plan, and relevant engineering documents. Drainage design requires approval from the City's Public Works Dept.</p> <p>5</p> <p>See EDM Item 28: Open Option</p>	-

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

*TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points*

*\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.*

	<b>MENU ITEM</b>	<b>DESCRIPTION</b>	<b>Documentation Required</b>	<b>Points</b>	<b>Scoring Notes</b>	
<b>Zero Waste</b>	11	Recycling and composting enclosures	Designate space for recycling and composting collection (or other applicable waste stream based on the building use)	On the site plan, indicate location and dimensions of dumpster enclosures for a minimum of three waste streams (e.g., trash, recycling, compost). If applicable, indicate waste infrastructure internal to the building (e.g., trash and recycling chutes).	5	
	12	Recycling and composting services*	Contract for recycling and composting collection (or other applicable waste stream based on the building use and management)	Provide documentation of a 2-year minimum contract for a minimum of trash, recycling, and compost pick-up services. Alternative waste stream services can be submitted if applicant demonstrates sufficient volumes. Alternative recycled waste streams cannot be those mandated or otherwise required by other regulatory agencies.	10	
	13	Deconstruction	Use deconstruction instead of demolition services to remove existing structures, and donate or recycle a minimum of 50% of the materials.	Provide a detailed deconstruction plan indicating how deconstruction will be performed, a quote for services from a deconstruction contractor licensed in Lakewood, and final receipts showing quantities of recycled materials.	3 - 12	3 points per 2,500 sf deconstructed, maximum 12 points.  Points for EDM Item 16: Reclaimed/Recycled Materials may include documented deconstructed materials reused on-site.

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes	
<b>Materials</b>	14	Urban heat island reduction	Use any combination of the following measures to reduce urban heat island effects for roof and hardscaped area: ENERGY STAR-compliant roofing; a “green” (vegetated) roof; reflective materials with minimum certified SRI (solar reflective index) of 29 for aged condition; open-grid pavement; or shade trees with a caliper size of 3" or greater.	Provide product specifications including SRI or list selected vegetation. Demonstrate on a site plan sheet that a minimum of 50% of the combined total square footage of the roof and hardscaped areas use UHI mitigation measures. Public sidewalks meeting the minimum city standard, or along frontages also earning points for EDM Item 23: Enhanced Streetscapes, shall be excluded from the total hardscape.	5- 20	5 points for 50% of hardscaped area covered by UHI reduction measures. Additional 3 points per additional 5% coverage, up to 20 points maximum
	15	Low-Carbon Concrete	For all on-site exterior flatwork, use a concrete product with CO2e less than or equal to the “Achievable (Low)” category of the Carbon Leadership Forum Material Baselines Report, as amended.  <u>Structural uses of concrete products with CO2e less than or equal to the “Achievable (Low)” category of the Carbon Leadership Forum Material</u>	Provide third-party verified Environmental Product Declaration (EPD) of the specific concrete mix proposed to be used.	5  <u>See EDM Item 28: Open Option</u>	-

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

MENU ITEM		DESCRIPTION	Documentation Required	Points	Scoring Notes
		<u>Baselines Report, as amended, may be eligible for points under EDM Item 28: Open Option.</u>			
16	Reclaimed/ recycled materials	Incorporate a minimum of 10% reclaimed and/or recycled materials into the exterior facades, open space hardscape, or other areas as determined by the Director.	Provide third-party verified Environmental Product Declarations (EPD) indicating percent of recycled content, or written and photographic documentation of the source of reclaimed materials. Specific materials are subject to approval by the Planning Department and shall comply with any other applicable design standards.	5	-

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes
Materials	17 Adaptive Reuse	<p>Repurpose existing primary buildings for new uses rather than demolishing and constructing new buildings to help preserve the urban fabric of neighborhoods. Points may be earned for either:</p> <p>Full Building Reuse - all exterior walls are maintained as part of the proposed development, or;</p> <p>Partial Building Reuse - a minimum of 50% of the street-facing façade of the existing primary building structure is maintained as part of the street-facing façade of the proposed development.</p>	<p>Demonstrate on the site plan, landscape plan, and architectural elevations how existing building(s) will be incorporated into the design. Include a written narrative and photographs describing the approach to adaptive reuse of the existing building(s) as well as a letter of opinion from a structural engineer licensed in the state of Colorado regarding the suitability of each building for the proposed reuse. Any reuse must meet the International Existing Building Code (IEBC), as adopted or amended in Title 14 of the LMC.</p>	10 – 15, +5 bonus	<p>Full Building Reuse: 15 points</p> <p>Partial Building Reuse: 10 points for 50% of existing street-facing facade, additional 1 point for each additional 10% up to 15 points (100%).</p> <p>Bonus: 5 points for concurrent historic landmark designation by the Lakewood Historic Preservation Commission, if eligible.</p>

