Building in the City of Rolla

Guide to Construction and the Permit Process

2020

City of Rolla Community Development
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Rolla, MO 65401
(573) 364–5333
Fax (573) 426-6978
www.rollacity.org/comdev
General Information

STAFF:
Steve Flowers – Community Development Director/Codes Administrator
Tom Coots – City Planner
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Kathleen McMeen – Zoning/Codes Inspector

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CURRENT CODES OBSERVED:
2018 ICC International Building Code
2018 ICC International Residential Code
2018 ICC International Mechanical Code
2018 ICC International Plumbing Code
2018 ICC International Fire Code
2017 NEC Electrical Code
2000 ICC Energy Code
2017 National Electrical Code as referenced in the ICC Electrical Code
2018 ICC International Property Maintenance Code
City of Rolla Code
GENERAL

1. A permit is required to construct, alter, repair, move, demolish, or to change the type of occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by the appropriate Code or Ordinances of the City of Rolla. Portable storage buildings under 200 sq. ft., fences, and other items as listed exempt in the appropriate Code do not require a permit.

2. Construction documents must be submitted with a completed permit application and approved prior to a permit being issued.

3. Permits for construction shall be issued only if all other regulations and zoning restrictions are complied with as required by the City of Rolla Code.

4. An elevation certificate will be required for construction in a floodplain at the time of permit application.

5. Excavation permits are required for all excavation in the City right-of-way.

6. All commercial projects shall be reviewed for storm water issues by Public Works prior to issuing a permit. Any development requiring more than 1 acre will also require a land disturbance permit. For more information, please contact the Public Works Department.

7. Construction may not commence until all permits have been issued.
8. Permit holders are responsible for obtaining all required inspections. Please call (573) 364-5333 for inspections. A two-hour minimum notice is requested to ensure proper inspection coordination.

9. All contractors and/or subcontractors are required to obtain a City of Rolla Business License prior to performing any work. Please contact the Finance Department for further information at (573) 426-6982.

What You Will Need to Obtain a Building Permit:

1. Two complete sets of plans will need to be submitted for residential construction and three sets are required for commercial projects. An additional set of civil drawings is also required for storm water review by Public Works. There is also a mechanical and electrical spec. sheet on what will need to be completed and submitted with residential projects. Construction documents for commercial projects are required to be signed, sealed, and dated by the appropriate design professional in accordance with RsMO Chapter 327, Missouri Law Regulating the Practice of Architecture, Professional Engineering, and Land Surveying.

2. Plot Plan- must show lot dimensions, building footprint with dimensions, and dimensions from building to property lines and all other buildings on the property.

3. Foundation Plan- show footing, foundation walls, and beam and pier locations with dimensions. Also, show frost walls where applicable.
4. **Floor Plan**- identifies and gives dimensions of all rooms. Include and provide **dimensions of all doors and windows**.

5. **Wall Section**- show typical wall section from footing through roof and label all **materials and provide spacing**.

6. **Elevations**- provide elevation view of at least two sides, four side views however is preferred.

7. Commercial construction will also require civil, structural, electrical, mechanical and plumbing plans, as well as all material specifications, to be submitted.

8. Proof of ownership or a notarized permission letter from the current owner will be required for construction on all newly purchased property that has not yet been recorded with the Phelps County Recorder of Deeds.

9. A copy of the manufacturer's installation instructions is required to be provided for all prefabricated fireplaces.

10. A completed permit application must accompany all construction documents.

11. Sign permit applications for attached signs must be accompanied by an elevation view of the building with sign location and dimensions shown as well as the dimension of the building fronting on a street, Complete plans, including a site plan showing all other detached signs on the property, must be provided for all detached signs. Detached signs over ten feet in height are required to be designed by a State of Missouri Registered Engineer.

12. Manufacturer's installation instructions are required to be provided for all pre-manufactured swimming pools, hot tubs or spas. A site plan showing location of
the pool with dimensions is also required for pool permits.

13. Mobile or manufactured home permit applications require the submittal of the manufacturer's set-up specifications in addition to a site plan. In the absence of the manufacturer's instructions, set-up shall be in accordance with the Missouri Public Service Commission regulations pertaining to manufactured housing.

14. All suspended slabs are required to be designed by a State of Missouri Registered Engineer.

**Required Inspections and Scheduling**

Please phone the Community Development Department @ (573) 364-5333 to schedule inspections. Schedule inspections a *minimum* of two (2) hours in advance and do not proceed with any further work until the required inspections have been conducted and approved.

Below are examples of the *required inspections* and when to call for inspection. Some circumstances might require special inspections or other inspections not listed. Please check with the inspector to see if any other inspections are required. The permit card and the approved plans are required to remain on the job site and must be present to receive inspections.

**Footing**- Once excavation and footing forming is complete and prior to any placement of concrete.

**Foundation**- Upon completion of all forming and the required steel is in place and prior to any placement of concrete.
Under-Slab Plumbing- After all building drain piping and water piping (if applicable) is complete and the required pressure test is on.

Rough Framing, Electrical, Mechanical and Plumbing- Once all work is complete, required pressure test is on, and prior to placement of any insulation or drywall.

Suspended Slab- Inspection shall be done after all forming and required steel reinforcement is in place.

Electric Service or Temp. Electric- After meter base, panel or disconnect, mast or underground conduit and or wiring is installed and ready to energize. Burial depths for underground services must be inspected prior to backfilling.

Sewer or Water Connection- This inspection is made once all piping is installed and prior to backfilling.

Occupancy- Must be inspected prior to occupying building or structure.

Final- Whenever all construction, final grading, testing or other unfinished items are completed and the building is finished. The required construction deposit will only be returned after this inspection is approved under a valid permit.

Demolition- Once utilities have been disconnected and capped and left uncovered; an inspection is required before proceeding with demolition of the structure. After the demolition is complete, another inspection is required to make sure sewer connection is capped, and final grading is completed.

NOTE: The disposal of demolition waste is regulated by the Missouri Dept. of Natural Resources under Chapter 260, RsMo. Demolition
waste must be disposed of in accordance with this Statute. Please contact the DNR in regards to any possible hazardous waste and disposal.

Adopted Code Amendments
International Building Code
101.1 Title is hereby amended by inserting the words “City of Rolla, Missouri.”

105.2 Work exempt from permit: Change the following:

Building:
1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided that the floor area is not greater than 200 square feet

7. Roof covering, siding, painting, papering, tiling, carpeting, cabinets, countertops, and similar finish work.

105.5 Expiration: Every permit issued shall be valid for one year after issuance unless work authorized by the permit is not commenced within 180 days after its issuance, or if the authorized work is suspended or abandoned for a period of 180 days after the time the work is commenced. At that time the permit would become void and re-application would need to be made. A one-time, one-year extension of a valid permit may be obtained at the cost of one half of the original permit fee.
109.2 Permit Fee Schedule:

THE ROLLA COMMUNITY DEVELOPMENT DEPARTMENT PRESENTS OUR NEW:

