

LATERAL EXTENSION PROCEDURES

The construction of new sanitary facilities requires the approval of the following public agencies:

A. Jefferson County

1. Louisville & Jefferson County Metropolitan Sewer District (MSD)
2. Louisville Metro Health Department (HD)
3. Kentucky Division of Water (DOW)
4. Metropolitan Louisville
5. Fourth Class Cities

B. Oldham County

1. Louisville & Jefferson County Metropolitan Sewer District (MSD)
2. Kentucky Division of Water (DOW)

The purpose of this document is to provide developers, engineers, and others with a list of the items required in order to approve plans and special provisions for a Lateral Extension (LE) or a Private Sewer project. All lateral extensions (as defined by 401KAR5:005.8) which will become a part of MSD's system require the execution of a Wastewater Facilities Lateral Extension Contract or approval from MSD for the proposed project. Sanitary projects which connect to systems which are not owned by MSD are subject to the same review and approval procedures, but do not require the execution of a contract with MSD (in these cases, the owner of the system must certify that the system has the capacity to transport and treat the proposed flow). In general, sewers that serve a single property can be classified as private; however, MSD will determine how a lateral extension is classified.

MSD has prepared a number of documents which are available to the engineer for wastewater projects. They include a Design Manual, Standard Drawings, Standard Specifications, Special Provisions, and a Pre-Approved Products List. Additionally, the engineer should refer to the "Just in time diagram for lateral extension" that can be found on the MSD web site. Engineers not familiar with the MSD lateral extension approval process are encouraged to review the process with MSD personnel.

CAPACITY PHASE

The engineer should submit a downstream facilities capacity request form. The form and instructions for filling it out are available on the MSD web site. MSD will use the information provided to evaluate the wastewater system downstream of the proposed development to ensure that there is sufficient capacity to transport and treat the flows that will be generated.

If capacity is available, MSD will issue a capacity approval letter which ensures capacity for the project for 90 days. This approval may be contingent upon a number of factors such as the payment of applicable fees, construction of a pump station and/or downstream improvements. If capacity is not available, MSD and the engineer can discuss a strategy for providing service to the development.

PROJECT FEES

Most new development will be subject to one-time fees based on the volume of flow that will be generated. The applicable fees that can apply to the project are plan review fees, inspection fees, capacity charges, inflow and infiltration fees and recapture fees. A detailed description of the applicable fees can be found in MSD's current Wastewater Service Charges document.

PLANNING PHASE

Prior to, during or after the capacity phase of the project, the engineer and MSD should discuss the available alternatives for servicing the development. Issues that may need to be addressed are the location of MSD's existing facilities and access to those facilities, the need for a pump station, opportunities to eliminate a pump station and sizing of facilities to accommodate upstream of the development. For developments that require a pump station, an economic analysis of costs as laid out in MSD's design manual may be required.

DESIGN PHASE

Specific items which must be submitted to MSD as part of the design review submittal process are identified below. They must be submitted in the sequence and format detailed in the "just in time diagram for lateral extension". Any submittal made to MSD with missing or incorrect information will be returned un-reviewed:

1. **Application For Approval Of Contract Documents for Sanitary Sewer Projects.** This provides basic information about the project, along with the terms and conditions of the approval. It should be noted that MSD's approval is only valid for a period of one year.
2. **Minimum Requirements Checklist for Sanitary Sewer Construction Plans.** This form provides the Applicant with a listing of items normally required for MSD to complete its review of the material.
3. **Construction Plans.** Plan drafting standards (required) and design criteria are covered in MSD's Design Manual. Example plan sheets, CAD files and templates are available on MSD's website. Final plans must be submitted on double-matte, 24" x 36" sheet mylar, with a minimum thickness of 3 mils. Review transmittal copies may be standard blue-line or black-line prints. Two (2) copies are required for each submission. The title sheet should include a location map, a sheet index, the name, address and telephone number of the engineer who prepared the plans, the name, address and telephone number of the developer, the name, address and telephone number of the owner, the surveyor's certification block with a Professional Surveyor's seal, signature and date, a legend, standard and special notes, the Professional Engineer's seal, signature and date, and an approval block for MSD. All sheets must include the project name, the developer's information, the owner's information, the engineer's information, sheet title, submittal date, Professional Engineer seal/signature/date, and Professional Land Surveyor seal/signature/date. The seals and signatures of the engineer and the surveyor (both of whom must be currently licensed in the Commonwealth of Kentucky) must be originals. The Professional Engineer's seal/signature/date is required on all sheets and the Professional Land Surveyor's seal/signature/date is required on all sheets with boundaries shown.
4. **Special Provisions.** Special provisions shall be submitted and shall be adjusted to address the specifics of the project. The engineer shall cross out sections of the provisions that do not apply. The special provisions shall not be modified without specific approval by MSD.
6. **Design Calculations.** The proposed development, along with all upstream or tributary areas must be shown on a topographic map at an appropriate scale. The expected saturation population, based on current zoning, should be used to size the proposed sewers. Population based on zoning can be found in Chapter 8 of MSD's Design Manual. It

