

**City of Indianapolis, Department of Metropolitan Development
Sanitary Sewer Permit Application**

Sanitary Sewer Review Checklist

Project Description _____

Site Address _____

Firm Name _____ Owner's Name _____

Attention _____ Attention _____

Address _____ Address _____

Telephone _____ Telephone _____

Fax _____ Fax _____

Email _____ Email _____

- I. Log In
- _____ A. Application
 - _____ B. Initial Review Fee (\$200.00/\$275.00)
 - _____ C. Plans and Specifications (See Section II of checklist)
 - _____ D. Design Summary Form
 - _____ E. Certificate of Sufficiency of Plan
 - _____ F. Lift Station Submittal Requirement (if applicable, see later section of checklist)
 - _____ G. Zoning Commitments (if applicable)
 - _____ H. 15-Year Law Administration Fee (\$395.00)
- II. Plans and Specification (See later sections of checklist for more details)
- _____ A. Title Sheet
 - _____ B. Service Area Map
 - _____ C. Site Plan
 - _____ D. Plan/Profile Sheets
 - _____ E. Standard Detail Sheets
 - _____ F. Structure Data Sheets
 - _____ G. Lift Station Standard Detail Sheets (if applicable)
 - _____ H. Specifications (shown on plans)
 - _____ I. Other _____
- III. Service Area Map (202.03.1)
- _____ A. On-Site Service Area boundaries shown
 - _____ B. Off-Site Undeveloped Service Area boundaries shown
 - _____ C. Off-Site Developed Service Area boundaries shown
 - _____ D. Contour Lines
 - _____ E. Existing Sanitary Facilities, with inverts
 - _____ F. Relevant Topographic Information
 - _____ G. Other _____

- IV. Design Flow (202.04)
- A. Design Summary Form Completed
 - B. On-site Flow Calculations Submitted
 - C. Off-site Undeveloped Flow Calculations Submitted
 - D. Off-site Developed Flow Calculations Submitted
 - E. Peak Flow (onsite and offsite) Calculations Submitted
- V. Sanitary Sewer Pipe - Design
- A. Pipes properly sized for onsite and offsite flows
 - B. Maximum depth of flow, for ultimate flow, for each pipe - 2/3 full
 - C. Pipe slope per minimum slope based on pipe size
 - D. Minimum depth to crown of all pipes – 6.5'
 - E. Extensions to all boundaries of project for off-site areas
 - F. Location of proposed sewer per 202.07 – In R/W if granular can be avoided, or max. 5' outside R/W within a 10' exclusive easement if granular cannot be avoided, AND pipe is 15" or less in diameter.
 - G. Proposed sewer NOT in rear yard
 - H. Proposed sewer in EXCLUSIVE EASEMENT, not a common D.U.& S.E.
 - I. Existing sewers NOT in rear yards
 - J. Proposed sewers minimum 20' from top of banks of waterbodies
 - K. Proposed sewers not parallel, within flood hazard areas
 - L. Connection to existing manhole, if brick, rehabilitation required
- VI. Manholes – Design
- A. Locations easily accessible and located per 203.02.1, 2, & 3.
 - B. Location NOT in areas that will contribute to I/I (202.02.4)
 - C. Spacing of manholes: pipes 12" or less – 400', 15" to 27" – 500', 30" and larger – 600'
 - D. Manhole dimensions per 203.05
 - E. Inside or outside drop. If inside, larger manhole required. If inside, max. 3 drop pipes.
- VII. Laterals – Design
- A. No more than one building/residential unit per lateral. Apartments and condos where different floors have different owners are exceptions. 201.04.
 - B. Connection to tee, wye, or terminal manhole
 - C. Max. three (3) connections to terminal manhole
 - D. Size: Min. 6" w/in R/W and/or easements, Min. 4" outside R/W and/or easements.
 - E. Depth: Min. 4' w/in R/W and/or easements, Min. 3' outside R/W and/or easements.
 - F. Slope: Min. 1.04% (1/8" per foot)
 - G. Location: street or alley side of property
 - H. Avoid crossing adjacent properties (one max. IF unavoidable)
 - I. Length: Onsite – no max. length, Offsite – 100' (includes adjacent property if crossed)
 - J. Spacing: 10' between laterals on the same side of street
 - K. No common trenches
 - L. Min. 5' from side property lines
 - M. Cleanouts: Max. 100' spacing. Cannot use manholes in lieu of cleanouts unless a pretreatment permit has been issued.
 - N. Minimum Elevation for floor with Gravity connection: Min. 1' above upstream or downstream manhole
 - O. CCTV for connections utilizing an existing lateral. Optional. Recommend reviewing for connections to existing vcp laterals.
 - P. Laterals min. 20' from top of bank of waterbodies
- VIII. Forcemain – Design (when applicable)
- A. Location: Same as gravity sewers
 - B. Depth: Min. 4.5'
 - C. Forcemain not flowing downhill to receiving manhole
 - D. Size: Min. 4", dependent on velocities.
 - E. Velocity: Min. 2.5'/sec, Max. 6.0'/sec. Use judgement if greater than 6.0'/sec. Must review initial and ultimate flows.

- F. Slope: Greater than 0% if open cut, Minimum 1.5% if using HDD.
- G. Air valves on high points. Can depth of forcemain be increased to avoid air valves?
- H. Anchorage shown
- I. Number of restrained joints shown on plans

IX. Lift Station – Design – DPW to also review

- A. DPW approval of lift station concept
- B. 50-year life cycle analysis submitted
- C. Gravity sewer alternative cost estimate submitted
- D. Standard Lift Station Details included in plans
- E. SCADA connectivity verified by DPW
- F. Clear zone, per 502.05.1 shown on plans
- G. Clearance requirements for concrete pad: To adjacent property – 20' min., to R/W 30' max., to private paved streets or paved areas – 20' min. and 30' max., to structures or buildings – 30' min.
- H. Clearance requirements for access drive: To adjacent property – 10' min.
- I. Duplex station
- J. Pumping Capacity calculations submitted
- K. TDH calculations per 502.09 submitted
- L. System head curves plotted against pump performance curves per 502.10. Use C=100, 120, 140 for pvc.
- M. Vfd evaluated. Determined by DPW. See 502.11
- N. Wet well diameter – Min. 6'
- O. Depth and volume calculated per 502.12
- P. Only one incoming sewer allowed
- Q. All dimension and elevation blocks on standard detail sheets completed
- R. Pump information blocks filled in on standard detail sheets
- S. Site plan and service area blocks filled in on standard detail sheets
- T. Buoyancy calculations submitted
- U. Equipment per Section 503
- V. Sent to DPW for comments (2 copies – Engineering and Operations)

X. Low Pressure Systems

- A. DPW must sign off on LPS's.
- B. Designed per 504.06
- C. One building per grinder pump unit
- D. Standardize pump manufacturer
- E. HOA covenants state pump replacement requirements
- F. Equipment per 504.09

XI. Material