BUILDING PERMIT FEE SCHEDULE

2018 SQUARE FOOT CONSTRUCTION FEE SCHEDULE

<table>
<thead>
<tr>
<th>Group (2018 International Building Code)</th>
<th>IA</th>
<th>IB</th>
<th>IIA</th>
<th>IIB</th>
<th>IIBA</th>
<th>IIBB</th>
<th>IV</th>
<th>VA</th>
<th>VB</th>
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<tbody>
<tr>
<td>A-1 Assembly, theaters, with stage</td>
<td>339.41</td>
<td>231.54</td>
<td>226.03</td>
<td>216.67</td>
<td>203.74</td>
<td>197.85</td>
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<td>179.13</td>
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<tr>
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<td>211.20</td>
<td>205.65</td>
<td>196.33</td>
<td>183.65</td>
<td>177.76</td>
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<td>178.14</td>
<td>170.93</td>
<td>163.13</td>
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<td>145.88</td>
<td>140.94</td>
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<td>181.77</td>
<td>176.14</td>
<td>169.93</td>
<td>163.13</td>
<td>156.68</td>
<td>163.92</td>
<td>143.88</td>
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<td>A-3 Assembly, churches</td>
<td>220.05</td>
<td>212.18</td>
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<td>197.31</td>
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<td>166.36</td>
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<tr>
<td>A-3 Assembly, general, community halls, libraries, museums</td>
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<td>177.18</td>
<td>170.67</td>
<td>162.31</td>
<td>148.58</td>
<td>143.75</td>
<td>155.46</td>
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<td>181.65</td>
<td>175.76</td>
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<td>165.04</td>
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<td>170.56</td>
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<td>150.11</td>
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<td>E Educational</td>
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<td>190.73</td>
<td>186.77</td>
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<td>156.97</td>
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<td>F-1 Factory and industrial, moderate hazard</td>
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<td>102.59</td>
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<td>88.51</td>
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<td>H-5 HPM</td>
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<td>150.11</td>
<td>164.01</td>
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<td>131.05</td>
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<td>I-1 Institutional, supervised environment</td>
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<td>184.81</td>
<td>179.46</td>
<td>171.90</td>
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<td>154.06</td>
<td>171.99</td>
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<td>321.25</td>
<td>314.27</td>
<td>308.52</td>
<td>299.78</td>
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<td>216.01</td>
<td>210.27</td>
<td>201.52</td>
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<td>171.90</td>
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<td>R-1 Residential, hotels</td>
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<td>159.89</td>
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<td>113.02</td>
<td>108.81</td>
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<td>R-3 Residential, one- and two-family a</td>
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<td>146.99</td>
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<td>134.50</td>
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<td>137.27</td>
<td>125.85</td>
<td>118.45</td>
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<tr>
<td>R-4 Residential, care/assisted living facilities</td>
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<td>184.81</td>
<td>179.46</td>
<td>171.90</td>
<td>158.36</td>
<td>154.06</td>
<td>171.99</td>
<td>141.86</td>
<td>137.45</td>
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<td>S-1 Storage, moderate hazard</td>
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<td>S-2 Storage, low hazard</td>
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<td>76.32</td>
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<td>U Utility, miscellaneous</td>
<td>83.66</td>
<td>79.00</td>
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<td>63.47</td>
<td>59.32</td>
<td>67.24</td>
<td>50.19</td>
<td>47.80</td>
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</tbody>
</table>

a. Private Garages use Utility, miscellaneous costs.
b. For shell only buildings deduct 20 percent.
c. N.P. = not permitted.
d. Unfinished basements (Group R-3) = $21.00 per sq. ft.

New Construction- Current IBC Permit Fee Schedule is: (gross area x construction value x .0022) = permit fee. The permit fee multiplier shall be increased annually, effective January 1st, by 0.0001 until a minimum 50% recapture rate is achieved by the Community Development Department in cost related to building inspections and property maintenance.
When construction has commenced or has been completed without a permit, the permit fee shall be twice the original amount to cover the additional inspections and the time necessary to ensure compliance with the code. When construction has begun under the authorization of a permit, but the permit holder has failed to obtain the required inspection, and the construction has passed the stage in which the inspection cannot be reasonably done, then an additional 25% of the original permit fee ($25 minimum) will be charged. A $200 deposit will be required on all residential permits and a $500 deposit for commercial construction permits when the construction value has been determined to be greater

<table>
<thead>
<tr>
<th>Flat Rate Fee Schedule</th>
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<tbody>
<tr>
<td><strong>Portable Storage Building &gt; 200 SF</strong></td>
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<tr>
<td><strong>Portable Canport</strong></td>
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<tr>
<td><strong>Deck, Porch or Stairs</strong></td>
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<tr>
<td><strong>Electric Service</strong></td>
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<tr>
<td><strong>Mechanical, Electric, Plumbing Work</strong></td>
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<tr>
<td><strong>Pool or Spa (Residential)</strong></td>
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<tr>
<td><strong>Pool or Spa (Commercial)</strong></td>
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<tr>
<td><strong>Mobile Home</strong></td>
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<tr>
<td><strong>Alterations, &lt; 500 SF</strong></td>
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<td><strong>Alterations, 501 – 1499 SF</strong></td>
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<tr>
<td><strong>Alterations, 1500 SF and larger</strong></td>
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<tr>
<td><strong>Signs, 50 SF and under</strong></td>
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<tr>
<td><strong>Signs over 50 SF</strong></td>
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<tr>
<td><strong>Communication Tower</strong></td>
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<tr>
<td><strong>Demolition</strong></td>
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<tr>
<td><strong>Excavation</strong></td>
</tr>
</tbody>
</table>

Sewer connection and/or tapping fees and excavation deposit will remain unchanged.
than $2,500.00. This deposit shall be refunded after final inspection has been approved under a valid and current permit. Should the permit expire or the final inspection is not obtained and approved within this time frame, the deposit shall be forfeited.

114.4 Violation Penalties: Any person who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, construct, alter or repair a building or structure in violation of an approved plan or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of not more than $500.00, or by imprisonment not exceeding 90 days; or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

115.3 Unlawful Continuance: Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe conditions, shall be liable to a fine of not less than $50.00 or more than $500.00.

903.2.8.1 Exceptions:

a) An automatic sprinkler system shall not be required in Group R as adopted by Missouri State Statute 67.281 “Any governing body of any political subdivision that adopts the 2009 International Residential Code for One- and
Two-Family Dwellings or a subsequent edition of such code without mandated automatic fire sprinkler systems in Section R313 of such code shall retain the language in section R317 of the 2006 International Residential Code for two-family dwellings (R317.1) and townhouses (R317.2)."

b) An automatic sprinkler system shall not be required in Group R when the habitable space is less than 3,750 sq. ft. for a three-unit multiple family home (Three-Plex), or less than 5,000 sq. ft. for a four unit multiple family home (Four-Plex), and no more than one story above grade. Each individual apartment must be constructed with a 1-hour fire separation between individual units and all garage areas must be protected by a one hour fire separation

**International Mechanical Code**

101.1 **Title** is hereby amended by inserting the words “City of Rolla, Missouri.”

106.4.3 **Expiration**: Every permit issued shall be valid for one year after issuance unless work authorized by the permit is not commenced within 180 days after its issuance, or if the authorized work is suspended or abandoned for a period of 180 days after the time the work is commenced. At that time the permit would become void and re-application would need to be made. A one-time, one-year extension of a valid permit may be obtained at the cost of one half of the original permit fee.
106.5.2 **Fee Schedule:** Refer to fee schedule provided in Section 108.7 of the International Building Code.

108.4 **Violation Penalties:** Any person who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, construct, alter or repair a building or structure in violation of an approved plan or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be guilty of a Misdemeanor, punishable by a fine of not more than $500.00, or by imprisonment not exceeding 90 days; or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

108.5 **Unlawful Continuance:** Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe conditions, shall be liable to a fine of not less than $50.00 or more than $500.00.

**International Plumbing Code**

**Title** is hereby amended by inserting the words “City of Rolla, Missouri.”

106.5.3 **Expiration:** Every permit issued shall be valid for one year after issuance unless work authorized by the permit is not commenced within 180 days after its issuance, or if the authorized work is suspended or
abandoned for a period of 180 days after the time the work is commenced. At that time the permit would become void and re-application would need to be made. A one-time, one-year extension of a valid permit may be obtained at the cost of one half of the original permit fee.

106.6.2 Fee Schedule: Refer to fee schedule provided in Section 108.7 of the International Building Code.

108.4 Violation Penalties: Any person who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, construct alter or repair a building or structure in violation of an approved plan or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be guilty of a Misdemeanor, punishable by a fine of not more than $500.00, or by imprisonment not exceeding 90 days; or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

108.5 Unlawful Continuance: Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe conditions, shall be liable to a fine of not less than $50.00 or more than $500.00.

903.1 Roof Extension: Insert the number 12 inches.
918.1 **Air Admittance Valves:** Air admittance valves shall only be allowed in remodel or modification of the existing plumbing system when the vent cannot connect into the existing vent system or terminate to the outside.

