

IV. FORMS – APPLICATIONS - PERMITS

FORMS
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**APPLICATION FOR NON-DISCHARGE PERMIT
GRAVITY SEWER SYSTEM EXTENSION
METROPOLITAN SEWERAGE DISTRICT OF BUNCOMBE COUNTY, NORTH CAROLINA**

Project Name _____

MSD Project Number _____

Project Type: ☐ New Construction ☐ Relocation ☐ Modification of Permit

Wastewater Allocation Approval Number _____ Approved G.P.D. _____

Wastewater Treatment Plant receiving wastewater:

☐ Metropolitan Sewerage District Of Buncombe County, North Carolina (NC0024911)

Nature of wastewater _____ % Domestic _____ % Industrial
 _____ % Commercial _____ % Other _____

Origin of wastewater ☐ Subdivision ☐ Commercial ☐ School
 ☐ Apartments/Condo(s) ☐ Industrial ☐ Other _____

List any parameter and it's concentration that will be greater than normal domestic levels: _____

If wastewater is non-domestic, describe level of pretreatment: _____

If a pretreatment permit is required, has one been issued? ☐ YES ☐ NO

Has Engineer determined N.C.D.W.Q. and M.S.D. minimum design standards are met by this project? ☐ YES ☐ NO

Complete name and address of Engineering Design Firm: _____

Telephone _____ - _____ - _____

Professional Engineer's Certification:

I, _____, attest this application for _____
_____ has been reviewed by me and is accurate and complete to the best of my knowledge. I further attest to the best of my knowledge the proposed design has been prepared in accordance with the applicable regulations. Although certain portions of this submittal package may have been developed by other professionals, inclusion of these materials under my signature and seal signifies I have reviewed this material and have judged it all to be consistent with the proposed design.

North Carolina Professional Engineer's Seal, Signature, and Date:

Owner's Name (print) _____

Owner's signature: _____ Date: _____

MSD will accept ownership of this system upon acceptance by the MSD Board of Directors

OWNER'S AGREEMENT

PROJECT NAME: _____

PROJECT LOCATION: _____

MSD PROJECT #: _____

ALLOCATION #: _____

PIN#: _____

NOTE: This agreement must be executed and returned to MSD as part of the plan submittal package. Plan approval will not be issued until a fully executed agreement is on file with the Planning and Development/Engineering department as part of the project file. Copies of all correspondence will be forward to the party signing this agreement.

I _____, hereby certify that I am the project owner and the party contractually obligated for all costs associated with installation of the sewer system. This includes the acquisition of any and all on-site and off-site sewer easements that may be required and all other required documentation to complete sewer system transfer to MSD. Construction of and documentation for said sewer system will be provided in accordance with prevailing MSD standards and specifications for developer constructed sewer systems. Issuance of building permits for this project will require evidence of approval by MSD. **A certificate of occupancy will not be issued until the following MSD requirements have been satisfied.**

1. Record/As-built drawings
2. Easement/System conveyance documents
3. Engineer's certification
4. Contractor's certification
5. MSD inspection approval

By my signature below, I acknowledge and agree to the terms outlined in this Owner's Agreement.

This the _____ day of _____, 20_____.

Signature of owner: _____

Owner Name (Printed): _____

Address: _____

Telephone: _____ Fax: _____

E-mail address: _____



Metropolitan Sewerage District

OF BUNCOMBE COUNTY, NORTH CAROLINA

Wastewater Allocation Request

Complete all appropriate items and return to:

MSD / Planning and Development
2028 Riverside Drive
Asheville, NC 28804
828-254-9646

Attention: System Coordinator: sewerapplications@msdbc.org

1) Person requesting Allocation – (party to receive allocation letter)

Name: _____

Address: _____

Phone: _____

E-mail (Required): _____

Company: _____

2) Developer Information:

Name: _____

Address: _____

Phone: _____

E-mail (Required): _____

Company: _____

3) Name and Location Information:

Name of Project: _____

Pin: _____

Street: _____

4) Scope of Project and Connection Point with Manhole Number: _____

Brief Description of Project: _____

Residential: # of units _____ # of bedrooms _____

Non-residential: # of employees _____ # of seats _____

Estimate Discharge*: _____ GPD (75 gallons per bedroom)**

***Please use: 15A NCAC 02T .0114 Wastewater Design Flow Rates except for residential.**

****MSD has an agreement with NCDEQ to use 75 GPD/Bedroom**

5) Connection Information:

Tap size: (circle) 4 6 8 Other _____

6) Water Source: _____

For ALL Allocation Requests provide the following information:

- ☐ A site plan showing property/properties to be served
- ☐ Plan showing proposed route to existing MSD sewer with topographic information
- ☐ Connection point to MSD sewer

The Metropolitan Sewerage District will only consider gravity sewer extensions to the existing District sewerage system.

