

Johnson County Wastewater Commercial Project Plan Requirements

A. COMMERCIAL PERMITTING: A Sanitary Sewer Commercial Permit Plan is required for all projects that include exterior waste piping and for projects where JCW inspection of certain internal piping is required. The Permit Plans are issued as a part of the permit, indicate the requirements for installation and serve as record of the installation. This Commercial Permit Plan Requirements document is to assist applicants in development of the Permit Plan and other project drawings as required for permitting. Providing the required information in the proper format to JCW allows for a timely review and may identify potential opportunities and challenges for the project. Please contact the JCW Permit Group at 913-715-8520 with any questions about the commercial permit process, application or Permit Plan requirements.

1. **Johnson County Wastewater (JCW) Commercial Permitting is required for:**
 - a. **New Buildings.** Commercial review and permitting is required for all new buildings other than single family residential or multiplexes with a separate connection to the main for each unit.
 - b. **Tenant Finish Projects.** Permitting is required for all tenant finishes where the water meter is changing or a water meter will be added, where the business activity in the space is changing (Examples: Retail to Salon, Office to Medical Office.), for all food or beverage service facilities and industries, or for installation or replacement of grease or sand/oil interceptors.
 - c. **Building Additions.** Permitting is required for all building additions.
 - d. **Modification of an existing use.** Permitting is required where use or processes are changing. Example: A manufacturing process change at an existing industry.
 - e. **Change of Ownership for food and/or beverage service facilities.**

2. **JCW Commercial permitting primarily reviews the following parameters:**
 - a. **Site Development Issues.** The review will ensure JCW's system is protected and can be readily operated and maintained, and to ensure that other properties will not be cut off from service.
 - b. **Peak Flow Limits.** The density of the proposed development shall be such that peak flows do not exceed the design flow rate of 0.025 cfs/acre. Calculations demonstrating this requirement shall be provided for high density and commercial developments. For older areas of the JCW system, lower maximum flow rates may be required due to lower design flow capacities in the existing system.
 - c. **Building Service Lines.** See the current Service Line Design and Construction Standards (SLDCS) document for building service line design requirements. The SLDCS document is available on the Commercial Permitting page at www.jcw.org under the Development and Permitting section. Labeling requirements for service lines are provided in Section E of this document. In general, the service line shall not duplicate routing for plumbing inside the building or the sanitary sewer main and multiple service lines shall not be provided in lieu of a main extension.

- d. **Interior Building Plumbing and Prohibited Discharges.** The review will focus on potential sources of prohibited discharge to the sanitary sewer system, including storm water, ground water, chemicals, grease, etc. JCW reviews for compliance with the Sewer Use Code and does not review for building code compliance.
- e. **Food and Beverage Service Facilities.** All facilities serving or producing any type of food or beverage (including all existing businesses that are changing ownership) are required to apply to JCW for review and permitting. See Section F below.
- f. **Interceptors.** The review will ensure Grease Interceptors for facilities with food and/or beverage service and Sand-Oil Interceptors are installed, maintained or decommissioned where required.
- g. **Wash Bays and Pools.** Orificed discharges are required for all wash bays and for all pools that are required under the Johnson County Health and Environment Department or City code to connect filter backwash or saltwater discharges to the sanitary sewer system.
- h. **Industrial and Manufacturing Operations.** All new industrial and manufacturing operations and all changes to existing operations must be reviewed by JCW. See Section B.7 below.
- i. **Fees.** Total permit fees are determined by project parameters and may include the following:
 - i. Commercial Permit Administration Fee: \$440 for each reviewed commercial project.
 - ii. Permit Fee. \$220 for each required permit.
 - iii. Connection Fee: Calculated and charged based on installation of each new water meter at the site or an increase in size of the existing water meter. Fee schedule is as described in the Commercial Project Fees section on the Commercial Permitting page available at www.jcw.org under the Development and Permitting section.
 - iv. Special Inspection Fees: \$38 for each additional inspection required at the site.
 - v. Food and/or Beverage Facility Fee: \$290 for each food and/or beverage service or preparation facility.
 - vi. Low Grease Discharge Waiver for a Food and/or Beverage Service Facility: \$348 for each eligible food and/or beverage service or preparation facility.

3. Permit Execution Requirements

JCW permits shall be issued to the Property Owner (as listed by Johnson County Department of Records and Tax Administration. The Property Owner may sign the permit or may authorize another individual to pick up and sign the permit on the Owner's behalf. If providing authorization, the owner must provide the following in writing (email is acceptable) as follows:

"I am {a Managing Member of _____, LLC} or {the {President} or {Vice President} of _____, Inc.} or {My title is _____ of _____ {LLC} or {Inc.} and I am legally authorized to bind _____ {LLC} or {Inc.}}

I authorized the following individual(s) to execute the JCW permit on _____ {LLC} or {Inc.}'s behalf:

- 1. Individual's name with Company name*
- 2. Individual's name with Company name*
- 3. etc.*

By authorizing another individual to execute the permit on the Owner's behalf, the Owner acknowledges the following understanding in addition to all conditions of the permit:

- a. The owner understands and acknowledges that connection fees assessed pursuant to the Johnson County Wastewater (JCW) Sewer Use Code (the Code); are assigned based on the water meter size and use of the building as it is designed at permit issuance and when a new meter or existing meter size is changed by the water utility or if the use, expansion or modification to the building occurs for tenant finish, the plans must be submitted to JCW for review. Based upon that review, a Modified Use Permit may be required that could result in the assessment of additional connection fees. Upon completion of the review process, the owner remains responsible for the payment of any additional connection fees associated with the Modified Use Permit and satisfaction of any conditions contained in the permit.*
- b. The owner further understands and acknowledges that if a Modified Use Permit is not obtained and additional connection fees paid prior to the issuance of a City or County Occupancy Permit, the additional permit fees are considered delinquent and shall be assessed and collected (plus interest) in the manner provided by the Code and applicable Kansas law."*

The individual authorized to execute the permit is responsible for providing a copy of the permit and all associated documentation to the Owner.

