

# **SOLAR ZONING APPROVAL PERMIT CHECKLIST**

## **Read These Forms**

- St. Louis County Public Works' "Saint Louis County Position Statement"
- City of Fenton Municipal Code Chapter 425 Article V: SOLAR ENERGY SYSTEMS

## **Complete These Forms**

- St. Louis County / Municipal Zoning Approval for Permit Applications

## **Present These Documents**

- Five\* (5) copies of site plan that:
  - Is drawn to Scale (example: 1"=30'-0") and the scale indicated on site plan
  - Shows a north arrow
  - Shows the shape of the parcel and the parcel dimensions
  - Shows the street names abutting the parcel
  - Shows the shape of the main building and the building dimensions
  - Shows the dimensioned location of the main building on the parcel
  - Shows the parking spaces and indicates the handicapped parking spaces
  - If a multi-tenant building, indicates your proposed tenant space and dimensions
  - If a multi-tenant building, indicates how many square feet you occupy
  - Shows the dimensioned location of the proposed construction
  - Provide the maximum height of the proposed solar array from base elevation (i.e. roof, ground, etc.)
- Five (5) complete sets of plans and/or documents.

## **Pay These Fees** (due prior to processing)

- Residential - \$15.00
- Commercial - Based on Value of Construction:
  - Under \$25,000 - \$ 50.00 + \$15.00 Processing Fee = \$ 65.00
  - \$25,001 to \$50,000 - \$ 60.00 + \$15.00 Processing Fee = \$ 75.00
  - \$50,001 to \$100,000 - \$ 80.00 + \$15.00 Processing Fee = \$ 95.00
  - \$100,001 and over - \$100.00 + \$15.00 Processing Fee = \$115.00

## **Next Step:**

Once approved for zoning by the City of Fenton, pick up signed documents and submit to St. Louis County for building permits and submit to the Fenton Fire Protection District, 845 Gregory Lane, 636-343-4188.

**ARTICLE V**  
**Solar Energy Systems**

**Section 425.120. Purpose.**

**[R.O. 2009 § 464.010; Ord. No. 3348 § 1, 9-26-2013]**

The purpose of this Article is to provide standards for the installation and use of Solar Energy systems as Accessory Uses. This Article seeks to protect properties from incompatible uses in the interest of property values, public health, and the welfare of the community while promoting the use of alternative energy sources, where appropriate. This Article provides a process to facilitate the use of these systems in a manner that minimizes adverse impacts and the potential for nuisance.

**Section 425.130. Definitions.**

**[R.O. 2009 § 464.020; Ord. No. 3348 § 1, 9-26-2013]**

As used in this Article, the following terms shall mean:

**BUILDING-INTEGRATED SOLAR ENERGY SYSTEM** — A Solar Energy system that is an integral part of a Principal or Accessory Building, rather than a separate mechanical device, replacing or substituting for an architectural or structural component of the Building, which contributes to the design of the Building, including, but not limited to, photovoltaic or hot water solar systems contained within roofing materials, windows, skylights, and awnings.

**BUILDING-MOUNTED SOLAR ENERGY SYSTEM** — A Solar Energy system affixed to either a Principal or Accessory Structure on a Lot.

**GROUND-MOUNTED SOLAR ENERGY SYSTEM** — A Solar Energy system that is not attached to another Structure and is affixed to the ground.

**SOLAR ENERGY COLLECTOR** — The component of a Solar Energy system containing the flat plate or tube or other devices that absorb energy from the sun when exposed to sunlight.

**SOLAR ENERGY EQUIPMENT** — The Solar Energy Collectors, electronics, disconnect, valves, and other appurtenances associated with a Solar Energy system.

**SOLAR ENERGY SYSTEM** — A Building- or ground-mounted photovoltaic, hot air, or hot water collector device or other type of energy system, which relies upon solar radiation as the source for the generation of electricity or transfer of stored heat.

**ADDITIONAL DEFINITIONS** — Where not inconsistent with the language or intent herein, the additional definitions set forth in Section 400.030 are incorporated herein and shall apply.

**Section 425.140. Accessory Use.****[R.O. 2009 § 464.030; Ord. No. 3348 § 1, 9-26-2013]**

Solar Energy Systems shall be considered a permitted Accessory Use in all Zoning Districts, subject to the provisions of this Article.