(Form continues, NEXT PAGE)

7) Projects that involve **FOOD SERVICE** or **FERMENTED BEVERAGE PRODUCTION, NON-DOMESTIC** or **INDUSTRIAL WASTE**:

Require additional review by Industrial Waste Services.

Food Service Facilities:

MSD Approval is a 2-Step Process:

- 1) You must contact ALAN TAYLOR at: ATaylor@MSDBC.org or pretreatment@msdbc.org to submit plans for review of grease interceptors ("traps") prior to Sewer Service Application/ Building permit approval. This submittal must also include the *Food Service Application Form*.
- 2) Once the grease interceptor ("trap") is installed, your contractor must contact ALAN TAYLOR again: **(828) 225-8231** to **schedule a final inspection**.
- 3) The C.O. for the project will be on HOLD until the installation is approved.

<http://www.msdbc.org/iw/foodservice.php>

Fermented Beverage Production:

All breweries, distilleries, cideries, must contact SHANNON BERGERON at: **(828) 225-8230** and/or pretreatment@msdbc.org to submit plans for review of pre-treatment and complete a Brewery Survey prior to Sewer Service Application/Building permit approval.

<http://www.msdbc.org/fermentedbeveragemanufacturers.php>

Industrial Waste:

- ☐ Contact SHANNON BERGERON at: **(828) 225-8230** and/or pretreatment@msdbc.org
- ☐ Industrial-Commercial Permit Application and
- ☐ Industrial Waste Survey may be found on the MSD Website:

<http://www.msdbc.org/industrialwaste.php>

Return completed application to:

MSD Planning and Development - Attention: System Coordinator 2028 Riverside Drive Asheville, North Carolina 28804 or via email: sewerapplications@msdbc.org

A \$170.00 non-refundable fee is also required. Payment can be made by Credit Card over the phone; call (828) 254-9646 and ask for a System Coordinator to pay Allocation Fee. Or a check payable to: "MSD of Buncombe County" may be mailed or delivered to MSD.

The District reserves the right, in its sole and absolute discretion, to approve or decline any allocation approval request.

Name: _____ Date: _____

Signed

~Protecting Our Natural Resources~

2028 RIVERSIDE DRIVE, ASHEVILLE, NORTH CAROLINA 28804 TELEPHONE: (828)254-9646 FAX: (828)251-4788 WEBSITE: www.msdbc.org

DOMESTIC WASTEWATER SEWER SERVICE APPLICATION

METROPOLITAN SEWERAGE DISTRICT OF BUNCOMBE COUNTY, NORTH CAROLINA

MSD must approve all new connections to the District Sewerage System in accordance with North Carolina Law. "New sewer connections" include any new construction to be connected to the District Sewerage System, mobile homes to be connected to the District Sewerage System and additions or alterations to existing wastewater flow. The applicant for wastewater service is responsible for obtaining any necessary rights of way (deeded easements) for sewer service between the applicant's property and the connection to the District Sewerage System. If there are any sewer lines located on the property, it is the owner's responsibility to identify and locate the sewer lines to ensure that no structures or other improvements are located in violation of North Carolina Law. Contact MSD for assistance in locating the sewer lines. MSD reserves the right to rescind any approval of this application and any allocation of wastewater flow if any information on this application is incorrect or if MSD is prohibited by the State of North Carolina or EPA from accepting additional flows.

PLEASE NOTE:

INCOMPLETE APPLICATIONS WILL DELAY PROCESSING AND APPROVAL.

If YOU NEED ASSISTANCE COMPLETING THE FORM, PLEASE CONTACT A SYSTEM COORDINATOR

AT: THE PLANNING & DEVELOPMENT DEPARTMENT AT MSD:

828-254-9646 SEWERAPPLICATIONS@MSDBC.ORG

PROPERTY OWNER NAME: _____

MAILING ADDRESS: _____
(Street Address or PO Box) (City/Town) (Zip Code)

SERVICE (PROJECT) ADDRESS: _____
(Street Address or PO Box) (City/Town) (Zip Code)

DIRECTIONS TO PROPERTY: _____

PIN NUMBER(S) (REQUIRED): _____

APPLICANT / CONTACT NAME: _____

CONTACT ADDRESS (REQUIRED): _____
(Street Address or PO Box) (City/Town) (Zip Code)

CONTACT PHONE NUMBER(S): _____

CONTACT EMAIL (REQUIRED): _____

PROJECT TYPE* (See page 2 for more information.)	NUMBER OF UNITS	BRIEF DESCRIPTION: NEW CONSTRUCTION, RE-MODEL, ADDITION, UPFIT, SITE PLAN REVIEW, SEPTIC-TO- SEWER, ETC.	NUMBER OF BEDROOMS (Residential)	NUMBER OF SEATS OR SQ FOOTAGE (Commercial)
RESIDENTIAL (single family*)				
RESIDENTIAL (multi-family**)				
RESIDENTIAL ADU / ARB				
COMMERCIAL (office / retail)				
COMMERCIAL (food service)				
COMMERCIAL (medical / dental)				
COMMERCIAL (fermented beverages)				
COMMERCIAL (non-domestic waste / industrial)				

* Single family includes: Free standing home, townhouses, and mobile homes.