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes	
<b>Transportation</b>	18	Multimodal transportation assessment – Residential	Identify available pedestrian, bicycle, and transit connections from the site to essential destinations in order to inform wayfinding, connectivity with the existing transportation network, and other infrastructure improvements.	Provide a plan sheet indicating multimodal routes to essential destinations within a 0.5-mile radius for suburban and urban contexts and a 0.2-mile radius for transit contexts, or to the nearest location if none exists within the stated radius. Essential destinations to be identified include: grocery stores, parks, schools, libraries, and transit stations/bus stops. Identify transit route and bike route numbers. Include narrative explaining how the project facilitates connections to these destinations and existing and planned multimodal infrastructure.	2	-
	19	Multimodal transportation assessment – Non-Residential	Identify available pedestrian, bicycle, and transit connections to the site in order to inform wayfinding, connectivity with the existing transportation network, and other infrastructure improvements.	Provide a plan sheet indicating multimodal routes to the site within a 0.5-mile radius for suburban and urban contexts and a 0.2-mile radius for transit contexts. Consider how people of all abilities would access the site as pedestrians, by bicycle, and by transit from the surrounding area, such as from transit stops, neighborhoods, and trails. Identify transit route and bike route numbers. Include narrative explaining how the project facilitates connections to and through the site	2	-

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

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	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes
Transportation	20 Bike amenities	Provide bike amenities that are available to the community, such as fix-it stations with air pumps, bicycle vending machines, bicycle parking cover, e-bike charging station, designated space for dock less bike share parking, water bottle refill stations, custom bike racks in areas of the City where a specific streetscape design package or adopted design guidelines are implemented, etc.	Indicate bike amenities on site plan and provide product specification sheets and a maintenance plan. Must provide a minimum of 2 amenities.	2 – 5	1 point per amenity, up to 5 points maximum. <u>Must provide a minimum of 2 amenities.</u>

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes
	21 Public EV charging infrastructure*	Install publicly available Electric Vehicle (EV) charging infrastructure and designated parking spaces.	Indicate designated public EV spaces on site plan and provide EV charging infrastructure product specification sheets. Must provide a minimum of 1 universal dual port charger (2 parking spaces) in addition to the EV charging minimum required in Article 8 of this Zoning Ordinance. Signage installed at each charging space shall indicate that charging is publicly accessible.	5 – 30	All points below are per universal dual-port charger, and can be combined up to a maximum of 30 points. <u>Chargers earning points in this item do not qualify for points under Item 22.</u>  Level 2: 5 points  DCFC 50kW – 99kW: 10 points  DCFC 100kW+: 15 points
Transportation	22 Above-code EV charging infrastructure*	Install EV charging infrastructure for greater than the minimum number of EV parking spaces required in Article 8 of this Zoning Ordinance. These spaces are not required to be publicly available, and may be reserved for building residents, tenants, and employees.	Indicate designated EV spaces on the site plan and provide EV charging infrastructure product specification sheets. Minimum 2 additional installed spaces (1 universal dual port charger).	5 – <del>30</del> 20	5 points per universal dual port charger, up to <del>20-30</del> points maximum ( <del>6</del> 4 dual port chargers/ <del>8</del> 12 parking spaces). <u>Chargers earning points in this item do not qualify for points under Item 21.</u>

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes
Transportation	23 Enhanced Streetscapes	<p>Provide enhanced streetscape design in support of and consistent with citywide, neighborhood, or strategic plans within Growth Areas as identified in the Comprehensive Plan. At a minimum, enhanced design shall include a minimum of four (4) of the following elements:</p> <ul style="list-style-type: none"> <li>- Street trees in addition to any required elsewhere in this zoning code</li> <li>- Shrub/perennial beds within the tree lawn</li> <li>- Masonry seat walls</li> <li>- Pedestrian-scale lighting</li> <li>- Transit stop improvements</li> <li>- Pedestrian amenities such as trash receptacles, benches, etc.</li> <li>- Placemaking features as identified in specific area plans.</li> </ul>	<p>Streetscape design will be reviewed for consistency with applicable city plans, studies, and design guidelines. Provide a conceptual streetscape design as a detail site/landscape plan for each proposed enhanced frontage indicating the specific elements proposed. Include product specifications and a note within the site plan identifying the responsible party for ongoing maintenance. All enhanced streetscape elements shall be maintained by the property owner, unless other arrangements are made with the City at time of Site Plan approval. A revocable License Agreement with the City is required for any elements located within the right-of-way.</p>	<p>5 – <del>40</del> <del>45</del></p> <p>+5 bonus points for <del>projects in areas of the City where a specific streetscape design package or adopted design guidelines are implemented.</del></p>	<p><u>5 points for enhanced primary frontage up to 50 linear feet, plus 1 point per additional 10 linear feet of enhanced lot frontage, up to 15</u> <del>40</del> points maximum <u>(400 linear feet of frontage)</u>. Must install <u>at least one complete frontages, starting with the primary frontage,</u> unless otherwise approved.</p> <p>Bonus 5 points for projects in areas of the City where a specific streetscape design package or adopted design guidelines are implemented.</p>

