

**GEAUGA COUNTY**  
**DEPARTMENT OF WATER RESOURCES**  
**RULES AND REGULATIONS**

**GEAUGA COUNTY**  
**DEPARTMENT OF WATER RESOURCES**  
**470 CENTER STREET, BUILDING 3, CHARDON, OHIO 44024**  
**(440) 279-1970 FAX (440) 285-9549**

**T**he Geauga County Department of Water Resources Rules and Regulations and Standards and Specifications Manual are approved by Board of Geauga County Commissioners in accordance with the Ohio Revised Code, Section 6117. These water and wastewater Rules and Regulations and Standards and Specifications Manuals shall be enforced by the Geauga County Department of Water Resources for water and wastewater systems (sub-districts) under their jurisdiction in the Geauga County Sewer District. The wastewater collection systems (sub-districts) under the jurisdiction of the Water Resources Department are hereby required to adhere to these Rules and Regulations and Standards and Specification.

**BOARD OF GEAUGA COUNTY COMMISSIONERS**

Walter M. Claypool

Blake A. Rear

Ralph Spidalieri



**Director of Geauga County Water Resources**

Douglas L. Bowen, P.E.

## HISTORY OF THE RULES AND REGULATIONS

The following shall be a historical record for tracking amendments approved by the Board of County Commissioners to these Wastewater Rules and Regulations:

- |                   |   |
|-------------------|---|
| October 24, 1995  | Formal adoption of the Water Resources Rules and Regulations  |
| February 18, 1998 | Amendments to the Rules and Regulations (sections unknown)  |
| March 17, 2015    | Complete Revisions to the Rules and Regulations and the Standards and Specifications Manual (effective April 1, 2015) |

# TABLE OF CONTENTS

## CHAPTER I

1.0.0	GENERAL CONDITIONS.....	1
1.0.1	AUTHORITY.....	1
1.0.2	OPERATION and CONTROL.....	1
1.0.3	ADMINISTRATION.....	1
1.0.4	EFFECTIVE DATE.....	1
1.0.5	VALIDITY.....	1
1.0.6	ENFORCEMENT.....	1
1.0.7	VIOLATION.....	1
1.0.8	JURISDICTION.....	1
1.0.9	AGREEMENT.....	2
1.0.10	INTERPRETATION.....	2
1.0.11	REVISIONS OF THE RULES AND REGULATIONS.....	2
1.1.0	DEFINITIONS.....	2

## CHAPTER II

2.0.0	GENERAL PERMIT REQUIREMENTS AND BILLING.....	16
2.1.0	PERMIT REQUIREMENTS.....	16
2.2.0	CONTRACTOR LICENSING REQUIREMENTS.....	17
2.3.0	STANDARDS AND SPECIFICATIONS MANUAL AUTHORIZATION.....	18
2.4.0	SAFETY STANDARDS.....	19
2.5.7	CERTIFICATION OF ACCOUNTS.....	20
2.6.0	RENTAL PROPERTIES.....	20
2.7.0	FEES AND CHARGES.....	21
2.7.6	ADDITIONAL CAPACITY USAGE (ADDITIONAL CAPACITY FEES):.....	22
2.7.7	OTHER FEES ASSOCIATED WITH OBTAINING SERVICE.....	23
2.8.0	ADDRESS CHANGES.....	23
2.9.0	LOCATING SEWER and WATER MAINS/SERVICE CONNECTIONS (TAPS) AND CONSTRUCTION REGULATIONS (EXISTING SEWER AND WATERMANS/SERVICES).....	23
2.10.0	ACCESS TO FACILITIES.....	24
2.11.0	LIMITATION OF CONNECTIONS.....	24
2.12.0	TERMINATION OF SERVICE.....	24
2.13.0	PENALTIES.....	24
2.14.0	APPEALS.....	24

## CHAPTER III

3.0.0	WASTEWATER TREATMENT WORKS.....	26
3.1.0	USE OF PUBLIC SEWERS REQUIRED.....	26
3.2.0	PRIVATE WASTEWATER DISPOSAL.....	26
3.3.0	INFILTRATION AND INFLOW (I/I).....	27
3.3.2	DUTY OF PROPERTY OWNER TO MAINTAIN.....	27
3.3.3	INFLOW PROHIBITED.....	27

3.3.4	EXCESSIVE INFILTRATION DEFINED.....	28
3.3.5	MONITORING EXCESSIVE INFILTRATION AND ENFORCEMENT OF REMEDATION.....	28
3.3.6	INFILTRATION PROHIBITIONS.....	29
3.4.0	PROHIBITED DISCHARGES .....	29
3.5.0	LIMITED DISCHARGES.....	30
3.6.0	COMPLIANCE REQUIREMENTS.....	31
3.7.0	MISCELLANEOUS SEWER FEES AND CHARGES.....	33
3.8.0	RATES AND BILLING METHODS.....	34
3.8.5	RESIDENTIAL USER CLASS.....	36
3.8.6	COMMERCIAL USER CLASS.....	36
3.8.7	INDUSTRIAL USER CLASS.....	38
3.9.0	CHALLENGING THE NUMBER OF UNITS DETERMINED.....	39
3.10.0	RATES.....	39
3.11.0	HIGH STRENGTH SURCHARGES.....	39
3.12.0	MISCELLANEOUS CHARGES.....	40
3.13.0	UNSCHEDULED CHARGES .....	40
3.14.0	SETUP AND DISCONNECTION OF SEWER BILLING PROCEDURE.....	40
3.15.0	DISCONTINUING SERVICE .....	41
3.16.0	RE-ESTABLISHMENT OF SERVICE.....	42
3.17.0	BASEMENT FLOODING PROCEDURE.....	42
4.0.0	WATER TREATMENT WORKS.....	44
4.1.0	GUARANTEE OF SUPPLY AND SERVICE .....	44
4.2.0	BACKFLOW PREVENTION/CROSS CONNECTION CONTROL PROGRAM.....	44
4.3.0	HYDRANTS.....	46
4.4.0	WATER METERS/METER PITS.....	47
4.5.0	FIRE PROTECTION SERVICES.....	50
4.6.0	TURN-OFF WITH NOTICE.....	52
4.7.0	TURN-OFF WITHOUT NOTICE.....	53
4.8.0	TAMPERING WITH THE PUBLIC WATER SYSTEM.....	53
4.9.0	DISCONNECTION OF WATER SERVICE FOR SEWER INSTALLATION.....	54
4.10.0	DELINQUENT ACCOUNTS.....	55
4.11.0	MISCELLANCE FEES AND CHARGES.....	55
 CHAPTER V		
5.0.0	SANITARY SEWER AND WATER PLANNING AND DESIGN.....	57
5.1.0	PLAN AND PROFILE REQUIREMENTS.....	57
5.2.0	DESIGN/PLAN and SPECIFICATIONS REVIEW PROCESS.....	58
5.3.0	OHIO E.P.A. REQUIREMENTS.....	60
5.4.0	ENGINEER'S COST ESTIMATE.....	60
5.5.0	PERFORMANCE BOND.....	60
5.6.0	EASEMENTS.....	60
5.7.0	WASTEWATER TREATMENT SYSTEM CAPACITY.....	61
5.8.0	TYPE OF SEWER SYSTEM.....	61

5.9.0	WATER SYSTEM CAPABILITIES.....	61
5.10.0	SUBDIVISION PLAT REQUIREMENTS.....	62
5.11.0	REVIEW AND INSPECTION FEES.....	62

CHAPTER VI

6.0.0	PRETREATMENT.....	64
6.1.0	GENERAL PROVISIONS.....	64
6.1.1	PURPOSE AND POLICY.....	64
6.2.0	GENERAL SEWER USE REQUIREMENTS .....	64
6.2.1	PROHIBITED DISCHARGES .....	64
6.2.2	LIMITATION ON WASTEWATER STRENGTH.....	67
6.2.3	DILUTION.....	68
6.3.0	GEAUGA COUNTY’S RIGHT TO REVISION.....	68
6.4.0	MAINTENANCE AND REPAIR OF SANITARY SEWER LATERAL SERVICE LINES.....	68
6.5.0	AUTHORITY FOR CONTROL OF WASTEWATER DISCHARGE.....	69
6.6.0	PRETREATMENT OF WASTEWATER.....	69
6.6.1	PRETREATMENT FACILITIES.....	69
6.6.2	ADDITIONAL PRETREATMENT MEASURES.....	69
6.6.3	ACCIDENTAL DISCHARGE / SLUG DISCHARGE CONTROL PLANS .....	72
6.6.4	HAULED WASTEWATER.....	73
6.7.0	INDUSTRIAL WASTE DISCHARGE AGREEMENT REQUIRED .....	73
6.7.1	DISCHARGE AGREEMENT REQUIRED.....	73
6.7.2	AGREEMENT REQUIRED.....	75
6.7.3	PERMIT TO CONNECT TO THE SYSTEM.....	76
6.7.4	APPLICATION FOR SEWER SERVICE.....	76
6.7.5	WASTEWATER DISCHARGE AGREEMENT: GENERAL AGREEMENT.....	76
6.7.6	APPLICATION SIGNATORIES AND CERTIFICATIONS.....	77
6.7.7	WASTEWATER DISCHARGE AGREEMENT CONTENTS.....	77
6.7.8	INDIVIDUAL AND GENERAL WASTEWATER DISCHARGE AGREEMENT TRANSFER.....	77
6.8.0	REPORTING REQUIREMENTS FOR INDUSTRIAL USERS.....	80
6.8.1	PERIODIC COMPLIANCE REPORTS.....	80
6.8.2	REPORTS OF CHANGED CONDITIONS.....	80
6.8.3	REPORTS OF POTENTIAL PROBLEMS.....	80
6.9.0	MONITORING FACILITIES.....	81
6.9.1	MONITORING AND SAMPLE COLLECTION.....	81
6.9.2	INSPECTION AND SAMPLING.....	82
6.9.3	SAMPLE COLLECTION.....	82
6.9.4	POWERS AND AUTHORITY OF INSPECTORS.....	82
6.10.0	COMPLIANCE MONITORING.....	83
6.10.1	RIGHT OF ENTRY: INSPECTION AND SAMPLING.....	83
6.10.2	SEARCH WARRANTS.....	83
6.10.3	CONFIDENTIAL INFORMATION.....	83
6.11.0	ADMINISTRATIVE ENFORCEMENT REMEDIES .....	84