**International Residential Code**
R101.1 **Title:** is hereby amended by inserting the words “City of Rolla, Missouri.”

R105.2 **Work Exempt from Permit**
Building:
6. Roof covering, siding, painting, papering, tiling, carpeting, cabinets, countertops, and similar finish work.

R105.5 **Expiration:** Every permit issued shall be valid for one year after issuance unless work authorized by the permit is not commenced within 180 days after its issuance, or if the authorized work is suspended or abandoned for a period of 180 days after the time the work is commenced. At that time the permit would become void and re-application would need to be made. A one-time, one-year extension of a valid permit may be obtained at the cost of one half of the original permit fee.

R108.2 **Fee Schedule:** Refer to fee schedule provided in Section 108.7 of the International Building Code.

R113.4 **Violation Penalties:** Any person who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect,
construct alter or repair a building or structure in violation of an approved plan or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of not more than $500.00, or by imprisonment not exceeding 90 days; or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

R114.2 Unlawful Continuance: Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe conditions, shall be liable to a fine of not less than $50.00 or more than $500.00.

R323.1 Location Required: Change the following: 2. All sills or plates that rest on concrete or masonry.

R318.2 Chemical Soil Treatment: The concentration, rate of application and treatment method of the termiticide shall be consistent with and never less than the termiticide label. When chemical protection against termites is used, a certificate or proof of treatment from a licensed exterminator will be required.

R502.3.1 Sleeping Areas and Attic Joist: Delete.

G2432 Log Lighters: Delete and replace with “Not allowed.”
P2804.1 Water Heater Sizing Chart: 1995 CABO.

<table>
<thead>
<tr>
<th>FUEL</th>
<th>GAS</th>
<th>ELECT</th>
<th>OIL</th>
<th>GAS</th>
<th>ELECT</th>
<th>OIL</th>
<th>GAS</th>
<th>ELECT</th>
<th>OIL</th>
<th>OIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 1%</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Storage (gal)</td>
<td>21</td>
<td>20</td>
<td>30</td>
<td>20</td>
<td>30</td>
<td>30</td>
<td>20</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Input (Btu/h or kw)</td>
<td>27K</td>
<td>76K</td>
<td>76K</td>
<td>36K</td>
<td>36K</td>
<td>36K</td>
<td>36K</td>
<td>36K</td>
<td>36K</td>
<td>36K</td>
</tr>
<tr>
<td>Draw (gph)</td>
<td>43</td>
<td>50</td>
<td>55</td>
<td>50</td>
<td>55</td>
<td>55</td>
<td>50</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>Recovery (gph)</td>
<td>23</td>
<td>19</td>
<td>14</td>
<td>19</td>
<td>14</td>
<td>14</td>
<td>19</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
</tbody>
</table>

For SI: 1 gallon = 3.785 L, 1 gallon per hour = 1.65 m³/h, 1 Btu/h = 0.2931 W, °F = °C + 32

NOTE: Storage capacity, input and the recovery requirements indicated in the table are typical and may vary with each individual manufacturer. Any combinations of these requirements to produce the 1-hour draw stated will be satisfactory. Recovery is based on 100°F water temperature rise.

P3102.1 Required Vent Extension: Every building shall have a main vent a minimum of three (3) inches in diameter that is either a vent stack or stack vent. Such vent shall run undiminished in size and as directly as possible from the building drain through to the open air above the roof. All other vent extensions to the outside shall be not less than two (2) inches in diameter.

P3103.1 Roof Extensions: All open vent pipes which extend through a roof shall be terminated at least twelve (12) inches above the upslope side of the penetration, except that where a roof is to be used for any purpose other than weather protection, the vent extension shall be run at least 7 feet above the roof.

P3114.3 Where Permitted: Air admittance valves shall only be allowed in remodel or modification of the existing plumbing system when the vent cannot
connect into the existing vent system or terminate to the outside.

**ICC Electrical Code**

101.1 **Title** is hereby amended by inserting the words “City of Rolla, Missouri.”

403.2 **Expiration:** Every permit issued shall be valid for one year after issuance unless work authorized by the permit is not commenced within 180 days after its issuance, or if the authorized work is suspended or abandoned for a period of 180 days after the time the work is commenced. At that time the permit would become void and re-application would need to be made. A one-time, one-year extension of a valid permit may be obtained at the cost of one half of the original permit fee.

404.2 **Fee Schedule:** Refer to fee schedule provided in Section 108.7 of the International Building Code.

1003.1 **Penalties:** Any person who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, construct alter or repair a building or structure in violation of an approved plan or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be guilty of a Misdemeanor, punishable by a fine of not more than $500.00, or by imprisonment not exceeding 90 days; or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.
1004.3 **Unlawful Continuance:** Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe conditions, shall be liable to a fine of not less than $50.00 or more than $500.00.

**City of Rolla Code**

**Sec. 10-22. Service Connections:**
All exposed conduits to the Utility Company’s supply side of the meter base shall be rigid heavy-wall steel.

**Sec. 10-23. Ground Wire Required:**
All electrical systems in any structure within the city shall have an independent ground wire installed with such electrical system; and copper twelve (12) gauge shall be the minimum wire size for branch circuit receptacle outlets. Fourteen (14) gauge copper wire shall be allowed for residential fifteen amp lighting circuits.

**International Fire Code**

101.1 **Title** is hereby amended by inserting the words “City of Rolla, Missouri.”

105.3.1 **Expiration:** Every permit issued shall be valid for one year after issuance unless work authorized by the permit is not commenced within 180 days after its issuance, or if the authorized work is suspended or
abandoned for a period of 180 days after the time the work is commenced. At that time the permit would become void and re-application would need to be made. A one-time, one-year extension of a valid permit may be obtained at the cost of one half of the original permit fee.

106.4 **Fee Schedule:** Refer to fee schedule provided in Section 108.7 of the International Building Code.

109.3 **Violation Penalties:** Any person who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, construct alter or repair a building or structure in violation of an approved plan or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be guilty of a Misdemeanor, punishable by a fine of not more than $500.00, or by imprisonment not exceeding 90 days; or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

**Exceptions:**

903.2.8.1

a) An automatic sprinkler system shall not be required in Group R as adopted by Missouri State Statute 67.281 “Any governing body of any political subdivision that adopts the 2009 International Residential Code for One- and
Two-Family Dwellings or a subsequent edition of such code without mandated automatic fire sprinkler systems in Section R313 of such code shall retain the language in section R317 of the 2006 International Residential Code for two-family dwellings (R317.1) and townhouses (R317.2).”

(b) An automatic sprinkler system shall not be required in Group R when the habitable space is less than 3,750 sq. ft. for a three unit multiple family home (Three-Plex), or less than 5,000 sq. ft. for a four unit multiple family home (Four-Plex), and no more than one story above grade. Each individual apartment, must be constructed with a 1-hour fire separation separating individual units and all garage areas must be protected by a one hour fire separation.