** Multi-family includes: Duplexes, condominiums, and apartments.

PROJECT JURISDICTION (CHECK ONE): ☐ ASHEVILLE CITY LIMITS
☐ OTHER (specify): _____

**DOMESTIC WASTEWATER SEWER SERVICE APPLICATION
METROPOLITAN SEWERAGE DISTRICT OF BUNCOMBE COUNTY, NORTH CAROLINA**

Complete if your project already has a Wastewater Allocation Request approved, (IF NOT, LEAVE BLANK):

PROJECT ALLOCATION NAME: _____
PROJECT / ALLOCATION #: _____
LOT # (IF APPLICABLE): _____

WATER SOURCE: ☐ ASHEVILLE ☐ BILTMORE FOREST ☐ BLACK MOUNTAIN ☐ CHRISTMOUNT
☐ HENDERSONVILLE ☐ MONTREAT ☐ RIDGECREST ☐ WEAVERVILLE ☐ WELL ☐ WOODFIN
☐ OTHER: _____

NUMBER OF NEW WATER ACCOUNTS: _____ WATER METER SIZE: _____ INCH (commercial only)

TAP CONNECTION STATUS: ☐ TO BE INSTALLED ☐ EXISTING (It is the APPLICANT'S responsibility to verify existing tap.)

- CONNECT TO: ☐ MSD SEWER ☐ PRIVATE SEWER SYSTEM _____
(List name of responsible homeowner, developer, etc.)
- TAP IS NEEDED: ☐ **FAILING LINE / SEPTIC ASAP** ☐ **CUSTOMER WILL CALL MSD WHEN READY (828-255-0061)**
Please call a minimum of 30 days prior to requested installation date. MSD will make the best effort possible to install in a timely manner. However, there is no guarantee due to crew response to emergencies, work volume, weather, and other factors.
- SEWER TAP SIZE: _____ INCH

***PROJECT-SPECIFIC REQUIREMENTS**

1. RESIDENTIAL PROJECTS INVOLVING 3 OR MORE PARCELS/SUBDIVISIONS REQUIRE A WASTEWATER ALLOCATION REQUEST TO BE COMPLETED PRIOR TO SEWER SERVICE APPLICATION. GO TO THE MSD WEBSITE FOR THE FORM: <http://www.msdbc.org/formsmenu.php>.
2. NEW COMMERCIAL PROJECTS REQUIRE A WASTEWATER ALLOCATION REQUEST TO BE COMPLETED PRIOR TO SEWER SERVICE APPLICATION. GO TO THE MSD WEBSITE FOR THE FORM: <http://www.msdbc.org/formsmenu.php>.
3. COMMERCIAL PROJECTS WITH:
 - a. **FOOD SERVICE**: ALAN TAYLOR: 828-225-8231 / pretreatment@msdbc.org
 - b. **MEDICAL/DENTAL**: CHAD LEDFORD: 828-225-8225 / pretreatment@msdbc.org
 - c. **FERMENTED BEVERAGES/NON-DOMESTIC WASTE**: SHANNON BERGERON: 828-225-8230 / pretreatment@msdbc.org

SIGNATURE: _____ DATE: _____

DOMESTIC WASTEWATER SEWER SERVICE APPLICATION

METROPOLITAN SEWERAGE DISTRICT OF BUNCOMBE COUNTY, NORTH CAROLINA

DEVELOPMENT FEE PRICE LIST

This impact fee is for allotted capacity in the treatment and transmission system. A differential fee will be charged for increases to an existing meter size.

RESIDENTIAL

Addition only (with or without footprint change)-----	\$	0
Single-family and ADU (detached unit)-----	\$	3568
Multi-family (attached unit)-----	\$	2390
Affordable Housing*		
Residence (per unit, after refund)-----	\$	844

* The residential development must meet the Affordable Housing criteria of the local governing jurisdiction. To receive a refund, MSD must receive written verification from the governing jurisdiction that the criteria have been met.

NON-RESIDENTIAL

Meter Size (installing new* or upgrading existing**)

5/8"-----	\$	3,568
3/4"-----	\$	5,352
1"-----	\$	8,919
1 1/2"-----	\$	17,839
2"-----	\$	28,542
3"-----	\$	57,084
4"-----	\$	89,194
6"-----	\$	178,387
8"-----	\$	285,319
10"-----	\$	749,226
12"-----	\$	945,452

*Meter size will initially be determined by the engineer's estimate. The C/O will remain on hold until the water department confirms the actual meter size and MSD ensures the correct fees have been collected.

**If the water meter is to be upgraded to a larger size, the facility fee will be the difference between the existing meter and the new meter. (For example: new 1" at \$8,919 – existing 3/4" at \$5,352 = \$3,567.)