6.11.1	NOTIFICATION OF VIOLATION.....	84
6.11.2	ENFORCEMENT AUTHORIZATION.....	84
6.11.3	CONSENT ORDERS.....	84
6.11.4	SHOW CAUSE HEARING.....	85
6.11.5	COMPLIANCE ORDERS.....	85
6.11.6	CEASE AND DESIST ORDERS.....	85
6.11.7	ADMINISTRATIVE FINES.....	85
6.11.8	EMERGENCY SUSPENSIONS.....	86
6.11.9	TERMINATION OF DISCHARGE.....	86
6.12.0	JUDICIAL ENFORCEMENT REMEDIES.....	87
6.12.1	INJUNCTIVE RELIEF .....	87
6.12.2	CIVIL PENALTIES.....	87
6.12.3	CRIMINAL PROSECUTION.....	87
6.12.4	REMEDIES NONEXCLUSIVE.....	88
6.12.5	PUBLIC NUISANCES .....	88
6.12.6	PENALTIES FOR PROHIBITED WASTEWATER DISCHARGES .....	88
6.13.0	SUPPLEMENTAL ENFORCEMENT ACTION.....	88
6.13.1	PERFORMANCE BONDS.....	88
6.13.2	LIABILITY INSURANCE.....	88
6.13.3	WATER SUPPLY SEVERANCE.....	89
6.14.0	ENFORCEMENT ACTIONS.....	89
6.14.1	NOTIFICATION OF NONCOMPLIANCE.....	89
6.15.0	MISCELLANEOUS PROVISIONS.....	89
6.15.1	RECORD RETENTION.....	89
6.15.2	PROTECTION FROM DAMAGE.....	90
6.15.3	PROHIBITIONS.....	90
6.15.4	RECOVERY OF COSTS INCURRED BY THE COUNTY.....	90

CHAPTER VII

7.0.0	GENERAL PROVISIONS FOR FATS, OIL, AND GREASE (FOG) .....	91
7.1.0	GREASE TRAPS AND INTERCEPTORS.....	91
7.1.2	APPLICABILITY.....	92
7.2.0	GENERAL LIMITATIONS, PROHIBITIONS, AND REQUIREMENTS ON FATS, OILS, AND GREASE (FOG) DISCHARGES.....	92
7.2.1	FOG DISCHARGE REQUIREMENTS.....	92
7.2.2	FOOD SERVICE ESTABLISHMENT REQUIREMENTS.....	92
7.2.3	PROHIBITIONS AND LIMITATIONS.....	94
7.3.0	FOG PRETREATMENT REQUIREMENTS.....	95
7.3.1	FOG INTERCEPTOR AND TRAP REQUIREMENT AND APPROVAL.....	96
7.4.0	GREASE CONTROL DEVICE SIZING PROCEDURES AND REQUIREMENTS.....	98
7.4.1.	GENERAL GREASE CONTROL DEVICE SIZING AND RATING STANDARDS.....	98
7.4.2	GREASE INTERCEPTOR SIZING PROCEDURES AND REQUIREMENTS.....	98
7.4.3	GREASE TRAP SIZING PROCEDURES AND REQUIREMENTS .....	99

7.5.0	GREASE CONTROL DEVICE MAINTENANCE.....	100
7.5.1	MAINTENANCE PROCEDURES AND REQUIREMENTS .....	100
7.5.2	GENERAL MAINTENANCE FOR GREASE TRAPS AND INTERCEPTORS.....	100
7.5.3	GREASE INTERCEPTOR MAINTENANCE REQUIREMENTS.....	101
7.5.4	GREASE TRAP MAINTENANCE REQUIREMENTS.....	102
7.6.0	SEWER SYSTEM OVERFLOWS (SSOs), ABATEMENT ORDERS, AND COST RECOVERY (CLEAN UP COSTS).....	102
7.7.0	COMMERCIAL PROPERTIES.....	103
7.8.0	BEST MANAGEMENT PRACTICES .....	103
7.8.1	REQUIREMENT FOR BEST MANAGEMENT PRACTICES.....	104
7.9.0	MONITORING, REPORTING, NOTIFICATION, AND INSPECTION REQUIREMENTS.....	105
7.9.1	MONITORING AND REPORTING CONDITIONS.....	105
7.9.2	INSPECTION AND SAMPLING CONDITIONS.....	106
7.9.3	RIGHT OF ENTRY.....	107
7.9.4	NOTIFICATION OF PLANNED CHANGES .....	107
7.10.0	ENFORCEMENT.....	107
7.10.1	PURPOSE AND SCOPE.....	107
7.10.2	NOTICE OF VIOLATION.....	108
7.10.3	ENFORCEMENT OPTIONS.....	108
7.10.4	FOG WASTEWATER DISCHARGE PERMIT REQUIREMENT.....	108
7.10.5	FOG WASTEWATER DISCHARGE PERMIT CONDITIONS.....	109
7.10.6	FOG WASTEWATER DISCHARGE PERMIT MODIFICATION OF TERMS AND CONDITIONS.....	109
7.10.7	FOG WASTEWATER DISCHARGE PERMIT TERMINATION.....	110
7.10.8	FOG WASTEWATER DISCHARGE PERMIT DURATION AND RENEWAL.....	110
7.10.9	FOG DISCHARGE PERMIT COMPLIANCE SCHEDULE .....	110
7.10.10	TERMINATION WATER AND/OR SEWER SERVICE.....	111
7.11.0	DAMAGES TO FACILITY OR INTERRUPTION OF NORMAL OPERATIONS.....	111
7.12.0	PENALTIES.....	111

- APPENDIX A Fees and Fines
- APPENDIX B Grease Trap and Interceptor Sizing

**STANDARDS AND SPECIFICATIONS**

THIS PAGE INTENTIONAL LEFT BLANK



# CHAPTER I

- 1.0.0 GENERAL CONDITIONS – The following are the conditions set forth by these “Rules and Regulations and the Standards and Specifications Manual
- 1.0.1 AUTHORITY - The Ohio Revised Code, Section 6117.01 enables the Board of County Commissioners to adopt rules and regulations governing policies essential to the operation of the Sanitary Engineering/Water Resources Department under their jurisdiction.
- The Ohio Revised Code, Sections 6103.02 enables the County Commissioners to adopt rules and regulations governing policies essential to the operation of the public water system under the jurisdiction of the Sanitary Engineering/Water Resources Department.
- 1.0.2 OPERATION and CONTROL -The public wastewater and water treatment works of Geauga County, Ohio including all appurtenances are under the operation of the County and its authorized agents and employees. Such control shall include all phases and fixtures of the wastewater and water treatment works to the ultimate point of usage.
- 1.0.3 ADMINISTRATION - Except as otherwise provided herein, the Sanitary Engineer shall administer, implement, and enforce the provisions of this ordinance. Any powers granted to or duties imposed upon the Sanitary Engineer may be delegated by the Sanitary Engineer to a duly authorized County employee.
- 1.0.4 EFFECTIVE DATE - These "Rules and Regulations" and "Standards and Specifications Manual" shall be effective on the date stated in the resolution by the Board of County Commissioners and may be amended from time to time.
- 1.0.5 VALIDITY - Should any section, subsection, sentence, clause, phrase or individual provision of the "Rules and Regulations" or "Standards and Specifications Manual" be decided for any reason by the courts to be unconstitutional or invalid, such a decision shall not affect the validity of the "Rules and Regulations" or "Standards and Specifications Manual" as a whole or any part thereof, other than that particular portion so held to be unconstitutional or invalid.
- 1.0.6 ENFORCEMENT - These "Rules and Regulations" and "Standards and Specifications Manual" shall be enforced by the Water Resources Department as directed by the Board of County Commissioners, in accordance with The Ohio Revised Code, Sections 6117.01 and 6103.02.
- 1.0.7 VIOLATION - Any infraction of the "Rules and Regulations" or "Standards and Specifications Manual" is a violation. Any person, firm, group, or corporation, either owner or agent, who tampers with or attempts to use facilities provided by the County without first obtaining the necessary permits and approvals is in violation of the "Rules and Regulations" or "Standards and Specifications Manual". Any person, firm, group, or corporation, either owner or agent, that obtains a permit or approval based on false information shall be held in violation of the "Rules and Regulations" or "Standards and Specifications Manual."
- 1.0.8 JURISDICTION - These "Rules and Regulations" and "Standards and Specifications Manual" are applicable to all persons within the County sewer and water districts as

established or amended or any other persons receiving either sanitary sewer or water service from systems owned, operated, or maintained by the County as per Resolution 81-172.

- 1.0.9 AGREEMENT - All persons, successors, and assigns obtaining a permit from the Water Resources Department accept and agree to be bound by these "Rules and Regulations" and "Standards and Specifications Manual."
- 1.0.10 INTERPRETATION - The provisions of these "Rules and Regulations" and "Standards and Specifications" shall be the minimum requirements adopted for the promotion of health, safety, and welfare of the constituents of the County. These "Rules and Regulations" and "Standards and Specifications" are not intended to repeal, abrogate, annul, or in any manner interfere with any laws or rules of any governmental units having jurisdiction that are more stringent. In the event that these "Rules and Regulations" and "Standards and Specifications" impose greater restriction than those existing laws or rules, then the provisions of these "Rules and Regulations" or "Standards and Specifications" shall govern. These "Rules and Regulations" and "Standards and Specifications Manual" may be promulgated by the County Sanitary Engineer to cover unusual situations.

1.0.11 REVISIONS OF THE RULES AND REGULATIONS

Periodically, the Sanitary Engineer shall review the Rules and Regulations, proposed budget, customer data, fees and charges pertinent to the sanitary sewer funds. If changes, revisions, or modifications are necessary in order to insure that each user charge is proportional to the cost of providing that user with wastewater treatment services, the Sanitary Engineer shall submit the proposed revisions to the County Commissioners for ratification.

- (1) The user charges shall result in the distribution of operation, maintenance, and replacement costs of the treatment works within the jurisdiction of the County to each user. Factors such as strength, volume, and delivery flow rate characteristics shall be considered to insure a proportional distribution of the costs.
- (2) The charges shall be reviewed at least annually and revised periodically as required.
- (3) The user charges shall derive revenue sufficient to meet all costs of operation, maintenance, and replacement of the system.

1.1.0 DEFINITIONS - Unless the context specifically indicates otherwise, the meaning of terms used in these "Rules and Regulations" shall be as follows:

1.1.1 "ACT" or "THE ACT." Shall mean The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. section 1251 et seq.

1.1.2 "ADDITIVES" shall mean Enzymes, bacteria, and/or other products designed to emulsify FOG and/or biologically treat FOG for grease remediation.

1.1.3 "ALLOWABLE DISCHARGE LIMIT" – The maximum allowable discharge concentration of non-domestic sewage in the effluent from any given facility.

1.1.4 "AUTHORIZED REPRESENTATIVE OF THE USER" shall mean

- (1) If the User is a corporation, the president is the authorized representative of the corporation.