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes
Community Cohesion & Public Health	24 Social connection amenities	<p>Provide amenities, in addition to other requirements, that support community interaction and are accessible by the general public.</p> <p>Small amenities (&lt;\$5,000) may include little free libraries, community bulletin boards, picnic tables, etc.</p> <p>Medium amenities (approx. \$5,000 - \$15,000) may include outdoor exercise equipment, shade structures, water bottle filling stations, musical instruments, game tables, etc.</p> <p>Large amenities (approx. \$15,000+) may include community meeting room, outdoor classroom, playground equipment, etc.</p>	<p>Indicate amenities on site plan and evidence that amenities are easily visible and accessible by the general public. Include product specifications and a note within the site plan identifying the responsible party for ongoing maintenance. All social connection amenities shall be maintained by the property owner, unless other arrangements are made with the City at time of Site Plan approval. A revocable License Agreement with the City is required for any amenities located within the right-of-way.</p> <p>Where a proposed amenity does not clearly fit within one of the suggested categories at left, the Planning Director shall determine the appropriate category (small, medium, or large) of the proposed amenity.</p>	2 – <del>20</del> 10	<p>1 point per small amenity</p> <p>2 points per medium amenity</p> <p>5 points per large amenity</p> <p>Must earn a minimum of 2 points, up to a maximum of <del>10</del> 20 points.</p> <p><u>Developments over 100,000 sf must earn a minimum of 5 points.</u></p>

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes
Community Cohesion & Public Health	25 Public art	Consult with the City's Arts Programming Curator and Comprehensive Planning and Research staff to receive guidelines for the acquisition of public art or a template RFP/RFQ for public art on the site. Artwork acquisition and/or RFP/RFQ must be approved by the City before issuing.	Indicate art location(s), proposed medium, and proposed scale on site plan. The art must be permanent and viewable/accessible from public or semi-public areas. Include any product specifications and a note within the site plan identifying the responsible party for ongoing maintenance. All public art shall be maintained by the property owner, unless other arrangements are made with the City at time of Site Plan approval. A revocable License Agreement with the City is required for any art located within the right-of-way.	2 – 25  +3 bonus points within designated arts or creative districts  +5 bonus points adjacent to the ArtLine  (bonus points shall not be combined)	Points shall be awarded based on the art budget (inclusive of artist fees, materials, and installation) as shown below:  \$5,000: 2 points  \$10,000: 4 points  \$15,000: 8 points  \$25,000: 12 points  \$50,000: 15 points  \$100,000: 20 points  \$150,000: 25 points  Developments over 100,000 sf <del>must shall</del> earn a minimum of 8 points.

**TABLE 17.13.2: ENHANCED DEVELOPMENT MENU**

TOTAL POINTS REQUIRED: 2,500 – 10,000 sf = 10 points; 10,000 – 100,000 sf = 1 point per 1,000 sf; >100,000 sf = 100 points

\* Eligible Greenhouse Gas Mitigation Measure under Section 17.13.3: Greenhouse Gas Mitigation Program.

	MENU ITEM	DESCRIPTION	Documentation Required	Points	Scoring Notes
	26 Adaptability / Universal Design	Provide a minimum of 15% of housing units designed to accommodate people of all ages and ability levels in addition to the minimum number of accessible units required by law.	Provide floorplan of residential building(s) meeting the minimum number of required universal design features listed in the EDM Applicant Resource Guide.	5	
Community & Health	27 On-site food production	Provide community-serving food plots for vegetable gardens and fruit trees to foster local food production.	On landscape plan, indicate location, size, and number of garden plots, fruit trees, etc. and provide evidence that garden plots are easily accessible, of appropriate slope, and contain appropriate soil for food production, adequate sunlight and an available water source (exempt from water budget). Provide food plots on site for a minimum of 10% of multifamily units (or commercial equivalent). Combined area of plots must equal a minimum of 20 sq. ft. each per unit.	15	
Other	28 Open Option	Provide enhanced amenities that are in addition to other code requirements and approved by the Director or Planning Commission	Submit a proposal including a description, cost estimate, alignment with City goals and policies, points proposed and any documentation necessary to substantiate the claimed benefits.	2 – 100	2- <del>20</del> -14 points may be approved by the Director; projects requesting 21 or more points must be approved by Planning Commission

# 17.13.3: Greenhouse Gas Emissions Performance Standard

## 17.13.3.1: Purpose and Intent

The Greenhouse Gas Mitigation Program (GHGMP) is intended to ensure new development is aligned with the City’s climate goals and targets to help the community do its part to meet climate commitments by preventing excess greenhouse gas emissions.