B. SUBMITTAL REQUIREMENTS: Submittal requirement checklists are available on the Commercial Permitting page at www.jcw.org under the Development and Permitting section. Items 1 - 7 are required for JCW to initiate the permit review process. Items 4 - 7 are required to initiate the permit review process if they are applicable for the project. Food and/or Beverage establishments changing ownership shall also submit.

- 1. Application.** Complete the Johnson County Wastewater (JCW) Sanitary Sewer Commercial Permit Application online and submit a hard copy with the project submittal. The application is available on the Commercial Permitting page at www.jcw.org under the Development and Permitting section.
- 2. Water Utility Permitting.** Confirmation of existing or new water meter size or the addition of a water meter as approved by the water utility is required for JCW permit issuance. Contact the water utility to confirm application requirements for all projects. JCW will confirm meter information with the water utility before JCW's permit will be issued.

3. **One complete set of project plans including:**
 - a. For new construction: complete building plans (architectural, plumbing with riser diagram, structural and foundation drawings), complete civil site plans and landscape plans.
 - b. For all tenant finish projects (including food and/or beverage service change of ownership) and for reconnection permits: architectural (identifying each room's usage) and plumbing plans including all existing and proposed fixtures. A site plan shall be included to show any external plumbing required for the space.
 - c. PLEASE NOTE: The Permit Plan becomes part of the issued sewer connection permit. Field installation shall match the Permit Plan issued by JCW.
4. **Draft Final Plat (or other lot revision instrument), if applicable.** A copy of the Draft Final Plat or instrument is required where site will be platted or replatted (or the existing lot is otherwise to be revised) for this project. Please note that JCW's as-built records for the sewer mains serving the site shall be updated with the revised lot information. See Section E.1.c for details.
5. **Food Service.** Facilities with any type of food and/or beverage preparation or serving must submit the following information:
 - a. Food Service Form B - Application with copy of menu
 - b. Copy of business owner or local contact's driver's license
 - c. One additional copy of the plumbing and kitchen plan sheets to include kitchen equipment list and layout
 - d. For existing interceptors, JCW inspection of the pumped and cleaned interceptor is required before project submittal. Call 913-715-8520 to request inspection.
 - e. For interceptor installations on tenant finish projects, field verification of the interior plumbing header elevation(s) is required before project submittal.
6. **Completed Wash Bay Application**, associated calculations and all information required in the Wash Bay Application. The Wash Bay Application is required for all types of wash bays including single wash bays, multiple bay car washes, etc. The Wash Bay Application is available on the Commercial Permitting page at www.jcw.org under the Development and Permitting section.
7. **Completed Industrial Waste Survey.** All industrial projects are required to complete and submit an Industrial Waste Survey located at: www.jcw.org. Please contact the JCW Industrial Pretreatment Coordinator at 913-715-6940 to inquire whether industrial pretreatment requirements apply to your facility.
8. **Completed Public Pool Form**, associated calculations, and all information required in the Public Pool Form. The Public Pool Form is required for all public swimming pools and is available on the Commercial Permitting page at www.jcw.org under the Development and Permitting section. All pool submittals should be submitted with the 1st submittal and shall be submitted no later than the 2nd submittal.
9. **Deduct Meters.** All businesses in Johnson County are billed monthly for the sanitary sewer utility based upon actual water usage. Many businesses use water such as irrigation, cooling tower make-up water, etc. that is not sent to the sanitary sewer. In order for a business to receive credit against their sewer user charges, the water not sent to the sanitary sewer must be metered

and the results sent to JCW each month. Refer to the Commercial Billing page in the Customer Service section at www.jcw.org. The [Sewer Use Credit Applications](#) shall be completed and submitted for all new buildings.

10. **District Enlargement.** All areas served by sewer mains under the jurisdiction of Johnson County Wastewater (JCW) in Johnson County must be in the legally created Consolidated Main Sewer District (CMSD). See the JCW Minimum Plan Requirements for Gravity Main Projects (MPR) document for requirements pertaining to district enlargements. The MPR document is available at www.jcw.org in the Development and Permitting section on the [Privately-Financed Sewer Main Projects page](#). The Commercial Permit shall not be issued until the lot has been enlarged into the CMSD.

C. SEWER SYSTEM MAPPING, AS-BUILT RECORDS, PROPERTY INFORMATION

is available through the Johnson County Online Mapping (AIMS) under Sanitary Sewer Maps on the Privately-Financed Sewer Main Project page at www.jcw.org under the Development and Permitting section. The AIMS mapping application may be used to locate existing sanitary sewer mains in the vicinity of the project. As-builts for the existing sewer mains are typically available through the mapping application and are to be used to locate existing connection points for a property. Contact the JCW Permit Group at 913-715-8520 with questions about using the mapping application, and for locating information on existing mains and connection points.