- (2) If the User is a partnership or sole proprietorship: a general partner or proprietor, respectively.
  - (3) If the User is a Federal, State, or local governmental facility: a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or their designee.
  - (4) The individuals described in paragraphs 1 through 3, above, may designate a Duly Authorized Representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company, and the written authorization is submitted to the county.
- 1.1.5 "BACKFLOW" shall mean the flow of water or liquids, mixtures, or substances into the distribution system of a potable water supply from any source other than the intended source of the potable water supply.
- 1.1.6 "BACKFLOW PREVENTION DEVICE" shall mean any device, method or type of construction, approved by the Department, intended to prevent backflow into a potable water supply.
- 1.1.7 "BEST MANAGEMENT PRACTICES" or "BMP'S" shall mean schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to control the quality and quantity of sewage discharges from a property. The BMPs include treatment requirements, operating procedures, and practices to control plant or treatment device runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.
- 1.1.8 "BIOCHEMICAL OXYGEN DEMAND" (BOD) shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure, as prescribed in "Standard Methods", in five days at 20 degrees Celsius, expressed in milligrams per liter.
- 1.1.9 "BUILDING DRAIN" (Sanitary) shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building sewer, beginning five (5) feet beyond the foundation wall of the building structure.
- 1.1.10 "BUILDING SEWER" (Sanitary) shall mean that part of the drainage system which extends from the end of the building drain and conveys its discharge, including the grinder pump, pressure sewers and vacuum mains as applicable, to the public service connection or other place of disposal. For a user having more than one building, multiple building sewers may, upon approval of the sanitary engineer, convey discharges to a common sewer which discharges to a single service connection.
- 1.1.11 "CATEGORICAL INDUSTRIAL USER" shall mean an Industrial User subject to a categorical Pretreatment Standard or categorical Standard
- 1.1.12 "CHEMICAL OXYGEN DEMAND" or "COD" shall mean a measure of the oxygen required to oxidize all compounds, both organic and inorganic, in water.

- 1.1.13 "CATEGORICAL PRETREATMENT STANDARD" or "CATEGORICAL STANDARD" shall mean any regulation containing pollutant discharge limits promulgated by EPA in accordance with sections 307(b) and (c) of the Act (33 U.S.C. section 1317) that apply to a specific category of Users and that appear in 40 CFR Chapter I, Subchapter N, Parts 405-471.
- 1.1.14 CHANGE IN OPERATIONS shall mean any change in the ownership, food types, increase in size of FSE, type of FSE license, or operational procedures that have the potential to increase the amount of FOG generated and/or discharged by Food Service Establishments in an amount that alone or collectively causes or creates a potential for sewer backups and/or SSOs (sanitary sewer overflows) to occur.
- 1.1.15 "COLLECTION SYSTEM" shall mean an interconnected networks of water or sewer lines including valves and hydrants or manholes and any other miscellaneous appurtenances.
- 1.1.16 "COMBINED SEWER" shall mean a sewer receiving both surface runoff and wastewater. Combined sewers are not permitted in Geauga County.
- 1.1.17 "COMMERCIAL USER" shall include but not limited to retail stores, restaurants, office buildings, laundries, other private business, service establishments and institutional users.
- 1.1.18 "COMMON SEWER" shall mean the facilities used to convey wastewater from several individual structures located on the same parcel (lot).
- 1.1.19 "CONTAMINATION" shall mean an impairment of the quality of the water which could create an actual hazard to the public health.
- 1.1.20 "CONTRACTOR" shall mean any person, group, or organization undertaking a contract under these Rules and Regulations and Standards and Specifications Manual, acting directly or through a duly qualified and authorized representative.
- 1.1.21 "COOLING WATER" shall mean the water discharged from any system of condensation, air conditioning, cooling, refrigeration, or other but which shall be free from odor or oil. It shall contain no toxic or polluting substances..
- 1.1.22 "COUNTY" shall mean Geauga County, Ohio.
- 1.1.23 "COUNTY COMMISSIONERS" shall mean the Board of County Commissioners of Geauga County, Ohio.
- 1.1.24 "COUNTY ENGINEER" shall mean Geauga County Engineer, Ohio.
- 1.1.25 "CROSS CONNECTION" shall mean any arrangement whereby backflow can occur.
- 1.1.26 "DAILY MAXIMUM" shall mean the arithmetic average of all effluent samples for a pollutant (except pH) collected during a calendar day.
- 1.1.27 "DAILY MAXIMUM LIMIT" shall mean the maximum allowable discharge limit of a pollutant during a calendar day. Where Daily Maximum Limits are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where Daily Maximum Limits are expressed in terms of a concentration, the daily discharge is the

arithmetic average measurement of the pollutant concentration derived from all measurements taken that day.

- 1.1.28 “DEPARTMENT or “GCDWR” shall mean the Geauga County Department of Water Resources, its administrators, employees and facilities
- 1.1.29 “DETECTOR CHECK” shall mean a valve designed to prevent the reverse flow of water or fire protection substances. This valve also incorporates a meter which allows the County to detect leaks in the fire system and also provides a detection point for determining unauthorized use. This valve shall meet or exceed the County Standards.
- 1.1.30 “DIRECT DISCHARGE” shall mean the discharge of treated or untreated wastewater directly to the waters of the State.
- 1.1.31 “DOMESTIC WASTEWATER” Shall mean the liquid wastes contributed by reason of human occupancy from residences, business buildings, institutions, commercial, industrial, and manufacturing establishments. Wastes are generated from kitchen wastes, water closets, lavatories, bathrooms, showers, and laundries.
- 1.1.32 “DOUBLE CHECK VALVE ASSEMBLY shall mean an assembly composed of two single independently acting, check valves including tightly closing shut off valves located at each end of the assembly and suitable connections for testing the water tightness of each check valve.
- 1.1.33 "EASEMENT" shall mean an acquired legal right for the specific use of land owned by others.
- 1.1.34 “EFFLUENT” Shall mean sewage, water or other liquid after some degree of treatment, flowing out of any treatment device or facility.
- 1.1.35 "EPA" shall mean the state or federal Environmental Protection Agency.
- 1.1.36 “ESTABLISHMENT” shall mean any residence, condominium, homeowner’s association, commercial development, industrial development, or institutional development, which has a private sanitary sewer connection to the public sanitary sewer.
- 1.1.37 “FACILITIES” shall mean all components whether in public right-of-ways or easements or on private property of the County sanitary sewer and water systems (including existing, proposed and abandoned) that are necessary for the proper operation of the systems. The components include service laterals and service connections.
- 1.1.38 “FATS, OILS AND GREASES” (FOG) shall mean predominantly organic polar compounds derived from animal and/or plant sources that contain multiple carbon chain triglycerides molecules. These substances are detectable and measurable using analytical test procedures as defined by EPA in test method 1664 established in the United States Code of Federal Regulations 40 CFR 136, as may be amended from time to time. All are sometimes referred to herein as "grease" or "greases".
- 1.1.39 “FIRE PROTECTION SERVICE CONNECTION” shall mean any connection to the water distribution system used for the purpose of firefighting or fire protection.
- 1.1.40 “FLAMMABLE” shall be determined by existing fire regulations.

- 1.1.41 "FLOATABLE OIL" is oil, fat, or grease in a physical state such that it will separate by gravity from wastewater by treatment in an approved pretreatment facility.
- 1.1.42 "FOG WASTEWATER DISCHARGE PERMIT" is a document provided to a Food Service Establishment documenting special requirements for discharge of sewage to the GCDWR sewer system as established in section 7.10.3 (Enforcement Options).
- 1.1.43 "FOOD GRINDER" shall mean any device installed in the plumbing or sewage system for the purpose of grinding food waste or food preparation byproducts for the purpose of disposing of it in the sewer system.
- 1.1.44 "FOOD SERVICE ESTABLISHMENT" (FSE) shall mean Any permanent facility within the boundaries of GCDWR service area, which prepares and/or packages food or beverages for sale or consumption, on or offsite, which has any process or device that uses or produces FOG. This excludes private residences unless the residence is licensed as an FSE and is determined to be a source of high FOG above normal limits. FSE's include but are not limited to food courts, commercial kitchens, food manufacturers, food packagers, food processors, restaurants, grocery stores, bakeries, lounges, hospitals, correctional facilities, nursing homes, churches, gas stations selling foods, and schools. These establishments use one or more of the following preparation activities which may include but are not limited to: Cooking by frying (all methods), baking (all methods), grilling, sautéing, rotisserie cooking, broiling (all methods), boiling, blanching, roasting, toasting or poaching, infrared heating, searing, barbecuing, mixing, preparing, assembling of foods and any other food preparation activity that produces a hot or cold, non-drinkable food product in or on a receptacle that requires washing.
- 1.1.45 "FORCE MAIN" shall mean a pipeline through which sewage is pumped under pressure.
- 1.1.46 "GARBAGE" shall mean the animal and vegetable waste resulting from the handling, preparation, cooking, and serving of foods.
- 1.1.47 "GCDWR" is the abbreviation of the Geauga County Department of Water Resources
- 1.1.48 "GOVERNMENTAL" shall mean the legislative, judicial, administrative, and regulatory activities of Federal, State, and local governments.
- 1.1.49 "GRAB SAMPLE" shall mean a sample that is taken from a wastestream on a one-time basis without regard to the flow in the waste stream and over a period of time not to exceed fifteen (15) minutes.
- 1.1.50 "GREASE CONTROL DEVICE" shall mean any grease interceptor, grease trap or other mechanism, device, or process, which attaches to, or is applied to, wastewater plumbing fixtures and lines, the purpose of which is to trap or collect or treat FOG prior to it being discharged into the sewer system. "Grease control device" may also include any other proven method to reduce FOG subject to the approval of the Sanitary Engineer.
- 1.1.51 "GREASE INTERCEPTOR" (GI) shall mean a device, usually located underground and outside between a Food Service Establishment and the connection to the sewer system, designed to collect, contain, and remove food wastes and fats, oil, and grease from the process waste stream while allowing the remaining wastewater to be discharged to the collection system by gravity. Generally, a device is considered a grease interceptor if it has a

capacity greater than 50 pounds. To be effective, these devices must be cleaned, maintained, and have the FOG removed and disposed of in a proper manner on regular intervals as defined by this Rule.

