II. PUBLIC COLLECTION SYSTEM

PUBLIC COLLECTION SYSTEM

A public collection system is a system which is owned and maintained by the Metropolitan Sewerage District.

The public system will be constructed in accordance with MSD Standards. The systems shall be constructed within public rights-of-way or easements owned by the District. Any sewer system which crosses more than one property and serves more than one property **must** be dedicated as a public system.

Procedures

1) Allocation Approval - Applicants shall submit a completed "Wastewater Allocation Request" form along with the Allocation Fee. Upon approval of request the determination of a Public or Private System will be made. Any exceptions will also be determined.

2) Submittal of Plans -

a) Applicant must submit a digital set of plans to the provided OneDrive Folder sealed by a licensed North Carolina Professional Engineer. Items required on the plans are listed on the plan sheet checklist. Easement requirements are listed on the Easement Checklist. The following must be submitted along with the plans: 1) a payment for the plan review/permit fee, 2) a signed/dated "Owner's Agreement", 3) asigned/sealed/dated "Application for Non-Discharge Permit".

b) **Resubmittal of Plans (if necessary)** - Applicant must submit sets of Revised plans or if the first submittal had no concerns or comments, three (3) additional sets of plans should be submitted. Resubmittals beyond the first revision must be accompanied by a check for the re-review fee.

3) Easement Documents - **(See Easement Section)**

4) Non-Discharge Permit - The District will issue the Non-Discharge Permit. (See Non- Discharge Permit section).

5) Pre-Construction Meeting - Construction may begin once the Non-Discharge Permit has been issued. Construction must begin with a pre-construction meeting with the District's Construction Administration Department.

6) Tap Applications - Applications and associated connection fees will be accepted and issued contingent on a Certificate of Occupancy agreement.

7) Completion of the Project - Completion of the project requires the applicant to:

a) Submit a copy of the Engineer sealed Record Drawings and an As-built Checklist.
b) Submit all Easement documents.
c) Submit Contractor's Certification.
d) Submit Engineer's Certification.
e) Receive Final Inspection Certification.

8) Certificate of Occupancy - MSD will notify the Building Permit office releasing the sewer as part of the Building Inspections sign-off.

The District is in no way responsible for the completion of these sewer projects.

Metropolitan Sewerage District

OF BUNCOMBE COUNTY, NORTH CAROLINA

PROJECT NAME _____

PROJECT NUMBER _____

PUBLIC GRAVITY COLLECTION SYSTEM
PLAN SHEET CHECKLIST FOR SUBMITTAL WITH APPLICATION
for
NON-DISCHARGE PERMIT

Plan Requirements:

_____ **1. Plans consist of Cover Sheet(s), Plan-Profile Sheet(s) and Detail Sheet(s).**

2. Each Sheet:

_____ a) Has a Title Block with:

_____ 1) The project name consistent with the Project Name on the Application.

_____ 2) The engineer's job number sheet number, date, revision dates, scale, and Drawn By.

_____ b) Has been signed, sealed, and dated by a North Carolina licensed professional Engineer.

_____ c) Sheet size: 24" x 36"

3. Cover Sheet(s):

_____ a) Indicate the name, address, and phone number of the developer and the engineer.

_____ b) Vicinity map at not less than 1"=2000' with North Arrow.

_____ c) Schematic site plan with sheet index indicated.

_____ d) Symbols Legend.

_____ e) Topography - Minimum USGS with drainage area to actual low points of boundary indicating zoning by types and acreage of each.

_____ f) MSD Project Number as issued on allocation approval.

4. Plan-Profile Sheet(s):

_____ a) North Arrow on plans.

_____ b) At a scale of not less than 1"=50' horizontal and 1"=10' vertical.

_____ c) Plan and profile views run in same direction (left to right) upstream with profile directly beneath corresponding plan view.

_____ d) All existing utility poles and existing underground utilities with sizes are shown with faded or thin lines. All locations were determined by field survey. Existing utilities include tie-in manhole and the next downstream manhole with NAD83(2011) NC Grid Coordinates.

_____ e) All proposed utility poles and underground utilities with sizes are shown with bold or shaded lines.

f) Proposed Manholes:

_____ 1) Top and invert elevations shown to mean sea level datum (NAVD 88) in accordance with MSD Design Criteria.

_____ 2) Within the 100-year storm flood plain are two feet higher than the flood elevation or have been provided with a sealed locking cover and vent as required to the higher elevation, and have been indicated on the plan, profile, and data sheet.

_____ 3) That have drop connections have been indicated as such on both the plan and profile sheets and have been used where the “Invert-in” is greater than 2.50 feet (30-inches) higher than “Invert-out”.

_____ 4) Spacing is 425 feet or less.

_____ 5) Stationing is shown on the plan and profile along centerline of sewer.

_____ 6) Angle of flow is noted at each manhole.

g) Proposed Lines:

_____ 1) Lines to be publicly maintained are a minimum of 8-inches in diameter (with the exception of service lines within public rights-of-way and/or easements) and have been sized in accordance with MSD Design Criteria.

