

## **ATTENTION!**

**If your project causes any of the following conditions you will have to comply with Chapter 5, Article VI Infill Development Storm Water Management. You can find more info at [www.kirkwoodmo.org/stormwater](http://www.kirkwoodmo.org/stormwater)**

- **Increase the impervious area (pavement, roof, etc.) by 1,000 sf or more**
- **Increase the impervious area by any amount on a lot which is already over 25% impervious area**
- **Increase the impervious area which causes the lot to be over 25% impervious area**



## Driveway/Sidewalk Permit Application

Permit # \_\_\_\_\_

Any new curb cut or the expansion of an existing curb cut, driveway entrance, driveway, or parking area requires a permit. The fee for a driveway permit is \$48.

Property Address: \_\_\_\_\_

Owner Name \_\_\_\_\_

Phone # \_\_\_\_\_

Contractor Name: \_\_\_\_\_ Contractor License #: \_\_\_\_\_

Address: \_\_\_\_\_ City/State/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email Address: \_\_\_\_\_

Type of Material: \_\_\_\_\_ Job Start Date: \_\_\_\_\_

Reserved for City Use

*The following information shall be provided for new driveways and driveways that are being widened and increasing the impervious area:*

Total Lot Area: \_\_\_\_\_ S.F.

Total Existing Impervious Area (structures, driveway, patio, walkway, etc.) on Entire Lot: \_\_\_\_\_ S.F.

Total Proposed Impervious Area with new driveway on Entire Lot: \_\_\_\_\_ S.F.

Total Proposed Impervious Area Percentage: (Proposed Impervious Area ÷ Lot Area x 100): \_\_\_\_\_ %

A site plan/sketch **(with dimensions)** must be drawn to the left or attached to this permit application showing the location of the proposed driveway/sidewalk, utility poles, storm water inlets, and any trees, (public or private) within 20 feet of the work area (see Tree Protection Requirements on back).

Driveways must lead to a parking space behind the front of the building. The City Zoning Code prohibits the construction of a front yard parking space. (Exception: One 9' X 9' turnaround is permitted on the following streets: Adams Avenue, Big Bend Blvd., Geyer Road, Kirkwood Road, Manchester Road, East Monroe Avenue, Rose Hill Avenue, Scott Avenue, Woodbine Avenue, and Woodlawn Avenue.)

House

**STREET FRONT**

Storm water inlet – minimum 5' from approach

I have read the driveway and sidewalk requirements of the City of Kirkwood and hereby agree to comply with the provisions of the ordinances of the City of Kirkwood. The Contractor is to notify the Engineering Department at (314-822-5822) or [dodelpa@kirkwoodmo.org](mailto:dodelpa@kirkwoodmo.org) 48 hours in advance of the requested inspection date.

Applicant's Signature \_\_\_\_\_

Applicant's Printed Name \_\_\_\_\_

Date \_\_\_\_\_

### OFFICE USE ONLY

Approved by \_\_\_\_\_ on \_\_\_\_\_ Comments: \_\_\_\_\_

Contractor notified by \_\_\_\_\_ via \_\_\_\_\_ on \_\_\_\_\_

## **INSPECTIONS:**

- **Initial.** An initial inspection on the entire driveway is required when the subgrade forming is complete and prior to pouring the concrete or placing the asphalt. **The contractor shall notify the Engineering Department at (314-822-5822) or [dodelpa@kirkwoodmo.org](mailto:dodelpa@kirkwoodmo.org) 48 hours in advance of the requested inspection date.**
- **Final.** A final inspection is required after the work is completed, backfilled, and sodded. **The contractor shall notify the Engineering Department at (314-822-5822) or [dodelpa@kirkwoodmo.org](mailto:dodelpa@kirkwoodmo.org) 48 hours in advance of the requested inspection date.**

## **NOTICE TO CONTRACTORS**

Material shall meet the current edition of the Saint Louis County Department of Transportation current "Standard Specifications for Road and Bridge Construction". Only non-chloride accelerators (NCA's) that are on the MoDOT Materials approved list shall be used with written permission of the City Engineer. All admixtures must be submitted in writing and approved for approval by the City Engineer before use. Hand mixing of concrete will not be permitted. Hot and Cold Weather Production and Delivery shall be in accordance with Section 501.8. The production facility shall be capable to produce concrete within the specified temperature limits.