- 1.1.52 "GREASE TRAP" (GT) shall mean grease control device, usually located inside the building and is a compact under the sink unit near the food preparation and clean-up area of a FSE. They are designed to collect, contain, and remove food wastes and grease from the process waste stream while allowing the remaining wastewater to be discharged to the collection system by gravity. Generally, a device is considered a grease trap if it has a capacity of 50 pounds or less. To be effective, these devices must be cleaned, maintained, and have the FOG removed and disposed of in a proper manner at regular intervals as defined by this Rule.
- 1.1.53 "GROUND GARBAGE" shall mean garbage that is shredded to such a degree that all particles will be carried freely in suspension under the conditions normally prevailing in the sewerage system, with no particle being greater than one half (½) inch in dimension.
- 1.1.54 "HEALTH HAZARD" shall mean any condition, device, or practice in a water system or its operation that creates, or may create, a danger to the health and well-being of the general public and the County's employees. The word severe as used to qualify a health hazard means a hazard to the health of the consumer that could reasonably be expected to result in significant harm or death.
- 1.1.55 "INDIRECT DISCHARGE" shall mean the introduction of pollutants into the POTW from any non-domestic source.
- 1.1.56 "INDUSTRIAL USER" shall mean
- (1) Any non-restaurant user of the treatment works whose sewage is in excess of Normal Domestic Wastes.
  - (2) Any user of the treatment works whose sewage includes process wastewater or which contains toxic pollutants or poisonous solids, liquids, or gases in sufficient quantity either singly or by interaction with other wastes, to contaminate the sludge of any County system, or to injure or to interfere with any wastewater treatment process, or which constitutes a hazard in or has an adverse effect on the waters receiving any discharge from the treatment works.
- 1.1.57 "INDUSTRIAL WASTES" shall mean the wastewater from industrial process, trade or business as distinct from domestic or sanitary wastes.
- 1.1.58 "INFILTRATION" shall mean water other than wastewater that enters a sewer system (including building drains and building sewers) from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include and is distinguished from inflow.
- 1.1.59 "I & I" shall mean inflow and infiltration.
- 1.1.60 "INFLOW" shall mean water other than wastewater that enters a sewer system (including building drains and building sewers) from sources such as roof leaders, cellar drains, yard drains, area drains, foundation drains, drains from springs and swampy areas, manhole

covers, cross connections between storm and sanitary sewers, catch basins, cooling towers, storm waters, surface run-off, street wash waters, or drainage. Inflow does not include and is distinguished from infiltration.

- 1.1.61 "INSPECTOR" shall mean a duly appointed representative of the County who is responsible for the enforcement of the specifications and quality of construction.
- 1.1.62 "INSTANTANEOUS LIMIT" shall mean the maximum concentration of a pollutant allowed to be discharged at any time,
- 1.1.63 "INSTITUTIONAL" shall mean social, charitable, religious, and educational activities such as schools, churches, hospitals, nursing homes, penal institutions, and similar institutional users.
- 1.1.64 "INTERFERENCE" shall mean a discharge that, alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the POTW, its treatment processes or operations or its sludge processes, use or disposal.
- 1.1.65 "LIMITED FOOD PREPARATION ESTABLISHMENT" (LFPE) - A Limited Food Preparation Establishment (LFPE) is generally engaged only in reheating, hot holding or assembly of ready to eat food products and as a result, wastewater discharges contain insignificant amounts of FOG. A Limited Food Preparation establishment will generally be classified as a Risk Level I or II food service operation per Ohio Revised Code Chapter 3701.
- 1.1.66 "LOCAL LIMIT" shall mean specific discharge limits developed and enforced by County upon industrial or commercial facilities to implement the general and specific discharge prohibitions listed in 40 CFR 403.5(a)(1) and (b) and 6.6 C of these rules.
- 1.1.67 "MANIFEST" shall mean the receipt or form which is retained by the generator of wastes for disposing recyclable wastes or liquid wastes as required by GCDWR in these FOG rules Chapter VI. The manifest may be either the disposal receipt for waste contents from the Grease Interceptor or a Grease Interceptor Manifest Form from GCDWR.
- 1.1.68 "MAJOR CONTRIBUTING INDUSTRY" shall mean an industrial user of the wastewater treatment works that:
- (1) Has in its waste a toxic pollutant in toxic amounts as defined in standards issued under Section 307 (a) of the Federal Act and amendments thereto; or
  - (2) Is found by the County to have a significant impact, either singly or in combination with other contributing industries on that treatment works or upon the quality of effluent from that treatment works and its ability to meet the limitations of its State-issued NPDES permit.
- 1.1.69 "MAY" is permissive. (see "SHALL" 1.1.112)
- 1.1.70 "MEDICAL WASTE" shall mean isolation wastes, infectious agents, human blood and blood products, pathological wastes, sharps, body parts, contaminated bedding, surgical wastes, potentially contaminated laboratory wastes, and dialysis wastes.
- 1.1.71 "MONTHLY AVERAGE" shall mean the sum of all "daily discharges" measured during a



calendar month divided by the number of “daily discharges” measured during that month. The monthly average may be the average of all grab samples taken in a given calendar month or the average of all composites taken in a given month

- 1.1.72 “MONTHLY AVERAGE LIMIT shall mean the highest allowable average of “daily discharges” over a calendar month, calculated as the sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month.
- 1.1.73 "NATURAL OUTLET" shall mean any outlet, including storm sewers, into a watercourse, pond, ditch, lake, or other body or surface or ground water which does not require an NPDES discharge permit.
- 1.1.74 “NONCONTACT COOLING WATER” shall mean water used for cooling that does not come into direct contact with any raw material, intermediate product, waste product, or finished product.
- 1.1.75 “NORMAL DOMESTIC WASTEWATER” shall mean wastes which are characterized by a loading of 200 mg/l BOD (1667 pounds), 200 mg/l SS (1834 pounds), 10 mg/l ammonia (83 pounds), 7 mg/l of phosphorus (58 pounds), 10 mg/l of grease or oil, soluble mater (83 pounds) each (per million gallons of daily flow).
- 1.1.76 "NPDES PERMIT" shall mean National Pollutant Discharge Elimination System permit as issued by the State of Ohio, Environmental Protection Agency under authorization issued by the U.S. E.P.A., setting conditions for the discharge of any pollutant or combination of pollutants to the navigable waters of the United States pursuant to Section 402 of the Clean Water Act.
- 1.1.77 "O.D.O.T." shall mean Ohio Department of Transportation.
- 1.1.78 "OPERATION AND MAINTENANCE" shall mean those functions that result in expenditures during the life of the treatment works for materials, labor, utilities, and other items which are necessary for managing and maintaining the wastewater treatment system to achieve the capacity and performance for which such works were designed and constructed.
- 1.1.79 "OWNER" shall mean any person, individual, firm, company, association, society, corporation, group, or political subdivision who is the legal owner of the real estate involved.
- 1.1.80 “PASS THROUGH” shall mean a discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of County’s NPDES permit, including an increase in the magnitude or duration of a violation.
- 1.1.81 "PERSON" means the state, any municipal corporation, political subdivision of the state, person as defined in Section 1.59 of the Ohio Revised Code, or interstate body created by compact.
- 1.1.82 “PERSONNEL” shall mean representatives of the County or the Department of Water Resources - Inspectors, meter readers, plant operators, employees, or representatives of the County whose duty constitutes entrance upon public and private property to ensure proper operation of the sanitary and water facilities.

- 1.1.83 "pH" shall mean the logarithm of the reciprocal of hydrogen ion concentration. The concentration of hydrogen ions is expressed in moles per liter of solution.
- 1.1.84 "POLLUTANT" shall mean dredged soil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, Medical Wastes, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, municipal, agricultural and industrial wastes, and certain characteristics of wastewater (e.g., pH, temperature, TSS, turbidity, color, BOD, COD, toxicity, or odor).
- 1.1.85 "PRETREATMENT" shall mean the reduction of the amount of pollutants, the elimination, or the alteration of the nature of pollutant properties in wastewater to an approved parameter limit prior to or in lieu of discharging such pollutants into the publicly owned wastewater treatment works. The reduction or alteration can be obtained by physical, chemical, or biological process, by process changes or by other means, except dilution.
- 1.1.86 "PRETREATMENT REQUIREMENTS" shall mean substantive or procedural requirement related to pretreatment imposed on a User, other than a Pretreatment Standard.
- 1.1.87 "PRETREATMENT STANDARDS" shall mean prohibited discharge standards, categorical Pretreatment Standards, and Local Limits.
- 1.1.88 "PROCESS WASTEWATER" shall mean any water that, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product.
- 1.1.89 "PROHIBITED DISCHARGE" shall mean an absolute prohibition against the discharge of certain substances; these prohibitions appear in Prohibited Discharge Section 6.5 of this ordinance.
- 1.1.90 "PROPERTY OWNER" shall mean the individual or individuals, corporation, trust, trustee or anyone or anything else who is the legal owner of real estate as listed in the Geauga County Recorder's Office.
- 1.1.91 "PROPERLY SHREDDED GARBAGE" shall mean the wastes from the preparation, cooking, and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than 1/2 inch (1.27 centimeters) in any dimension.
- 1.1.92 "PUBLIC SEWER" shall mean a common sewer, gravity or pressure, subject to the jurisdiction of the Board of County Commissioners.
- 1.1.93 "PUBLICLY OWNED TREATMENT WORKS" (POTW) shall mean a treatment works, as defined by section 212 of the Act (33 U.S.C. section 1292), which is owned by the county. This definition includes any devices or systems used in the collection, storage, treatment, recycling, and reclamation of sewage or industrial wastes of a liquid nature and any conveyances, which convey wastewater to a treatment plant.
- 1.1.94 "REGISTERED FSO/FSE" shall mean any permanent facility that is licensed as a Food Service Establishment or Food Service Operation by the Geauga County General Health District must be registered by GCDWR at the beginning of operations and after any

alteration as to the size and type of facility. This includes a Food Service Establishment, a Limited Food Preparation Establishment, and a Prepackaged Food Establishment.

- 1.1.95 “REMODELING” shall mean a physical change or operational change causing increased FOG generation that exceeds the current amount of FOG discharge to the sewer system by the Food Service Establishment or construction that required a building permit and/or plumbing permit and involves any of the following (1) Under slab plumbing in the food processing area, (2) an increase of 30% in the public seating area, (3) a 30% increase in the kitchen area, or (4) any change in the size and type of food preparation equipment.
- 1.1.96 "REPLACEMENT" shall mean expenditures for obtaining and installing equipment, accessories, or appurtenances which are necessary during the life of the treatment works to maintain the capacity and performance for which such works were designed and constructed. The term "operations and maintenance" includes replacement.
- 1.1.97 "RESIDENTIAL" shall mean all dwelling units such as detached, semidetached, row-houses, mobile homes, and multi-family dwellings.
- 1.1.98 "RESIDENTIAL GRINDER PUMP" shall mean a self-contained basin and grinder type pump which is located on a user's property and accepts domestic waste via the gravity building sewer, grinds and pressurizes said waste to be injected into the public sanitary sewer, being gravity or low pressure sewer main.
- 1.1.99 “PREPACKAGED FOOD ESTABLISHMENT” (PPFE) shall mean any permanent facility within the boundaries of GCDWR service area that does not engage in the preparation, cooking, reheating, or serving of foods or beverages for sale either on or off site. The nature of the business does not contribute a waste stream other than domestic waste. All foods sold are prepackaged for individual consumption off site. Expired products are removed by vendor and discarded off site or discarded by employees into a dumpster.
- 1.1.100 "SANITARY ENGINEER" shall mean the appointed representative of the Board of County Commissioners in the Geauga County Department of Water Resources who is a registered professional engineer. The Sanitary Engineer shall act as agent for the County Commissioners in the administration and enforcement of the provisions of Ohio Revised Code Chapters 6117 and 6103 relative to the Water Resources Department.
- 1.1.101 "SANITARY SEWER (gravity)" shall mean a conduit that carries liquid and water-carried wastes via conventional gravity methods from residences, commercial buildings, industrial plants, and institutions together with minor quantities of ground, storm, and surface waters that are not admitted intentionally.
- 1.1.102 "SANITARY SEWER (pressure)" shall mean a conduit that carries liquid and finely shredded wastes via small diameter low pressure or vacuum methods from residences, commercial buildings, industrial plants, and institutions, via a pump station or residential grinder pump, together with minor quantities of ground, storm, and surface waters that are not admitted intentionally.
- 1.1.103 "SANITARY WASTES" shall mean the combination of liquid and water-carried wastes discharged from toilet and other wastewater plumbing facilities.