**Section 425.150. Requirements.****[R.O. 2009 § 464.040; Ord. No. 3348 § 1, 9-26-2013]**

- A. The requirements set forth in this Section shall govern the construction and/or installation of all Solar Energy Systems:
1. Solar Energy Systems, General.
    - a. Solar Energy Collectors shall be located in the least visible location from perspectives outside the Lot Lines where panels would be reasonably, though not necessarily optimally, functional.
    - b. Solar Energy Collectors shall be documented by the manufacturer as being non-reflective pursuant to recognized engineering standards showing reflectivity of less than thirty percent (30%) or shall be placed such that concentrated sunlight or glare shall not be directed onto nearby Lots or Streets.
    - c. Building-Integrated Solar Energy Systems shall be allowed regardless of visibility, provided the Building-Integrated Solar Energy System meets all required Setbacks, height, and use requirements for the Zoning District in which the Building is located.
  2. Solar Energy Systems, Residential.
    - a. Ground-Mounted Solar Energy Systems.
      - (1) Ground-Mounted Solar Energy Systems shall only be located in the Side or Rear Yard of a Lot and are not permitted in the Front Yard of a Lot.
      - (2) Ground-Mounted Solar Energy Systems must have a minimum five-foot Rear Setback and maintain the same Side Setback as required for the Zoning District in which they are located.
      - (3) Ground-Mounted Solar Energy Systems and supporting structures may not exceed a total height of ten (10) feet as measured from the average grade at the base of the supporting structure to the highest edge of the system.
      - (4) Collectively, all Ground-Mounted Solar Energy Systems on the Property shall not be greater than one-half (1/2) the square footage of the footprint of the Principal Structure or six hundred (600) square feet, whichever is greater.

- (5) Ground-Mounted Solar Energy Systems must be substantially blocked from public view (including adjacent Lots and Streets) by Screening, architectural features, or a combination thereof; provided, however, that Screening shall not be required to be so dense, so tall, or so located as to render the equipment essentially non-functional.
- b. Building-Mounted Solar Energy Systems.
- (1) Building-Mounted Solar Energy Collectors installed in Residential Districts shall be:
    - (a) Installed in the plane of the roof (flush mounted); or
    - (b) Made part of the roof design (capping or framing compatible with the color of the roof or Structure); or
    - (c) A Building-Integrated Solar Energy System. Mounting brackets shall be permitted to be placed on the slope of a rear-facing roof if the Applicant can demonstrate that the existing pitch of the roof would render the Solar Energy Equipment ineffective or incapable of reasonable operation.
  - (2) When located on a sloped roof, Solar Energy Collectors shall be located on a rear- or side-facing roof, as viewed from the Frontage. In cases of Corner Lots or Lots with more than one (1) Frontage, the side roof fronting a Street shall be considered a front-facing roof.
  - (3) Solar Energy Systems shall not project vertically above the peak of a sloped roof to which it is attached.
  - (4) When located on a sloped roof, Solar Energy Collectors shall be positioned in a symmetrical fashion and centered on the plane of the roof on which they are located and set back at least two (2) feet from any outside edge, ridge, or valley of the roof.
  - (5) All exterior electrical or plumbing lines must be painted in a color scheme that matches as closely as possible the color of the Structure and the materials adjacent to the lines when visible from the Street.
3. Solar Energy Systems, Non-Residential.
- a. Ground-Mounted Solar Energy Systems.
- (1) Ground-Mounted Solar Energy Systems shall only be located in the Side or Rear Yard of a Lot. Ground-Mounted Solar Energy Systems are not permitted in the Front Yard of a Property.
  - (2) Ground-Mounted Solar Energy Systems must have a minimum five-foot Rear Setback and maintain the same Side Setback as required for the Zoning District in which they are located.