## 17.13.3.2: Applicability

- A. All new development, including new single-family residential construction, and all remodels, alterations, and additions requiring a Major Site Plan application, shall comply with the standards of this section. A fee-in-lieu of compliance will be available where full compliance is impractical or infeasible or where preferred by the applicant.
- B. Exceptions:
  - 1. These standards do not apply to remodels, alterations, and additions to existing single-family residential dwellings, including individually-owned detached, duplex, and attached/townhome units. This shall not be interpreted to exclude complete reconstruction (scrape and rebuild) from compliance with the Greenhouse Gas Mitigation Program.

## 17.13.3.3: Performance Standards

- A. Residential Uses – All new residential development shall demonstrate projected annual greenhouse gas emissions not to exceed the Performance Standard, calculated using the following formula:

$$\text{Residential Performance Standard (Maximum Permitted Greenhouse Gas Emissions)} = \frac{\text{Target Emissions Per Capita Emissions} \times \text{Projected Residents}}{\text{Residential Performance Standard (Maximum Permitted Greenhouse Gas Emissions)}}$$

- 1. “Target Emissions per Capita Emissions” equals the sum of emissions from residential energy, residential waste, and transportation as reported in the city’s most recent greenhouse gas inventory, divided by the city population of the year of the inventory, and then multiplied by the percentage reduction needed to meet the city’s climate commitments (Emissions Reduction Factor).

$$\text{Target Emissions per Capita} = ((\text{Emissions from: Residential Energy} + \text{Residential Waste} + \text{Transportation}) / \text{Citywide Population}) * \text{Emissions Reduction Factor}$$

- 2. “Projected Residents” is determined based on the average number of individuals per dwelling unit by number of units in a residential building as calculated from currently available Census Bureau data.

3. Projected annual greenhouse gas emissions for each residential development shall be calculated for the residential energy, residential waste, and transportation sectors using the methodology published in the GHGMP Applicant Resource Guide and regularly updated upon approval of the Director to reflect the most recent available data.

a. Projected transportation emissions may be reduced by 20% for residential developments within Transit context zone districts and for age-restricted communities.

4.

B. Commercial-Non-Residential Uses – All new commercial-non-residential development shall demonstrate projected annual greenhouse gas emissions not to exceed the Performance Standard, calculated using the following formula:

$$\text{Non-Residential Performance Standard (Maximum Permitted Greenhouse Gas Emissions)} = \text{Target Emissions Per Square Foot} \times \text{Proposed Gross Floor Area} = \frac{\text{Non-Residential Performance Standard (Maximum Permitted Greenhouse Gas Emissions)}}{\text{Target Emissions Per Square Foot}}$$

1. “Target Emissions per Square Foot” equals the sum the emissions from non-residential energy and non-residential waste as reported in the city’s most recent greenhouse gas inventory, divided by the total citywide non-residential square footage of the year of the inventory, and then multiplied by the percentage reduction needed to meet the city’s climate commitments (Emissions Reduction Factor).

$$\text{Target Emissions per Square Foot} = ((\text{Emissions from Non-Residential Energy} + \text{Emissions from Non-Residential Waste}) / \text{Citywide Non-Residential Square Footage}) * \text{Emissions Reduction Factor}$$

2. Projected annual greenhouse gas emissions for each non-residential development shall be calculated for the non-residential energy and non-residential waste sectors using the methodology published in the GHGMP Applicant Resource Guide and regularly updated upon approval of the Director to reflect the most recent available data.

C. Mixed-Uses – Developments with a mix of residential and non-residential uses shall demonstrate projected annual greenhouse gas emissions not to exceed the Performance Standards calculated as shown in 17.13.3.3.A and 17.13.3.3.B for the respective square footages of the residential and non-residential portions of the building(s).

#### 17.13.3.4: Submittal Process

A. Applicants shall submit the City’s Greenhouse Gas Emissions Worksheet with Pre-Planning and Major Site Plan development and/or building permit applications. This worksheet will determine the estimated annual emissions for the size and type of development assuming no mitigation efforts are made. If development proposals exceed the Residential Greenhouse Gas Emissions Performance Standard, there are two pathways for compliance:

1. Mitigation – Use mitigation measures to reduce estimated-projected annual emissions in order to meet the Performance Standard. Applicants shall submit their proposed mitigation measures using the Greenhouse Gas Emissions Worksheet and identify such measures on the Site Plan. Mitigation may be accomplished in one or a combination of the following ways:

a. Use approved mitigation measures and emission reduction values identified in the GHGMP Applicant Resource Guide, which may be updated annually upon approval of the Planning Director to reflect new data availability. Identified mitigation measures include:

~~i.~~ EDM Item 1: Green Building Certification

~~ii.~~ EDM Items 3-4: Renewable Electricity Production (on-site installation or off-site subscription)

~~iii.~~ EDM Item 5: On-Site Renewable Energy Systems and Design (not including electricity production)

~~iv.~~ EDM Item 6: Building Electrification

~~v.~~ EDM Item 12: Recycling and Composting Services

~~vi.~~ EDM Item 21: Public EV Charging Infrastructure

~~vii.~~ EDM Item 22: Above-code EV Charging Infrastructure (may be private spaces)

b. Submit alternative method (such as a building energy model) to demonstrate reduced emissions. Modeling shall conform to IECC or ASHRAE standards or similar as approved by the Director.