- ❖ Driveway replacements and parking spaces beyond the City sidewalk located on private property require a permit to be secured prior to the start of work or removal. A drawing showing the dimensions and location of the existing and proposed driveway shall be submitted with the permit application.
- ❖ New driveways for new houses are included on the building permit application for the new structure.
- ❖ A driveway permit application is required for new driveways to new garages for existing single-family residences.
- ❖ **Sidewalks** along the public streets shall be constructed in accordance with the following specifications:
  - **Concrete.** Minimum Six (6.0) sack (564 pounds) Type I/II Portland Cement per cubic yard mix of Portland cement concrete. Aggregate shall be Class A Meramec sand and Meramec C gravel. Entrained air of 6.5 %  $\pm$  1.5%. Slump not to exceed four (4) inches.
  - **Curing Compound.** Concrete shall be cured with a curing compound in accordance with ASTM C 309 for Type 1-D, Class A translucent with red fugitive dye that will fade uniformly.
  - **Joints.**
    - **Dummy transverse joints.** Dummy transverse joints, spaced approximately at five (5) foot intervals, shall be made in the plastic concrete by a suitable tooling device. Depth of joints shall be one-fourth depth of concrete.
    - **Preformed Expansion Joint Material.** Preformed expansion joint material ½-inch thick by the depth of concrete specified and shall be used longitudinally at right-of-way line or spaced transversely every twenty (20) feet along sidewalk. Preformed expansion joint material shall meet Section 1057.7.4 Pre-formed Sponge Rubber Expansion and may contain recycled tire rubber. Currently accepted pre-formed expansion joint material:
      - W.R. Meadows "Sealtight Sponge Rubber Expansion Joint"; Right Pointe Company "Grey Sponge Rubber Expansion Joint"; J.D. Russell "Reflex Rubber Expansion Joint"; or an equivalent that is pre-approved by the Engineer.
  - **Aggregate Base.** Concrete shall be placed on a stable and compacted minimum of two (2)-inches of Type 5 Aggregate placed on compacted subgrade.
  - **Width and Thickness.**
    - **Typical.** Four (4) foot wide (minimum) and four (4) inch thick (minimum).
    - **Sidewalk that passes through driveway.** Five (5) foot wide (minimum) and six (6) inches thick (minimum).

- **Cross slope.** Maximum of 1.5% [maximum three-quarters (3/4) inch rise per forty-eight (48) inches in width].
- **Running grade.** Sidewalk and handicapped ramps shall have a maximum running grade of 8.33% [maximum one (1) inch rise per twelve (12) inches in length].
- **Decorative surfaces.** Surfaces other than standard concrete or asphalt, i.e. stamped or colored pavement, exposed aggregate, etc. may be allowed if ADA requirements are met. However, if future work within the right-of-way performed by the City requires removal of the decorative surfaces they will be replaced with standard concrete or asphalt. Sidewalk surfaces deemed too rough or unstable that will impede a disabled person's travel will not be allowed.
- **Curb Ramps and Truncated Domes (Detectable Warning Surface).** This work shall consist of constructing truncated domes on concrete curb ramps. The truncated domes will be constructed whenever a ramp abuts a roadway. Detectable Warning Surface and ramps shall be constructed as outlined in the City's standard drawings C-1 and C-2. A pre-manufactured detectable warning surface shall be replaceable cast-in-place manufactured by Armor Tile or an approved equal. **Surface-applied domes are not permitted.** The detectable warning surface shall be "Safety Yellow" in color and be in accordance with the City's standard Drawing C-3 with the following exception:

- **Installations on Kirkwood Road shall be "Brick Red" in color.**

❖ **Driveway approach** (twelve feet behind curb or between curb and sidewalk) shall be constructed in accordance with the following specifications:

- **Concrete.** Minimum thickness of six (6) inches. All other properties same as per sidewalk.
- **Curing Compound.** Concrete shall be cured same as sidewalk.
- **Joints.**
  - **Dummy transverse joints.** Dummy transverse joints, spaced approximately at intervals no longer than driveway width (maximum of fifteen (15) feet), shall be made in the plastic concrete by a suitable tooling device. Depth of joints shall be one-fourth depth of concrete.
  - **Preformed Expansion Joint Material.** ½-inch thick by 6-inch deep preformed expansion joint material shall be used at the back of curb. All other properties same as per sidewalk.
  - **Asphalt.** Type C Bituminous pavement of one of the following minimum compacted thickness:
    - Two (2) inches on a stable and compacted two (2)-inch Type 5 aggregate base over compacted subgrade or
    - Six (6) inches, with no aggregate base, on a stable and compacted subgrade.
  - **Aggregate Base.**
    - **Concrete.** Shall be placed on a stable and compacted minimum of two (2)-inches of Type 5 Aggregate.
    - **Asphalt.** For two (2) inch thick asphalt, asphalt shall be placed on a stable and compacted minimum of six (6)-inches of Type 5 Aggregate.
- **Other impervious dust-free surfaces.** Other surfaces approved by the City Engineer. Rock or gravel is not permitted.
- **Driveway approach width at Property Line.**
  - **Minimum.** No less than ten (10)
  - **Maximum.** No more than twenty (20) feet
- **Driveway approach width at Street.** Above width plus flare on each side of entrance that is:
  - **Minimum** No less than two (2) feet.
  - **Maximum.** No more than four (4) feet.
- **Approach slope.** Shall not exceed a ± 15% break in grade.
- **Sidewalk through entrance.**
  - **Width.** A 5' wide sidewalk through the approach is required regardless of the presence of existing sidewalks
  - **Cross-slope.** Sidewalks through the entire width of the driveway shall have a cross-slope of less than 1.5%. This may require the removal and replacement of sidewalk outside the limits of the driveway for transitions.