- (3) Ground-Mounted Solar Energy Systems and supporting Structures may not exceed a total height of twenty (20) feet as measured from the average grade at the base of the supporting structure to the highest edge of the system.
  - (4) Collectively, all Ground-Mounted Solar Energy Systems located on the Property shall not be greater than one-half (1/2) the square footage of the footprint of the Principal Structure.
  - (5) Ground-Mounted Solar Energy Systems must be substantially blocked from public view (including adjacent Lots and Streets) by Screening, architectural features, or a combination thereof; provided, however, that Screening shall not be required to be so dense, so tall, or so located as to render the equipment essentially non-functional.
- b. Building-Mounted Solar Energy Systems.
- (1) Building-Mounted Solar Energy Systems installed in Non-Residential Districts shall be installed:
    - (a) In the plane of the roof (flush mounted);
    - (b) Made part of the roof design (capping or framing compatible with the color of the roof or Structure); or
    - (c) A Building-Integrated Solar Energy System. Mounting brackets shall be permitted if the Applicant can demonstrate that the existing pitch of the roof would render the Solar Energy Equipment ineffective or incapable of reasonable operation.
  - (2) When located on a sloped roof, Solar Energy Collectors shall be located on a rear- or side-facing roof, as viewed from the Frontage. In cases of Corner Lots or Lots with more than one (1) Frontage, the side roof fronting a Street shall be considered a front-facing roof.
  - (3) Solar Energy Systems shall not project vertically above the peak of a sloped roof to which it is attached.
  - (4) When located on a sloped roof, Solar Energy Collectors shall be set back at least two (2) feet from any outside edge, ridge, or valley of the roof.
  - (5) Solar Energy Collectors installed on a flat roof may exceed the Building Height up to five (5) feet.
  - (6) Solar Energy Collectors installed on the roof-top deck of a covered Off-Street Parking Area may exceed the height of the exterior wall of the Structure up to twenty (20) feet if a minimum Setback of five (5) feet from the outside face of the Structure is provided.
  - (7) All exterior electrical or plumbing lines must be painted in a color scheme that matches as closely as possible the color of the Structure and the materials adjacent to the lines when visible from the Street.

**Section 425.160. Permit Requirements.****[R.O. 2009 § 464.050; Ord. No. 3348 § 1, 9-26-2013]**

A building permit is required prior to the installation of any Solar Energy System. The owner of a Solar Energy System shall ensure that it is installed and maintained in compliance with applicable building, fire, and safety codes adopted by the City and any other state or federal agency of competent jurisdiction. All wiring associated with a renewable energy system shall be underground or contained within a raceway that complements the Facade materials of the Principal Structure.

**Section 425.170. Abandonment.****[R.O. 2009 § 464.050; Ord. No. 3348 § 1, 9-26-2013]**

Any Solar Energy Systems that are noticeably in disrepair without repair or restoration procedures substantially underway shall be removed from the Property and the Structure and/or Property shall be restored.

**Section 425.180. (Reserved)****Section 425.190. Alternative Compliance.****[R.O. 2009 § 464.080; Ord. No. 3348 § 1, 9-26-2013]**

In unusual circumstances arising from the unique location or character of the proposed location and/or surrounding uses or Structures, if site-specific alternative standards would provide results that are equal to or superior to those which would be provided by the standards in this Article, the Commission may recommend and Board may approve an Applicant's request for alternative standards if in the Commission's judgment the purpose of these regulations will be satisfied and the alternative standards will have no adverse impact on any other Property or unreasonably disturb the peaceful occupancy of adjoining or nearby Property.

- A. Procedure. An application for alternative compliance standards shall be reviewed in accordance with the requirements for a Special Use Permit, as set forth in Section 410.080 of this Code. The proposed alternative standards shall clearly identify and discuss the modifications and alternatives proposed and the ways in which the plan will better accomplish the intent of these design standards than would an approach which complies with the design standards of this Article.
- B. Review Criteria. To approve an alternative approach, the Commission must find that the proposed alternative approach accomplishes the intent of these standards equally well or better than would an approach which complies with these standards and the alternative standards will have no adverse impact on any other Property or unreasonably disturb the peaceful occupancy of adjoining or nearby Property.

*Charlie A. Dooley*  
County Executive

**Saint Louis**  
**COUNTY**  
**HIGHWAYS & TRAFFIC**  
**PUBLIC WORKS**

*Sheryl L. Hodges, D.E., P.E., L.P.G.*  
Director

Saint Louis County Position Statement  
Photovoltaic connections on the line side of the service disconnecting means.  
October 29, 2013

The following policy clarifies rules for connecting a solar photovoltaic system, fuel cell systems or interconnected electrical power production sources on the supply side of the service disconnecting means as allowed by Article 230.82 of the National Electrical Code (NEC).

The above section of the NEC allows specific power sources, other than normal, to be connected ahead of the service disconnecting means. However, no permission is given to make this connection in a meter enclosure or in the enclosure that contains the main disconnect. Therefore, Saint Louis County will not approve the connection of a solar photovoltaic system or other power sources within the meter enclosure or the main service panel ahead of the main unless the specific piece of equipment has been listed for the purpose. Otherwise a connection ahead of the main shall be made in a separate listed enclosure, sized per Article 314 of the NEC and be suitable for the purpose and environment.

The utility may require provisions for sealing the enclosure in which the connection is made.