D. SERVICE LINE DESIGN REQUIREMENTS AND ADDITIONAL INFORMATION:

1. The current JCW Service Line Design and Construction Standards (SLDCS) document is available at www.jcw.org on the Commercial Permitting page under the Permitting tab of the Development and Permitting Section.
2. Procedures for Privately Financed Gravity Main Projects, Minimum Plan Requirements for Gravity Main Projects (MPR), other forms, and details are available at www.jcw.org on the Privately-Financed Sewer Main Projects page under the Development and Permitting Section.
3. The JCW Prohibited Discharge Statement is available at www.jcw.org on the Commercial Permitting page under the Permitting tab of the Development and Permitting Section.
4. JCW Standard Details, Interceptor Details, Orifice Basin Details, etc. are available at www.jcw.org on the Commercial Permitting page under the Permitting tab of the Development and Permitting Section. Contact JCW for other Details not found in the Standards.
5. The Johnson County Code of Regulations for Sanitary Sewer Use - 2003 Edition is available at www.jcw.org on the Commercial Permitting page under the Permitting tab of the Development and Permitting Section.

E. PERMIT PLAN: The following information must be included on the Permit Plan unless otherwise noted: See Section H below for Permit Plan drafting guidelines.

1. **PLAT NAME AND LOT NUMBER OR LEGAL DESCRIPTION**
 - a. Provide the plat name and lot number for lots in plats that are or will be recorded for the project on the Permit Plan. For all new plats required by the

City for the project, provide a copy of the draft final plat for JCW review and comment before the plat is recorded.

- b. Provide the boundary legal description for any lots that will not be required to be platted by the City for the project.
- c. Updated Sanitary Sewer Main As-built Records are required when lots are platted, re-platted, subdivided, or the boundary of the lot has been modified by certificate of survey and do not match the lot information shown on the current sanitary sewer main as-built records. The updates must show all new lot information. This is a time sensitive issue that can delay permit issuance. Contact the engineering company that prepared the as-built drawings to coordinate submittal of the revised as-built drawings and a copy of the plat, lot split document, or certificate of survey, as applicable to the JCW New Development Group as soon as possible. Please contact JCW at 913-715-8520 and request the New Development Group for assistance with any questions regarding the as-built submittal process.
- d. If necessary, please increase all sanitary sewer easements to meet current JCW easement width requirements on all new plats. The engineering company that prepared the as-built drawings will be familiar with these requirements.

2. SITE LOCATION MAP

- a. Provide a Site Location Map showing the entire lot boundary, the building on the lot and the nearest cross streets on the Permit Plan. To address the detail required for the map, do not use Section-Township-Range maps. For duplication requirements, do not use aerial maps.
- b. For Tenant Finish projects, provide a building Key Plan showing all tenant spaces within the building and which space(s) the applicant tenant will occupy in relationship to the other tenant spaces.
- c. Provide a north arrow and scale for the Site Location Map and, if applicable, the Key Plan.

3. PROPERTY LINES

- a. The entire lot must be shown in the plan view on the Permit Plan.
- b. For large lots, the entire lot may be shown on the Site Location Map.
- c. Clearly show and label all lot lines including proposed lot lines.

4. SEWER MAINS AND MANHOLES

- a. Show all existing and proposed sewer mains and manholes in the vicinity of the lot on the Permit Plan.
- b. Label existing sewer main manholes with the JCW District(Basin)Manhole Number designations (Example: BRM1(88)108). The JCW manhole designations can be found in the AIMS mapping application. Refer to Section C above for the AIMS access location.
- c. Label proposed manholes as labeled on the proposed sewer main project plans. Contact the site developer's sewer main project consulting engineer for the information.

5. CONNECTION POINT

- a. A separate connection to the sanitary sewer main is required for each building. A separate permit is required for each connection.
- b. When a project includes multi-unit buildings such as duplex, 3-plex, 4-plex buildings, etc., or other commercial buildings located on a common lot a separate service stub may be provided for each unit in the building. If the units within the building will be sold individually, a single service line may be provided for the entire building.
- c. The provided connection point on the sanitary sewer main shall be used for the building. For the connection information required on the Permit Plan:
 - i. For existing mains, reference the sanitary sewer as-built drawings for the connection information. See Section C above.
 - ii. For proposed sewer mains, contact the site developer's sewer main project consulting engineer for the information.
- d. Show and label the provided connection point on the Permit Plan. Label manhole stubs as "MH Stub". Label the location of tees with the distance from the stub to the nearest downstream manhole (Example: "57 feet to DS MH BRM1(88)108") and label the size of the tee (Example: 6 inch by 8 inch Tee).
- e. Label the stub pipe size, pipe type, length and end of stub elevation, as provided on the sewer main plans. In addition for manhole stubs, label the angle between the stub and the downstream main and, when provided on the sewer main plans, label the right angle coordinates for locating the end of the manhole stub.
- f. New connection points shall be approved by JCW only in the absence of an existing connection point for the lot. Contact JCW to obtain written authorization for the connection type and location. Refer to the JCW Standard Detail Sheet for required details to be provided and referenced on the Permit Plan. See Section C above. JCW will provide any "non-standard" details to be provided and referenced. For the connection type:
 - i. On a polyvinyl chloride (PVC) main, installation of a new tee may be required. When applicable, provide and reference the JCW Tee Orientation and Riser Detail and the JCW Tee Installation Detail on the Permit Plan.
 - ii. On a vitrified clay (VCP), saddle of the main may be required. When approved by JCW, provide and reference the JCW Saddle Detail and the standard Tee Orientation and Riser Detail on the Permit Plan.
 - iii. For precast concrete manhole connections:
 - a. The connection to the manhole shall be core drilled and made by a PSX type manhole adaptor. Refer to Section III.F of the JCW Service Line Design and Construction Standards document.
 - b. Provide and reference the JCW Standard Precast Manhole Detail and Concrete Manhole Adaptor Detail on the Permit Plan.
 - c. Label the incoming flow line elevation for the new connection and the outgoing flow line elevation for the main in the manhole.
 - d. The top of the pipe for the new connection shall match the top of the pipe for the outgoing pipe (i.e. match crowns of the two pipes).