3301.1.3 Fireworks
(a) Any individual or organization may discharge fireworks as herein defined, without permit, on the 1st, 2nd, 3rd, 4th and 5th days of July.
(b) No fireworks shall be discharged within 50 feet of any stand, booth, or other location where fireworks are being sold.
(c) Every person who shall sell fireworks in accordance with this Chapter shall post notice at his place of sale warning that no fireworks shall be discharged within 50 feet of such place of sale as per city ordinance and shall post notice that fireworks may be discharged within the city limits on July 1st, 2nd, 3rd, 4th and 5th.
### Construction Design Requirements

**Climatic and Geographic Design Criteria**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof Snow Load</td>
<td>20 psf</td>
</tr>
<tr>
<td>Wind Load</td>
<td>89 mph (115 mph @ 3)</td>
</tr>
<tr>
<td>(second gust)</td>
<td></td>
</tr>
<tr>
<td>Seismic Category</td>
<td>C</td>
</tr>
<tr>
<td>Weathering</td>
<td>Severe</td>
</tr>
<tr>
<td>Frost Depth</td>
<td>24&quot;</td>
</tr>
<tr>
<td>Termite</td>
<td>Moderate to Heavy</td>
</tr>
<tr>
<td>Decay</td>
<td>Slight to Moderate</td>
</tr>
<tr>
<td>Winter design temperature</td>
<td>0° to 10° F</td>
</tr>
</tbody>
</table>

**Minimum Uniformly Distributed Live Loads - Residential**

<table>
<thead>
<tr>
<th>Load Type</th>
<th>Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior Balconies</td>
<td>60 psf</td>
</tr>
<tr>
<td>Decks</td>
<td>40 psf</td>
</tr>
<tr>
<td>Fire Escapes</td>
<td>40 psf</td>
</tr>
<tr>
<td>Attics without Storage</td>
<td>10 psf</td>
</tr>
<tr>
<td>Attics with Storage</td>
<td>20 psf</td>
</tr>
<tr>
<td>Vehicle Garages:</td>
<td>50 psf</td>
</tr>
<tr>
<td>Elevating garage floors</td>
<td>Supporting a 2,000 lb. load over a 20 sq. inch area.</td>
</tr>
<tr>
<td>Rooms</td>
<td>40 psf</td>
</tr>
<tr>
<td>Stairs</td>
<td>40 psf or a 300-lb. load over a 4-inch area, whichever produces the greatest stress</td>
</tr>
<tr>
<td>Guardrails &amp; Handrails</td>
<td>200 lb. concentrated load applied at any point along the top in any direction.</td>
</tr>
</tbody>
</table>
**Working Hours, Moving of Buildings and Sewer Connection**

**Working Hours**
The erection excavation, demolition, alteration or repair of any building in any residential district is limited between the hours of 7:00 a.m. and 9:00 p.m. except in case of urgent necessity in the interest of public health and safety, and then only with a permit from the city engineer.

**Moving of Buildings**
Any person desiring to move any structure over, along or through the public streets or thoroughfares of the city shall obtain a permit from the city engineer.
Sewer Connection:
No permit required by this Chapter shall be issued and no sewer connection made until the owner or owners of the land to be served by such connections, or someone for him or them, shall have paid to the City, the appropriate fee as provided as follows:

(a) Single dwelling or mobile home:  $150.00 per unit

(b) Duplex and apartment building:  $75.00 per unit

(c) Rooming Houses, Dormitories, Fraternities, Motels, Hotels, Convalescent Homes, Hospitals and similar uses:

<table>
<thead>
<tr>
<th>Occupants</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 to 11 occupants</td>
<td>$150.00</td>
</tr>
<tr>
<td>12 to 74 occupants</td>
<td>$300.00</td>
</tr>
<tr>
<td>75 to 99 occupants</td>
<td>$420.00</td>
</tr>
<tr>
<td>100 to 149 occupants</td>
<td>$600.00</td>
</tr>
<tr>
<td>150 to 199 occupants</td>
<td>$840.00</td>
</tr>
<tr>
<td>200 to 399 occupants</td>
<td>$1,200.00</td>
</tr>
<tr>
<td>400 occupants and over</td>
<td>$2,400.00</td>
</tr>
</tbody>
</table>

(d) Single (commercial, office, retail or wholesale) business: $150.00

(e) Multi-(commercial, office, retail or wholesale) business: $150.00

Each additional set of facilities over one: $75.00

(f) Industrial uses: Warehouses and similar uses for the first five thousand (5,000) square feet $150.00

plus an additional fee for each additional five
thousand square feet (5,000) or portion thereof:  
$75.00  
(g) Assembly uses: Theaters, night clubs, restaurants,  
lecture halls, recreation centers, terminals, schools,  
churches, eleemosynary, religious and educational  
institutions and similar use.  
Based on capacity:  
First seventy-five persons:  
$150.00.  
For each additional one hundred persons or fraction  
thereof: $150.00  
(Ord. 2197, §1; Ord. 2886, §3; Ord. 3422, §2)  

Exhibits  
See attached exhibits for permit applications, plan  
requirements, windows, addressing, decks, residential  
electric, residential setbacks, driveway accessibility  
standards.  
Contact information for Missouri One Call System.
**BUILDING PERMIT APPLICATION**

This form must be completed, signed, and accompanied by a site plan when applicable.

**OFFICE USE ONLY:**
- Date: ____________
- Received By: ____________
- Land Use Review: ____________

1. **SITE ADDRESS:**

2. **OWNER/OCCUPANT:**
   - Name: ____________
   - Address: ____________
   - Phone: ____________
   - Email: ____________

3. **CONTRACTOR:**
   - Name: ____________
   - Address: ____________
   - Phone: ____________
   - Email: ____________

4. **THIS PERMIT WILL BE PAID BY:**
   - ☐ OWNER
   - ☐ OCCUPANT
   - ☐ CONTRACTOR

5. **STRUCTURE CLASSIFICATION:**
   - ☐ COMMERCIAL (EXCLUDES MULTIFAMILY)
   - ☐ RESIDENTIAL (DUE TO SIZE CLASSIFICATION)

6. **TYPE OF IMPROVEMENT:**
   - ☐ NEW BUILDING
   - ☐ REMODEL/REPAIR/MODIFICATION
   - ☐ ADDITION
     - ☐ Attached Garage
     - ☐ Detached Garage
     - ☐ Storage Building
     - ☐ Portable Storage Building
     - ☐ In-Ground Pool
     - ☐ Above Ground Pool
     - ☐ Deck
     - ☐ Carport

7. **ELECTRICAL SERVICE:**
   - ☐ New Service
   - ☐ Upgrade Existing Service

8. **SIGN:**
   - ☐ Wall Sign
   - ☐ Freestanding
   - ☐ Projecting
   - ☐ Roof/Other

9. **SYSTEM MODIFICATIONS:**
   - ☐ Electrical
   - ☐ Mechanical
   - ☐ Plumbing
   - ☐ Water/Sewer
   - ☐ Demolition

**CONDITIONS OF PERMIT APPLICATION:**

6. All necessary information requested by the Code Official shall be provided to insure for a complete plan review of my proposed project. Approval of construction documents does not release the builder from complying with all codes and ordinances adopted by the City of Rolla. Per Chapter 227, Storm Water Management Plans may require a Missouri-registered Architect and/or Engineer Seal on all plans. Our department must approve all changes from the approved construction documents. The permit shall be valid for one year and shall become invalid if the authorized work is not commenced within six months after issuance of a permit, or if the authorized work is suspended or abandoned for a period of six months after the time of issuing the permit. Demolition permits are valid for three months and will also become invalid if work is not completed. I certify that I have read and fully understand these conditions.

Print Name of Owner or Authorized Agent: ____________

Signature: ____________

Date: ____________

* Please visit the City of Rolla website for a full, downloadable version of our applications.
BUILDING PERMIT APPLICATION

7. REQUIRED PLANS:
   • RESIDENTIAL: Please submit 2 complete sets of the following:
   • COMMERCIAL: Please submit 3 complete sets of the following:

Note: Commercial plans are required to be signed and sealed by a State of Missouri Registered Architect and/or a Registered Engineer. Commercial plans will also require plumbing, electrical, mechanical and structural plans.

☐ Site Plan: An outline of your property showing all property lines with dimensions. Also provide building location on your property with dimensions of building footprint and dimensions from building to property line.

☐ Electrical & Mechanical Spec. Sheet: Fill out application.

☐ Footing and Foundation Plan: Showing footing & foundation of building and also beam & pier location, size and spacing.

☐ Floor Plan: Label all rooms and include dimensions. Show window locations, as well as kitchen and bath layout.

☐ Wall Section: Show typical section from footing through roof and label all materials used and spacing.

☐ Elevation: Show (at least) a front and right side view of home.