2. Fee-in-Lieu – Pay a fee-in-lieu of compliance for five (5) years' worth of annual emissions exceeding the Performance Standard in accordance with the following formula:

$$\text{Fee-In-Lieu} = ((\text{Projected Emissions} - \text{Performance Standard}) \times 5 \text{ years}) \times \text{Social Cost of Carbon}$$

a. The fee-in-lieu will be levied at the rate established in the Sustainable Development Program Fee Schedule based on state and federal guidance for the Social Cost of Carbon (SCC), but no less than \$76 per metric ton of CO<sub>2</sub> equivalent emissions, which is the SCC value for 2020 emissions using a 2.5% discount rate.

b. Fees-in-lieu shall be used for the Climate Protection & Sustainability program, which will fund programs and projects within the City that reduce the community's overall greenhouse gas emissions, adapt to changing climate conditions, and support workforce and technology innovations.

3. Applicants may use a combination of the Mitigation and Fee-in-Lieu pathways by demonstrating mitigation measures to reduce the development's estimated emissions and paying a fee-in-lieu for the remainder emissions exceeding the Performance Standard.

# 17.13.4: Construction & Demolition Waste Recycling

## 17.13.4.1: Purpose and Intent

The Construction & Demolition (C&D) Waste Recycling Supplemental Standards are intended to achieve reduction and/or recycling of debris generated by construction and demolition projects, thereby diverting debris from area landfills, reducing environmental impacts, and advancing Lakewood’s waste diversion goals. Additionally, these standards support compliance with construction and demolition waste recycling requirements set forth in LMC Title 14.

## 17.13.4.2: Applicability

The standards in this section shall apply to any development project that must also comply with section 17.13.2 Enhanced Development Menu. Upon six (6) months written notice posted on the City’s website, the Director may expand this applicability to any project subject to the construction and demolition recycling standards set forth in LMC Title 14.

## 17.13.4.3: Comprehensive Waste Management Plan

Prior to issuance of a building or demolition permit, the applicant shall submit a comprehensive waste management plan which shall, at a minimum, contain the following information:

- A. Designated employee to be the on-site construction waste recycling manager and point of contact for waste-related issues;
- B. Acknowledgment of all Required Materials to be donated, reused, or recycled as set forth in the building code, and the identification of the specific Required Materials that will be generated by the project.
- C. Collection and disposal strategy for all Required Materials and landfilled waste including:
  - 1. The method of collection
  - 2. Waste hauler(s)
  - 3. Disposal, recycling or reuse facilities
- D. Strategy for training and education of subcontractors and employees to support compliance
- E. Compliance tracking and reporting strategy

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## 17.13.4.4: Performance Security Deposit

The applicant shall post a performance security deposit prior to issuance of a building or demolition permit in accordance with the following:

- A. New construction, additions, and remodels: one dollar per square foot of interior building space, with a maximum deposit of \$100,000.
- B. Demolition projects: one dollar per square foot for the area of disturbance as identified in the permit application, including any parking areas to be removed, with a maximum deposit of \$100,000.

**17.13.4.5: Performance Security Deposit Refund Procedures**

Any project required to submit a comprehensive waste management plan or performance security deposit shall submit a final Compliance Report within sixty (60) days of issuance of a certificate of completion (for demolition projects) or the last certificate of occupancy (for construction projects).

- A. The Compliance Report shall contain documentation showing that the diversion requirements for the project have been met, including the following:
  - 1. Copy of the approved Comprehensive Waste Management Plan
  - 2. Individual weight tickets from the vendor or facility that received each Required Material clearly listing the type of material that was recycled and the actual volume or weight of that material. Receipts/weight tickets for landfill disposal are also required.
  - 3. Narrative and photographic documentation of the applicant's reuse/salvage activities not accounted for with receipts or weight tickets.
- B. Upon receipt of the completed Compliance Report, the City will have sixty (60) days to confirm that the diversion requirements have been met and will request release of the applicant's security deposit.
- C. The security deposit will be refunded according to the following schedule, based on how well the project met the diversion requirements identified in the comprehensive waste management plan and the completeness of the documentation provided in the compliance report:
  - 1. Full compliance and complete documentation: 100% refund
  - 2. Partial compliance: Refund prorated based on the percentage of Required Material weight tickets provided in the Compliance Report as compared to the number of Required Materials identified in the comprehensive waste management plan. The city may also conduct on-site inspections to verify compliance and may pro-rate the refund based on the results of the inspection.
  - 3. Non-compliance or incomplete documentation: 0% refund
- D. If an applicant fails to submit a Compliance Report and final documentation within the required 60-day reporting period, the entire security deposit will be forfeited.
- E. Any fully or partially forfeited deposits shall be used for the Climate Protection & Sustainability Program to promote waste diversion, material recovery and reuse, and related projects and programs.