- e. The invert of the manhole shall be cleaned and reformed. Manhole invert information is included on the JCW Standard Precast Manhole detail.
- iv. New connections to brick manholes are generally not accepted. Contact JCW for connection requirements.
- v. Direct connection to mains 18-inch or larger are not allowed. Connections to 18-inch or larger mains shall be made at a manhole only. A sewer main project is require to add a manhole. Refer to the JCW Procedures for Privately Financed Gravity Main Projects for information. See Section D above.
- g. The pipe for older existing connection stubs and/or service lines may be reused only under specific standards. Refer to Section III.A.6 of the current SLDCS document for requirements. JCW approval of reuse, replacement and/or rehab of these pipes is required. After JCW approval, all applicable notes for the approved methodology must be included on the Permit Plan.
- h. All existing connection points that will not be used for the lot shall be permanently capped. See Section 17 below.

6. SERVICE LINE ROUTING AND LENGTH

Refer to the current JCW Service Line Design and Construction Standards (SLDCS) document for building service line design requirements. See Section D above. See Section H below for building service line drafting guidelines. In addition, the following apply:

- a. The following note is required on the Permit Plan: *“Sanitary service lines shall be installed in accordance with the current JCW Service Line Design and Construction Standards.”*
- b. A single service line from the building to the main shall be provided for each building.
- c. The service line shall not duplicate plumbing routing inside the building or the sanitary sewer main.
- d. Show and label the entire service line routing from the building foundation to the existing connection point on the Permit Plan.
- e. Label each direction change (fitting or angle), each cleanout and the distance between each direction change or cleanout along the routing of the service line.
- f. Plumbing for building additions and/or tenant finish revisions shall be routed into the interior building plumbing unless the addition is constructed within 10 feet of the existing building service line.
- g. The routing of the sanitary service line shall be coordinated with and match all applicable plan sheets in the project set.

7. SERVICE LINE MATERIAL AND SIZE

- a. Label all sanitary service piping with the pipe size and material type, classification, and joint type on the Permit Plan. The service line shall meet the current JCW SLDCS. See Section D above.
- b. Coordinate the pipe identification labels outside of the building between the Site Plan, the Plumbing Plan and the project plumbing specifications.
- c. The pipe type for existing sanitary service piping shall be identified and labeled on the Permit Plan.

- d. The required transition coupling shall be labeled on the Permit Plan for all transitions between pipe materials.

8. SERVICE LINE SLOPE

- a. Label the actual slope of the service line and the flow line elevations for the service line at the building foundation and at the upstream end of the connection point on the Permit Plan. The service line shall meet the current JCW SLDCS. See Section D above.
- b. Under typical installation practice, the plumber will install a riser at the end of the stub to an elevation that will allow the installation of the service line at the minimum slope allowed for the pipe size back to the building foundation. It is suggested that the riser and service line slopes and elevations be labeled accordingly.

9. CLEANOUT LOCATION AND DETAIL

- a. Show and label all cleanouts and dimension the location of all cleanouts on the Permit Plan. Cleanout spacing shall meet the requirements in the current version of the JCW SLDCS. See Section D above.
- b. Provide and reference the JCW standard Cleanout Detail on the Permit Plan. For cleanouts that must be located in pavement, contact JCW for the detail.

10. BUILDING FINISH FLOOR ELEVATION (FFE)

- a. Label the lowest building finish floor elevation (FFE) on the Permit Plan.
- b. The FFE must be equal to or greater than the minimum serviceable floor elevation (MSFE) identified for the lot on the sewer main plans or as-built drawings.

11. SERVICE LINE AND MAIN PROTECTION. See the current Minimum Plan Requirements for Gravity Main Projects and Service Line Design & Construction Standards for requirements for protection of service lines and sewer mains from structures, retaining walls and other site improvements. See Section D above.

12. STRUCTURE TO MAIN SEPARATION

- a. Structures shall be located one horizontal foot away from the sewer main for every foot of main depth of the main with a minimum horizontal distance of 10 feet.
- b. Structures shall not encroach on a sewer easement. See the JCW Minimum Plan Requirements Gravity Main Extensions document in the Privately Financed Projects page at www.jcw.org for easement requirements.

13. SITE GRADING

- a. A minimum of 30 inches of cover shall be maintained over the top of the service line. The amount of cover over the service line must be indicated with spot grade elevations on the Permit Plan.
- b. Manholes impacted by the project shall be adjusted to be flush with the finish grade. Show and label all adjustments to manholes, including the

existing top elevation(s) and the proposed top elevation(s). Provide and reference the JCW Standard Precast Manhole detail and notes. The detail is included on the JCW Sanitary Sewer Standard Details sheet. See Section D above.

- c. Manhole wall thickness shall be increased as required for manholes that are adjusted to a depth that will exceed 16 feet. When adjusting a manhole, the JCW Standard Precast Manhole detail must be provided on the Site Plan or provided in the plan set and referenced on the Site Plan.
- d. Where fill is placed over existing mains or service lines, improvements to the existing main or service line shall be provided as necessary to meet JCW pipe design requirements. Please see JCW's Procedures for Privately Financed Gravity Main Extension and Minimum Plan Requirements for Gravity Main Extension documents available in the Privately Financed Projects page at www.jcw.org for providing plans for pipe replacement.
- e. The site finish grade shall not cause the depth (to the flow line of the pipe) of sanitary sewer mains or service lines to exceed 20 feet to the flow line of the main or service line.
- f. Additional sanitary sewer easement in conformance with current easement requirements shall be provided when fill is placed over a sanitary sewer main. See the JCW Minimum Plan Requirements Gravity Main Extensions for easement requirements. See Section D above.
- g. The sewer main pipe type (Examples: PVC SDR 26, VCP, Class DIP 50, etc.) shall be identified for all existing sanitary sewer mains as noted on the as-built drawings where fill will be placed over the existing main.

