



Watts Product Guide for LEED® BD+C: New Construction Version 4.1

A guide showcasing Watts products which aim to help customers reduce their environmental impact, support sustainability efforts, and encourage the development of green buildings.

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## LEED - Leadership for Energy and Environmental Design™

Created by the U.S. Green Building Council®, LEED - Leadership for Energy and Environmental Design™ is a holistic green building rating system that works to address critical issues around climate change, human health, community support, and resilience in our changing world.

To achieve LEED certification, a building project must earn points by adhering to prerequisites and credit guidelines which address a variety of topics such as building location, water and energy reduction, material choice and usage, and quality indoor spaces. The awarded points then correspond to a certification level: LEED Certified® (40-49 points), LEED Silver® (50-59 points), LEED Gold® (60-79 points), and LEED Platinum® (80+ points).

Version 4.1 was released in 2019 and has since been the updated standard. This document highlights various products manufactured by Watts that could potentially be used to help earn points needed for LEED certification. To better understand how Watts products could be integrated into projects, it is recommended that a LEED Accredited Professional (LEED AP) is consulted.

Credit opportunities and requirements that are not relevant to Watts and our product offerings were not included in this document. To learn more about all point opportunities please visit the credit library available on the USGBC® website.

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## Protect or Restore Habitat | Up to 2 Points

**Intent:** *To conserve existing natural areas and restore damaged areas to provide habitat and promote biodiversity.*

**LEED® Standard Requirements:** *Preserve and protect, from all development and construction activity, 40% of greenfield area on site. Vegetated roof surfaces may be included in the habitat area calculations.*

### **Potential Product Application:**

Watts offers innovative products to help restore or protect native habitats.

Watts and SunTouch, a Watts brand, manufactures hydronic and electric heating snow melt solutions for a safe, reliable, and efficient way to remove snow and ice from driveways, walkways, stairs, parking lots, and exit ramps. The system ensures safety for patrons, guests and employees while eliminating the need to spread salt or snow melt to surrounding areas. The absence of snow melt improves the lifespan of pavement and brick pavers as well as protecting the surrounding environment and local waterways.

To aid in the restoration of green and natural spaces, Watts manufactures green roof drains, which are engineered to accommodate the emerging and shifting requirements for green roof drainage.

### **Watts Products:**

[Hydronic Snow Melting Systems](#) – Onix, RadiantPEX+, and RadiantPEX-AL

[SunTouch ProMelt Electronic Snow Melting Systems](#) – ProMelt Mats, ProMelt Cables, ProMelt Controls, ProMelt ContractorPro

[Green Roof Drains](#) – GRD-610, GRD-610-W, GRD-620, GRD-630, GRD-640, GRD-650, GRD-670, GRD-680, GRD-690, GRD-730



### **Open Space | 1 Point**

**Intent:** *To create exterior open space that encourages interaction with the environment, social interaction, passive recreation, and physical activities.*

**LEED® Building Standard Requirements:** *Provide outdoor space greater than or equal to 30% of total site area (including building footprint)*

#### **Potential Product Application:**

Watts offers innovative products that can be installed in vertical, horizontal, and N shaped patterns to save space in the development footprint (defined as the total area of the building footprint, hardscape, access roads and parking) and/or provide vegetated open space within the project boundary.

#### **Watts Products:**

[Reduced Pressure Zone Backflows](#) – 009, 909, 919, 957, 957N, 957Z, 995, M400, C400, 4000SS, 4000BLT, 400B, 4000B, 4000RP

[Reduced Pressure Detector Assemblies](#) – 957RPDA, 957NRPDA, 994RPDA, 909RPDA, M500, C500, 5000SS, 5000SS-FS

[Detector Check Valves](#) – 1000SS, 1000DCV, 1005DCV, 1010DCV

[Double Check Assemblies](#) – 007, 709, 719, 757, 757a, 757N, 757Na, 774, 775, SS007, M200, M200a, C200, C200a, 2000SS, 2000SE

[Double Check Detector Assemblies](#) – 007DCDA, 709DCDA, 757DCDA, 757NDCDA, 757aDCDA, 757NaDCDA, 774DCDA, M200, M200a, C200, C200a, 2000SS, 2000SE