- 1.1.104 "SEGREGATED DOMESTIC WASTES" are discharges from nonresidential sources generated from normal human biological activities, separate and distinct from industrial trade or process discharges.
- 1.1.105 "SEPTIC TANK WASTE" shall mean any sewage from holding tanks such as vessels, chemical toilets, campers, trailers, and septic tanks.
- 1.1.106 "SERVICE CONNECTION" (sanitary sewer) shall mean a pipe or conduit located within the public right-of-way or easement boundaries which conveys wastewater from a gravity or pressure building sewer to the gravity or pressure public sanitary sewer main.
- 1.1.107 "SERVICE CONNECTION" (water) shall mean that part of the service line situated between the water main to and including the curb stop/box or to and including any meter pits installed at or within three feet of the property line.
- 1.1.108 "SERVICE LATERAL" shall mean that part of the service line between the curb stop/box, meter pits, or cleanout (located at the right of way) and the structure to be served.
- 1.1.109 "SEWAGE" is the spent water of a community. (see "WASTEWATER" 1.1.130)
- 1.1.110 "SEWER" shall mean a pipe or conduit that carries wastewater or drainage water by gravity or under pressure. Unless otherwise stated, this term shall mean a publicly owned sanitary sewer.
- 1.1.111 "SEWER SERVICE CHARGES" shall mean charges levied for user charges, capital charges, other charges for current services, or all of these.
- 1.1.112 "SHALL" is mandatory. (see "MAY" 1.1.69)
- 1.1.113 "SIGNIFICANT INDUSTRIAL USER (SIU)" shall mean an Industrial User who is:
- (1) Subject to categorical Pretreatment Standards; or
  - (2) Discharges an average of twenty-five thousand (25,000) gpd or more of wastewater to the POTW.
  - (3) Discharges a waste stream which makes up five percent (5%) or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or
  - (4) Requires an indirect discharge permit from the Ohio EPA; or
  - (5) Is designated as such by the county on the basis that it has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or Requirement.
- 1.1.114 "SLUG" shall mean any discharge of water or wastewater which in concentration of any constituent or in rate of flow during a ten (10) minute period, exceeds five times the average 24 hour concentration or flow during normal operation and shall adversely affect the collection system and/or performance of the wastewater treatment works.
- 1.1.115 "STANDARD METHODS" shall mean the most recent edition of the Standard Methods For The Examination Of Water And Wastewater published by the American Public Health Association.

- 1.1.116 “STANDARDS AND SPECIFICATIONS are the design and construction specifications prepared and required by the Sanitary Engineer for the construction of sewer lines, water mains, service connections, service laterals and appurtenances. The standards and specifications shall be considered to be a part of these Rules and Regulations as if completely reprinted here.
- 1.1.117 "STORM DRAIN" (sometimes termed "Storm Sewer") shall mean a drain or sewer for conveying surface waters, ground water, or unpolluted water from any source to an outlet.
- 1.1.118 “STORM WATER” shall mean any flow occurring during or following any form of natural precipitation, and resulting from such precipitation, including snowmelt.
- 1.1.119 “SURCHARGE” shall mean the amount of additional fees added onto the normal sewer charges for Users who excessively discharge or exceed the allowable discharge limits of normal wastewater
- 1.1.120 “TAP/WATER TAP” shall mean the physical connection, corporation stop, into the water main.
- 1.1.121 “TENANT FINISH (FOOD SERVICE ESTABLISHMENT)” shall mean a portion of an existing building that is subsequently occupied by a Food Service Establishment, oftentimes requiring building and/or plumbing modification to meet the specifications and needs of the FSE tenant. Tenant finish differs from New Construction in that a sewer connection permit may have already been issued. This shall include alterations or modification by either the FSE tenant or the owner of the property.
- 1.1.122 “TOTAL SUSPENDED SOLIDS (TSS)” or "SUSPENDED SOLIDS" (SS) shall mean the total suspended matter that either floats on the surface of or is in suspension in, water, wastewater, or other liquids and that is removable by laboratory filtering as prescribed in "Standard Methods" and referred to as filterable residue.
- 1.1.123 "TREATMENT WORKS" shall mean any and all devices and system used in the storage, treatment recycling and reclamation of domestic or industrial wastes of a liquid nature, or necessary to recycle or reuse water at the most economical cost over the useful life of the works, including interceptor sewers or water lines, outfall sewers, sewage or water collection systems, pumping, power, and other equipment and their appurtenances; extensions, improvements, remodeling, additions, and alterations thereof; elements essential to provide reliable recycled supply, such as standby treatment units and clear well facilities and any works, including site acquisition of the land that will be an integral part of the treatment process or is used for ultimate disposal of residues resulting from such treatment; or any other method or system for preventing, abating, reducing, storing, treating, separating, or disposing of wastewater, including storm water runoff, or industrial waste, including waste in combined storm water and sanitary sewer systems.
- 1.1.124 “TWENTY-FIVE PERCENT (25%) RULE” shall be the requirement for grease interceptors to be maintained such that the combined FOG and solids accumulation does not exceed 25% of the required design hydraulic depth of the grease interceptor. This is to ensure that the minimum hydraulic retention time and required available hydraulic volume is maintained to effectively intercept and retain FOG prior to discharge to the sewer system.

- 1.1.125 "UNPOLLUTED WATER" is water of quality equal to or better than the effluent criteria in effect or water that would not cause violation of receiving water quality standards and would not be benefited by discharge to the treatment works provided. Examples include but are not limited to stormwater inflow and infiltration, non-contact cooling water, blowdown or condensate waters, and once-through rinse waters that do not contain material concentrations of pollutants.
- 1.1.126 "UPSET" shall mean an exceptional incident in which a discharger unintentionally and temporarily is in a state of noncompliance with the standards set forth in the applicable pretreatment requirements due to factors beyond the reasonable control of the discharger, and excluding noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation thereof.
- 1.1.127 "USER" shall mean those directly benefiting from a connection to the public sewer system and/or water main.
- 1.1.128 "USER CHARGE" shall mean that amount paid by each premise connected to the treatment works. This charge shall cover operations and maintenance costs.
- 1.1.129 "USER CLASS" shall mean any class of users of the treatment works, as defined in Section 3.8.1.
- 1.1.130 "WASTEWATER" shall mean the spent water of a community or segment of a community. From the standpoint of source, it may be a combination of the liquid and water carried wastes from residences, commercial buildings, industrial plants, and institutions, together with any ground water, surface water, and storm water that may be present.
- 1.1.131 "WASTEWATER CHARACTERISTICS" are the individual chemical, physical, bacteriological, and radiological parameters, including volume, flow rate, and such other parameters that serve to define, classify, or measure the contents, quality, quantity, and strength of wastewater.
- 1.1.132 "WASTEWATER DISCHARGE AGREEMENT" is a formal agreement to discharge industrial wastewater into the sewer system tributary to the POTW as issued by GCDWR.
- 1.1.133 "WASTEWATER DISCHARGE PERMIT" is a formal permit to discharge wastewater into any sewer or the sewerage system as issued by GCDWR or other governmental agency authorized by the EPA to issue those permits. The permit may require reports, testing, and discharge limits, and other restrictions. Generally issued for non-compliance of these rules.
- 1.1.134 "WATER MAIN/DISTRIBUTION MAIN" shall mean the principle piping or conduit owned and maintained by the County through which water is conveyed or drawn to private water mains and/or service lines.
- 1.1.135 "WATER SERVICE" shall mean the readiness to supply or actually supplying of water for drinking, sanitation and/or fire protection to a premises on which a water service connection has been installed.
- 1.2.0 ABBREVIATIONS - The following abbreviations, when used in this ordinance, shall have the designated meanings:

BOD – Biochemical Oxygen Demand  
BMP – Best Management Practice  
BMR – Baseline Monitoring Report  
CFR – *Code of Federal Regulations*  
CIU – Categorical Industrial User  
COD – Chemical Oxygen Demand  
EPA – U.S. Environmental Protection Agency and/or Ohio Environmental Protection Agency  
gpd – gallons per day  
IU – Industrial User  
mg/l – milligrams per liter  
NPDES – National Pollutant Discharge Elimination System  
NSCIU – Non-Significant Categorical Industrial User {optional}  
POTW – Publicly Owned Treatment Works  
RCRA – Resource Conservation and Recovery Act  
SIU – Significant Industrial User  
SNC – Significant Noncompliance  
TSS – Total Suspended Solids  
U.S.C. – United States Code  
µl – Micrograms per liter

## CHAPTER II

- 2.0.0 **GENERAL PERMIT REQUIREMENTS AND BILLING**
- 2.1.0 PERMIT REQUIREMENTS
- 2.1.1 No unauthorized person(s) shall uncover, make any connection with, or opening into, use, alter, or disturb any public sewer or water main, appurtenance, private building sewer/water, or private collection sewer/water without first obtaining a permit issued by the Water Resources Department.
- 2.1.2 Any person required by Sections 3.1.4 and 3.1.5 to connect to the County owned wastewater treatment system or water works shall apply for and obtain a permit to connect from the Water Resources Department in accordance with the procedures set forth herein. All applicable fees and charges must be deposited or a payment agreement signed with the Water Resources Department prior to the issuance of a permit.
- 2.1.3 Permits to connect for building sewers and water services connecting to newly developed subdivisions or areas will not be issued until final construction inspection of the sanitary sewer main and/or water system has been accepted by the County.
- 2.1.4 Permits shall be valid for one year from the date of issuance. The expiration date of the permit shall be noted on the permit issued. If a permit expires and work has not been started or has been stopped for a period in excess of one (1) week, the property owner or agent shall be required to complete an application for permit renewal provided by the Water Resources Department and submit it along with a permit renewal fee and any other applicable fees and charges as stated in Section 2.7.0. Permits can be renewed on an annual basis by paying the continuation fee before the permit expiration date. Failure to pay the renewal fee by the permit expiration date will require the property owner or agent to complete an application for permit renewal and pay the permit renewal fee.
- 2.1.5 A repair permit shall be required for any repairs that are made on building sewers/water lines or appurtenances, private collection sewers/water lines, or as deemed necessary by the Sanitary Engineer.
- 2.1.6 Permits shall be available on the job site at all times until the job is completed and approved. Posting of the permit is recommended.
- 2.1.7 All costs and expense incident to the installation and connection of building sewers and appurtenances shall be borne by the owner(s). The owner(s) shall indemnify the County from any loss or damage that may directly or indirectly be occasioned by the installation of a building sewer or appurtenance.
- 2.1.8 The issuance of a permit to connect or repair by the Water Resources Department does not relieve the permit holder of the responsibility of securing permits from the proper governmental or private agencies for the permission to work in public or private rights of way or easement areas.
- 2.1.9 For installation of sanitary sewer mains, water lines and appurtenances for new subdivisions,



sanitary sewer/water main extensions, or any special project shall be submitted to the Water Resources Department in accordance with the department's rules and regulations. The application shall be signed by the property owner, developer, or president of the corporation.