14. SITE PLAN SCALE AND NORTH ARROW

Provide full size plans drawn to a suitable scale to clearly show all required information. Identify the scale and provide a North Arrow on the Permit Plan.

15. STORM SEWERS, WATER COURSES, BMPs AND WATER LINES

See the proximity requirements for storm sewers, BMPs, water courses and water lines in the JCW Minimum Plan Requirements Gravity Main Projects document. See Section D above. In addition:

- a. Storm Sewers -
 - i. Show and label all storm sewers, roof drains and foundation drains, etc. and associated discharge locations on the Permit Plan.
 - ii. Label all storm sewer pipe sizes and flow line elevations at all sanitary crossings. Encasements shall be shown and labeled with length and location dimensions where required.
 - iii. Include the following note(s) on the Permit Plan as applicable: *(Roof drains)(foundation drains) shall not be connected to the sanitary sewer.*
- b. BMPs (including Detention / Retention Basins) -
 - i. Show and label all BMPs, detention or retention basins on the site including the maximum water surface elevation (MWSE) and the boundary of the maximum water surface elevation on the Permit Plan.
 - ii. If applicable, include the following note on the Permit Plan as applicable: *"BMPs are not required by the City of ____ and will not be provided for this project."*

- c. Water Courses: Show and label all water courses in the vicinity of the sanitary sewer main and/or all other sanitary sewer piping located outside of the building foundation. Also see the current JCW SLDCS and MPR. Refer to Section D above.
- d. Water Lines:
 - i. Show and label all water lines and the water meters on the Permit Plan.
 - ii. Label the water line pipe size(s) and flow line elevations at all sanitary crossings.
 - iii. Dimension the water meter(s) location from two points on the building.

16. EXTERIOR DRAINS AND LOCATION OF MANHOLES AND CLEANOUTS IN PAVED AREAS

- a. Exterior drains (including drains in structures open to the elements) shall not be connected to the sanitary sewer.
- b. Existing manholes and cleanouts are to be installed behind curbs or otherwise out of pavement to the greatest extent possible. Manholes shall not be located in parking stalls in any case.

17. SERVICE LINE CAP OFFS

See the current SLDCS document for detailed requirements for service line cap offs. See Section D above.

- a. The service line for any existing structure connected to the sanitary sewer that will be demolished shall be temporarily or permanently capped (as required by JCW) prior to the demolition of the building.
- b. Contact JCW's New Development Compliance Engineer at 913-715-8520 to discuss cap-off requirements.
- c. Temporary and permanent cap offs shall be inspected and approved by JCW prior to issuance of a demolition permit by the City.
- d. Any existing connection point(s) on a property that will not be used for the project, shall be exposed and permanently capped. Include notes and the JCW Standard Cap Off Detail for permanent caps on the Permit Plan. Separate details are available for MH Cap Offs and Tee/Wye Cap Offs. Contact JCW for the Details and instruction for completing cap offs at each site. JCW inspection of the completed work is required.
- e. All appurtenant tanks or basins (i.e. grease interceptors, sand-oil interceptors, equalization tanks, orifice basins, etc.) connected to the sanitary sewer shall also be temporarily or permanently capped as required by JCW.
- f. Fee credits for existing structures connected to the sanitary sewer system shall be applied to new permits only upon JCW inspection and approval of the cap-off for the existing building and subsequent demolition of the existing building.

18. MISCELLANEOUS

- a. **TRIBUTARY AREA:** Any property connecting to the sanitary sewer shall extend the sanitary sewer main to the project property boundary to serve watershed or sewershed tributary areas which lie outside of the project boundary and do not have direct access to the sanitary sewer main.

Contact JCW Commercial Permitting at 913-715-8520 with any questions regarding service of tributary areas.

- b. **DISTRICT ENLARGEMENT:** All areas served by sewer mains under the jurisdiction of Johnson County Wastewater (JCW) in Johnson County must be in the legally created Consolidated Main Sewer District (CMSD). See the JCW Minimum Plan Requirements for Gravity Main Projects (MPR) document for requirements pertaining to district enlargements. The MPR document is available at www.jcw.org in the Development and Permitting section on the [Privately-Financed Sewer Main Projects page](#). The Commercial Permit shall not be issued until the lot has been enlarged into the CMSD.
- c. **SEPTIC TO SEWER:** Contact the Johnson County Department of Health and Environmental Department (JCDHE) at 913-715-6900 or, if applicable, the City of Overland Park to apply for a septic or holding tank Certificate of Decommissioning for all buildings served by septic systems or holding tanks that are connecting to the sanitary sewer system. A copy of the Certificate of Decommissioning is required for sewer permit issuance.