OFFICE USE ONLY

ZONING INFORMATION

ZONING: ________ FRONT SET BACK: ________ REAR SET BACK: ________ SIDE SET BACK: ________

PLAN REVIEW INFORMATION

NUMBER OF BUILDINGS: ________ NUMBER OF UNITS: ________ ATTACHED DETACHED

USE GROUP: ________ TYPE OF CONSTRUCTION: ________ ESTIMATED COST: ________

BUILDING/DWELLING SF: ________ GARAGE: ________ UF BASEMENT: ________ F BASEMENT: ________

REVIEWED BY: ________ DATE: ________ FLOOD PLAIN: ________

PERMIT TO:

PERMIT FEE $: ________
Sewer Connection & Tapping Fee $: ________
Sewer Access Fee $: ________
Excavation Deposit $: ________ □ Driveway □ Sewer Line
Final Deposit $: ________

Total Fees $: ________
BUILDING PERMIT APPLICATION: SCOPE OF WORK

NAME: ________________________________

ADDRESS: ________________________________

DATE: ________________________________

Please Check All That Apply

Rooms Work Is To Take Place In:

☐ Basement  ☐ Kitchen  ☐ Bathroom  ☐ Master Bath  ☐ Exterior
☐ 1 Bedroom  ☐ 2 Bedroom  ☐ 3 Bedroom  ☐ 4 Bedroom  ☐ Other

Electrical and Mechanical:

☐ New or upgrade of electric service
☐ Installing smoke detectors
☐ Installing new furnace
☐ Installing new fireplace or heating stove
☐ Installing bathroom exhaust fan
☐ Other __________________________

☐ Adding or replacing electric circuit(s)
☐ Adding or relocating receptacles or switches
☐ Installing new AC condenser
☐ New chimney or vent
☐ Installing or replacing range hood

Framing

☐ New deck, porch, or stairs
☐ Addition
☐ Detached garage, carport or storage building
☐ Replacing or repairing damaged: (Circle below)
   ☐ Floor joist  ☐ Stud  ☐ Beam  ☐ Header  ☐ Ceiling joist  ☐ Rafters or Trusses  ☐ Sheathing

☐ Installing or relocating non-load bearing walls
☐ Replacing deck, porch, stairs or railing
☐ New attached garage or carport
☐ Installing or relocating load bearing walls or beams
☐ Altering or relocating existing window or door openings to accommodate new window or door

Plumbing

☐ Installing or replacing water heater
☐ Installing new water or DWV piping
☐ Installing or replacing backflow device
☐ Relocating existing plumbing fixture(s)
☐ Other __________________________

☐ Replacing existing water or DWV piping
☐ Installing or replacing gas piping
☐ Installing new plumbing fixtures
☐ Installing new sump pump

Additional Information

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
RESIDENTIAL EMERGENCY ESCAPE WINDOW

EXHIBIT #1

Window Height (Inches)

<table>
<thead>
<tr>
<th>Window Height (Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td>21</td>
</tr>
<tr>
<td>22</td>
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<tr>
<td>23</td>
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<td>31</td>
</tr>
<tr>
<td>32</td>
</tr>
<tr>
<td>33</td>
</tr>
</tbody>
</table>

Formulas for Window Size (Clear Opening)

<table>
<thead>
<tr>
<th>H x W</th>
<th>144 sq. ft. of opening</th>
</tr>
</thead>
</table>

Egress window (one in each bedroom)
BUILDING PERMIT INFORMATION

REQUIRED PLANS

Residential - Please submit two (2) complete sets of the following:

Commercial - Please submit four (4) complete sets of the following:

Note: Commercial plans are required to be signed and sealed by a State of Missouri Registered Architect and/or a Registered Engineer. Commercial plans will also require plumbing, electrical, mechanical, and structural plans.

Site Plan – An outline of your property showing all property lines with dimensions. Also show building location on property with dimensions of building footprint and dimensions from building to property line.

Footing and Foundation Plan - Show footing and foundation of building and also beam and pier location, size, and spacing.

Floor Plan - Label all rooms and include dimensions. Also show window locations and kitchen & bath layout.

Wall Section - Show typical section from footing through roof and label materials used and spacing.

Elevation - Show at least a front and right side view of home.
DECK FRAMING PLAN

2 X Beam
2 - 2 X

1/2" carriage bolts w. nuts and washers or equiv.

24" min.

solid concrete footing

12" min.

Width of footing is determined by loading formula

DECKING

joists 2 X

door threshold

ledger LAG BOLT TO HOUSE

house wall

Post must rest ON concrete, not in the concrete,

Concrete must rest on solid, undisturbed soil.

---

X

DECK

---

X

POST
A. **Post footing depth:** 24” minimum

B. **Steps:**
   - Riser Minimum: 7-3/4”
   - Tread Minimum: 10”

C. **Stair Guardrail Height:** 34” minimum measured from tread to toe when total stair rise exceeds 30” or above

D. Porch, balcony or raised floor guardrail height:
   - 36” minimum when walking surface exceeds 30”

E. **Guardrail intermediate openings:** 4” maximum

---

A. **Handrail (needed if 2 or more risers):**
   - Height: 38” maximum
   - 34” minimum
   - **Gripsize:** Diameter: 1-1/4” to 2-6/8”
   - Circumference: 4” to 6-1/4” with the largest cross-section dimension not exceeding 2-1/4”
   - **Stand-off:** Not less than 1-1/2”

B. **Stairway width:**
   - Above handrail: 36” wide minimum
   - Below handrail: 31-1/2” wide minimum
NOTE:

1) Temp. service poles must be braced and provided with GFCI protection.
2) All equipment must be weatherproofed and rated for wet locations.
3) Ground conductor may attach to a pole ground in lieu of using a Grounding Rod.
RESIDENTIAL SET BACKS

STREET

POOL

HOUSE

DECK

OPEN PORCH

STORAGE BUILDING

S MIN.

PL

6.5 MIN.

25 MIN.

5 MIN.

PL

PL

PL

PL
EXCAVATION PERMIT

ADDITIONAL CHARGES MAY BE APPLIED BASED ON ASPHALT QUANTITY

CURB AND GUTTER SEE STD DETAIL 202

SIDEWALK CROSS SLOPE 2%
MAX. SEE STD DETAIL 204

ADDITIONAL CHARGES MAY BE APPLIED IF RESTORATION IS NOT RESTORED IN 7 DAYS FOR CONC. OR 30 DAYS FOR DIRTWORK. TIME MAY BE EXTENDED BASED ON SIZE OF REPAIR AND WEATHER CONDITIONS. CHARGES MAY BE INCREASED DEPENDING ON SIZE OF REPAIR. DIRT RESTORATION SHALL BE COMPLETED IN R.O.W. WITHIN 30 DAYS OF EXCAVATION OR A $200 CHARGE WILL BE BILLED TO PERMIT HOLDER.

NOTES:

FOR CURB, DRIVE APRON AND SIDEWALK INSPECTIONS CALL THE PUBLIC WORKS DEPARTMENT AT 573-364-8659.

24 HOUR NOTICE TO PUBLIC WORKS DEPARTMENT IS REQUIRED BEFORE EXCAVATION BEGINS IN RIGHT OF WAY.

CONTRACTOR SHALL PROVIDE ALL SIGNS AND BARRICADES.

REFUNDS OR ADDITIONAL FEES WILL BE BASED ON MATERIAL CALCULATIONS AFTER THE EXCAVATED AREA IS COMPLETELY RESTORED TO GOOD OR BETTER CONDITION AS ORIGINAL.

DIRT RESTORATION SHALL BE COMPLETED IN R.O.W. WITHIN 30 DAYS OF EXCAVATION OR A $200 PENALTY WILL BE BILLED TO PERMIT HOLDER.

OPEN EXCAVATIONS WILL NOT BE ALLOWED IN STREET OVERNIGHT UNLESS PRIOR APPROVAL WAS OBTAINED FROM THE PUBLIC WORKS DIRECTOR.

FOR DRIVE APRONS REFER TO STANDARD 212.

FOR STREET PATCH DETAIL REFER TO STANDARD 102.

PERMANENT PRIVATE APPURTENNANCES SHALL NOT BE INSTALLED IN OR ENCROACH ON THE CITY RIGHT—OF—WAY; I.E. LAWN SPRINKLER LINES, FENCES, UNDERGROUND WIRING, ETC.