[Irrigation Control Valves](#) – (ACV) 813, 815, 815SA, 815-4, 815-4SA, 816, 818

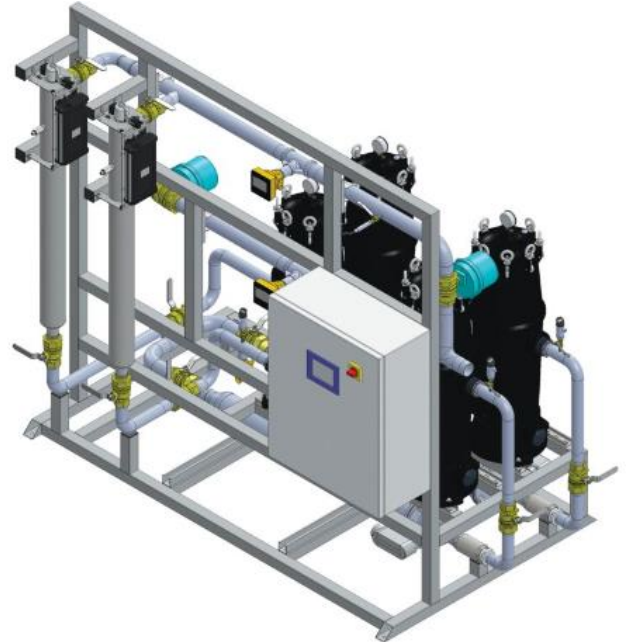
[Vacuum Breakers](#) – 800M4QT, 800M4FR, 008PCQT

[Pre-Engineered Valve Stations](#) – PVS-1000

## **Rainwater Management | Up to 3 Points**

**Intent:** *To reduce runoff volume and improve water quality by replicating the natural hydrology and water balance of the site, based on historical conditions and undeveloped ecosystems in the region to avoid contributing to flooding downstream in frontline communities. Collected rainwater can be reused for irrigation, process water, or flush fixtures inside the building.*

**Potential Product Application:** Watts manufactures rainwater harvesting systems which are built to collect, pre-filter, store, filter, and treat roof-collected rainwater for non-potable use. Once collected, the treated water can then be used for irrigation, restrooms, laundry, and more.



### **Watts Products:**

[RainCycle RCS 7000 Series](#) – RCS 7100, RCS 7200, RCS 7300, RCS 7400, RCS 7500, RCS 7600

[RA Series](#) - RainAid Rainwater Retention Tank Valve

## Outdoor Water Use Reduction | Prerequisite Requirement

**Intent:** *To reduce outdoor potable water consumption and preserve no and low-cost potable water resources.*

**LEED® Building Standard Requirements: Option 2:** *Reduced Irrigation states to “reduce the project’s landscape water requirement by at least 30% from the calculated baseline for the site’s peak watering month. Reductions must be achieved through plant species selection and irrigation system efficiency, as calculated by the Environmental Protection Agency (EPA) WaterSense Water Budget Tool”.*



**Potential Product Application:** Watts products are built to provide reliable flow control options for irrigation professionals with certified backflow preventors, relief and shut off valves, sensors, strainers, and other components. The systems allow for single source expertise, simple operation, and maintenance, and are built to save water and money.

### **Watts Products:**

[Reduced Pressure Zone Backflows](#) – 009, 909, 919, 957, 957N, 957Z, 994HMB, 995

[Double Check Assemblies](#) – 007, 709, 757, 757N,

[Vacuum Breakers](#) – 8, 800M4QT, 800M4FR, 188A

[Dual Check Valves](#) – 7, 9, Cu7

[Pressure Reducing Valves](#) – LF223, LF223S, LFN223N, LFN223BS, LF25AUB-Z3, LFU5, N35B, LFN45, LFN55, 26A, 263A, 560, IR-56, P50, P60, LF215 (Globe) Pilot Operated Automatic Control Valves – 813, A

[Pre-Engineered Valve Stations](#) – PVS-1000

**For more information visit...**

[Setting the Standard for Irrigation Control Systems | Watts](#)

**Outdoor Water Use Reduction | Up to 2 Points**

**Intent:** *To reduce outdoor potable water consumption and preserve no and low-cost potable water resources.*

**LEED® Standard Requirements:** *Reduce the project’s landscape water requirement (LWR) by at least 50% from the calculated baseline for the site’s peak watering month. Reductions must first be achieved through plant species selection and irrigation system efficiency as calculated in the Environmental Protection Agency (EPA) WaterSense Water Budget Tool. Additional reductions beyond 30% may be achieved using any combination of efficiency, alternative water sources, and smart scheduling technologies. Additional LEED point opportunities occur with additional outdoor water reduction.*