F. PLUMBING PLAN: Provide a Plumbing Plan for the entire building or tenant space, showing and labeling all proposed and existing fixtures, cleanouts, and sanitary waste line routing (including routing for existing if known). The following information must be shown on the Plumbing Plan unless otherwise noted:

1. **LEGEND:** Provide a Plumbing Plan Legend identifying all abbreviations, fixtures, and line types.
2. **RISER DIAGRAM:** For multi-story buildings or complex plumbing system designs, provide a riser diagram showing all fixtures to be connected to the sanitary sewer system with the Plumbing Plans.
3. **FIXTURES:**
 - a. Show and clearly label all fixtures to be connected to the sanitary sewer on the Plumbing Plans.
 - b. Where fixtures cannot drain by gravity, an internal lift pump connected to interior plumbing shall be used. Exterior lift pumps shall not be used. Include the following information on the Permit Plan:
 - i. Show and label the lift pump pit on the Plumbing Plan.
 - ii. Include the following notes on the Plumbing Plan:
 1. *“JCW shall inspect the interior lift pump, pit, associated piping, and witness the interior lift pit test for water tightness.*
 2. *The pump and pit shall be installed in accordance with the manufacturer’s specifications.*
 3. *The lift pump pit shall be tested as follows:*
 - a. *Plug all openings other than the vent,*
 - b. *Fill the pump pit with water and let stand for 60 minutes.*
 - c. *Check for leaks.*
 4. *The manufacturer’s cut sheets and installation instructions for the pump and pit shall be provided to the JCW inspector at the time of inspection.”*

4. LINE SIZES: Label the size(s) for all interior plumbing piping on the Plumbing Plans.
5. FLOOR DRAINS and FLOOR CLEANOUTS
 - a. General. All floor drains and floor cleanouts shall be shown and labeled on the Plumbing Plans.
 - b. Vehicle Accessible Areas:
 - i. Floor drains and floor cleanouts should not be located in vehicle accessible areas to the greatest extent possible.
 - ii. All floor drains and floor cleanouts located in vehicle accessible areas must be routed through an exterior Sand-Oil Interceptor in accordance with JCW sizing standards and detail unless otherwise separated from the vehicle accessible area. See Section G below.
 - iii. Floor drains that are located in vehicle accessible areas may be separated from vehicle accessible areas by a permanent curb. Cleanouts that must be located in vehicle accessible areas may be made wall cleanouts or, in the absence of nearby walls, may be cast in raised-reinforced concrete curbs. Provide and reference details for the reinforced concrete curb (which must be tied into the floor slab) on the Plumbing Plan. JCW inspection of the reinforcing and final curb construction is required. Include a bold note on the Plumbing Plans accordingly.
 - c. Chemical Usage and Containing Areas: Refer to the JCW Prohibited Discharge and Pretreatment section below.
6. GREASE WASTE LINES
 - a. Refer to the Food and Beverage Service Section below.
 - b. If food preparation areas are possible in the future, ensure that extra depth is provided on the interior building plumbing to accommodate installation of future plumbing for exterior grease interceptor(s) (i.e. adequate depth to allow the outlet of the interceptor to return to the interior plumbing header.)
7. FOUNDATION DRAINS
 - a. Show and label the foundation drains for the building and any other structures on the site (i.e. retaining walls, etc.) (and foundation sump pump if applicable) in the project plan set.
 - b. Show and label the foundation drain discharge location(s) on the Permit Plan.
 - c. Edit as applicable and include the following note on the Permit Plan when foundation drains are included for the project: "*Foundation drains shall not be connected to the sanitary sewer.*"
 - d. If foundation drains will not be provided for the project, please note accordingly on the Permit Plan.
8. ROOF DRAINS
 - a. Show and label all roof drains, scuppers, gutters and downspouts in the project Plan set.

- b. Indicate the roof drain pipe routing on the Plumbing Plan or other applicable project plan sheets.
- c. Show and label the roof drains, scuppers, gutters and downspouts discharge location(s) on the Permit Plan.
- d. Edit as applicable and include the following note on the Permit Plan: “*{Roof drains}, {scuppers}, {gutters and downspouts} shall not be connected to the sanitary sewer.*”
- e. If roof drains, scuppers or gutters and downspouts will not be provided for the project, please note accordingly on the Permit Plan.

9. PROHIBITED DISCHARGES AND PRETREATMENT

- a. General. Certain materials which may damage the collection system or treatment works, cause pass through, cause interference or cause significant inhibition of microbial activity shall not be introduced into the public sanitary sewer system. For buildings with a potential to discharge materials and chemicals prohibited from discharge to the sanitary sewer system, additional information may be requested, and a special condition to the sewer connection permit with respect to prohibited discharges may apply. A list of such prohibited discharges may be found in Article 4 Pretreatment, Part C., Pretreatment Discharge Standards, from the Johnson County Code of Regulations for Sanitary Sewer Use, 2003 Edition. See Section D above.
- b. Prohibited Discharge Statement. The Prohibited Discharge Statement form is available on the Commercial Permitting page in the Development and Permitting section at www.jcw.org. If the intended building use indicates a potential for any suspect material, the building owner and/or tenant shall read and execute the Prohibited Discharge Statement document and return the original executed document confirming there will be no prohibited discharges to the sanitary sewer for sewer permit issuance.
- c. Prohibited Discharge Prevention. Methodologies to prevent potential prohibited discharges from entering the sanitary sewer system shall be shown and labeled on the Plumbing Drawings when located inside the building and on the Permit Plan when located outside the building.
- d. Chemical Usage and Storage Areas:
 - i. Where applicable, show and label all laboratory or other chemical use or storage areas on the Plumbing Plan.
 - ii. Provide written documentation of the chemical material types and volumes that will be stored.
 - iii. Show and label acid neutralization basins (or other treatment units) for treating applicable wastes on the Plumbing Plan or provide written verification for why a neutralization basin or other treatment unit is not required.
 - iv. The necessity of floor drains and/or cleanouts in chemical containing areas shall be noted on the Plumbing Plan.
 - v. Proposed types and volumes of chemicals to be stored or used in an area shall be noted on the Plumbing Plan.
 - vi. The proposed method to prevent potential discharge of chemicals to drains or cleanouts in the event of spill shall be noted on the Plumbing Plan.

