

CITY OF MONETT
SOLAR PERMIT PROCESS

The City of Monett Building and Zoning Department would like to assist you with your solar project. We are available to answer any questions you may have in relation to building codes and local ordinances. You can contact the office at 417-235-5306.

Step 1. **At the beginning of your project**, contact our Department to discuss any questions of concerns you might have about solar installation requirements in the City of Monett.

Step 2. **Submit a permit and net metering application along with your engineered stamped plans for review.** You or your contractor will submit a net metering and building permit application (applications available on City of Monett web site) along with engineered stamped drawings specifically designed for each individual solar project to rtate@cityofmonett.com or at the office at 508 Bond Street Monett, MO. Contractor will need a Contractor Business License to work in the City of Monett.

Step 3: Pre-Inspections. Building Department and Utility Department will do a pre-inspection to the electric to see what upgrades will need to be done if any to electric. Inspection reports will be sent to Solar Company with a signature page which will need to be signed and sent back to Building department stating who will be responsible for any and all electrical upgrades necessary for solar project. The electrician hired for electrical upgrade will need to contact Trent Thompson at 235-5306 to discuss the upgrades to the electric before project begins.

Step 4: Pay fee and obtain building permit. You will be notified through email or a phone call when your plans have been approved and permit written. Your permit fee is due at that time and can be paid for and picked up in the collections office at City Hall 217 5th Street or a check can be mailed to City of Monett 217 5th Street Monett, MO 65708.

Step 5: Arrange for building inspections. All inspections requested by Solar Company will need a tech present and a 24hr notice. A \$150.00 fee will apply for each inspection that a tech is not present and will need to be paid for before another inspection is scheduled.

Step 6. Receive final approval. When the project is complete, request a final inspection. Tech will need to be on site and have system programmed and initialized. Solar Systems will not be energized until all required upgrades are completed & pass inspection from BOCA and Utility departments.

*City of Monett has adopted 2018 Building Codes and 2017 NEC

*Solar Company is responsible to call for inspections

*Equipment installation must match as builds or updated plans submitted

APPLICATION DATE _____

PERMIT NUMBER _____


**CITY of MONETT
BUILDING & ZONING
SOLAR PERMIT APPLICATION**

PROPERTY INFORMATION:

PROPERTY ADDRESS: _____ SUBDIVISION _____ LOT# _____ ZONING _____

IF PROPERTY IS NOT LOCATED IN A SUBDIVISION, THE LEGAL DESCRIPTION & PARCEL NUMBER MUST BE ATTACHED

Are you building in a
Floodplain?

☐ Yes  If you checked **Yes**, please complete and attach a
☐ No **Floodplain Development Application Form.**

OWNER INFORMATION

• OWNER NAME: _____

ADDRESS: (Street, City, State, zip) _____

E-MAIL: _____ Phone: _____

CONTRACTOR INFORMATION

• COMPANY NAME: _____ CONTACT NAME: _____

MAILING ADDRESS (Street, City, State, zip) _____

E-MAIL: _____ Phone: _____

ELECTRICIAN INFORMATION:

• COMPANY NAME: _____ CONTACT NAME: _____

MAILING ADDRESS (Street, City, State, zip) _____

E-MAIL: _____ Phone: _____

Project Description:

Overall Height: _____ Project Square Footage: _____ Valuation (\$): _____

Owner/Contractor: _____ **Date:** _____

I HERBY CERTIFY THAT THE INFORMATION PROVIDED ON THIS APPLICATION IS TRUE AND CORRECT; THAT I HAVE READ AND UNDERSTAND THE PROCEDURES, ORDINANCES, AND REQUIREMENTS ASSOCIATED WITH THE APPLICATION AND REVIEW PROCESS. I ACKNOWLEDGE THAT I WILL BE RESPONSIBLE FOR ANY AND ALL COSTS INCURRED BY PLAN REVIEWS PERFORMED BY CONSULTANTS OF THE CITY. BY SIGNING THIS FORM I ACKNOWLEDGE COMPLIANCE WITH THESE RULES.

PERMIT EXPIRES 180 DAYS AFTER DATE ISSUED

The City of Monett requires homeowners and contractors to provide specific information at the inception of the Solar Project to lessen errors and oversights that occur during the solar installation.