A permit shall not be issued until all applicable plans/specifications, easements, approvals, general requirements, and fees and charges have been submitted. All applicable fees and charges shall be paid at the time application is made for a permit.

#### APPLICABLE FEES PER STRUCTURE CONNECTING

(including but are not limited to):

Permit Fee

Inspection Fee

Tap-In Fee

Unit Sewer Service Charge

Cost Recovery Charge, if applicable

(See Section 2.7.0 to 2.7.7 and Appendix A for current list of fees/charges)

### 2.2.0 CONTRACTOR LICENSING REQUIREMENTS

2.2.1 Only persons, firms, companies, or corporations of proven liability and approved by the Sanitary Engineer, shall be permitted to construct or repair building sanitary sewers/water lines, private collection sewers or water lines, or sanitary sewer/water line improvements installed by private developers to be dedicated to the County for ownership, operations, and maintenance. Persons, firms, companies, or corporations constructing or repairing building sewers/water lines, private collection systems or water lines, or sanitary sewer/water line improvements installed by a private developer shall obtain a yearly license and furnish a performance bond.

Said contractor's license shall be approved and signed by the Sanitary Engineer or his authorized agent and shall expire on the 31st day of December in the year in which the license is issued. The expiration date of the license shall be marked on said license when issued.

Contractors not possessing a valid license and not under contract with the Board of County Commissioners shall not be permitted to install or repair any public or private appurtenances connected to the water or wastewater treatment systems. A valid license may be revoked at any time by the Sanitary Engineer or his authorized agent for any violation of the Rules and Regulations or Standards and Specifications Manual.

A contractor's license from the Water Resources Department shall be valid for work to be performed under a permit in the water or sewer sub-districts covered by these Rules and Regulations and Standards and Specifications. The following is a list of requirements that shall be met prior to issuance of a license from the Water Resources Department:

- (1) Completed and signed Application for a License
- (2) Payment of Contractor's License Fee (See Section 2.7.3 and Appendix A)
- (3) A copy of a current (valid) Workman's Compensation Certificate for the life of the license.

- (4) Properly executed Performance Bond in the amount of \$5,000.00 on a document provided by the Water Resources Department or approved equal.
- (5) Proof of Insurance Certificates showing the following minimum amounts:
  - Comprehensive General Liability \$300,000 each occurrence
  - Completed Operation & Products Liability \$ 15,000 each occurrence
  - Comprehensive Auto Liability
    - Insurance & Bodily Injury \$300,000 each person
    - Liability \$300,000 each occurrence
    - Property Damage Liability \$300,000 each occurrence

Any person or contractor doing work under these Rules and Regulations and Standards and Specifications and who is responsible for the use of explosives or other dangerous materials shall abide by all applicable laws, which include Section 2923.18 of The Ohio Revised Code, application shall be made to the Geauga County Sheriff, and upon approval of a qualified applicant and payment of the appropriate fees, a license or temporary permit will be issued. A copy of the license or temporary permit shall be supplied to the Sanitary Engineer by the person or contractor.

Contractors are hired by the property owner to perform the installation of sewer or water service connections. The contractor's license with the county shall not be construed as an endorsement or guarantee of the contractor's work. The assurances the County obtains from the contractor are for the protection of the county's system only, the property owner shall ensure that the contractor has adequate insurance and bonding to protect the property owner's property.

2.2.2 Contractors are exempt from retaining a valid contractor's license with the Water Resources Department when said contractor is installing, repairing, or testing County owned sanitary sewers, water lines and appurtenances and said contractor is acting under a legally executed contract with the Board of Geauga County Commissioners for County designed and executed projects. Said legally executed contracts shall not include escrow accounts with private developers or written agreements made with private developers. Said contractor shall be required to abide by the Rules and Regulations and Standards and Specifications Manual of the water or wastewater treatment systems. In the event of a problem with said contractor, retainage from said contract shall be held by the County until all matters of conflict have been resolved.

2.2.3 The property owner or the property owner's immediate family member may construct and install, to County specifications, said sanitary sewer or water line improvements on their property. If the property owner or the property owner's immediate family member performs the work themselves, the property owner is assuming full financial responsibility for any damage caused to the County's system or to any structure or surface objects and is fully responsible for the safety of those performing the work.

2.2.4 An immediate family member shall be defined as a: current spouse, parent, stepparent, child, stepchild, brother, sister, stepbrother, stepsister, mother-in-law, father-in-law, or grandparent.

2.3.0 STANDARDS AND SPECIFICATIONS MANUAL AUTHORIZATION

- 2.3.1 All water and wastewater construction and repair specifications for public and private water and/or sanitary sewer mains, building sewers/water, and appurtenances shall be listed in a separate document from the Rules and Regulations and it shall be titled "Standards and Specifications Manual." This Manual shall be considered an inclusive document to the Rules and Regulations.
- 2.3.2 The Standards and Specifications Manual shall be considered approved for use upon the adoption of these Rules and Regulations by the Board of County Commissioners.
- 2.3.3 Items of concern not specifically covered in the Standards and Specifications Manual shall be subject to interpretation and/or clarification by the Sanitary Engineer.
- 2.4.0 SAFETY STANDARDS
- 2.4.1 All contractors working within the County Sewer District, its system, its appurtenances, public or private, connected to said treatment system under these "Rules and Regulations" and "Standards and Specifications Manual" shall work in accordance with all applicable O.S.H.A. safety standards. The County shall reserve the right to stop work at any time if the County sees or suspects any hazardous situations that may endanger the public or employees. Work shall not resume until the situation has been resolved. The County shall not be responsible for lost time or reimbursement for stopping work due to a hazardous or potentially hazardous situation caused by not following applicable safety standards.
- 2.5.0 BILLING METHOD AND DELINQUENT ACCOUNTS
- 2.5.1 Sewer and water bills, under the billing jurisdiction of the County, shall be mailed by the Geauga County Water Resources Department on a bi-monthly basis (February, April, June, August, October, and December) unless otherwise determined by the Sanitary Engineer. The bill shall cover the charges for each property for the previous two month's service. Generally, bills will be mailed during the first week of the month immediately following the billing period. The County shall be responsible for submitting all sewer bills to the United States Postal Service. The County shall not assume liability for each property owner receiving a bill once bills are placed in the mail.
- 2.5.2 Water and Sewer bills are payable and due by 4:30 p.m. (local time) on the last day of the month in which the bills were issued (February, April, June, August, October, December). In the event the end of the month in which the sewer bill is due, falls on a weekend or on a holiday observed by the County, sewer bills shall be due by 4:30 p.m. of the next business day.
- 2.5.3 After 4:30 p.m. on the day in which bills are due, any bills not paid shall be subject to a late fee as shown in Appendix A.
- 2.5.4 Customers contesting the late penalty charged to their account(s) may be granted a one (1) time waiver of said charge during a two (2) year period providing the following conditions are met:
- (1) Requests for waiver must be submitted in writing, signed and dated by the property owner or person on record with the Water Resources Department as being responsible

for payment of charges; and,

- (2) No prior requests have been made and granted for a waiver during the previous two (2) year period; and,
- (3) All charges for sanitary sewer and or water service shall be paid-in-full prior to the next billing cycle for said service.

2.5.5 The customer can make payment in full with cash (shall be made in person, cash shall not be sent through the mail), check, money order (made out to GCDWR), direct payment plan from a checking or savings account; or, by credit card (processing fees apply).

2.5.6 All payments received from a customer who has both public water and sanitary sewer service from the County shall be first posted towards the sanitary sewer fee and the remaining amount will be posted towards the water fee. Therefore, in order for customers to be assured of continued water and sanitary sewer service, it is imperative that payment be made in full on or before the due date.

2.5.7 CERTIFICATION OF ACCOUNTS: The Ohio Revised Code, Section 6117.02, provides that when sewer and/or water service charges are not paid, the Board of County Commissioners may certify the same together with any penalties to the County Auditor, who shall place them upon the real property tax list which shall be considered a lien on such property and shall be collected in the same manner as other taxes.

Accounts with past due balances on the 2<sup>nd</sup> Friday in October of any year may be certified. When unpaid accounts are certified to the County Auditor for collection from the real property taxes a 6% certification fee shall be added to the amount due.

2.5.8 Customers can avoid certification of unpaid fees if they contact the office before the certification date and make arrangements, in writing, with the department to pay the delinquent fees and remain current with fees coming due during the next year. The arrangements must be signed by the customer and accepted by the Department Director or designee and there should be no such arrangement made for customer in the previous five (5) years.

2.5.9 Once a customer's account has been certified, failure to pay any of the certified amount for more than one year may result in sanitary sewer and / or water service being discontinued for the property. Service will not be reinstated until all amounts certified and any then current delinquencies are paid in full.

2.5.10 All other fees including but not limited to lab fees and septage fees when billed shall be subject to late fees and certification fees as outlined in section 2.5.3 and section 2.5.7.

2.5.11 It is the responsibility of the customer to obtain and pay a final sewer and/or water bill by notifying GCDWR when transferring property to a new owner. A final bill will not be issued until the property transfers and notice of transfer is received from the County Recorder's office. Failure of the customer to pay a final bill shall result in the county taking whatever action may be necessary to receive payment. See section 3.14.0 for final billing when service is discontinued.

2.6.0 RENTAL PROPERTIES

For property owners with rental property, a service contract is available at the Sanitary Engineering Department. A service contract, which has to be signed by the property owner, allows the sewer bill to be sent directly to the tenant of the property. The property owner still assumes full responsibility for the billing of the property.