EXCAVATION PERMITS WILL BE CLOSED OUT AND REFUNDED IF NO ACTIVITY WITHIN 1 YEAR.
NOTES:

EXCAVATION TO PROGRESS AS TO ALLOW AT LEAST A 10' MINIMUM LANE WIDTH OPEN TO TRAFFIC. UNDER NO CIRCUMSTANCES IS THE ENTIRE STREET TO BE CLOSED TO TRAFFIC.

EXCAVATION TO BE SCHEDULED AS TO BE COMPLETED DURING DAYLIGHT HOURS. UNDER NO CIRCUMSTANCES IS AN EXCAVATION TO BE LEFT UNCOVERED OVER NIGHT OR LEFT UNATTENDED.

IF AT ANY TIME A QUESTION ARISES AS TO PROPER PLACEMENT OF BARRICADES, CALL 573-364-8659 TO REQUEST ASSISTANCE.

BARRICADES MUST CONFORM TO THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". IF BARRICADES ARE NEEDED, THEY MAY BE OBTAINED FROM LOCAL EQUIPMENT RENTAL STORES.

STREET LANE RESTRICTIONS AND/OR CLOSINGS SHALL BE COORDINATED WITH THE CITY OF ROLLA STREET DEPARTMENT. CONTRACTOR IS RESPONSIBLE FOR BUT NOT LIMITED TO PROVIDING ALL TRAFFIC CONTROL SIGNAGE, LIGHTS, CONES, BARRICADES, FLAGPERSONS, AND/OR ANY DEVICE NEEDED FOR SAFE TRAFFIC CONTROL ON FEDERAL, STATE, COUNTY, AND CITY RIGHT-OF-WAYS.
INITIAL SAWCUT ON EXISTING ASPHALT TO BE WIDTH OF EXCAVATED TRENCH. TOP 4" OF TRENCH TO BE TEMPORARY COLD MIX ASPHALT PATCH. COLD MIX MAY BE OBTAINED FROM CITY PERSONNEL BY CONTACTING THE PUBLIC WORKS DEPARTMENT AT 573-364-8659.

FINAL SAWCUT ON EXISTING ASPHALT 1' PAST EACH SIDE OF TRENCH FOR PERMANENT PATCH

4" MIN OR MATCH EXISTING PAVEMENT THICKNESS

4" OF COMPACTED 1" MINUS BASE ROCK

FULL DEPTH 1" CLEAN CRUSHED STONE

SEE STANDARD 305 FOR BEDDING DETAIL AND GRADATION

NOTES:

24 HOUR NOTICE TO PUBLIC WORKS DEPARTMENT IS REQUIRED BEFORE DIGGING IN THE RIGHT OF WAY.

BP1 ASPHALTIC CONCRETE SHALL BE COMPACTED IN PLACE IN MAXIMUM LIFTS OF 3 INCHES.
NOTES:

24 HOUR NOTICE TO PUBLIC WORKS DEPARTMENT IS REQUIRED BEFORE DIGGING IN THE RIGHT OF WAY.

PORTLAND CEMENT CONCRETE REQUIRES A MINIMUM OF 4 HOURS CURING TIME BEFORE BEING OPENED TO TRAFFIC. SURFACE SHALL BE BROOM FINISHED.

SEE STANDARD 305 FOR BEDDING DETAIL AND GRADATION
NOTES:

ROLLOVER CURB TO BE APPROVED ON CASE BY CASE BASIS UPON PWD APPROVAL.

USE OF ROLLOVER CURB WILL REQUIRE ADDITIONAL STORM SEWER INLETS. REFER TO SECTION 3.10 OF THE CITY’S STORM WATER DESIGN STANDARDS, TABLE 3–6, FOR ALLOWABLE GUTTER FLOW AND SPREAD LIMITS.

CONCRETE SHALL BE 6 BAG MIX (4,000 PSI) WITH SLUMP TEST LIMITS OF NOT LESS THAN 1 INCH NOR MORE THAN 4 INCHES.

WHERE CURB IS PLACED WITHOUT STREET IMPROVEMENT, A MIN, OF 6 INCHES BASEROCK IS REQUIRED AT NOT LESS THAN 95% STANDARD PROCTER TEST AT OPTIMUM MOISTURE CONTENT.

1/2" PREMOLDED EXPANSION JOINT PLACED EVERY 100 FT. (MIN.) THROUGH ENTIRE CROSS SECTION OF CURB.

CONSTRUCTION JOINTS SHALL BE PLACED EVERY 10 FT.

FRAME AND GRATE ASSEMBLY SHALL BE NEENAH R–3501–TR OR –TL (DEPENDING ON FLOW DIRECTION) OR APPROVED EQUAL IF INLET FALLS IN DRIVEWAY.

PDF FILE AVAILABLE AT www.ROLLACITY.ORG/pubworks/drawings.shtm
**NOTES:**

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<tr>
<th>TYPE</th>
<th>W</th>
<th>R</th>
<th>PK</th>
<th>S</th>
<th>PARKING</th>
<th>GRASS STRIP</th>
<th>FULL DEPTH ASPHALT</th>
<th>ASPHALT/ASPHALT</th>
<th>CONCRETE</th>
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**SUBGRADE AND AGGREGATE BASE SHALL BE COMPACTED TO NOT LESS THAN 95% STANDARD PROCTOR TEST AT OPTIMUM MOISTURE CONTENT.**

**CROWN NOT LESS THAN 4 INCHES NOR MORE THAN 6 INCHES.**

*NO SIDEWALKS WILL BE REQUIRED ON RESIDENTIAL CUL-DE-SAC STREETS THAT ARE LESS THAN 600 FEET IN LENGTH AND HAVE NO MORE THAN 15 LOTS OR DWELLING UNITS.*

*NO SIDEWALKS WILL BE REQUIRED ON ESTATE LANES WITH LARGE LOTS 25,000 SQUARE FEET, RESIDENTIAL SUBDIVISIONS WITH 10 LOTS OR MORE WITH A MINIMUM PER LOT FRONTAGE OF 150 FEET.*

**SUBGRADE MUST BE PROOFROLLED PRIOR TO INSTALLATION OF AGGREGATE MATERIAL. AGGREGATE MATERIAL MUST BE PROOFROLLED PRIOR TO ASPHALT INSTALLATION. PROOFROLLING SHALL BE DONE BY CITY PERSONNEL.**
NOTES:

CONCRETE SHALL BE 6 BAG MIX (4,000 PSI) WITH SLUMP TEST LIMITS OF NOT LESS THAN 1 INCH NOR MORE THAN 4 INCHES.

WHERE CURB IS PLACED WITHOUT STREET IMPROVEMENT, A MIN. OF 6 INCHES BASEROCK IS REQUIRED AT NOT LESS THAN 95% STANDARD PROCTER TEST AT OPTIMUM MOISTURE CONTENT.

1/2" PREMOLDED EXPANSION JOINT PLACED EVERY 100 FT. (MIN.) THROUGH ENTIRE CROSS SECTION OF CURB.

CONSTRUCTION JOINTS SHALL BE PLACED EVERY 10 FT.

CONCRETE TO HAVE LIGHT BRUSH FINISH AND 1/4" R EDGE ON EXPOSED CORNERS.
CONSTRUCTION JOINTS SHALL BE PLACED EVERY 5’

EXPANSION JOINTS ARE TO BE SET EVERY 50’ (MAX.) WITH 1/2” EXPANSION MATERIAL AND BE FLUSH WITH THE TOP OF THE WALK. EXPANSION MATERIAL SHALL BE SAME DEPTH AS SIDEWALK.

FILL ALL DISTURBED AREAS WITH MINIMUM 4” LIGHTLY COMPACTED TOPSOIL WITH SEED AND MULCH

5’ MINIMUM

SLOPE 2% MAX. OR LESS

SIDEWALK CROSS SLOPE SHALL BE 2.00% MAX. OR LESS TOWARD ROADWAY UNLESS OTHER APPROVED BY DEPT OF PUBLIC WORKS. SLOPE MUST ALLOW FOR APPROPRIATE DRAINAGE.