***SEWER CONNECTION (TAP) FEES:** This fee will apply to all new construction, as well as existing structures which have been demolished/rebuilt, and sewer service is reinstated under new property ownership. MSD will install sewer connections where the public main is on the same side of the street as the residence or business. MSD requires that a licensed utility contractor install any sewer connection/service line within public rights-of-way extending over 75 feet or that requires pavement disturbance or boring to reach across a paved thoroughfare. The installation shall be constructed to MSD Standards. All work will be subject to MSD inspection.

ALLOCATION FORMS: A sewer Allocation is required for any residential project greater than two single-family residences. All new commercial projects require an Allocation, and occasionally an Allocation is needed for commercial upfits or tenant change-outs. The Allocation fee is \$170.00.

RELEASE OF CERTIFICATE OF OCCUPANCY (C/O'S): MSD will not release Certificates of Occupancy/Completion (C.O.)s for projects where the sewer system has not been transferred to MSD, or for projects where required sewer work and/or documentation has not yet been completed. If you have questions, please call Samuel Gettleman (828-225-8270).

Please submit to: Metropolitan Sewerage District
Attention: Sewer Applications
2028 Riverside Drive
Asheville, North Carolina 28804
E-mail: sewerapplications@msdbc.org
Phone: 828-254-9646



Metropolitan Sewerage District

OF BUNCOMBE COUNTY, NORTH CAROLINA

FOOD SERVICE ESTABLISHMENT APPLICATION

This form is used to determine the type of food establishment wastewater your business could be discharging to the Metropolitan Sewerage District's Wastewater Treatment Facility and the adequacy of grease control prior to discharge.

A complete application includes:

- (1) this form,
- (2) engineered kitchen plans,
- (3) site plan,
- (4) grease interceptor manufacturer's detail sheets, and
- (5) sizing calculations.

A. GENERAL INFORMATION

Establishment Name: _____

MSD Allocation Number (if known): _____

Mailing Address: _____

Location Address: _____

Owner Contact Name: _____

Owner Contact Phone: _____

Responsible Contact Person: _____

Contact Person Phone: _____

Contact Person Email: _____

Signature: _____

I certify that the facts and information in this application, including attachments, are true, complete, and accurate to the best of my knowledge.

B. FIXTURE SUMMARY

COMPONENT	NAME	PLUMBED TO GI? ¹						
2-Comp Sink				L (in)		W (in)		H (in)
3-Comp Sink				L (in)		W (in)		H (in)
4-Comp Sink				L (in)		W (in)		H (in)
Bar Sink 1 Bowl				L (in)		W (in)		H (in)
Dipper Well								
Dishwasher (Conveyor)					gallon capacity			
Dishwasher (Door Type)					gallon capacity			
Dishwasher (Undercounter)					gallon capacity			
Dump Sink 1 Bwl				L (in)		W (in)		H (in)
Floor Drain								
Floor Drain Emergency								
Floor Sink								
Hand Sink								
Ice Machine (With Drain)								
Soup Kettle					gallons			
Warming Table (with drain)								
Wok Range								
Mop Basin				L (in)		W (in)		H (in)
Pre-Rinse Sink One Bowl				L (in)		W (in)		H (in)
Prep Sink 1 Bowl				L (in)		W (in)		H (in)
Prep Sink 2 Bowl				L (in)		W (in)		H (in)
Other:				L (in)		W (in)		H (in)
Other:				L (in)		W (in)		H (in)
Other:				L (in)		W (in)		H (in)
Other:					gpm ²			
Other:					gpm ²			

¹ Indicate Y/N if the fixture discharges to the grease interceptor

² gpm = Gallons Per Minute

Fixture Comments / Additional Information:

C. FOOD SERVICE INFORMATION

Type of Food Service Establishment / Menu: _____

If other, please list: _____

What appliances will be in the kitchen: _____ Fryer _____ Food Waste Disposal _____

Which best describes the serving ware: _____ Days open per week: _____

Meals Per Day: _____ Seating Capacity: _____ Size of Establishment (Sq Ft): _____

D. GREASE INTERCEPTOR INFORMATION (IF KNOWN)

GREASE INTERCEPTOR NO. 1

Grease Interceptor Manufacturer: _____ Model: _____

Grease Interceptor Rating*: gallons per minute: _____ gallons: _____ pounds of grease: _____

*(*submit copy of the manufacturer's detail sheet and sizing calculations)*

Describe where the interceptor will be installed: _____

Will it be buried? Yes No

Will it be installed in a vehicular traffic area? Yes No

What size drainage pipe will be connected to the grease interceptor (inches)? _____

List the Fixtures Plumbed to this Grease Interceptor: _____

GREASE INTERCEPTOR NO. 2

Grease Interceptor Manufacturer: _____ Model: _____

Grease Interceptor Rating*: gallons per minute: _____ gallons: _____ pounds of grease: _____

*(*submit copy of the manufacturer's detail sheet and sizing calculations)*

Describe where the interceptor will be installed: _____

Will it be buried? Yes No

Will it be installed in a vehicular traffic area? Yes No

What size drainage pipe will be connected to the grease interceptor (inches)? _____

List the Fixtures Plumbed to this Grease Interceptor: _____



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, Drawn By, and MSD Project Number as issued on allocation approval.
- _____ b) Has been signed, sealed, and dated by a North Carolina licensed Professional Engineer.
- _____ c) Sheet size: 24" x 36" in electronic format.