PROPOSED SOLAR PROJECT

Application for Net Metering

Note: This Application is considered complete when it provides all applicable and correct information required below. The application must be signed by customer-generator and City representative prior to interconnecting any net metering system to the grid. Additional information or clarification to evaluate the Application may be requested by the City.

Customer

Name (Print): _____

Contact Person (if other than customer): _____

Address: _____

City, State, Zip: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail Address: _____

Customer Signature: _____

I hereby apply for participation in the City's Net Metering Program for Customer Owned Renewable Energy Resources at the utility service address listed above. By my signature, I further affirm that I have read and fully understand the City's policies and procedures for the program and agree to fully abide by all the terms and conditions.

Signed: _____

Date: _____

For Office Use Only

Requirements for Approval of Net Metering – The City must verify that the following requirements are met in order for Customer Generator to qualify for Net Metering:

Qualified Renewable Energy Resource

Application for Interconnection

Certificate of Completion

City Signature: _____

Title: _____ Date: _____

Application ID Number: _____

Application for Interconnection

Note: This Application is considered complete when it provides all applicable and correct information required below. Additional information or clarification to evaluate the Application may be requested by the City.

To be considered a valid application for review, this application must be accompanied by a plan for the generating system including, but not limited to, a wiring diagram and specifications for the generating unit. Prior to interconnection with the utility's distribution system, the customer-generator must furnish a certification from a qualified professional electrician or engineer that the installation meets the requirements of the "Net Metering and Easy Connection Act".

This application for Interconnection expires one year after the customer-generator has been notified of the City's approval if the entire installation and agreement for interconnection has not been completed.

Processing Fee:

A non-refundable processing fee of \$0 must accompany this Application.

Customer

Name: _____

Contact Person: _____

Address: _____

City, State, Zip: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-mail Address: _____

Contact (if different from Customer)

Name: _____

Address: _____

City, State, Zip: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail Address: _____

Owner of the facility: _____

Generating Facility Information

Location (if different from above): _____

Electric Service Company: _____

Account Number: _____

Inverter Manufacturer: _____

Model: _____

Nameplate Rating: (kW) _____ (kVA) _____

(AC Volts) Single Phase _____ Three Phase _____

System Design Capacity: _____ (kW) _____ (kVA)

Prime Mover: ☐ Photovoltaic ☐ Reciprocating Engine ☐ Fuel Cell

☐ Turbine ☐ Other

Energy Source: ☐ Solar ☐ Wind ☐ Hydro ☐ Hydrogen

Is the equipment UL1741 listed? ☐ yes ☐ no

If Yes, attach manufacturer's cut-sheet showing UL1741 Listing

Estimated Installation Date: _____ Estimated In-Service Date: _____

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type

Certifying Entity

- | | |
|----------|-------|
| 1. _____ | _____ |
| 2. _____ | _____ |
| 3. _____ | _____ |
| 4. _____ | _____ |
| 5. _____ | _____ |

If additional pieces of equipment are included please attach an additional sheet(s) containing the information indicated immediately above.

Customer Signature

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the terms and conditions of the City's Interconnection Standard and will return the Certificate of Completion when the Generating Facility has been installed.

Signed: _____

Title: _____ Date: _____

Contingent Approval to Interconnect the Generating Facility

Interconnection of the Generating Facility is approved contingent upon the terms and conditions of the City's Interconnection Standard and upon return of the Certificate of Completion.

City Signature: _____

Title: _____ Date: _____

Application ID Number: _____

City waives inspection/witness test? ☐ yes ☐ no

Requirements for Net Metering

Definitions: The owner or operator of a qualified electric energy generation unit which;

1. Is powered by a renewable energy resource.
2. Is located on a premises owned, operated, leased or otherwise controlled by the customer.
3. Is interconnected and operates in parallel phase and synchronization with City Electric and has been approved by said electric supplier.
4. Is intended primarily to offset part or all of the Customers electrical energy requirements.
5. Meets applicable safety, performance, interconnection, and reliability standards established by the National Electric Code, the National Electric Safety Code, the Institute of Electrical and Electronics Engineers, Underwriters Laboratories, the Federal Energy Regulatory Commission, and local governing authorities.
6. Contains a mechanism that automatically disables the unit and interrupts the flow of electricity back onto the City's electric lines in the event that Customer-Generator is interrupted.

