

Design Requirements

The design and installation of artificial turf is limited to front, back, and side yards of singlefamily detached and single-family attached dwellings. <u>Please read the City of Thornton code</u> <u>about artificial turf.</u>

Rear Yard & Enclosed Side Yards	All Other Areas
Artificial turf allowed with no limitations.	Artificial turf shall not exceed 25% of the landscape area. (Front & Unenclosed Side yards not occupied by driveways, sidewalks, patios, decks, buildings, or other structures

Figure 452.1 from Thornton City Code

- 1. A <u>Minor Development Permit</u> is required before the installing artificial turf as landscaping.
- 2. The design and installation of all artificial turf areas shall comply with the requirements of the landscape code.
- 3. Artificial turf shall be installed and maintained to simulate the appearance of a wellmaintained lawn effectively.
- 4. Artificial turf products must include a minimum eight-year warranty against fading.
- 5. Artificial turf must be a green color, similar to natural grass.

Buffering

The following minimum buffer areas are required between the edge of the artificial turf and the specified location:

- 1. Three feet from all property lines. Artificial turf may extend to the front property line if a minimum three-foot buffer is installed between the artificial turf and the sidewalk along a street.
- 2. Eight feet from the front wall of any building and three feet from all other building walls or impervious surfaces when located outside of the rear or enclosed side yard.
- 3. Three feet from the trunk of any deciduous tree and no closer than the dripline of any evergreen tree.
- 4. Buffers shall be permeable and consist of wood mulch, gravel, or rock a maximum of two inches in diameter or other approved permeable materials.







Living Plant Materials

- 1. Living plant materials are required when artificial turf is installed in the lot's front or unenclosed side yard landscape areas.
- 2. One tree equivalent is required for the first 750 square feet of artificial turf or a fraction thereof. One tree equivalent is defined as:
 - One 2-inch diameter deciduous tree
 - One 6-foot-tall evergreen tree
 - 10 #5 shrubs
 - 20 #1 ornamental grasses
- 3. One-half tree equivalent is required for each **additional** 250 square feet of artificial turf or a fraction thereof.
- 4. Required living plant materials may consist of:
 - a. Existing plant materials meeting the requirements of Thornton Code, Section 18-537(d)
 - b. New plant materials installed per Thornton Code, Section 18-538
 - c. A combination of existing and new materials.

Materials Requirements

- Artificial turf shall be of a type known as cut pile infill. It shall be manufactured from polypropylene, biobased products, nylon, polyester, polyethylene, or a blend of polypropylene, biobased products, nylon, polyester, or polyethylene fibers stitched onto a meshed or hole-punched backing made of similar materials. Biobased products are derived from plants and other agricultural, marine, and forestry materials. They may be certified as a USDA Bio-Preferred product.
- 2. Hole-punched backings shall have holes spaced in a uniform grid pattern, with spacing not exceeding four inches by six inches on the center.
- 3. Backings shall be designed to drain at a minimum rate of two inches per hour.
- 4. It is not permitted to use indoor or outdoor carpeting in place of artificial turf, mulch, or other plant material..

PFAS-free Requirements

All artificial turf, infill, and other manufactured products used to install artificial turf shall be free of per- and poly-fluoroalkyl substances (PFAS).

PFAS-free means that at least one of the following requirements have been met:

1. The manufacturer or distributor has publicly stated that the product is made without the intentional use of PFAS in a statement referring to all members of the class of PFAS







using language such as "PFAS-free," "fluorocarbon-free," "per- and poly-fluorinated compounds-free," and similar. "PFC-free" shall not be sufficient to satisfy this requirement. The statement must explicitly address which product or products it applies to, and ambiguous statements will not be accepted.