- ❖ **Driveways** and private parking areas off the public right-of-way shall be constructed in accordance with the following specifications:
  - **Concrete.** Minimum thickness of four (4) inches. All other properties same as per sidewalk.
  - **Curing Compound.** Concrete shall be cured same as sidewalk.
  - **Joints.**
    - **Dummy transverse joints.** Dummy transverse joints, spaced approximately at intervals no longer than driveway width (maximum of twelve (12) feet), shall be made in the plastic concrete by a suitable tooling device. Depth of joints shall be one-fourth depth of concrete.
    - **Preformed Expansion Joint Material.** ½-inch thick by 4-inch deep preformed expansion joint material shall be used at the intersection of garage floors, porches, and foundations. All other properties same as for per sidewalk.
  - **Asphalt.** Type C Bituminous pavement of the following minimum compacted thickness:
    - Two (2) inches on a stable and compacted minimum (four) 4-inch Type 5 aggregate base over compacted subgrade.
  - **Aggregate Base.**
    - **Concrete.** Shall be placed on a stable and compacted minimum of four (4)-inches of Type 5 Aggregate placed on a compacted subgrade.
    - **Asphalt.** Shall be placed on a stable and compacted minimum of four (4)-inches of Type 5 Aggregate.
  - All driveways must lead to parking areas behind the front of the building.
- ❖ **Location of Entrances.**
  - **Flares.** Driveway may be located on property line; flares cannot cross over projected property line at street
  - **Storm Sewer.** Entrance must be a minimum of five (5) feet from the edge of any storm water inlet
  - **Intersection.** Entrance must be a minimum of ten (10 feet) from any intersection radius point
- ❖ **Single-Family Residential Districts, Single-Family Dwellings, and Two-Family Dwellings**
  - For lots that contain a single-family dwelling or two-family dwelling, or in any single-family residential district, no parking space or portion thereof shall be located within the required front yard except as outlined below. Parking areas are permitted behind the front building line.
  - Single-family and two-family residential driveways shall meet the following requirements:
    - Driveways leading to a side/rear entry attached garage or a detached garage shall have a minimum width of ten feet and a maximum width of 13 feet for the portion of driveway located in the required front yard.
    - The maximum width of a circle drive in the required front yard is 13 feet. Turn around areas allowed in this code shall be prohibited where a circle drive is utilized.
- ❖ **Width of Driveway Requirements.** The maximum width of a driveway beyond the property line leading to a parking space beyond the front building line is seven (7) feet multiplied by the number of parking spaces plus an additional six (6) feet.

NUMBER OF PARKING SPACES BEYOND FRONT BUILDING LINE	MAXIMUM DRIVEWAY WIDTH
One	13'
Two	20'
Three	27'*

\* A maximum of 20 feet is allowed at the property line.

- ❖ **Curb and Gutter Removal and Replacement**
  - Remove curbing to an existing joint or a saw cut joint

- Replace curb to match existing style, dimensions, and material. No cold mix allowed. Concrete or asphalt surface to which the asphalt curb is to be placed shall be tacked with SS-1h emulsion.

❖ **Backfill of Sidewalk, Driveway, Curb and Gutter**

- Remove forms and debris
- Backfill shall be placed before the final inspection. The backfill material shall meet or exceed the requirements specified for Topsoil in Section 804 and shall not contain more than 5% (by weight) of grass, rock, gravel, slag, roots or other deleterious materials as designated by the Engineer and shall be a suitable material for a sod bed.

❖ **Tree Protection Requirements**

- All trees, public or private, within 20' of the work area must be shown on the plans/sketch and protected according to Kirkwood Code of Ordinances Chapter 24, Tree Code.
- Work within 20' of public trees will be reviewed for protection, maintenance or removal recommendations by the Urban Forester. Recommendations must be followed.
- Requests for Removal of a public tree must be approved by the Urban Forestry Commission and the Urban Forester.
- All work on public trees other than tree protection must receive a permit to maintain/remove from the Urban Forester.
- Failure to comply with tree protection requirements will result in penalties in accordance the Kirkwood Code of Ordinances Chapter 24, Tree Code.

❖ **Traffic Control During Sidewalk / Driveway Closure.** When a sidewalk or driveway is removed, advance warning signs shall be in place before sidewalk or driveway removals are performed. Advance warning signs shall be in accordance with the current edition of Part 6 MUTCD (See Chapter 6 Sections H-28 and H-29).

❖ **Inspections – 48 Hour Notice Call 822-5822**

- First inspection – after aggregate base placement and prior to concrete/asphalt placement.
- Final inspection after work is completed, backfilled, and sodded.

❖ **Storm water Requirements.** Effective March 4, 2019, expansion of existing driveways will be subject to review for compliance with Kirkwood Code of Ordinances Chapter 5, Article VI, Infill Development Storm water Management. Visit [www.kirkwoodmo.org/stormwater](http://www.kirkwoodmo.org/stormwater).