Percent Reduction	Points	Healthcare Points	Points (CS)
50%	1	1	1
75%	-	-	2
100%	2	-	3

**Potential Product Applications:** Watts products are built to provide reliable flow control options for irrigation professionals with certified backflow preventors, relief and shut off valves, sensors, strainers, and other components. The systems allow for single source expertise, simple operation, and maintenance, and are built to save water and money. In conjunction with other products or techniques, Watts could aid the project in significant water savings and reduction.

**Watts Products:**

[Reduced Pressure Zone Backflows](#) – 009, 919, 957, 957N, 957Z, 994HMB, 995

[Double Check Assemblies](#) – 007, 709, 757, 757N

[Vacuum Breakers](#) – 8, 188A, 800M4QT, 800M4FR

[Dual Check Valves](#) – 7, 9, Cu7

[Pressure Reducing Valves](#) – LFU5, LF25AUB-Z3, N35B, LFN45, LFN55, LF223, LF223S, LFN223N, LFN223BS, 26A, 263A, 560, IR-56, P50, P60, LF215

(Globe) Pilot Operated Automatic Control Valves – 813, A

[Pre-Engineered Valve Stations](#) – PVS-1000



## Indoor Water Use Reduction | Prerequisite Requirement

**Intent:** *To reduce indoor potable water consumption and preserve low-cost potable water resources.*

**LEED® Standard Requirements:** *For fixtures listed in table, reduced aggregate water consumption by 20% from baseline is required. All newly installed toilets, urinals, private lavatory faucets, and showerheads that are eligible for labeling must be WaterSense labeled (or a local equivalent for projects outside the U.S.).*



### Baseline Water Consumption of Fixtures and Fittings

Commercial Fixtures, Fittings, and Appliances	Current Baseline (IP Units)	Current Baseline (SI units)
Water closets (toilets)*	1.6 gallons per flush (gpf)	6 liters per flush (lpf)
Urinal*	1.0 (gpf)	3.8 lpf
Public lavatory (restroom) faucet	0.5 gpm at 60 psi all others except private applications	1.9 lpm at 415 kPa, all others except private applications
Private lavatory faucet*	2.2 gpm at 60 psi	8.3 lpm at 415 kPa
Kitchen faucet (excluding faucets used exclusively for filling operations)	2.2 gpm at 60 psi	8.3 lpm at 415 kPa
Showerhead*	2.5 gpm at 80 psi per shower stall	9.5 lpm at 550 kPa per shower stall

\* WaterSense label available for this product type gpf = gallons per flush gpm = gallons per minute psi = pounds per square inch lpf = liters per flush lpm = liters per minute kPa = kilopascals

**Potential Product Application:** Watts manufactures lavatory faucets and showers that are more water efficient than required by the Energy Policy Act of 1992. This allows for engineers and architects to employ strategies that in aggregate use 20% less water than the water use baseline calculated for the building (not including irrigation).

**Watts Products with EPA WaterSense Certification**

Showerhead Model Number on EPA Website	Maximum Flow Rate (gpm)
141 150FL	1.5
141 152FL	1.5
141 163WS	1.8
141 318WS	1.8
141 827WS	1.8
141 879WS	1.8
141 919WS	1.8

**Powers Products with EPA WaterSense Certification**

Faucet Model Number on EPA Website	Maximum Flow Rate (gpm)
205A15	1.5
215A15	1.5

For more information visit...

<http://www.watts.com>

See our products listed here: [WaterSense Product Search \(epa.gov\)](#)

## Minimum Energy Performance | Prerequisite Required

**Intent:** *To promote resilience and reduce the environmental and economic harms of excessive energy use that disproportionately impact frontline communities by achieving a minimum level of energy efficiency for the building and its systems.*

**Potential Product Application:** Watts manufactures a variety of products which support the operation of environmentally friendly and sustainable energy efficient plumbing, heating, and cooling systems.

The IntelliStation digital water mixing system delivers mixed hot water throughout recirculation loop which ensures safe, precise, and consistent water temperatures, supports energy conservation, and reduces energy costs. The IntelliStation Jr. includes a programmable temperature set-back/scheduling program that lowers water temperature when building is unoccupied.