Net Metering: Using metering equipment sufficient to measure the difference between the electrical energy supplied to a Customer-Generator by City of Monett and the electrical energy supplied by Customer-Generator to the City electric supplier over the applicable billing period.

Utility-Interactive Inverter: an inverter intended for use in parallel with and electric utility to supply common loads that may deliver power to the utility.

Many of the terms included may have slight variations in the intended specific meaning within conversations/illustrations. Terms as defined within the City of Monett will take precedence in the event of any conflict or confusion in meaning.

Introduction: qualified professional complete drawings, material data and material list detailing scope of work shall be provided at application. This summary is intended as one aid to provide information and assistance in applying for, and submittal of the minimum documentation to comply with the installing and interconnecting process for a qualified non-utility, renewable fuel sourced electric generation system(s). other considerations are manufacture's recommendations, codes, ordinances and City safety or equipment requirements which may apply. Please note that on a new or existing Point of Service that the application for a qualified non-utility renewable fuel source electric generation system(s) which is to be interconnected through a point of common coupling shall be reviewed by the City. As a result of the review process, additional equipment or re-arrangement of all or a portion of the existing service interface equipment may have to be reconfigured or changed. This may result in additional equipment & labor costs to the Customer in order to comply with current safety standards, codes, or laws in effect at the time of the review process, all equipment shall be UL rated.

Interconnection Process: This process applies to new installations and Modifications to existing interconnected installations. A completed application shall consist of submitting the appropriate sections of the application with all fields completed, any or all technical material including manufacturers specifications describing or defining the equipment to be installed, and an interconnection wiring diagram or drawing that clearly conveys the appropriate physical location of the proposed system devices and the necessary electrical details to convey the electrical energy flow path

from the proposed Customer-Generators system source back to the Utility's metering location for the premise. The diagram must clearly show the routing and connection(s) of all conductors, line one, line two, neutral and ground, in the path from the grid-tie inverter to the load panel and including references to the City's Point of Service. additional wiring detail and grounding from the renewable energy source, photovoltaic panels to the inverter would be also very helpful. Once the City receives application, the City of Monett will review and process in a timely manner.

Apply for Interconnection: the applicant must submit to the City of Monett the Interconnection Application/Agreement for Net Metering Systems/Facilities. The Application/Agreement will contain technical specifications or references to safety related codes that assist in the safe installation and subsequent operation of Net Metering system. The City of Monett encourages the Customer to submit these technical specifications to the City of Monett before investing in any equipment. This will ensure that the City of Monett can approve the proposed equipment and its installation. The Customer must submit a separate application for each Net Metering system whether or not it is at the current location or another.

Interconnection Application Review/Study: The City of Monett will review the application materials to determine the impact of the proposed equipment on the City's system. The City of Monett may suggest modifications that are required to allow for safe and reliable interconnection of the Customer's proposed system to the City's grid. In addition, a review of the existing City's service to the Customer's metering will be conducted to determine if modifications will be required to accommodate the proposed interconnection facility. Additional materials may be requested if the application is deemed incomplete or deficient in documentation. Upon receipt of the written conditional approval, the applying Customer shall construct or install the system as submitted within the application as well as any stated modifications within. Once the Customer's system is in place, the City of Monett shall do an electrical inspection.

Technical and Performance standards: This section will list and explain the functional interconnection requirements that are considered under IEEE 1547 (IEEE Standard for Interconnection Distributed Resources with Electric Power Systems) as they apply to Customer-Generation net metering interconnection with the UL power system. Net metering interconnection equipment, such as power inverters, must be IEEE 1547 compliant as certified by UL 1741 testing in order to be approved by the City of Monett for Net Metering installations. In addition, measurements for operational compliance with any or all of these requirements may be taken at any time by the City of Monett in order to verify that a Customer-Generator's net metering interconnection system is performing according to the testing requirements of UL 1741. Measurements for these requirements would normally be taken at the Customer-Generator metering point in practice, but may also be required at the metering point of a neighboring Customer, in the case where two or more Customers share a service connection from the same transformer.