_____ **3. Cover Sheet(s):**

- _____ a) Indicate the name, address, email address, and phone number of the developer/owner and the engineer.
- _____ b) Vicinity map at not less than 1"=2000' with North Arrow.
- _____ c) Overall Utility Plan with sheet index, including manhole numbers.
- _____ 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.
- _____ g) Survey sheet attached.

_____ **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 and materials are shown with faded or thin lines. All locations, elevations, and inverts were determined by field survey. Existing utilities include tie-in manhole and the next

downstream manhole with MSD manhole numbers. MSD GIS shall not be used for design.

_____ 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) 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". Both "invert-in's" displayed for drop connections.

_____ 4) Spacing is 425 feet or less.

_____ 5) Stationing is shown on the plan and profile along centerline of sewer and at each manhole in the profile view. Begin stationing at connection manhole. Branching lines should reset stationing.

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

_____ 7) At the connecting/existing manhole, add the note: "*Manhole to be cored and booted to accept new 8-inch connection with the invert constructed in a U-shaped, sweeping manner.*"

_____ 8) Manhole invert drops are a minimum of 0.20 ft for standard 8-inch lines.

_____ 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 sewer line and any other utility (including stormwater).

_____ 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 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:
 - i. Between 20% and 35% at intervals not greater than 36 feet.
 - ii. Between 36% and 50% at intervals not greater than 24 feet.
 - iii. Greater than 50% at intervals not greater than 16 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 to two decimal places.
- _____ 12) Indicate the proposed pipe size, material, length between manholes, and percent of grade in profile view to two decimal places.

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) Street name/number designation, and NCDOT legal width public rights-of-way clearly shown and dimensioned. 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) MSD Service Line Cleanouts (end of MSD maintenance):
 - i. Are located just within the MSD easement or public right-of-way.
 - ii. Are not located in roadways or parking lots (landscape islands, yards, and sidewalks preferred). If the first (MSD) cleanout must be in a paved area, an 18"x18"x 6" concrete pad must be specified around a traffic-rated cast iron cleanout box.

- _____ 8) By note:
- i. That the specifications and requirements of the Metropolitan Sewerage District supersede all others in the installation of the proposed extension.
 - ii. 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.
 - iii. That doghouse manholes are not allowed.
 - iv. That the permanent public (MSD) sanitary sewer easement shall be cleared and remain free of trees and permanent structures (including roof overhangs, retaining walls, foundations, etc.).

i) Right of Way Plan Additional Requirements:

- _____ 1) Current owner(s) of record of subject site, including deed book and page of title acquisition.
- _____ 2) Parcel Identification Number (PIN).
- _____ 3) Call-out and dimension all proposed easement areas 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. Existing easements should be identified.
- _____ 4) Boundary line information for subject site.
- _____ 5) Ownership (deed book/page of title acquisition) and boundary delineation for all off-site areas affected by the proposed sewer line easement.

j) 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.

5. Detail Sheet(s):

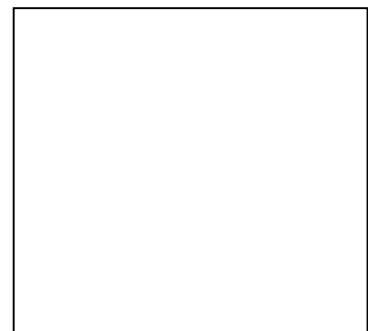
- _____ a) Details are in accordance with those approved by the District.
- _____ b) Details required by others have been indicated.
- _____ c) Details are clear and legible.

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



**METROPOLITAN SEWERAGE DISTRICT
“RECORD” OR “AS-BUILT” DRAWING CHECK LIST**

DRAWINGS INDICATE THE ACTUAL FIELD CONDITIONS FOR:

PROJECT NAME: _____ PROJECT #: _____

Gravity Sewer System

1. Plan and Profile View of “As-Built” Sewer Line to include:
 - Type, Length, and Diameter of Pipe
 - Percent of Grade (Pipe Slope)
 - North Arrow and Symbols Legend (Plan View Only)
 - All Utility Crossings (Show pipe material transition points, concrete keys if applicable)
 - Easement Overlay (Plan View Only)
 - Top of manhole elevations (MSL Datum)
 - Manhole in and out invert elevations (MSL Datum)
2. North Carolina State Plane Coordinates (NAD 83) for all manholes.
3. North Carolina State Plane Coordinates (NAD 83) for each cleanout to be maintained by the MSD.
4. MSD manhole number or coordinates of existing tie-in manhole.
5. Show “as-built” service lines from sewer main to first cleanout.
6. Provide a CD or e-mail containing digital comma delimited text (.txt) file to include:
 - Point Number
 - Northing to four decimal places
 - Easting to four decimal places
 - Top Elevation to two decimal places (Manholes Only)
 - Invert Out Elevation to two decimal places (Manholes Only)
 - Description shall be
 - CO for cleanouts (i.e. CO,1, CO,2 ...)
 - MH for new manholes
 - EMH for existing manholes
 - Property address to match the respective service line cleanout for the lot being served
7. Provide a printed table on as-built/record drawing with same information as detailed in item #6 above.
8. Provide one (1) signed, sealed, and dated 24” x 36” paper copy of final as-built or record drawing.
9. All as-built/record drawings must be sealed by a NC Professional Engineer and comply with all NCBELS requirements.

Pump Station Additional Requirements (Please see MSD Pump Station As-built Checklist)

All aforementioned information shall be added to the final as-built/record drawings. Easement Plat may be combined with As-Built/Record Drawings provided document is sealed, signed and dated by both Engineer and Surveyor.

I, _____, am the Engineer for this project and do hereby certify all the above information is submitted to form and is correct.

Engineer’s Signature

Date



METROPOLITAN SEWERAGE DISTRICT REQUIREMENTS FOR EASEMENT SURVEY PLATS RELATED TO DEVELOPER CONSTRUCTED SEWER SYSTEMS

All easement survey plat formats must include the following information:

- _____ 1. The sewer line must be centered within the easement in accordance with the required Easement Width Chart (see copy at the end of this section). The limit of the permanent easement area must be delineated.
- _____ 2. Provide bearings and distance on centerline of sewer.
- _____ 3. Show all property boundaries. Field surveying, however, is only required for property boundaries intersecting sewer easements. The remaining boundary lines are to be shown as dashed lines referencing the deed.
- _____ 4. Show the location of proposed sewer lines and appurtenances and any existing active sewer lines and appurtenances, clearly indicating whether existing or proposed.
- _____ 5. Contain a revision block showing number of revision, revision description, and date of revision.
- _____ 6. Survey title must include, "SANITARY SEWER EASEMENT FOR THE METROPOLITAN SEWERAGE DISTRICT ACROSS THE PROPERTY OF...".
- _____ 7. Property's Owner's name, including deed book and page of title acquisition for each property easement crosses.
- _____ 8. Parcel Identification Number for each property the easement crosses.
- _____ 9. Street name / number designation and legal width for all public rights of way.
- _____ 10. Seal of surveyor, surveyor's name, company and address.
- _____ 11. North Arrow.
- _____ 12. Grid tie to center line of sewer using 1983 datum.

**ALL EASEMENT SURVEY PLATS MUST BE REVIEWED BY THE DISTRICT
PRIOR TO RECORDING.**

MSD FINAL INSPECTION APPROVAL

(THIS DOCUMENT NOT TO BE USED FOR CERTIFICATE OF OCCUPANCY RELEASE)

PROJECT NAME: _____

MSD PROJECT NUMBER: _____

MSD PERMIT NUMBER: _____

Inspection staff has monitored construction on a periodic basis and has found construction to be in substantial compliance with the standards as set forth by the Metropolitan Sewerage District.

FIELD INSPECTOR

DATE

FORM: IA001

**ENGINEER'S CERTIFICATE OF COMPLETION
TO
METROPOLITAN SEWERAGE DISTRICT
OF
BUNCOMBE COUNTY, NORTH CAROLINA**

I, the undersigned, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (weekly, daily, full time) the construction of the project.

_____, _____
Name of Project Permit # (if applicable)

for _____ (the Applicant, the Permittee), hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the permit (if applicable), the approved plans and specifications, and other supporting materials (including MSD design criteria).

The (estimated actual) cost of sewer construction for this project was \$_____.

Signature of Professional Engineer

Date

Name of Firm

License Number

Seal

**CONTRACTOR'S CERTIFICATE OF COMPLETION AND WARRANTY
TO
METROPOLITAN SEWERAGE DISTRICT OF
BUNCOMBE COUNTY, NORTH CAROLINA**

(Name of Project as Permitted)

Permit Number

I, the undersigned, do hereby certify:

1. That we are a licensed Utility or Unclassified Contractor in the State of North Carolina.
2. That the sewer extensions relative to the above referenced project have been installed and tested in strict accordance with the approved plans and specifications for the project under the supervision of the Engineer of Record.
3. That we guarantee the materials and installation of the sewer extension including all appurtenances and that restoration of any disturbed areas for a period of one (1) year and shall make repairs deemed necessary by MSD.
4. That during the one year warranty period we will make repairs within the time limits allowed by the North Carolina Department of Environment and Natural Resources, Division of Water Quality, but no later than twenty four (24) hours for repairs which would otherwise represent a threat to the public health and no later than thirty (30) days for all other repairs.
5. That after the District has unsuccessfully attempted to notify our office and/or we have not been able to make the required repair within the time allowed, we will reimburse MSD for costs for repairs made by its own forces. These costs will include, but not be limited to, materials, labor, equipment, damages and reimbursement collection costs.
6. The approximate cost of sewer construction for this project was \$_____.
7. Warranty Period Expires_____. (One year from date of final report by MSD construction inspector. **To be completed by the District.**)

Name of Firm (Corporation/Company)

Corporation or Company Seal

Signature of Authorized Representative

Title

License Number

Date

State of North Carolina - County of Buncombe

Subscribed and sworn to before me this the_____ day of_____, 20_____.

Notary Public

My Commission Expires

EASEMENT REQUIREMENTS



1. Off Site Easements

Acquisition of all offsite easements are the sole responsibility of the developer. These easements must be acquired using an Easement Agreement with the current record property owner(s) as "Grantor" and the Developer as "Grantee". An easement survey plat should be prepared in accordance with "Requirements for Easement Survey Plat" included in this section. Subsequently, these easements will be transferred/assigned/conveyed to the Metropolitan Sewerage District via a Conveyance of Sewer System and Easement Agreement (see sample in this section).

2. Relocation of an Existing MSD Sewer Line

At times, it may become necessary to relocate a portion of the existing MSD sewer system in order to accommodate development of a particular parcel. In these situations, an easement survey plat must be prepared in accordance with easement survey plat requirements and a conveyance document prepared transferring easement rights to the new easement area and ownership of physical elements of the relocated portion of line. You may contact MSD Planning and Development to determine the appropriate form(s) for the site and situation.

NOTE: TRANSFER DOCUMENTS WILL BE REQUIRED PRIOR TO BEGINNING CONSTRUCTION FOR ALL RELOCATION PROJECTS

3. Pump Stations

Pump station easements must be transferred to MSD using the Conveyance of Sewer System and Easement Agreement form example included in this section. The location and dimensions of the required easement areas will be determined on a case by case basis. Pump station easements will require an easement survey with the easement area defined by metes and bounds around the pump station site. Conveyance of an access easement may also be required.

4. Others

For all other projects, easement survey plat requirements may be combined or incorporated into the subdivision plat, the final as-built, or as a separate easement survey as long as all of the required MSD easement survey plat information is shown. Upon review and approval by the District to ensure conformance with MSD easement survey plat requirements, the document may be recorded. A Conveyance of Sewer System and Easement Agreement (sample enclosed) is then prepared with specific reference to the recorded plat.

5. Document Sequence

- a) Easement survey plat is prepared in appropriate format
- b) Easement survey plat is submitted for review by the District as to conformance with plat requirements
- c) Easement survey plat is recorded
- d) Conveyance document is prepared by the Developer's attorney and submitted to the District for review prior to recording. Must include a copy of the supporting survey plat for verification of information
- e) Conveyance document recorded

NOTE: CERTIFICATE OF OCCUPANCY WILL BE HELD PENDING RECEIPT OF ALL FINAL TRANSFER DOCUMENTS

Revised – March 12, 2009

PREPARED BY AND RETURN AFTER RECORDING TO:

**STATE OF NORTH CAROLINA
COUNTY OF BUNCOMBE**

EASEMENT AGREEMENT

THIS EASEMENT AGREEMENT, made this ____ day of _____, 20____, by and between _____, hereinafter referred to as Grantor, and _____, hereinafter referred to as Grantee (the designations Grantor and Grantee as used herein shall include said parties, their heirs, successors and assigns and shall include singular, plural, masculine, feminine and neuter as required by context).

WITNESSETH:

THAT WHEREAS, the Grantor is the owner of certain property more particularly described in a Deed recorded in Deed Book _____ at Page _____, Buncombe County Registry; and

WHEREAS, the Grantee has requested that the Grantor grant and convey to the Grantee a temporary construction easement and a permanent easement over, upon, across, under and through a portion of the property of the Grantor for purposes of constructing, operating, maintaining, repairing, inspecting and reconstructing sewer lines and accessories and the Grantor has agreed to do so.

NOW, THEREFORE, the Grantor, for and in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, has given, granted and conveyed, and by these presents does give, grant, and convey unto the Grantee, its successors and assigns, the temporary and permanent right, privilege and easement to construct, operate, maintain, repair, inspect and reconstruct sanitary sewer lines and accessories over, upon, across, under and through the above-referenced property of the Grantor, said temporary construction easement and permanent easement being described as follows:

PERMANENT EASEMENT: A nonexclusive permanent easement for purposes of constructing, operating, maintaining, repairing, inspecting and reconstructing sanitary sewer lines, together with such pipes, manholes, fittings, fixtures and other accessories as from time to time may be required, and for purposes of inspecting and performing appropriate tests within said permanent easement, including but not limited to, archaeological and environmental studies, and together with the full right of access to and egress from said permanent easement, said permanent easement being more particularly described as follows:

Legal Description

Said permanent easement consisting of _____ square feet (____ acre), more or less.