## 17.13.5: Reserved for Benchmarking Program & Building Performance Standards

### 17.13.5.1: Reserved

## 17.13.6: Climate Protection & Sustainability Program

### 17.13.6.1: Purpose and Intent

The Climate Protection & Sustainability Program (Program) is intended to offset the impacts of development and climate change on the community. It will fund programs and projects that reduce the community's overall greenhouse gas emissions, adapt to changing climate conditions, and implement the goals of the Sustainability Plan.

### 17.13.6.2: Program Established

- A. The Program is hereby established to collect fees-in-lieu of compliance from the Enhanced Development Menu (EDM) and Greenhouse Gas Mitigation Program (GHGMP), and to hold deposits from the Construction & Demolition (C&D) waste recycling supplemental standards.
- B. The funds shall be tracked separately by their source, and expended on programs and projects within the following Program Areas:
  - 1. EDM fees-in-lieu: sustainable built environment
  - 2. GHGMP fees-in-lieu: emissions reduction and adaptation
  - ~~3.~~ 3. C&D forfeited deposits: waste diversion, material recovery and reuse
- C. Funds from more than one source may be expended on programs or projects that span multiple Program Areas.
- D. Funds may also be used to support administration of the Program.

### 17.13.6.3: Administration

- A. Funds collected into the Program shall be appropriated annually through the City's usual budgeting process to fund programs and projects in accordance with the intended purpose of this Program.
- B. The Program shall be administered by the Sustainability Planning Division, with approval by the Planning Director.

**ARTICLE 13: SUSTAINABLE DEVELOPMENT PROGRAM PROPOSED FEE SCHEDULE**

**Administration Fees:** Intended to support the review and administration of the proposed standards to be contained within Article 13.

Enhanced Development Menu	\$250 per acre, up to 5 acres, PLUS \$100 per additional acre from 5 to 15 acres, PLUS \$50 per additional acre over 15 acres.
Greenhouse Gas Mitigation Program	
<i>Single-Family Detached and Duplex (new construction only)</i>	\$100 per application
<i>All other uses</i>	\$300 per application
Construction and Demolition	\$100 per application

**Fees in Lieu of Compliance:** Intended to provide an alternative path to comply with the proposed standards. Fees collected would be expended on programs and projects relevant to sustainable built environment goals and climate mitigation and adaptation strategies.

Enhanced Development Menu	\$4,000 per point
Greenhouse Gas Mitigation Program	
<i>Social Cost of Carbon</i>	\$76 per metric ton CO <sub>2</sub> e

## ARTICLE 13 SUMMARY OF SUPPORTING DOCUMENTS

### Enhanced Development Menu (EDM) Applicant Guide

The existing EDM applicant guide will be updated to reflect revised and new items added to the menu with the proposed amendments. This guide provides applicants with:

- Detailed instructions, calculations, and guides for what to submit to earn points for each menu item
- Links to key resources that may be used to support proposal requirements
- Templates and examples

### GHG Mitigation Program Applicant Guide

The GHG Mitigation Program Applicant Guide will provide the detailed instructions, methodology, and calculations needed for applicants to meet the submittal requirements of **Article 17.13.3: Greenhouse Gas Emissions Performance Standard**. The guide will also publish the latest emissions factors and key data points needed to calculate projected emissions and mitigation soon after being released by the data sources.

Key information, methodologies, and factors to be published in the guide include:

1. Resources for calculating building emissions and mitigation measures including a GHG Emissions Worksheet to assist the applicant in performing all calculations to simplify and streamline the process.
2. Performance Standard calculations and methodology:
  - Residential Performance Standard = Target Emissions per Person x Number of Anticipated Residents
    - Target Emissions per Person
      - Based on a 60% reduction from the emissions presented in Lakewood’s 2018 GHG Inventory to reach climate commitments by 2030, divided by the 2018 city population (Source: 2018 GHG Inventory).
      - Includes emissions for the residential energy, waste, and transportation (excluding aviation) sectors.