The manufacturers of meter enclosures did not design the equipment with any consideration other than the entry/exit of the normal supply conductors. Therefore, the wire bending space required in tables 312.6(A) and 312.6(B) cannot be met and there is no space provided for the additional conductors and terminals/lugs necessary to connect another system.

The manufacturers of main service rated panels did not design the enclosure with any consideration except the entry of the normal supply, feeders and branch circuits. Space is not provided to make a connection ahead of the main for an additional power source.

Plans are required for the installation of solar photovoltaic systems and any other power production system. On the plans the connection of an additional power system to the premise wiring must be clearly shown on the plans submitted for permit issuance. If on the plans the connection is shown in the main service panel or meter enclosure, the plans will not be approved unless equipment listed for the connection of multiple power sources already exists or is to be installed as part of the alternate power source installation. The plans must identify the manufacturer and model of service equipment and/or meter enclosures intended to be used that are listed for the interconnection of multiple power sources. The one line diagram shall clearly show how and where the interconnection is made.



Rick Hill, Chief Electrical Inspector  
Rhil2@stlouisco.com

# ST. LOUIS COUNTY / MUNICIPAL ZONING APPROVAL FOR PERMIT APPLICATION

Application Date: _____	Permit No.: _____
Dep \$ _____ Fee \$ _____	Total: _____
Payment Method: _____	
Deposit Refund Date: _____	

**CITY OF FENTON, 625 New Smizer Mill Road, Fenton, MO 63026**

**PLEASE PRINT**

**PROJECT INFORMATION:**

Parcel Address: \_\_\_\_\_ Locator # \_\_\_\_\_  
 Project Address \_\_\_\_\_  
 Tenant Name: \_\_\_\_\_  
 Description of Work: \_\_\_\_\_ Sq. Ft.: \_\_\_\_\_

Property Owner Name & Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
*Prop. Owner Phone No.:* \_\_\_\_\_

Applicant Name & Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
*Applicant Phone No.:* \_\_\_\_\_  
*Applicant Email:* \_\_\_\_\_

**Municipal and St. Louis County Approval:**

\_\_\_\_\_ New Construction      \_\_\_\_\_ Retaining Wall  
 \_\_\_\_\_ Additions            \_\_\_\_\_ Occupancy  
 \_\_\_\_\_ Land Disturbance    \_\_\_\_\_ Swimming Pool  
 \_\_\_\_\_ Sign Permit            \_\_\_\_\_ Demolition  
 \_\_\_\_\_ Interior Finish/Remodel    \_\_\_\_\_ Other: \_\_\_\_\_

**Municipal Approval Only:**

\_\_\_\_\_ Parking Lots  
 \_\_\_\_\_ Excavation  
 \_\_\_\_\_ Clearing  
 \_\_\_\_\_ Other: \_\_\_\_\_

Is this project located in a Floodplain?      No: \_\_\_\_\_ Yes: \_\_\_\_\_ Rating: \_\_\_\_\_

Value of construction: \$ \_\_\_\_\_

**Applicant Signature** \_\_\_\_\_  
**Print Name** \_\_\_\_\_

\* I certify that I am the Property Owner/Agent for the owner and/or otherwise authorized to perform this work.

Note: Applicants for building permits must submit this form with four (4) copies of the site plan approved, signed and dated by the municipal official at the time the building permit application is submitted to St. Louis County, Department of Public Works.

Zoning Classification:	Approved:	Not approved:
Comments:		
Zoning Signature:		Date:
<i>Community Development Director</i>		

ST. LOUIS COUNTY PERMIT APPLICATION NUMBER: \_\_\_\_\_



**ST. LOUIS COUNTY PUBLIC WORKS PERMIT OFFICES**

**CLAYTON OFFICE  
41 SOUTH CENTRAL AVENUE  
ST. LOUIS, MO 63105  
314-615-5184**

**NORTH SATELLITE OFFICE\*  
NORTHWEST CROSSING  
715 NORTHWEST PLAZA DRIVE  
ST. ANN, MO 63074  
314-615-7304**

**SOUTH SATELLITE OFFICE\*  
4554 LEMAY FERRY ROAD  
KELLER PLAZA  
ST. LOUIS, MO 63129  
314-615-4076**

**WEST SATELLITE OFFICE\*  
74 CLARKSON WILSON CENTRE  
CLARKSON WILSON CENTRE  
CHESTERFIELD, MO 63017  
314-615-0902**

**Your application may be submitted at any of the above locations.**

**\*Excluding PAC projects**