- 2. The product has been tested and shown to be PFAS-free. Testing sufficient to satisfy this requirement may have been carried out at the manufacturer's request or as a part of an independent investigation by a nongovernmental organization, research laboratory, or other entity not affiliated with the company. Testing completed by the manufacturer does not satisfy this requirement. Testing results must be published online, and the test method used, and the specific product tested must be indicated. Third-party certifications are not valid as "PFAS-free" unless the testing evaluates total organic fluorine and results are publicly available.
- 3. Documentation showing that the proposed product is PFAS-free shall be submitted at the time of permit application, and approval of such documentation will be at the sole discretion of the director or designee.
- 4. Additional restrictions or standards may be adopted in writing by the director due to the rapidly evolving science around the presence of PFAS.
- 5. If a product is installed that is later determined to contain PFAS, it may remain in place as long as the applicant complies with the PFAS-free documentation requirements.

Installation

- 1. Sod or existing ground cover will need to be removed before the installation of any artificial turf.
- 2. Artificial turf must be installed following the manufacturer's specifications and maintained to mimic healthy living turf.
- 3. Sub-base must be a minimum of three inches deep of compacted aggregate material, which may be a combination of course and fine material layers separated by a geotextile per the manufacturer's specifications. The specified base material(s) system must contain a minimum of one-half inch of precipitation before generating sheet flow runoff.
- 4. Artificial turf must be anchored at all edges and seams, using pins/nails recommended by the manufacturer.
- 5. All artificial turf seams will be glued and not sewn.
- 6. An infill medium consisting of clean-washed sand and/or ground shells may be brushed into the fibers to ensure that the fibers remain upright and provide ballast that will help hold the turf in place and provide a cushioning effect. Infill is not required if the artificial turf manufacturer does not recommend or require its use.







General Maintenance

Artificial turf shall be maintained in a manner that mimics healthy living turf. General maintenance requirements are specified in Section 18-556 of the Thornton City Code. In addition, the following maintenance activities are required for artificial turf:

- 1. Cleaning, sanitizing, brushing, and removal of debris. Cleaning shall be done with biodegradable products.
- 2. Hand raking of worn turf areas on an as-needed basis.
- 3. Repairing of depressions to maintain an even visual surface.
- 4. Brushing back any loose infill that has been washed or moved off the turf.
- 5. Regular maintenance to eliminate any odors, flat or matted areas, weeds, and looseness at edges, seams, or elsewhere.
- 6. Replacement of the artificial turf when maintenance or repair cannot simulate a healthy living turf.

Rebate Requirements

- The residential water-wise landscape rebate provides up to \$2 per square foot for qualifying 200 – 1,000 square feet projects. The rebate has a lifetime maximum of \$2,000 per residential lot. To be eligible for the rebate, artificial turf must replace an area of high-water demand lawn, such as Kentucky Bluegrass, on existing residential lots or areas of no landscaping on new construction residential lots.
- A <u>Minor Development Permit</u> approval is required before installing artificial turf as landscaping. Please contact the Planning Department's Planner of the Day for details. Email <u>POD.info@thorntonco.gov</u> or call 303-538-7295.
- 3. Qualifying projects must be between 200 1,000 square feet and meet the Landscape Code requirements.
- 4. Get HOA Approval. Submit your design to your HOA for review and approval, if applicable.
- 5. Artificial turf materials used on existing hardscapes, such as patios or side-yard concrete driveways or pathways, will not qualify for the rebate.

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- 6. Submit the design using the <u>Water-Wise Landscape Rebate application</u>.
- 7. Submit signed copy of IRS W9 form https://www.irs.gov/pub/irs-pdf/fw9.pdf
- 8. Submit a copy of your driver's license.

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- 9. Submit receipts for all purchased materials, including but not limited to sub-base material, artificial turf, seaming materials, and infill materials, if applicable, for the project. These must be submitted to be eligible for a rebate.
- 10. If applicable, please provide the professional installer's contact information.
- 11. All Thornton City Code requirements for artificial turf installation must be met to qualify for a rebate.
- 12. Take "before, during and after" photos of your project area and submit them with the Water-Wise Landscape Rebate application.

Contact us at <u>water@thorntonwater.com</u> or 720-977-6600.

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