**Table 1: Performance Standard Calculations per Capita**

	Energy	Transportation	Waste	Total
2018 Total Emissions (mTCO <sub>2</sub> e)	458,463	479,480	14,639	952,583
2018 Population	151,411			
Emissions Per capita	3.03	3.17	0.097	6.29
Target Reduction (%)	60%			
Performance Standard per Capita (mTCO <sub>2</sub> e)	1.21	1.27	0.039	2.52

- Number of Anticipated Residents
  - Calculated from 2019 American Community Survey (ACS) 5-year Estimates TableID: B25124 – Tenure by Household Size by Units in Structure.

**Table 2: Anticipated Residents Per Unit by Units in Building**

Building Type	Total Households	Total Population	Average Household Size
1 unit	40,594	106,088	2.61
2-4 units	4,030	8,547	2.12
5-19 units	12,239	23,974	1.96
20-49 units	5,029	9,660	1.92
50+ units	3,796	5,815	1.53
MH, RV, etc.	586	1,061	1.81

- Non-residential Performance Standard = Target Emissions per SF x Proposed Gross Floor Area
  - Target Emissions per Square Foot
    - Based on a 60% reduction from the emissions presented in Lakewood’s 2018 GHG Inventory to reach climate commitments by 2030, divided by the 2018 non-residential square footage.
    - Includes emissions for the non-residential energy and waste sectors.
  - 2018 Non-residential Square footage = 42,475,914 SF (Source: Jefferson County Assessor’s Data)

**Table 3: Performance Standard Calculations per Square Foot**

	Energy	Waste	Total
2018 Total Emissions (mTCO <sub>2</sub> e)	500,714	12,868	513,582
2018 Non-residential SF	42,475,914		
Emissions Per SF	0.0118	0.000303	0.01209
Target Reduction (%)	60%		
Performance Standard per SF (mTCO <sub>2</sub> e)	0.0047	0.000121	0.00484

### 3. Projected Emissions Calculations

Many of these factors will be updated as new data is released to reflect best possible information for applicants. Some sources release new data annually, while others are more occasional. The figures listed in this section are the current values.

- Residential Emissions = Energy + Transportation + Waste Emissions
  - Energy Emissions = ((Electricity energy intensity x Carbon emissions factor) + Natural gas intensity x Carbon emissions factor)) x Proposed Gross Floor Area
    - Use Residential Building Energy Consumption Survey (RBECS) energy intensity data listed in Table 4 based on principal building activity or submit an energy model demonstrating the projected energy use
    - Carbon emissions factor for electricity = 0.4747 metric tons CO<sub>2</sub> per MWh (Source: 2020 Xcel Community Report)
    - Carbon emissions factor for natural gas = 0.0053 metric tons CO<sub>2</sub> per therm (Source: 2020 Xcel Community Report)
  - Transportation Emissions = (Transportation emissions per capita) \* (Number of Anticipated Residents)
    - Transportation emissions per capita = 2.13 metric tons CO<sub>2</sub>e (Sources: 2018 Inventory, DRCOG Travel Demand Model, Google Environmental Insights Explorer)
  - Waste Emissions = (Waste emissions per capita) \* (Number of Anticipated Residents)
    - Waste emissions per capita = 0.097 metric tons CO<sub>2</sub>e (Source: 2018 Inventory)
- Non-residential Emissions = Energy + Waste Emissions
  - Energy Emissions = ((Electricity energy intensity x Carbon emissions factor) + Natural gas intensity x Carbon emissions factor)) x Proposed Gross Floor Area
    - Use Commercial Building Energy Consumption Survey (CBECS) energy intensity data listed in Table 4 based on Principal building activity or submit an energy model demonstrating the projected energy use
    - Carbon emissions factor for electricity = 0.4747 metric tons CO<sub>2</sub> per MWh (Source: 2020 Xcel Community Report)
    - Carbon emissions factor for natural gas = 0.0053 metric tons CO<sub>2</sub> per therm (Source: 2020 Xcel Community Report)
  - Waste Emissions = (Waste emissions per square foot) \* (Proposed Gross Floor Area)
    - Waste emissions per square foot = 0.00030 metric tons CO<sub>2</sub>e per square foot (Source: 2018 Inventory)

#### 4. Mitigation Options:

The proposed ordinance and the Applicant Resource Guide will include a menu of approved mitigation options that can be used to reduce the projected emissions for a development project to help get closer to or meet the Performance Standard.