PVI, a Watts brand, manufactures maximum energy efficiency water heating solutions with precise temperature control and up to 99% thermal efficiency. Additionally, Watts OneFlow is an ingenious green product that addresses scale prevention in pipes, hence reducing energy consumption all while being chemical free, salt-free, and an environmentally friendly alternative to water softening solutions

### **Watts Products:**

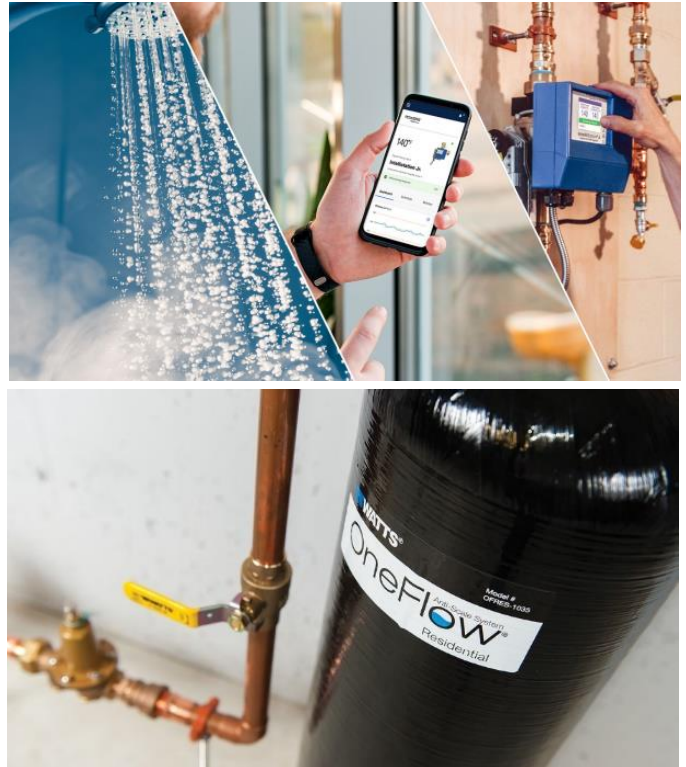
[IntelliStation](#) – Digital Water Tempering and Recirculating System

[IntelliStation Jr.](#) – IoT-enabled Digital Mixing Valve

[PVI Centurion](#)® - Dynamic Water Heating

[Aerco SmartPlate EV](#)

[OneFlow Anti-Scale System](#)



**Optimize Energy Performance | Up to 18 Points**

*Intent: To achieve increasing levels of energy performance beyond the prerequisite standard to reduce environmental and economic harms associated with excessive energy use that disproportionately impact frontline communities.*

**Potential Product Application:** Watts manufactures a variety of products which support the operation of environmentally friendly and sustainable energy efficient plumbing, heating, and cooling systems.



The IntelliStation digital water mixing system delivers mixed hot water throughout a hot water recirculation loop in commercial and institutional facilities. Intelligent control of the water recirculation loop ensures safe, precise, and consistent water temperatures, supports energy conservation, and reduces energy costs.

IntelliStation Jr. includes a programmable temperature set-back/scheduling program that lowers water temperature when building is unoccupied.

PVI, a Watts brand, manufactures maximum energy efficiency water heating solutions with precise temperature control and up to 99% thermal efficiency.

**Watts Products:**

[IntelliStation](#) - Digital Water Tempering and Recirculating System

[IntelliStation Jr.](#) – IoT-enabled Digital Mixing Valve

[PVI Centurion](#)<sup>®</sup> - Dynamic Water Heating

[Aerco SmartPlate EV](#)

[OneFlow Anti-Scale System](#)

**Building Life Cycle Impact Reduction | Up to 5 Points**

**Intent:** *To encourage adaptive reuse and optimize the environmental performance of products and materials.*

**LEED® Standard Requirements:** *There are 2 options to obtain these points, either reuse a percentage of building and materials, or conduct a whole building life cycle assessment. Maintaining 25% - 75% of off-site, salvaged building materials, or blighted building received up to 5 points.*



Percent of existing materials	Points BD+C	Points Core & Shell
15%	1	2
30%	2	3
45%	3	4
60%	4	5
75%	5	6

**Potential Product Application:**

Watts products are made of high-quality materials that can be reused to extend the life cycle of existing buildings or to reduce environmental impacts of new building construction. Watts offers a variety of repair kits to extend the product’s useful life and keep in service for as long as possible.