SIDEWALK SHALL BE 4” THICK

NOTES:

6 BAG CONCRETE MIX (4,000 PSI) SHALL BE USED ON ALL SIDEWALK.

ALL FILL UNDER SIDEWALK SHALL BE TO 95% COMPACTION NONORGANIC MATERIAL APPROVED BY DEPARTMENT OF PUBLIC WORKS.

WHEN CROSSING THE WIDTH OF A DRIVEWAY, SIDEWALK SHALL BE 6” THICK CONCRETE WITH 6” OF 1” CLEAN ROCK UNDERNEATH.

CONCRETE TO HAVE LIGHT BRUSH FINISH AND 1/4” R EDGE ON EXPOSED CORNERS.

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CITY OF ROLLA DEPARTMENT OF PUBLIC WORKS

APPROVED: NUMBER 5.01918
DIRECTOR OF PUBLIC WORKS DATE 08/12/09
04/30/18

REVISED: CONCRETE SIDEWALK STANDARD
04/30/18 STANDARD 204
OPTION A

1' TYPICAL

1 V: 12H MAX.

5' WIDE SIDewALK

5'5' LANDING; 2.00% MAX. SLOPE ANY DIRECTION

OPTION B

VARIABLE HEIGHT TYPE A CURB (OPTIONAL)

RAMP 5'

5% MAX. OR MATCH STREET GRADE

SAWCUT (NO DIRECT PAYMENT)

ADJUST LOCATION OF JOINT TO MEET 5% RUNNING SLOPE AND 2% CROSS SLOPE

OPTION C

1 V: 12H MAX.

5' WIDE SIDEWALK

1' TYPICAL

VARIABLE HEIGHT CURB

EXISTING CURB

VARIABLE HEIGHT TYPE A CURB (OPTIONAL)
(1) 2.00% MAXIMUM

VARIABLE HEIGHT TYPE A CURB (OPTIONAL)

EXISTING CURB

VARIABLE HEIGHT CURB TIE INTO EXISTING CURB

PDF FILE AVAILABLE AT www.ROLLAcity.org/pubworks/drawings.shtm
48" MINIMUM CLEARANCE

BRICK MAILBOX STRUCTURES, OR MAILBOXES AND/OR POSTS CONSTRUCTED ON THE SIDEWALK IN THIS GENERAL LOCATION MUST HAVE A 48" MINIMUM WIDTH SIDEWALK SURFACE BEHIND THE STRUCTURE

FRONT OF MAILBOX SHALL BE EVEN WITH BACK OF CURB

BOTTOM OF MAILBOX DOOR TO TOP OF CURB SHALL BE 42" TO 46"

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CITY OF ROLLA DEPARTMENT OF PUBLIC WORKS

APPROVED: 
NUMBER E-21918
DIRECTOR OF PUBLIC WORKS 
DATE

REVISED: 04/30/2018
MAILBOX LOCATION STANDARD
STANDARD 211
CONCRETE SHALL BE 6 BAG MIX (4,000 PSI) WITH SLUMP TEST LIMIT OF NOT LESS THAN 2 INCHES NOR MORE THAN 4 INCHES.

AN EXCAVATION PERMIT IS REQUIRED TO DIG IN PUBLIC RIGHT OF WAY. PERMIT SHALL BE OBTAINED FROM THE CITY OF ROLLA COMMUNITY DEVELOPMENT DEPARTMENT AT (573) 364-5333. AN INSPECTION IS REQUIRED BEFORE POURING ANY CONCRETE IN PUBLIC RIGHT OF WAY. CONTACT THE CITY OF ROLLA PUBLIC WORKS DEPARTMENT AT (573) 364-8659 FOR INSPECTION.

PDF FILE AVAILABLE AT www.ROLLACITY.ORG/pubworks/drawings.shtml

NOTE:

WHEN INSTALLING A NEW CONCRETE DRIVE AT EXISTING CONCRETE CURB AND GUTTER, THE ENTIRE CURB AND GUTTER SECTION IN THE AREA OF THE NEW DRIVE MUST BE REMOVED BY EITHER SAWCUTTING OR REMOVING TO AN EXISTING JOINT.

CONCRETE SHALL BE 6 BAG MIX (4,000 PSI) WITH SLUMP TEST LIMIT OF NOT LESS THAN 2 INCHES NOR MORE THAN 4 INCHES.
CONSTRUCTION JOINT 1" DEEP AND GROOVED OR SAWCUT AT END OF TAPER. FOR DRIVE APRONS EXCEEDING 12’ WIDE, CONSTRUCTION JOINTS SHALL BE EVENLY SPACED ACROSS APRON AT INCREMENTS NO GREATER THAN 12’6”. ADDITIONAL EXPANSION JOINTS SHALL BE USED IF APRON IS POURED IN SEPARATE POURS. FOR DRIVE APRONS EXCEEDING 25’ WIDE, EXPANSION JOINTS SHALL BE EVENLY SPACED ACROSS APRON AT INCREMENTS NO GREATER THAN 25’. RESIDENTIAL DRIVE APRONS EXCEEDING 24’ WIDE MUST BE APPROVED BY CITY ENGINEER.

CONCRETE PEDESTRIAN CURB 6” WIDE (TYP.) OPTIONAL DEPENDING ON SLOPE OF GROUND

SLOPE TO PREVENT DRAINAGE PROBLEM TO STRUCTURE

STANDARD CITY CURB AND GUTTER

6”-1” CLEAN CRUSHED STONE

1/2” PREMOLDED EXPANSION MATERIAL

NOTE:
WHEN INSTALLING A NEW CONCRETE DRIVE AT EXISTING CONCRETE CURB AND GUTTER, THE ENTIRE CURB AND GUTTER SECTION IN THE AREA OF THE NEW DRIVE MUST BE REMOVED BY EITHER SAWCUTTING OR REMOVING TO AN EXISTING JOINT.

CONCRETE SHALL BE 6 BAG MIX (4,000 PSI) WITH SLUMP TEST LIMIT OF NOT LESS THAN 2 INCHES NOR MORE THAN 4 INCHES.

AN EXCAVATION PERMIT IS REQUIRED TO DIG IN PUBLIC RIGHT OF WAY. PERMIT SHALL BE OBTAINED FROM THE CITY OF ROLLA COMMUNITY DEVELOPMENT DEPARTMENT AT (573) 364-5333. AN INSPECTION IS REQUIRED BEFORE POURING ANY CONCRETE IN PUBLIC RIGHT OF WAY. CONTACT THE CITY OF ROLLA PUBLIC WORKS DEPARTMENT AT (573) 364-8659 FOR INSPECTION.

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CITY OF ROLLA DEPARTMENT OF PUBLIC WORKS

DIRECTOR OF PUBLIC WORKS DATE

REVIEWED: 04/30/2018 ADA COMPLIANT FLAT DRIVEWAY STANDARD

STANDARD 213
TRAVERSABLE FLARE
1V:10H MAX.

CROSS SLOPE OF LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION

CROSS SECTION

TRUNCATED DOME PATTERN 24" DEEP BY WIDTH OF RAMP EXCLUDING FLARES

NON-TRAVERSABLE FLARE OR VERTICAL CURB

THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, LANDING OR BLENDED TRANSITION SHOULD BE 5% MAXIMUM.

RAMP SLOPE SHOULD BE AS FLAT AS POSSIBLE, AND SHALL NOT EXCEED 12V:1H (8.33%)

WHEN IT IS TECHNICALLY NOT FEASIBLE TO CONSTRUCT 1V:12H RAMP SLOPE, WHILE ALTERING EXISTING PEDESTRIAN FACILITIES, A SLOPE BETWEEN 1V:12H AND 1V:10H IS PERMISSIBLE FOR A MAXIMUM RISE OF 6", AND A SLOPE BETWEEN 1V:10H AND 1V:8H IS PERMISSIBLE FOR A MAXIMUM RISE OF 3".