- vii. Where applicable, the containment volume provided for containment of chemicals shall be noted on the Plumbing Plan.
- e. Sump Pumps:
 - i. Show and label all sump pumps in the project plans and show and label the discharge locations for the pumps on the Permit Plan. Sump pumps shall not discharge to the sanitary sewer. Verify the allowable discharge location with the City
 - ii. For elevator sumps, verify whether the City will require an oil-sensing type system on the sump. If the sump is equipped with an oil sensing float switch that will sound an alarm and not allow the sump pump to operate until manually reset, explain what is done if oil is detected and the alarm sounds. Provide a specific written explanation of how and where the water and oil, etc. will be disposed of if the alarm is activated. Use general notes such as the following on the Plumbing Plan: In the event of a release of any quantity of hydraulic fluid or other fluids prohibited from discharge to the sanitary sewer system, the released material should be immediately contained, captured and disposed of at an EPA-approved Treatment Storage and Disposal Facility.
 - iii. For sumps in areas with floor drains or cleanouts, add the following note to the Plumbing Plan: *“Floor drains connected to the sanitary sewer shall be a minimum of 3 feet away from a sump and shall not be recessed with sump pits. Floor drains installed for the sole purpose of receiving ground water or storm water from sump pits are strictly prohibited. JCW inspection of the completed sump and all floor drain(s) is required for final approval of the connection.”* The sewer connection permit shall be issued with this condition.
- f. X-Ray, Scan and Photo Processing. Where applicable, show and label all X-ray, scan or photo processing areas at the facility and provide written verification of whether the processor produces a discharge to the sanitary sewer. If a discharge to the sanitary sewer is produced, show and label a silver recovery unit on the Plumbing Plan or provide written verification for why a silver recovery unit is not required.
- g. Solids Handling. Where applicable, show and label all areas for processing of plaster, stone cutting, pottery, or any other operations that generate solids. Include plaster traps or other solids removing devices where applicable on the Plumbing Plan sheet.
- h. Dental Facilities. Dental facilities having a potential to discharge any wastewater containing dental amalgam should discharge said wastewater through an ISO 11143:2008 dental amalgam separator, certified to meet a removal efficiency of no less than 99.0%, prior to entry into Johnson County Wastewater’s sanitary sewer system. Please indicate the location of the separator(s) on the Plumbing Plan or explain why a separator will not be provided on this project. JCW inspection of the separator is required. Include notes on the plumbing plan sheet accordingly.
- i. Hazardous Waste. Discharges that may include hazardous wastes shall not be discharged to the sanitary sewer in any case.

- j. Industrial and/or Manufacturing Processes. Some industrial processes and/or buildings may be subject to the requirements of the JCW's Industrial Pretreatment Program. See the Industrial Pretreatment Program pages at www.jcw.org.

10. LINE LAYOUT

- a. Dimension the location the plumbing exits the building foundation from a building corner on the Plumbing Plan. Coordinate this dimension to match the dimension provided on the JCW Permit Plan.
- b. Provide the following note on the Plumbing Plan: *"All sanitary sewer piping outside the building foundation is shown on Sheet ____ (the JCW Permit Plan). This piping shall meet Johnson County Wastewater standards and shall be inspected by Johnson County Wastewater."*
- c. The sanitary sewer pipe flow line elevation at the building foundation does not need to be shown on the Plumbing Plan sheet if a note referring to the JCW Permit Plan for this information is provided. If the flow line information is shown on the Plumbing Plan, it shall match the information shown on the Permit Plan sheet.
- d. Multi-Unit Building Plumbing
 - i. Plumbing drawings for each building or building type are needed which show all fixtures to be connected to the sanitary sewer system and the location the plumbing exits the building foundation. The plumbing exit location must match the service line routing on the Permit Plan for each building OR don't show any exit locations and include a note in BOLD on each plumbing layout to see the JCW Permit Plan for the location the plumbing shall exit the building.
 - ii. For multi-unit buildings such as duplex, 3-plex, 4-plex buildings, etc., or other commercial buildings located on a common lot, a single service line exiting at a single location closest to the provided connection point is required for each building.
- e. Building Additions. If additions are possible for this building in the future, provide a stub on the internal building plumbing to provide service for the future addition or provide confirmation that no future additions are planned.

G. FOOD and/or BEVERAGE SERVICE FACILITIES:

In addition to the requirements noted in this document, all facilities serving or producing any type of food and/or beverages (i.e. FSFs) (including all existing businesses that are changing operator ownership) are required to apply to JCW for review and permitting. Refer to the following Grease Management pages at www.jcw.org:

- 1. All About Fats, Oils and Grease. Reference this page for:
 - a. Complete submittal requirements for:
 - i. New Buildings
 - ii. Tenant Finish Projects
 - iii. Change of Business Ownership
 - iv. Existing Interceptor Reuse or Decommissioning
 - v. Low Grease Discharge Waivers

- b. Food Service Form B – Application required for all new facilities, ownership changes, interceptor repair/replacements, requesting a Low Grease Discharge Waiver, etc.
 - c. Common Interceptor Forms for the Building Owner and Tenant Users (for interceptors that have been designed to serve multiple tenants).
 - d. Annual Operating Permit Renewal
 - e. For existing facilities with operating history, interceptor pumping variance submittals.
2. The Interceptor Design, Inspection, and Operation Requirements. See this page for:
- a. Interceptor design requirements and sizing information. Note: Interior Grease Traps are not allowed.
 - b. Fixtures to be (or not to be) connected to the grease interceptor. Note: Garbage disposals are not allowed.
 - c. The JCW Standard Grease Interceptor Detail
 - d. JCW Inspection requirements. JCW inspection of the interior plumbing connected to the interceptor and the interceptor installation are required.
 - e. Annual Operating Permit information for all facilities with a grease interceptor or low grease discharge waiver.