**Watts Products:**

All of Watts products

For more information visit...

[Products | Watts](#)

## **Storage & Collection of Recyclables | Prerequisite Requirement**

**Intent:** *To reduce the disproportionate burden of landfills and incinerators that is generated by building occupants' waste hauled to and disposed of in landfills and incinerators through reduction, reuse and recycling service and education, and to conserve natural resources for future generations.*

**Potential Product Application:** Watts products are made of recyclable materials. Examples include but are not limited to domestic and imported bronze ingot and brass rods, ductile iron, plastic, and stainless steel. Construction sites may eliminate disposal fees by preparing the cardboard for hauler pickups or delivering it (drop-off) to a recycling facility.

### **Watts Products:**

All of Watts products

### **Sourcing of Raw Materials | Up to 2 Points**

**Intent:** *To encourage the use of products and materials for which life cycle information is available and that have environmentally, economically, and socially preferable life cycle impacts. To reward project teams for selecting products verified to have been extracted or sourced in a responsible manner.*

**LEED® Standard Requirements:** *Used products sourced from at least five manufactures that meet at least one of the responsible sourcing criteria listed below:*

*Extended producer responsibility*

*Bio-based materials*

*Wood products*

*Material reuse*

*Recycled content*

**Potential Product Application:** BLÜCHER, a Watts brand, specializes in stainless steel drains and pipes. BLÜCHER pipe products are manufactured with European steel which consists of 65-85% recycled content.

**Watts Products:**

[BLÜCHER EuroPipe](#)

## Low Emitting Materials | 3 Points

**Intent:** *To reduce concentrations of chemical contaminants that can damage air quality and the environment, and to protect the health, productivity, and comfort of installers and building occupants.*

**Potential Product Application:** Watts products utilize a durable fused epoxy anti-rust and anti-corrosive coating on all cast iron backflows, ACV Valves, and drains.



### **Watts Products:**

[Reduced Pressure Zone Backflows](#) – 957, 957N, 957Z, 909, 009

[Reduced Pressure Detector Assemblies](#) – 957RPDA, 957NRPDA, 994RPDA, 909RPDA

[Double Check Assemblies](#) – 757, 757N, 757a, 757Na, 774, 709, 007

[Double Check Detector Assemblies](#) – 757DCDA, 757NDCDA, 757a DCDA, 757NaDCDA, 774DCDA, 709DCDA, 007DCDA

[Valve Setters:](#) WVS, RK-W-STD

[Automatic Control Valves](#) – 110 Series, 113 Series, 114 Series, 115 Series, 116 Series, 118 Series, 127 Series

[Flanged Ball Valves](#) – G4000-FDA, G4000M-FDA

[Gate Valves](#) – 408-OSY-RW, 405-NRS

[Check Valves](#) – 411, CSM-81-F, CSM-81

[Strainers](#) - 77F-DI-FDA-125

[Butterfly Valves](#) – BF Series, Series 88, Series 90

[Watts Drainage](#) – All Products



**Thermal Comfort | 1 Point**

**Intent:** *To promote occupants' productivity, comfort, and well-being by providing quality thermal comfort.*

**LEED® Standard Requirements:** *Must meet the requirements for both thermal comfort design and thermal comfort control.*

**Potential Product Application:**

Watts and SunTouch, a Watts brand, manufactures both electric or hydronic floor heating systems which provide comfort by warming the body and floor. Additionally, the electric and hot water systems have options to utilize solar and geothermal heating.



**Watts Products:**

[SunTouch Underfloor Heating](#) - Controls, Systems, and Accessories

[Watts Floor Heating](#) - Controls, Panels, Tubing, Accessories, and Fittings

## Innovation | Up to 5 Points

**Intent:** *To encourage projects to achieve exceptional or innovative performance to benefit human and environmental health and equity. To foster LEED expertise throughout building design, construction, operation, and collaboration towards project priorities.*

**LEED® Standard Requirements:** *Option 1: to achieve significant, measurable environmental performance using strategy not addressed in green building rating. Option 2: Achieve one pilot credit from USGBC's LEED Pilot Credit Library. Option 3: Innovation (1-3 points), Pilot (1-3 points), and Exemplary Performance (1-2 Points).*

**Potential Product Applications:** The following section highlights some of Watts' unique and innovative products which could help contribute to earning Innovation credits through measurable environmental performance or the USGBC Pilot Credits.