Interconnection test Specification: The testing criteria that are required in order for a specific inverter/interconnection system design and product to be UL 1741 certified at the design and manufacturing levels of industry. UL 1741 certification of the Customer-Generator's inverter/interconnection equipment is required in order for the City of Monett to approve a net metering installation. In addition, the City of Monett reserves the right to test the Customer-Generator's inverter/interconnection system for compliance with any or all of these requirements at any time in

order to verify that the equipment is performing according to the testing requirements of UL 1741. The Interconnection system design will be reviewed by the City of Monett during application process, The field installation of the Customer-Generator inverter/interconnection system will be reviewed at the time of the field site visit for testing and commissioning, and verification will be made that it is installed according to the design specified in the application. The commissioning tests will then be performed on site by the City of Monett personnel. All design, installation and testing shall meet UL, IEEE, NEC, NESC and City of Monett requirements before commissioning installation to service.

Notes to remember:

Apply for Interconnection with qualified drawings.

Interconnection Application Review and Study

Technical and Performance Standards

General requirement's

Interconnection site inspection

Interconnection Commissioning Test

Inquiries and Questions:

What is the utilities connection/monthly fee? Is there a different connection/monthly fee if a customer goes solar?
Please visit City website, rates and base charges are posted there.

Does the City offer Net Metering? The City of Monett offers Net Metering for systems under 100KW.

Can systems be grouped to one meter? No, each system shall have an individual Net Meter.

Is a separate production meter required for solar production? No, a Net Meter shall be installed.

when installing a solar system is a meter/breaker combination allowed? Yes, the City of Monett requires a Meter Main or approved disconnect.

Does the City allow Utility side line tapping? No line side tapping allowed.

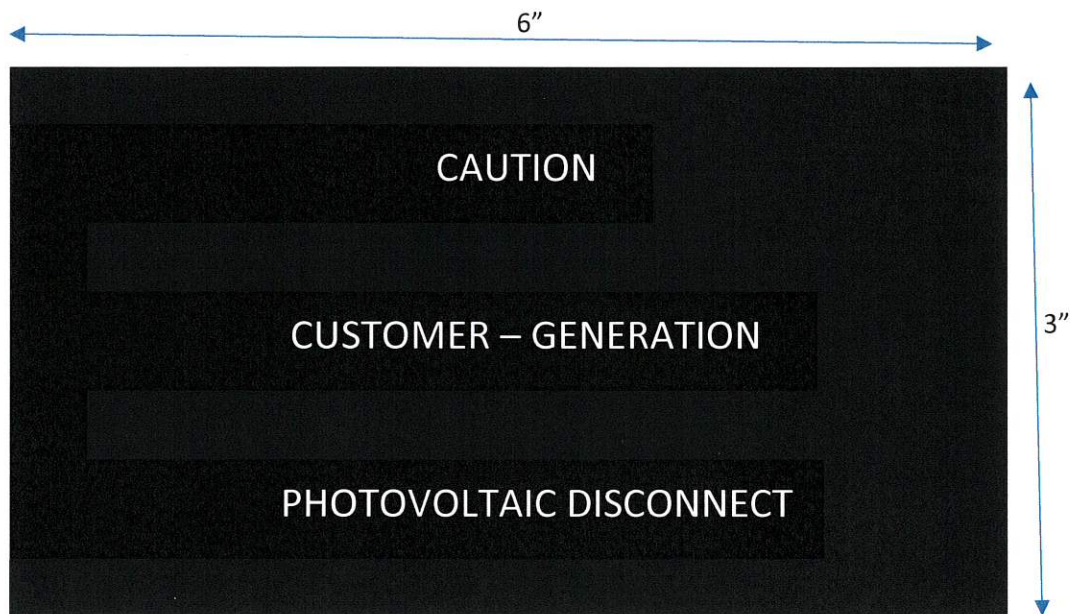
What distance can solar fused disconnect be from meter? To be determined at application.

Are self-piercing wiretaps allowed? Only on Customer side of breaker.

Can system be temporarily turned on before commissioning? No, City of Monett to Inspect before power is applied.

Are placards required for solar? Yes, described as Photovoltaic.