All invoices for water or sewer service shall be mailed to the property owner or record. If the invoices are to be mailed to someone other than the property owner of record, the record property owner shall complete and sign an Indemnification Agreement prior to a change being made. It is the property owner's responsibility to notify this office, in advance of any change of tenant. All address changes must be submitted in writing.

## 2.7.0 FEES AND CHARGES

All applicable fees and charges shall be due-in-full upon submittal of an application for permit or request for said services.

Property owners of single family dwellings may enter into a payment agreement to pay connection charges as an equalization assessment fee, over time not to exceed sixty (60) months. See Appendix A for current service charges/interest rates that shall be added to the total amount to be "financed". Equal bi-monthly payments shall be made by the property owner. The property owner shall sign a payment agreement form provided by the Geauga County Water Resources Department. Equal bi-monthly payments shall be made by the property owner. Bi-monthly statements shall be sent to the property owner. Failure to receive the bi-monthly statement shall not relieve the property owner of making the payment on time, as agreed upon in the payment agreement. Failure to make any bi-monthly payment shall be governed by the above referenced agreement. Permit fees and inspection fees shall be paid in full by the property owner at the time of application for permit.

### 2.7.1 Permit Fees for All Sewer Sub-Districts shall be charged the following fees that can be found in Appendix A:

- A. PERMIT ISSUANCE FEE
- B. REPAIR PERMIT
- C. PERMIT RENEWAL FEE
- D. CONTINUATION FEE

#### Explanation of Permit Fees:

- A. A permit issuance fee shall be charged for every new permit to connect (or install) issued. If more than one structure on a property is connecting to the sewer at the same time, only one permit needs to be issued for the property (only one permit fee required). A deed restriction, form supplied by the County, will be required. In the event of a property split, each structure will require a separate lateral.
- B. A repair permit shall be issued at no cost. If the property owner is replacing, deleting, or adding less than one (1) length of pipe, testing may not be required if the inspector deems it unnecessary.
- C. A permit renewal fee shall be charged when an original permit has expired and the work has not been started. A renewed permit shall be issued upon application and

payment for a permit renewal and other equalization fees or charges, if applicable.

D. A continuation fee shall be charged to continue a permit for one-year. This fee shall be paid prior to the expiration date of the permit.

2.7.2 Inspection Fees shall be paid for each building or part thereof being connected to the sanitary sewer or appurtenance prior to construction. See Appendix A for fee rates.

2.7.3 Contractor's License Fee: Yearly License Fee: See Section 2.2.1 for requirements and Appendix A for rate schedule

2.7.4 Certification Fee: See Section 2.5.7 for requirements and Appendix A for rate schedule.

2.7.5 Connection Capacity Charge (Tap-in Fee)

A connection charge shall be charged for each new equivalent dwelling unit (see Table "A" section 3.8.4) being connected to, or discharging to any of the County facility Wastewater Treatment Systems. The connection charge, also known as a capacity tap-in fee, is the cost for new (additional) equivalent dwelling units to "buy into" the public wastewater treatment system by paying their share for over sizing, debt retirement, and contribution to capital improvements on the system. The charge is equal to the maximum equivalent dwelling unit that is anticipated during the life of connection to the system. There will be no reduction or refund in tap-in fee capacity charges once a customer has utilized it for capacity. The capacity purchased will be linked to that parcel for future usage.

To establish the number of units the Ohio EPA "Sewage: Collection, Treatment and Disposal" Green Book shall be used. If the applicant believes that this method is not accurate, the applicant must pay 50% of the capacity tap-in fee and then follow the procedure as outlined in Section 3.9.0, "Challenging the Number of Units".

After the six month period, the capacity tap-in fee shall be adjusted accordingly. In the event that a user is determined to be utilizing more capacity than they paid for, an additional capacity tap-in fee will be required at the current rate. A payment plan can be established. Any outstanding capacity fees during a given year will be certified to the property taxes. Once capacity has been purchased and utilized it cannot be refunded. The capacity purchased will be linked to that parcel for future usage.

2.7.6 ADDITIONAL CAPACITY USAGE (ADDITIONAL CAPACITY FEES):

In the event of an expansion, addition or any increased sewer usage from an existing service results in a usage in excess of the number of Capacity units previously purchased; an additional capacity charge will be assessed to the customer for the additional units required at the then applicable capacity fee rate as listed in Appendix A of these Rules and Regulations. See Section 2.7.0 for method of payment. Once additional capacity has been purchased and utilized it cannot be refunded. The capacity purchased will be linked to that parcel for future usage.

If the customer does not intend to utilize the additional capacity for an extended period of time, the county offers a capacity lease option (only applies to a change in usage of the existing property i.e. building usage from store to restaurant). The lease option payment will

be billed as part of the normal usage billing as an additional fee. The lease option is only available for a period of five (5) years or less. If the capacity is utilized beyond five (5) years the total additional capacity fee will come due. The lease term and rates will be determined on a case by case basis.

#### 2.7.7 OTHER FEES ASSOCIATED WITH OBTAINING SERVICE

See sections 3.7.0 and 4.11.0 for other fees that may be required to obtain a permit.

#### 2.8.0 ADDRESS CHANGES

In order to change the mailing address of a bill, the property owner must make the request for change in writing to the Water Resources. Verbal notification will not be accepted due to possible discrepancies.

#### 2.9.0 LOCATING SEWER and WATER MAINS/SERVICE CONNECTIONS (TAPS) AND CONSTRUCTION REGULATIONS (EXISTING SEWER and WATER MAINS/SERVICES)

- A. Property owners and contractors shall comply with all Ohio Revised Code (ORC) sections concerning guidelines for locating existing utilities including, but not limited to, ORC 3781.25 through 3781.32. The Department is a member of the Ohio Utilities Protection Service (OUPS) who can be reached a 1-800-362-2764. The Department will locate County owned service connections (taps) and County owned water and sanitary sewer mains at no cost, providing the following is complied with:
  1. The Department shall be notified, in writing, a minimum of 48 hours prior to the start of the project (earlier notification is suggested when possible). The notification shall contain the following:
    - a. Name/Address/Telephone Number of the Contractor.
    - b. Name/Telephone Number of the Owner.
    - c. Start date of the project and type of project.
    - d. All streets involved.
    - e. All addresses of the services involved.
  2. After the stakes, symbols, and/or paint markings have been placed by the Department, the maintenance of the same becomes the responsibility of the contractor. Any subsequent relocation or re-staking will be charged to the contractor at the Department's direct cost (subject to the requirements of the OUPS rules).
- B. Failure to follow the above procedure will place the responsibility for damage on the contractor.
- C. Information furnished to the contractor is based on records of the County. The absolute accuracy of these records cannot be guaranteed. The contractor is directed to take every precaution possible so that County facilities are not damaged and service to customers is not interrupted.
- D. If the contractor requires a more accurate location, it is suggested that he secure pipe locating equipment for this purpose.

E. Generally, the service connections (taps) will be located in a straight line from the curb box to the water main or cleanout to the main line sewer at right angles. However, since this does not hold true in all cases, deviations of several feet are possible.

2.10.0 ACCESS TO FACILITIES - County personnel shall have access to the premises for the proper operations and maintenance of the County facilities. Should access of the premises be denied, the County may discontinue service and will not restore same until time of access is granted.

2.11.0 LIMITATION OF CONNECTIONS - The sanitary engineer shall have the right to limit connections due to lack of capacity of any portion of the treatment works.

2.12.0 TERMINATION OF SERVICE - The sanitary engineer shall have the right to terminate water and/or sewer service immediately if it is determined that the violation produces a dangerous, toxic, odorous, destructive, or other condition which, in the opinion of the sanitary engineer, cannot be tolerated. Additionally, termination of service may occur for failure to pay service fees that have been certified to the property taxes, or failure to make assessment payments with property taxes. User will be responsible for any costs of reinstating the services. See Appendix A and section 2.7.0 to 2.7.7.

2.13.0 PENALTIES - Any person, firm, group, or corporation, either owner or agent, committing a violation of the "Rules and Regulations" or "Standards and Specifications Manual" shall be fined by the County in accordance with The Ohio Revised Code, Sections 4933.99 and 6117.99 to insure that remedial action will be taken to rectify the violation. This fine shall be in effect until the violation is corrected. The violator shall be liable and responsible for any and all damages incurred as a result of the violation. See Appendix A: Fees and Fines

Any person who violates the "Rules and Regulations" or "Standards and Specifications Manual" shall be subject to the penalties in accordance with Sections 4933.99 and 6117.99 of The Ohio Revised Code and such other penalties as may be provided for by law and may be enjoined from threatening to violate, violating, or continuing to violate said "Rules and Regulations" or "Standards and Specifications Manual."

Any person who fails to comply with an Order to connect issued pursuant to Section 3.1.5 of these "Rules and Regulations" shall be subject to the penalties specified in Sections 6117.51 and 6117.99 of The Ohio Revised Code and such other penalties as may be provided for bylaw and may also be enjoined from continuing in violation.

Any violation of any section of the "Rules and Regulations" or "Standards and Specifications Manual" for which no penalty is specifically provided shall be punished by a fine of not more than one hundred dollars (\$100.00) with each day or act of violation considered a separate offense.

2.14.0 APPEALS - The County shall establish and maintain an administrative appeal procedure by which individual users may be heard Except for appeals as defined in Chapters 6 and 7 of these Rules and Regulations.

A two (2) step administrative dispute and appeal procedure shall provide for the following:

A. Dispute Provisions



1. If a dispute should arise, a written notice shall be filed with the Sanitary Engineer within thirty (30) days of the user receiving notification from the GCDWR (i.e. Date of bill or date of letter from GCDWR).
2. Filing a notice of dispute shall entitle the User to a hearing before an officer of the Water Resources Department as designated by the Sanitary Engineer within 30 days of the notice of filing.
3. If the dispute is not resolved to the satisfaction of the User, then each User has the right to file an appeal to the Board of County Commissioners.

B. Appeal Provisions

1. Within 30 days of the notice of filing, each User shall have the opportunity for written presentation and the right to have financial or legal counsel participate in such presentation to the County Administrator appointed by the Board of County Commissioners.
2. Each appeal will be decided promptly, which decision shall either uphold the original determination or allow adjustment and/or repayment.
3. Each appeal decision will include a written statement of reasons on which the decision is based.
4. Repayment shall be made, within 30 days, of any amounts which are determined to be due the User or the County resulting from a ruling from the Appeals.
5. The County shall retain all documents substantiating each appeal per the County retainage policy.

## CHAPTER III

### 3.0.0 WASTEWATER TREATMENT WORKS

#### 3.1.0 USE OF PUBLIC SEWERS REQUIRED

3.1.1 It shall be unlawful for any person, firm, group, or corporation to place, deposit, or permit to be deposited in any unsanitary manner on public or private property within the established sewer districts of the County, or in any area under the jurisdiction of said County, any human or animal excrement, industrial waste, garbage, or objectionable waste.