_____ 2) Are ductile iron and indicated on the plan, profile, and data sheet where:

_____ a) Less than 3 feet of cover is available.

_____ b) Less than 18 inches of vertical clearance is available between line and storm sewer.

_____ c) Sewer crosses over water lines, or where less than 18 inches of vertical clearance water over sewer is available, or where 10 feet of horizontal separation between water and sewer cannot be maintained.

_____ d) Slopes are greater than 20%, or velocities require DIP.

_____ e) Where traffic loadings or depth require the additional strength.

_____ f) Where minimum vertical and horizontal separations from other utilities cannot be met.

_____ g) At creek crossings. See Minimum Design Criteria for more detail pertaining to stream crossings.

_____ h) Where 50 feet of separation between sewer and streams classified WS (Except WS-1 or WS-V), B, ORW, HQW cannot be met. See Minimum Design Criteria for additional information.

_____ 3) Are 100 feet from any water supply (public or private) including any WS-1 waters or Class-I or Class-II impounded reservoirs used as a source of drinking water. If this minimum separation cannot be maintained, ferrous (DIP) sewer pipe with joints equivalent to public water supply design standards shall be used. The minimum separation regardless of pipe material shall not be less than 25 feet from a private well or 50 feet from a public water supply well. See Minimum Design Criteria.

_____ 4) All streams and bodies of water located on subject parcel within 100 feet of proposed sewer extension shall be shown in Plan View and identified by classification type.

_____ 5) Proposed sewer lines running parallel to streams, lakes, etc. have at least 10 feet of horizontal separation from stream bank. See Minimum Design Criteria for more information.

_____ 6) Crossing or within 10 feet of other existing or proposed utilities have been shown in plan and profile views with horizontal and vertical clearances indicated.

_____ 7) Where required horizontal separation from other utilities is not available, special provisions have been made and indicated on the plans for the protection of sewer maintenance personnel.

_____ 8) Concrete anchors for ductile iron pipe have been shown on the plan and profile views when slopes are:
a) Between 20% and 35% at intervals not greater than 36 feet.
b) Between 36% and 50% at intervals not greater than 24 feet.

_____ 9) That are to be bored have been indicated on the plan and profile views showing the type of pipe and casing, with the length.

_____ 10) Road crossings indicate the type and width of pavement for main lines and service lines.

_____ 11) Indicate the proposed pipe size, type, direction of flow and length between manholes in plan view.

_____ 12) Indicate the proposed pipe size, type, length between manholes, and percent of grade in profile view.

h) Plan Views Indicate:

_____ 1) Existing and proposed structures or lots to be served by gravity with existing or proposed floor elevations and locations. For vacant lots, a spot elevation near the center of the lot has been shown.

_____ 2) Note existing and proposed structures or lots that cannot be served by gravity.

_____ 3) At least one benchmark per sheet with location NAD83(2011), with mean sea level elevation (NAVD 88), and description.

_____ 4) Flood limits of 100-year flood elevation.

_____ 5) Location of work within NCDOT rights-of-way and distance to nearest intersection in feet.

_____ 6) Location of work within railroad rights-of-way and distance to nearest intersection in feet.

_____ 7) By note that the specifications and requirements of the Metropolitan Sewerage District supersede all others in the installation of the proposed extension.

_____ 8) By note that the installation of the proposed sewer extension and all public sanitary sewer work associated with this project shall be performed by a NC Licensed Utility Contractor.

i) Right of Way Plan Requirements:

_____ 1) Current owner(s) of record of subject site, including deed book and page of title acquisition.

_____ 2) Parcel Identification Number (PIN).

_____ 3) Developer contact information.

_____ 4) Easement overlay for all areas proposed for transfer to MSD in accordance with required easement width chart. This includes all areas whether on private property or within a public right-of-way.

_____ 5) Street name/number designation and legal width of all public rights-of-way.

_____ 6) Boundary line information for subject site.

_____ 7) Ownership (deed book/page of title acquisition) and boundary delineation for all off-site areas affected by the proposed sewer line easement.

_____ 8) Owner's Agreement.

i) Profile Views:

_____ 1) Indicate the 100 year flood elevation in the end of the profile or a note to the effect that the project area is outside the 100 year flood plain.

k) Detail Sheets:

_____ 1) Details are in accordance with those approved by the District.

_____ 2) Details required by others have been indicated.

_____ 3) Details are clear and legible.

EXPLAIN ANY ITEMS NOT CHECKED. Provide additional sheets as necessary.

_____

_____

_____

By signing and sealing this document, I certify that all checked requirements listed on this form have been completed, or addressed as noted above.

Engineer's Signature: _____

Date: _____

SEAL