Customer Placard



Notes for Placards

1. Residential Placard size shall be 6" X 3"
2. Residential lettering for CAUTION shall be 1/2" tall
3. Residential all other lettering shall be 1/4" tall
4. Commercial and Industrial Placard size shall be 12" X 8"
5. Commercial and Industrial lettering all lettering shall be 3/4" tall
6. Commercial and Industrial other Placard information necessary for remote meter and switch locations to be approved at application.
7. The sign material shall be etched laminated plastic. The surface shall be black and the substrate shall be white. This is so that the letters appear as white when etched.
8. This placard shall be screwed or bolted externally to the structure as close as practicable to the disconnect. Gluing is not acceptable.

SIGNATURE PAGE

I HAVE READ AND UNDERSTAND THE REQUIREMENTS ASSOCIATED WITH THE ELECTRICAL UPGRADES AND INSPECTION REQUIREMENTS FOR THE SOLAR PROJECT AT:

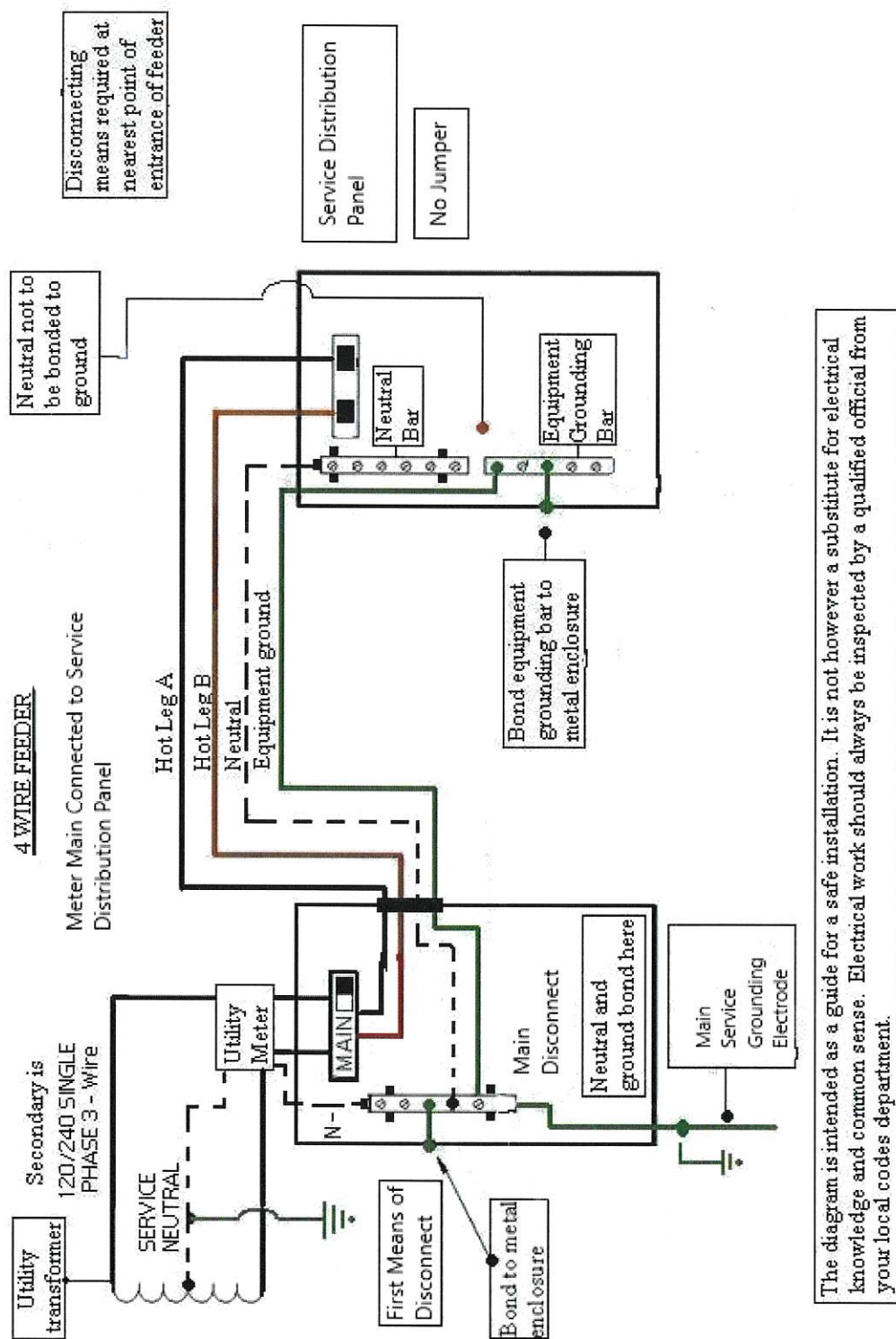
(ADDRESS).