- Methodology for identified mitigation measures
  - Renewable Energy (Onsite)
    - Calculate grid or natural gas use offset by onsite renewable energy and multiply by emissions factor of 0.4747 metric tons CO<sub>2</sub> per MWh or 0.0053 metric tons CO<sub>2</sub> per therm offset (Source: 2020 Xcel Community Report)

- Renewable Energy (Offsite)
  - Calculate electricity use offset by offsite renewable energy and multiply by emissions factor of 0.4747 metric tons CO<sub>2</sub> per MWh offset (Source: 2020 Xcel Community Report)
- Building Electrification:
  - Calculate difference between projected and baseline EUI and multiply by emissions factor of 0.4747 metric tons CO<sub>2</sub> per MWh offset or 0.0053 metric tons CO<sub>2</sub> per therm offset (Source: 2020 Xcel Community Report)
- Recycling and Composting Contracts
  - Reduce total projected waste emissions by diversion rate for recycling and composting services (Source: TBD)
- Electric Vehicle Charging Infrastructure
  - Reduce the projected transportation emissions in accordance with the number of public EV charging infrastructure spaces, where each EV parking space receives credit for avoiding the tailpipe emissions from 1 fossil fuel-based passenger vehicle, calculated as 1 person.
  - Transportation emissions per capita = 2.83 metric tons CO<sub>2</sub>e (Sources: 2018 Inventory, DRCOG Travel Demand Model, Google Environmental Insights Explorer)
- Alternative Method
  - Submit an alternative method / strategy to demonstrate reduced emissions

### **Construction and Demolition Comprehensive Waste Management Plan**

A comprehensive construction waste management plan (CWMP) and ongoing material tracking for projects also requiring review under the EDM. Specific requirements of the CWMP include:

- Designating a single on-site waste manager
- Projected types and volumes of waste materials likely generated
- Identification of haulers and disposal and recycling facilities for all materials hauled from the site
- On-site planning for waste stream separation,
- Training plan for employees and subcontractors,
- Final reporting requirements including material specific waste receipts.

**Table 4: Energy Use Intensity per Square Foot for Residential and Non-Residential Uses**

Source: 2012 CBECS / 2015 RECS data (filtered for very cold/cold climate region)

Principal building activity	Electricity energy intensity (kWh/square foot)	Natural gas energy intensity (cubic feet/square foot)
Education	9.1	40.9
Food sales	45.8	70.4
Food service	35.8	150.4
Health care - General	22.3	77.3
Healthcare - Inpatient	26.7	108.7
Healthcare - Outpatient	18.0	45.7
Lodging	15.4	58.6
Mercantile	17.1	39.9
Mercantile - Retail (other than mall)	13.5	31.6
Mercantile - Enclosed and strip malls	20.7	46.6
Office	15.4	33.8
Public assembly	12.4	39.9
Public order and safety	9.7	45.6
Religious worship	4.6	33.6
Residential - Mobile home	8.7	23.9
Residential - Single-family detached house	3.6	23.1
Residential - Single-family attached house	3.9	27.9
Residential - Apartment in a building with 2 to 4 units	5.6	35.1
Residential - Apartment in a building with 5 or more units	6.1	20.9
Service	7.1	41.7
Warehouse and storage	5.7	27.1
Other	24.9	63.5
Vacant	4.5	15.8

## RESOLUTION OF CITY OF LAKEWOOD PLANNING COMMISSION

On January 5, 2022, the Lakewood Planning Commission reviewed ordinance amendment Case No. OA21-0003 to amend the Lakewood Zoning Ordinance. Case address of 480 South Allison Parkway.

Motion was made by COMMISSIONER \_\_\_\_\_ and seconded by COMMISSIONER \_\_\_\_\_ to recommend approval by City Council, the proposed zoning ordinance amendments. The motion passed with a vote of \_\_\_ to \_\_\_\_\_. The roll having been called, the vote of the Lakewood Planning Commission was as follows:

Cathy Kentner  
Alex Bartlett  
Johann Cohn  
Alan Heald  
Theresa Stone  
Rhonda Peters  
Jenny O'Neill

### FINDINGS OF FACT AND ORDER

The Planning Commission finds that:

- a. The proposed amendments to the Zoning Ordinance are necessary based upon staff's review and evaluation of the adopted Zoning Ordinance; and
- b. Amendment of the Zoning Ordinance is consistent with and will implement the goals of the City's Comprehensive Plan; and
- c. Amendment of the Zoning Ordinance promotes the health, safety and welfare of the inhabitants of the City and the purposes of this Ordinance; and
- d. Amendment of the Zoning Ordinance is in the public interest.

AND

That the Planning Commission adopt the findings of fact and order, A through D, as presented for Case No. OA21-0003 and that the Planning Commission ADOPT the updated Lakewood Zoning Ordinance and recommend that the City Council APPROVE the amended Lakewood Zoning Ordinance.

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Alan Heald, Chair

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Alex Bartlett, Secretary of the Planning  
Commission

## CERTIFICATION

I, Aaron Schultz, Clerk to the City of Lakewood Planning Commission, do hereby certify that the foregoing is a true copy of a resolution duly adopted by the Lakewood Planning Commission at a Public Hearing held in Lakewood, Colorado, on the 5<sup>th</sup> day of January, 2022, as the same appears in the minutes of said meeting.

January 5, 2022

Date approved

\_\_\_\_\_  
Aaron Schultz, Clerk to the  
Planning Commission