should be noted that MSD may require improvements to downstream facilities in order to accommodate the flow from proposed developments. This will be determined on a case-by-case basis. Reference should be made to Chapter 8 of the Design Manual for the required "Computations for Sanitary Sewer Design" format and instructions.

- 7. Easement Plats (if required).** Plats must meet minimum standards for land surveying in Kentucky. They must be certified and sealed by a Professional Land Surveyor currently licensed in the Commonwealth of Kentucky. Two (2) copies are required for each submission, and the original plats must be included with the final submission of documents. MSD will be responsible for recording all easements for public sewers in Jefferson County. In Oldham County, MSD must be provided a copy of the recorded easement. See Chapter 7 of MSD's Design Manual for easement plat preparation guidelines.
- 8. Record Plat.** A copy of the record plat (recorded or unrecorded) is acceptable. This must be submitted in order for MSD to determine whether or not additional sewer and drainage easements will be required. Before MSD will allow sanitary sewers to be accepted and put into service, all public sewers must be in public rights of way or in a public easement.
- 9. Preliminary Subdivision Plans.** A copy of the approved preliminary subdivision plans should be submitted with the original submission if available.
- 10. Roadway Plans (if applicable).** A copy of the roadway plans should be submitted in order for MSD to determine if sufficient cover will be available and to ensure that there are no conflicts with any other proposed facilities. Although MSD will attempt to identify conflicts during review, it is the design engineers responsibility to ensure all potential conflicts are addressed.
- 11. Contacting Other Utilities.** Documentation must be provided showing that potential conflicts with existing utilities have been addressed to the satisfaction of the utility company. MSD must be copied on all letters and transmittals to and from the various utility companies.
- 12. City/County/State Permits.** If proposed sewers will be located within, or crossing the right of way of existing roads, or if proposed sewers will be located outside of the pavement of proposed roads, but still within the right of way, an encroachment permit is needed from the appropriate agency. MSD will apply for state roadway encroachment permits. All other

encroachment permits shall be obtained by the developer or contractor as required by the governing agency. The approved plans shall be used to obtain the necessary permits. The Design Drawings and Special Provisions provided by the Design Engineer must include the requirements set forth by the governing agency. It is assumed that the Design Engineer has been in contact with the Regulating Agency prior to submittal of the Encroachment Permit. If a state encroachment permit is required, seven (7) sets of plans are needed for the submittal. Original copies of any encroachment permits required must be provided to MSD.

- 13. Small City Permits.** If the proposed facilities will be located within the corporate limits of any third or fourth class cities, completed permits showing MSD as the Applicant must be included. The developer/engineer is also responsible for complying with any additional ordinances (e.g. tree cutting) which may be required by third or fourth class cities. Approved permits must be included with the final submittal of plans to MSD. Fifth and sixth class cities will be notified of the proposed project by MSD. Any other requirements by the 5th and 6th class cities shall be handled on a case-by-case basis. MSD must be copied on all correspondence to and from the small city.
- 14. Railroad Crossings.** If proposed sewers will be located within, or crossing, the right of way of existing railroads, executed easement plats must be included for each occurrence. Permits will not be acceptable. MSD must be copied on all correspondence to and from the governing railroad. Applicant is responsible for payment of all fees.
- 15. Miscellaneous Permits.** If proposed sewers will be located within, or crossing, the right of way of any other existing facilities (e.g. Texas Gas), completed permits showing MSD as the Applicant must be included in the final submittal of plans to MSD. MSD must be copied on all correspondence to and from the agency.
- 16. Proposed Project Plan.** An 8 1/2" x 14" drawing showing the proposed project must be submitted to MSD. In order to provide consistency in the appearance of project plans, a template is provided on the web site and in the design manual.
- 17. Erosion/Sediment Control Plan.** The Engineer must submit a plan for erosion and sediment control meeting the requirements of the design manual. A Notice of Intent permit should be submitted to DOW 72 hours before construction starts.