TEMPORARY CONSTRUCTION EASEMENT: A temporary construction easement for the purposes of excavation, digging ditches, storing dirt, supplies and materials, moving and using equipment and generally carrying out the completion of the installation of said sanitary sewer lines and accessories, and for the purposes of inspecting and performing appropriate tests within said temporary construction easement, including but not limited to, archaeological and environmental studies, together with the full right of access to and egress from said temporary construction easement for all purposes in connection with said construction and installation, it being understood that this right of use as set out in this paragraph shall terminate upon the final completion of the entire project, said temporary construction easement being more particularly described as follows:

Legal Description

Said temporary construction easement consisting of _____ square feet (____ acre), more or less.

Said permanent easement and temporary construction easement being shown on the Sewer Line Location Drawing for _____, Easement Across the Property of _____, prepared by _____ dated _____, recorded in Plat Book _____ at Page _____, Buncombe County Register of Deeds.

IT IS UNDERSTOOD AND AGREED BETWEEN THE GRANTOR AND THE GRANTEE:

1. That the Grantee shall have the right to clear the permanent easement and temporary construction easement described above and the right but not the obligation to keep the permanent easement clear at all times, and the right to remove from the permanent easement and temporary construction easement all brush, trees and other obstructions, and to go upon said easements whenever necessary for the purpose of clearing the same and removing therefrom all brush, trees and other obstructions of any kind.

2. That the Grantor shall at all times, other than while the sewer lines are under actual construction, have the right to use said permanent easement and said temporary construction easement, in the same manner as has been heretofore done; provided such use shall in no manner interfere with or be inconsistent with the use thereof by Grantee as provided herein. Prohibited uses of the permanent easement by the Grantor include, but are not limited to, the following: the erection of a shed, building, structure or other obstruction within the permanent easement by the Grantor shall not be allowed; the planting of trees within the permanent easement by the Grantor shall not be allowed; additional fill cannot be placed within the permanent easement except after prior written consent from the Grantee; and other utility lines, including but not limited to, electric, gas, telephone, cable, or water lines, cannot be constructed within the permanent easement except after prior written approval by the Grantee.

3. That the Grantee agrees to restore the topography of said easement area after installation of the sewer lines and accessories to approximately the same condition as existed before said installation.

4. That the Grantor shall have the right to pass over and upon said permanent easement with appropriate roadways for the full use of their property, provided, however, that the construction, maintenance and use of said roadways shall in no way interfere with the sewer lines and accessories constructed within said permanent easement. As to paved roads, the Grantee, in future repairs or maintenance of said sewer lines and accessories, shall only be responsible for regravelling, tamping and patching the portion of said paved roads disturbed by such work. As to non-paved roads, the Grantee shall only be responsible for regravelling and tamping in connection with any repairs or maintenance.

5. Other conditions and provisions:

TO HAVE AND TO HOLD said temporary construction easement and said permanent easement unto said Grantee, its successors and assigns, upon the terms and for the time periods set forth above.

The Grantor covenants to and with the Grantee, its successors and assigns, that the Grantor is lawfully seized in fee simple of said lands and premises and has full right and power to convey these easements to the Grantee, and that said lands and premises are free from any and all liens and encumbrances, and that they will and their successors and assigns shall forever warrant and defend the title to said easements unto the Grantee, its successors and assigns, against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the Grantor has hereunto set their hands and seals, or if corporate, have caused this document to be executed by its duly authorized officers and its seal to be hereunto affixed, as of the day and year first above written.

_____(SEAL)

_____(SEAL)

_____(SEAL)

_____(SEAL)

By: _____
President

ATTEST:

Secretary
(Corporate Seal)

**STATE OF NORTH CAROLINA
COUNTY OF BUNCOMBE**

I, a Notary Public of the State and County aforesaid, certify that _____,
personally appeared before me this day and acknowledged the execution of the foregoing instrument.

WITNESS my hand and official stamp or seal, this _____ day of _____, 20____.

NOTARY PUBLIC

My Commission Expires:

STATE OF NORTH CAROLINA

COUNTY OF BUNCOMBE

I, a Notary Public of the State and County aforesaid, certify that_____, personally appeared before me this day and acknowledged that he is____Secretary of _____, a_____Corporation, and that by authority duly given and as the act of the corporation, the foregoing instrument was signed in its name by its____President, sealed with its corporate seal and attested by h as its____Secretary.

WITNESS my hand and official stamp or seal, this_____day of _____, 20_____.

NOTARY PUBLIC

My Commission Expires:

Easement Agreement -rev. 2000.doc