## Pilot Credits

Visit the USGBC website for more information and details regarding Pilot Credits. [LEED credit library | U.S. Green Building Council \(usgbc.org\)](#)

## Water Leak Detection and Monitoring | 1 Point

[Leak Defense System](#) - Leak Defense, a Watts brand, creates a residential, multi-family, and commercial leak detection system which includes easy control over water flow with on-site control panel and mobile app. The system components include a system valve, control panel, all-purpose interface, mobile control, and detectors.

[Intelliflow Automatic Washing Machine Shutoff Valve](#) - This valve automatically closes water supply valves when a washing machine shuts off. This virtually eliminates water pressure on the supply hoses when the machine is not in use, preventing disastrous flooding from burst hoses.

A2C-SC | A2C-SC-WB

IntelliTimer (A2 IntelliTimer)

KA2-A | KA2-BD | KA2-R

Leak Sensor (A2C-LS)



*SentryPlus Alert*<sup>®</sup> provides automatic flood detection and pressure monitoring on backflow preventor assemblies. The system is equipped with numerous solutions for flood protection, detection, and notifications.

#### Flood Detection for Reduced Pressure Zone Assemblies

- Watts Series 009-FS, LF009-FS, LF909-FS Small/Large, 957-FS, 994-FS
- Ames Series C400-FS, 4000SS-FS
- Any RPZ assembly system including a metal air gap with 2 IN female NPT connection

#### Flood Detection for Reduced Pressure Detector Assemblies

- Watts Series 909RPDA-FS, 957RPDA-FS, LF957RPDA-FS, 994RPDA-FS
- Ames Series C500-FS, LFC500-FS, 5000SS-FS

#### Pressure Monitoring for Double Check Valve Assemblies

- Watts Series LF007 Model IOT, 2½ IN and 3 IN
- Watts Series LF709 Model IOT

### Lead Risk Reduction | 1 Point

Many of Watts' products are certified lead free with wetted surface of the product containing less than 0.25% of lead by weight.

For more information visit [Watts | Plumbing, Heating and Water Quality Solutions](#), product specification documents for lead free compliance information, and search for compliant products with the Water Quality Association [Find WQA Certified Products - Water Quality Association](#).

[\*Big Bubba® BB-S101\*](#) – This high flow non-metallic cartridge strainer is the perfect whole home filtration solution which protects against lead pollution found in certain pipes and reduces exposure to PFAS by filtering out PFOA/PFOS, and other contaminants in the water.

If higher flow rates are required, multiple housings can be installed in parallel making it applicable for both residential and commercial settings. Certified CSA B483.1 and NSF/ANSI 372 for Lead Free compliance.



[\*Pure H2O – H2O – DWCF100\*](#) – This undercounter lead filtration system is certified to NSF/ANSI 53 for the reduction of lead and cysts and available through retail channels.

[\*PW DW HCL 1 Undercounter System\*](#) – This undercounter lead filtration system is certified to NSF/ANSI 53 for the reduction of lead and cysts and available through wholesale channels.

**Whole Project Water Use Reduction | Up to 10 Points**

According to the USGBC® Pilot Library, projects must document compliance with Water Efficiency prerequisites separately. This credit replaces the points available cumulatively in the WE outdoor, indoor, and cooling tower use/optimization. To pursue these points, team must develop a water use baseline and create proposed model.

Percent Reduction	Points (NC, C&S, Healthcare, Datacenters, Hospitality, Warehouse, and DC)	Points (School and Retail)
10%	1	1
20%	2	2
30%	3	3
35%	4	4
40%	5	5
45%	6	6
50%	7	7
55%	8	9
60%	9	10
65%	10	11

## Questions?

Information and language used for this document was obtained from LEED BD+C Version 4.1 online LEED credit library. This is a living document; therefore, the green building standard information and Watts product information are subject to change as new versions are published, standards evolve, and new products are developed.

For additional questions regarding the integration of Watts products into LEED certified buildings please reach out to:



Olivia Tsamparlis

Product Sustainability Specialist

LEED Green Associate

[olivia.tsamparlis@wattswater.com](mailto:olivia.tsamparlis@wattswater.com)

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