18. Wastewater Facilities Lateral Extension of Boundaries Agreement. This document is the legal agreement between the developer and MSD regarding the construction of sanitary sewerage facilities. It conveys the sewerage facilities to MSD, upon completion and acceptance by MSD. The developer agrees to construct the project according to the plans, special provisions and specifications, to employ an engineer to be available during construction, to review shop drawing submittals and other services as the developer's representative, to commence the project within one year, and to furnish record information once the job is finished. MSD agrees to inspect the work, and to accept ownership of the facilities, along with operation and maintenance responsibilities once construction is completed. Please refer to the lateral extension of boundaries agreement preparation instructions to ensure that the agreement is prepared correctly. Incorrectly prepared agreements will be returned.

19. Accepted Bid Proposal. MSD requires that the lump sum cost for the construction of the sanitary sewers be submitted. The lump sum amount shown on the form shall be the same as the amount shown on the Performance Bond. The bid proposal shall be dated the same as the third paragraph of the bonds.

20. Bonds. MSD requires that a Performance Bond be posted covering the cost of sewer facilities construction cost.

If the proposed sanitary facilities will be located under any pavement (roads, streets, parking lots, driveways of any material besides earth), MSD will also require that a Maintenance Bond be posted in the amount calculated by the engineer in accordance with the guidelines indicated in the Special Provisions (\$5,000.00 minimum, \$4 per LF under Pavement county Road, \$50 per LF under State Maintained Road).

After the project has been accepted by MSD, a two-year warranty period begins. If there are no problems with the facilities after one year, MSD will release the bonds.

21. Pump Stations – The following items must be submitted, for either a public or private pump station, before the review will take place.

Service Area Map - A topographic map showing the proposed development, along with all upstream or tributary areas shown. The expected saturation population, based on current

zoning, should be shown in each area of the map. The service area map shall be shown on the construction plan.

Calculations - The calculations should be for both the initial and the ultimate conditions. All calculations shall be presented in a neat and orderly manner. A summary of the data shall be shown on the plans.

Specifications - MSD's standard specifications for both the grinder and the solid-passing pumps shall be used. The appropriate modifications and spaces need to be filled-in before submitting for review.

Construction Drawings – Construction drawings shall be drawn to scale.

EPANet Model

22. Plan Review and Approval. MSD will review the information submitted and usually return comments to the contact person as specified on the "Application for Approval of Contract Documents for Sanitary Sewer Projects," within ten (10) working days. If a meeting is in order, MSD and the project engineer will discuss the project in detail. After revisions have been made and returned along with all MSD "mark-ups", MSD will review the submittal and if everything is in order, issue a Design Approval letter. When MSD receives written approval from other governing agencies, the engineer submits the original mylars to MSD along with any corrected copies of all items, including the completed developer signed LE Contract, the appropriate bonds, and all other required documents. Note: If there are any revisions to the plans, prior to construction, new mylars must be submitted before the project will be released for construction.

CONSTRUCTION PHASE

After receiving the completed design documents, all required permits and easements, performance and maintenance bonds, drawings on mylar, special provisions and other agency approvals, MSD will issue a Notice-To-Proceed letter for construction and assign an inspector to the job (if applicable). This process will normally take five (5) working days. Construction must commence within one year of the Notice-To-Proceed date. After completion of the

sewer installation the following items must be completed prior to the release of the sewer for connection:

- An initial air and deflection test
- A second air and deflection test after all other utilities are installed
- Installation of chimney seals (after pavement placed)
- Vacuum testing
- Tele-inspection of the lines
- Restoration of disturbed areas
- Payment of fees
- Preparation and approval of as-built drawings (see below)
- Preparation and approval of PSC inlet sheets
- Sworn Statements (Developer and Contractor)
- KDOW Certification Letter
- Available for Connections from Inspector

Physical connection to the sewers requires health department approval

Revisions During Construction. If minor changes to the project are necessary during construction, the developer's engineer should try to resolve the matter by discussing it with MSD's inspector. MSD's inspector will determine whether or not additional review is required. If additional review is required, the developer's engineer must submit a "red-line" drawing of the proposed changes to MSD who will make a decision on the matter as soon as possible and will notify the developer's engineer of the changes approval. The developer's engineer will then submit four (4) copies of the "red-line" drawings to MSD for distributing them to the field. "Significant" changes may require HD and DOW approval.

Record Drawings. Once construction is completed, the developer's engineer/surveyor must provide as-built mylars to accurately reflect the size, location, depth, etc. of the facilities, the location of property service connections and easement data. PSC information which must be shown on the drawings includes the location of the PSC in relation to the sewer along with the length and size of the PSC and any other information referenced in the special provisions under the "Stakes and Final Record Drawing" section. This information should also be shown on the "Property Service Connections Inlet Sheet".