THE **SOLAR COMPANY** OR **HOMEOWNER** (CIRCLE ONE) WILL BE RESPONSIBLE FOR THE ELECTRICAL EQUIPMENT UPGRADES ACCORDING TO THE ATTACHED INSEPCION REPORTS AND IN ACCORDANCE WITH THE MONETT CITY UTILITY REGULATIONS. SOLAR SYSTEMS WILL NOT BE ENERGIZED UNTIL ALL REQUIRED UPGRADES ARE COMPLETED AND PASS INSPECTION FROM BOCA DEPARTMENT AND UTILITIES.

SOLAR COMPANY SIGNATURE

ELECTRICAL CONTRACTORS SIGNATURE

HOMEOWNERS SIGNATURE



REQUIRED MINIMUM CONDUIT	
SERVICE SIZE	CONDUIT SIZE/TYPE
100	2" GALVANIZED RIGID STEEL
200	2" GALVANIZED RIGID STEEL
400	3" GALVANIZED RIGID SHEL

SEALING COMPOUND IS SUGGESTED
METAL FLASHING OR ROOF LINING
TUBE WITH RAIN DIVERTER IS REQUIRED

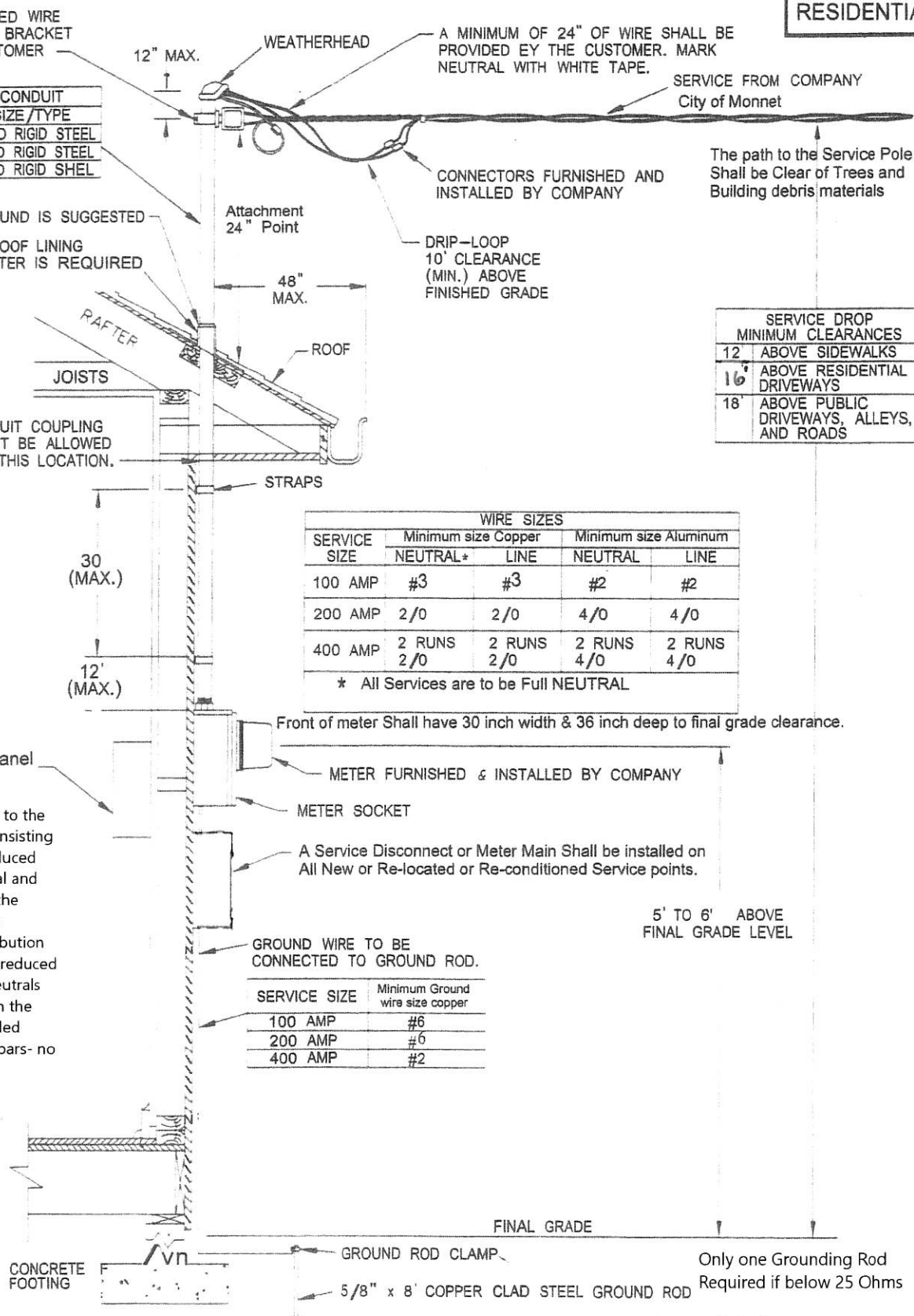
A CONDUIT COUPLING
WILL NOT BE ALLOWED
ABOVE THIS LOCATION.