CITY OF ROLLA DEPARTMENT OF PUBLIC WORKS

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CITY OF ROLLA DEPARTMENT OF PUBLIC WORKS

APPROVED: E-21918

DIRECTOR OF PUBLIC WORKS DATE

REVISED: 04/30/2018

TRUNCATED DOME STANDARD

STANDARD 251
RAMP
VARIABLE HEIGHT
TYPE A CURB
(OPTIONAL)
2.00% MAXIMUM
EXISTING GROUNDLINE
VARIABLE HEIGHT CURB
FLARE (1V:10H MAX.)
5 MIN.
RAMP (1V:12H MAX.)
LANDING
CROSSWALK
FLARE (1V:10H MAX.)
VARIABLE HEIGHT CURB
4' MIN.
CITY OF ROLLA DEPARTMENT OF PUBLIC WORKS
APPROVED: REVISED: COMPOUND DIAGONAL HANDICAP
NUMBER STANDARD 252
DIRECTOR OF PUBLIC WORKS DATE
PDF FILE AVAILABLE AT www.rollacity.org/pubworks/drawings.shtml
5' MIN. LANDING

RAMP

4'MIN.

FLARE (1V:12H MAX. OR 6' MINIMUM)

CROSSWALK

FLARE (1V:12H MAX. OR 6' MINIMUM)

4'MIN.

(1) 2.00% MAXIMUM
TONGUE AND GROOVE

ALL STEEL REINFORCING SHALL MEET ASTM STANDARD C478

WATER TIGHT JOINT MUST MEET OR EXCEED ASTM C-990. 1" PRO-STIK (MASTIC) OR APPROVED EQUAL

CONCENTRIC CONE

WATER TIGHT JOINT MUST MEET OR EXCEED ASTM C-990. 1" PRO-STIK (MASTIC) OR APPROVED EQUAL

SLOPE 1/4" PER FOOT

1/2 PIPE DIAMETER

FORM TO FIT PIPE DIAMETER

NOTE:
SEWER LATERALS TO BE INSTALLED IN MANHOLES ONLY IF PRE APPROVAL GIVEN BY CITY ENGINEER. A-LOCKS MUST BE PRECAST IN MANHOLE TO ALLOW 4" SCHEDULE 40 INSTALLATION AT SHELF ELEVATION.

BASE SHALL BE PLACED ON LEVEL COMPACTED OR UNDISTURBED SOIL. COMPACTION SHALL BE BY MECHANICAL TAMPER.

ENTIRE EXTERIOR SURFACE OF MANHOLE SHALL BE WATERPROOFED BEFORE BACKFILLING IS COMMENCED (SEE SPECIFICATIONS).

FOR ALTERNATE Poured IN PLACE MANHOLE BASE, SEE STANDARD 302.

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CITY OF ROLLA DEPARTMENT OF PUBLIC WORKS

PRECAST CONCRETE MANHOLE WITH PRECAST BASE

STANDARD 301

APPROVED: 04/30/2018

DIRECTOR OF PUBLIC WORKS

DATE
NOTE:
MANHOLE SHALL BE RAISED 18 INCHES FROM NATURAL GROUND TO FRAME AND COVER WHEN LOCATED OUTSIDE OF IMPROVED AREA.

SEWER LATERALS TO BE INSTALLED IN MANHOLES ONLY IF PREAPPROVAL GIVEN BY CITY ENGINEER. A—LOCKS MUST BE PRECAST IN MANHOLE TO ALLOW 4" SCHEDULE 40 INSTALLATION AT SHELF ELEVATION.

BASE SHALL BE PLACED ON LEVEL COMPACTED OR UNDISTURBED SOIL. COMPACTION SHALL BE BY MECHANICAL TAMPER.

ENTIRE EXTERIOR SURFACE OF MANHOLE SHALL BE WATERPROOFED BEFORE BACKFILLING IS COMMENCED (SEE SPECIFICATIONS).

FORMS SHALL BE USED WHEN CONSTRUCTING THE BASE.

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NOTE:
DROP MANHOLE SHALL BE REQUIRED WHEN DIFFERENCE IN ELEVATION OF INVERTS OF TWO INTERSECTING CONDUITS IS GREATER THAN 24 INCHES.

MAXIMUM PIPE SIZE SHALL BE 36 INCHES.

BASE SHALL BE PLACED ON LEVEL COMPACTED OR UNDISTURBED SOIL. COMPACTION SHALL BE BY MECHANICAL TAMPER.

ENTIRE EXTERIOR SURFACE OF MANHOLE SHALL BE WATERPROOFED BEFORE BACKFILLING IS COMMENCED (SEE SPECIFICATIONS).

SEE MANHOLE STANDARD 301 FOR MANHOLE DETAILS.
NOTE:
MANHOLE FRAME AND COVER SHALL BE "NEENAH FOUNDRY CO." R-1642, R-1643, EJW 1045Z FRAME & 1040A COVER OR APPROVED EQUAL.

PDF FILE AVAILABLE AT www.ROLLacity.org/pubworks/drawings.shtm
MAXIMUM TRENCH WIDTH

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CRUSHED LIMESTONE BEDDING

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<tr>
<th>SCREEN SIZE</th>
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NOTE:

GLUE CAP AT CLEANOUT IF INSTALLED PRIOR TO HOUSE CONNECTION.
TOP OF CLEANOUT TO BE FLUSH WITH GROUND LEVEL IN CITY R.O.W.

ANY C.O. UNDER VEHICLE OR PED. TRAVEL WAY SHALL BE FLUSH AND HAVE BRASS TOP.

SCH. 40 REQUIRED ON PRIVATE PROPERTY.
CLEANOUT REQUIRED AT RIGHT-OF-WAY AND EVERY 100 FEET.

#12 INSULATED TRACER WIRE SECURED EVERY 5' WITH DUCT TAPE OR PLASTIC TIES FROM THE MAIN TO THE CLEANOUT. SECURE WIRE 4" BELOW GRADE AT CLEANOUT.

SAWCUT PAVEMENT FOR TRENCH

TEE OR WYE (WYE SHOWN) SADDLE MAY BE USED FOR POST SEWER CONSTRUCTION.

PLAN VIEW

FOR ALL NEW LATERALS ENTERING STREET RIGHT-OF-WAY.

DEPTH DETERMINED BY CODES.

FULL DEPTH 1" CLEAN CRUSHED LIMESTONE BACKFILL UNDER STREET.

MIN SLOPE 1/8" PER FT.

BEDDING MATERIAL

BEDDING BELOW BOTTOM OF PIPE AND 6" ABOVE TOP OF PIPE.

REMOVE LOOSE DIRT FROM TRENCH PRIOR TO PLACING BEDDING.

CITY SEWER MAIN (SDR-35 PVC)

ELEVATION

NOTE:

SEWER LATERAL TAP MUST BE INSPECTED BY CITY BEFORE BACKFILLING ON BOTH PRIVATE PROPERTY AND PUBLIC RIGHT-OF-WAY.

SEWER LINE MUST BE EXCAVATED AS SHOWN ABOVE.

FOR BEDDING DETAIL, SEE STANDARD DRAWING 305.

*P.V.C. - POLYVINYL CHLORIDE

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REINFORCEMENT:
TOP – 6x6x10x10 WWF, #4 REBAR 12” O.C. EW
SIDES – #4 BAR 12” DOWN, 12” AROUND CORNER, #4 BAR VERTICAL 12” O.C.
BOTTOM – 6x6x10x10 WWF, #3 BAR 12” O.C., L BARS 12” INTO WALL
WALL CONSTRUCTION SHALL BE POURED IN PLACE CONCRETE, 8"Tx8"Hx16"L CONCRETE BLOCK GROUTED SOLID, OR PRECAST CONCRETE.

BASE CONSTRUCTION SHALL BE POURED IN PLACE CONCRETE FORMED TO DIMENSION SHOWN.

CONCRETE SHALL BE 6 BAG MIX (4,000 PSI) WITH MINIMUM SLUMP OF 1 INCH AND MAXIMUM SLUMP OF 4 INCHES.

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