H. INTERCEPTORS, ORIFICE BASINS, EQUALIZATION BASINS or other

TREATMENT APPURTENANCES: The following information is required for all interceptors, basins or other treatment appurtenances connected to the sanitary sewer system for food/beverage service/production facilities, wash bays, public pools/fountains, vehicle accessible areas, pretreatment units, etc. as required by JCW :

1. INTERIOR PIPING

- a. All proposed (and, if applicable, existing) grease, sand-oil or other process waste lines shall be shown and labeled on the Plumbing Plan.
- b. See the Interceptor Design, Inspection, and Operation Requirements page in the Grease Management section at www.jcw.org for grease waste fixture requirements.
- c. All floor drains and cleanouts in vehicle accessible areas shall be routed through a sand-oil interceptor unless otherwise separated from the vehicle accessible area.
- d. Refer to the Wash Bay and Swimming Pool documents for interceptor and basin requirements. See Section B above.
- e. For industrial or manufacturing facilities, contact JCW to discuss to JCW's Industrial Pretreatment Program requirements.

2. EXTERIOR PIPING

All interceptor, basin or other treatment unit piping shall be shown and labeled on the Permit Plan as follows:

- a. Refer to the current SLDCS document for pipe design, type, size, slope, etc. requirements. See Section D above.
- b. Routing piping into and out of the side (at the end) of an interceptor reduces pipe length and bends in the piping and should be used for most

installations. See the JCW Standard Interceptor Detail for pipe arrangements. See Section D above.

- c. Label the pipe (including vent piping) slopes and flow line elevations at the building foundation, at the interceptor or basin inlet and outlet, and, as applicable, at the location the plumbing re-enters the building foundation or connects to the building service line. The interceptor or basin may be connected directly to the service line only when the service line is located within 10 feet of the interceptor.
- d. Dimension each pipe segment and label each bend from the building to the interceptor or basin and from the interceptor or basin back to the building (or to the building service line).
- e. Label the pipe (including vent pipe) material by identifying size, type, classification, and joint type. Please note that piping on the interior of the interceptor shall be ABS with solvent-cemented joints as noted on the Standard Interceptor Detail. HDPE with butt-fused or electro-fused joints may be also used inside an interceptor.
- f. A minimum of 30 inches of cover shall be maintained over the top of the interceptor or basin piping. The amount of cover over the service line must be indicated on the Permit Plan by spot grade elevations or topography lines.
- g. Show, label and dimension the location of the interceptor sampling port.
- h. Where a lift pump is required due to existing plumbing elevation issues, the pump shall be located inside the building. Exterior pumps shall not be permitted. Refer to Section E.3.b above for drawing requirements.
- i. For industrial or manufacturing facilities, contact JCW to discuss to JCW's Industrial Pretreatment Program requirements.

3. INTERCEPTOR AND BASIN SIZE

- a. GREASE INTERCEPTORS: See the Interceptor Design, Inspection, Operation Requirements page at www.jcw.org for Grease Interceptor sizing requirements. The interceptor shall provide 30 minutes of detention at peak flow. The grease interceptor sizing calculations sealed, signed and dated by a P.E. licensed in the State of Kansas shall be provided.
- b. SAND/OIL INTERCEPTORS: shall be sized to provide 30 minutes of detention at peak flow. Peak flow should be determined by fixture units. See the JCW sizing information sheet. Calculations for the sand/oil interceptor sizing shall be provided. The calculations must be sealed, signed and dated by a P.E. licensed in the State of Kansas.
- c. EQUALIZATION BASINS: Basin volume calculations, supporting documentation and drawings are required and shall be signed and sealed by a Kansas Professional Engineer (PE). Refer to the Wash Bay and Swimming Pool documents for interceptor and basin requirements. See Section B above.

4. INTERCEPTOR AND ORIFICE BASIN DETAILS

- a. Provide and reference the JCW Standard Interceptor or Orifice Basin Detail on the Permit Plan. See Section D above.
- b. Where a standard sanitary sewer manhole cannot be used to provide the required equalization volume, complete structural design information such

as rebar size, rebar spacing, and water stops in the wall joints to ensure a water-tight basin shall be included on the detail in addition to the information provided in the JCW Standard Orifice Basin Detail. Butyl joint wraps shall also be used on all joints on all basins

- c. Based on the interceptor or basin sizing calculations, label the required volume of the interceptor or basin on the detail.
- d. Provide dimensions for the interceptor or basin on the detail to reflect the required capacity.
- e. The pipe arrangement shown on the interceptor detail shall match the pipe arrangement required for the project.

5. **OTHER TREATMENT APPURTENANCES**

- a. For industrial or manufacturing facilities, contact JCW to discuss to JCW's Industrial Pretreatment Program requirements.
- b. Where required for industrial or manufacturing facilities, all design information for treatment units shall be provided.

I. **DRAFTING GUIDELINES**

All items associated with (or that may affect) sanitary sewer service must be clearly shown and labeled (including legible when reproduced) on the Permit and Project drawings including, but not limited to, the following:

1. Sewer mains, manholes, force mains, etc.
2. All exterior and interior plumbing.
3. Interior and exterior appurtenances including manholes, cleanouts, basins, etc.
4. Property lines, buildings and other structures.
5. Site features including grading contours, storm sewers, BMPs, retaining walls, etc.
6. Avoid overlapping labels.
7. All sanitary sewer information should be prominent on the Permit Plan.