SERVICE SIZE	WIRE SIZES			
	Minimum size Copper		Minimum size Aluminum	
	NEUTRAL*	LINE	NEUTRAL	LINE
100 AMP	#3	#3	#2	#2
200 AMP	2/0	2/0	4/0	4/0
400 AMP	2 RUNS 2/0	2 RUNS 2/0	2 RUNS 4/0	2 RUNS 4/0

* All Services are to be Full NEUTRAL

SERVICE DROP MINIMUM CLEARANCES	
12'	ABOVE SIDEWALKS
16'	ABOVE RESIDENTIAL DRIVEWAYS
18'	ABOVE PUBLIC DRIVEWAYS, ALLEYS, AND ROADS

The run from the meter base to the main disconnect is 3 wire, consisting of 2 hot wires, and 1 non-reduced neutral. With both the neutral and ground bonded together in the disconnect. The run from the disconnect to the main distribution panel is 4 wire- 2 hot, 1 non-reduced neutral and a ground. The neutrals and grounds are separated in the main panel and are not bonded together- with seperate bus bars- no jumpers.



**ALL EQUIPMENT FURNISHED
& INSTALLED BY CUSTOMER
UNLESS OTHERWISE NOTED.**

City of Monett
Pride and Progress
Building Inspector 417-235-5306
Electric Foreman 417-737-0242
City of Monett
217 5th Street
Monett Mo. 65708

City of Monett Utilities Upgrade Requirements Policy

The city shall have the right to inspect any and all wiring, equipment, installations and appliances upon the premises of a consumer during reasonable hours; and should such inspection disclose dangerous or defective conditions of service or defective conditions likely to interfere with proper service to and use of electric facilities to and by other consumers, the city shall have the right to require correction to the latest Utility Policy or removal of such defective wiring, installation, equipment and appliances by the consumer upon reasonable notice; and upon failure or refusal to do so, shall discontinue service to such consumer until such condition shall be corrected. Any services that have been disconnected more than 6 months and do not meet current Utility Standards will be required to bring them up to the latest City of Monett Utility Policy. Any building permit involving distribution panel and/or service entrance upgrades will be required to meet the current utility policy and current NEC code adopted by city code.

The addition of a solar system will require upgrading of the electrical system to current utility policy and NEC code (including any required mast, or underground supply upgrades), if the current system is not current compliant (ie meter main disconnect, 4 wire system from the meter to the service panel, no non-reduced neutrals, grounds and neutrals separated and isolated, ground bar bonded to the service box, all wires sized correctly for the amperage of the system).