3.1.2 It shall be unlawful to discharge to any natural outlet within the established sewer districts of the County, or in any area under the jurisdiction of said County, any wastewater or other polluted waters except where suitable treatment has been provided in accordance with subsequent provisions of this Chapter.

3.1.3 It shall be unlawful to construct or maintain any privy, cesspool, ditch, private sewer, septic tank, semi-public disposal system as defined in Section 3709.065 of The Ohio Revised Code or other facility intended or used for the disposal of sewage, industrial or their wastes if the premises served by any of these facilities is accessible to a public sewer as defined by Ohio EPA or local health department.

3.1.4 The owner of any premises located in any sewer district, his agent, lessee, or tenant, or any other occupant of the premises, (1) upon certification by the Sanitary Engineer that the sewer is available for use and is accessible to the premises, and (2) upon Order of the Board of County Commissioners, is required to connect the premises to the sewer for the purpose of discharging sewage or other waste originating on the premises, to make use of the public sewer and to cease the discharge of the sewage or other waste into a cesspool, ditch, private sewer, privy, septic tank, semi-public disposal system as defined in Section 3709.085 of The Ohio Revised Code or other outlet.

This section (3.1.4) does not apply to exceptions as covered in ORC 6117.51 and the following:

A. Any discharge authorized by an NPDES permit issued under division (J) of Section 6111.03 of The Ohio Revised Code, other than a discharge to or from a semi-public disposal system as defined in division (B)(1)(a) of Section 3709.085 [3709.08.5] of The Ohio Revised Code;

B. Wastes resulting from the keeping of animals;

3.1.5 Service of the Board of County Commissioners Order to connect shall be made by the Sanitary Engineer and in the manner set forth in Section 6117.51 of The Ohio Revised Code. An owner, agent, lessee, tenant, or occupant shall comply with the Board of County Commissioners' Order within 120 days after the completion of service of the Order upon him/her. The Board of County Commissioners may, upon application filed with the Sanitary Engineer prior to expiration of the 120 day period, waive compliance with the Order either temporarily or permanently and conditionally or unconditionally.

3.2.0 PRIVATE WASTEWATER DISPOSAL

3.2.1 Upon connection of a premises to the sanitary sewer pursuant to an Order issued under the authority of Sections 3.1.4 and 3.1.5, the owner of the premises, his agent, lessee, tenant, or occupant shall properly abandon the cesspool, ditch, private sewer, privy, septic tank, semipublic disposal system, or other outlet by cleaning the facility of sludge and filling it with suitable material in accordance with the Ohio E.P.A. and the Geauga County Health Department regulations for abandonment.

3.3.0 INFILTRATION AND INFLOW (I/I)

3.3.1 PURPOSE

Geauga County operates and maintains sanitary sewer systems within established county sewer districts pursuant to Ohio Revised Code, Chapter 6117. The County operates these systems pursuant to Ohio E.P.A. regulations and the conditions and regulations established in the County's NPDES permits. Excessive infiltration and stormwater inflow into these sanitary sewer systems may result in system overflows and bypasses and excessive loadings on treatment facilities in violation of Ohio E.P.A. regulations and NPDES permit conditions. Additionally, these conditions pose potential public health and safety concerns and impose unnecessary and avoidable system costs.

The County has determined that its sanitary sewer systems are impacted by excessive infiltration and stormwater inflow attributable to private property sewer facilities. The purpose of these rules is to allow for the identification and remediation of excessive infiltration and stormwater inflows attributable to private sewer facilities and to establish

3.3.2 DUTY OF PROPERTY OWNER TO MAINTAIN

It is the duty of the owner of real property served by a connection to sanitary sewers maintained or operated by the County to construct operate and maintain all sanitary sewer facilities located on or within the owner's real property in accordance with all applicable state and local laws, statutes, rules and regulations including, but not limited to, Ohio E.P.A. regulations and the Geauga County Sewer District Wastewater Rules and Regulations

3.3.3 INFLOW PROHIBITED

- A. No person, including the property owner or sanitary sewer user, shall connect stormwater inflow to sanitary sewers maintained and operated by the County, nor shall such person cause, permit, or allow inflow into such sanitary sewers.
- B. Any unlawful connection or inflow under this section constitutes a nuisance subject to injunctive relief and abatement pursuant to Chapter 3767 of the Ohio Revised Code or as otherwise permitted by law. See Ohio Revised Code Section 6117.012(B). Any person violating this section is subject to penalties provided by Section 2.13.0 of the Geauga County Sewer District Wastewater Rules and Regulations. See Appendix A: Fees and Fines.
- C Whenever the Sanitary Engineer determines that Section 3.3.3(A) has been, or is being,

violated, he shall issue a written order to the property owner and/or sanitary sewer user to disconnect such unlawful connection or otherwise remove or relocate the unlawful inflow in accordance with applicable building or health codes or other state or local regulations.

- D. Upon continuing violation of this section or written order issued pursuant to this section, the Sanitary Engineer may restrict flow or disconnect sewer service. Except in a case of emergency, disconnections shall occur no earlier than thirty (30) days after service of written notice of disconnection.
- E. Any person subject to written order of the Sanitary Engineer pursuant to Section 3.3.3(C) is entitled to appeal pursuant to Section 2.14.0 of the Geauga County Sewer District Wastewater Rules and Regulations.

3.3.4 EXCESSIVE INFILTRATION DEFINED For purposes of these rules and regulations, "excessive infiltration" is defined to be that infiltration which violates any of the following standards of acceptable practice:

- A. Where metered sanitary sewer flows or physical timed monitoring of the same exceeds the water meter flows during the same general monitoring period.
- B. Where direct visual observation by an authorized County representative has determined a significant potential infiltration contribution source and where such occurrence is documented in a dated observation report.
- C. Where dye testing, smoke testing, or internal video inspection indicates potential infiltration contribution sources which could contribute to excessive infiltration in the system.

3.3.5 MONITORING EXCESSIVE INFILTRATION AND ENFORCEMENT OF REMEDIATION Where real property served by a connection to sanitary sewers maintained or operated by the County is suspected by the Sanitary Engineer of contributing excessive infiltration to the County sanitary sewer system, the Sanitary Engineer may monitor flows from the real property and enforce remediation as follows:

- A. The Sanitary Engineer, or his agent, shall investigate flow from the subject real property. Flow monitoring will be based on physical inspection, TV inspection, smoke testing, flow metering equipment, or other device commonly accepted in the industry.
- B. The property owner and/or sanitary sewer user shall cooperate with the Sanitary Engineer, or his agent, in the flow monitoring including, but not limited to, allowing reasonable access to private property and providing occupancy and use data.
- C. Following the investigation, the Sanitary Engineer may provide written notice to the property owner and/or sanitary sewer user.
- D. The property owner and/or sanitary sewer user shall, within thirty (30) days after receipt of the Sanitary Engineer's notice or such other time as the Sanitary Engineer allows, employ qualified personnel to prepare a written response which determines the following:
  - 1. Necessary actions to repair, replace, or correct defective sewer facilities located

on or within the private property to eliminate excessive infiltration;

2. Costs of such repair, replacement, or correction;
3. Proposed schedule for remediation.

This response shall be provided within the thirty (30) day period, or longer if permitted by the Sanitary Engineer provided above.

- E. The remediation actions necessary to repair, replace, or correct defective sewer facilities referenced above shall include commonly accepted industry practices including, but not limited to, sealing, chemical grouting, pipe lining, relining, and pipeline replacement.
- F. The proposed remediation action shall be subject to the approval of the Sanitary Engineer. The Sanitary Engineer shall consider the degree of excessive infiltration, proper remediation techniques, effectiveness, and cost.
- G. The Sanitary Engineer shall then issue a written order to the property owner and/or sanitary sewer user to remediate the excessive infiltration condition pursuant to an approved plan by a date certain. The written order shall include a prohibition of continuing excessive infiltration after the date certain.
- H. Any adversely affected property owner or sanitary sewer user may appeal the Sanitary Engineer's written order pursuant to Section 2.14.0 of the Geauga County Sanitary Sewer District Wastewater Rules and Regulations.

### 3.3.6 INFILTRATION PROHIBITIONS

- A. No person, including the property owner or sanitary sewer user, shall fail to comply with the provisions of Section 3.3.5 (D), (E) OR (F) or shall fail to remediate excessive infiltration conditions pursuant to written order issued by the Sanitary Engineer under Section 3.3.5(G).
- B. No person, including the property owner or sanitary sewer user, shall cause, permit, or allow excessive infiltration into the sanitary sewers maintained and operated by the County after receipt of a written order by the Sanitary Engineer pursuant to Section 3.3.5(G), prohibiting continuing excessive infiltration after the date certain.
- C. Any unlawful excessive infiltration under this section shall constitute a nuisance subject to injunctive relief and abatement pursuant to Chapter 3767 of the Ohio Revised Code or otherwise permitted by law.
- D. Any person violating this section is subject to the penalties provided by Section 2.13.0 of the Geauga County Sewer District Wastewater Rules and Regulations. Any person subject to written order of the Sanitary Engineer pursuant to Section 3.3.5(G) is entitled to appeal pursuant to Section 2.4.0 of the Geauga County Sewer District Wastewater Rules and Regulations. See Appendix A: Fees and Fines.
- E. Upon continuing violation of this section or written order issued by the Sanitary Engineer, the Sanitary Engineer may restrict flow or disconnect sewer service. Except in a case of emergency, disconnection shall occur no earlier than thirty (30) days after service of a written notice of disconnection.

### 3.4.0 PROHIBITED DISCHARGES

3.4.1 No person(s) shall discharge or cause to be discharged any of the following described waters or wastes to any public sewer:

- A. Unpolluted water discharges as described in Section 1.1.125
- B. Inflow as described in section 3.3.3
- C. Infiltration as described in section 3.3.4
- D. Any items as described as Prohibited Discharge in section 6.2.1.

3.5.0 LIMITED DISCHARGES

3.5.1 The following described substances, materials, waters, or waste shall be limited in discharges to the public system from all users to concentrations or quantities which will not harm either the treatment works or wastewater treatment process; will not have an adverse effect on the receiving stream; will not otherwise endanger lives, limb, public property, or constitute a nuisance. The Sanitary Engineer may set limitations more severe than the limitations established in the regulations below, or in Section 3.4.0, if the Sanitary Engineer's opinion such more severe limitations are necessary to meet the above objectives. In forming this opinion as to the acceptability, the Sanitary Engineer will give consideration to such factors as the quantity of subject waste in relation to flows and velocities in the sewers, materials of construction of the sewers, the wastewater treatment plant, and other pertinent factors.

The limitations or restrictions on material or characteristics of waste or wastewaters discharged to the treatment works which shall not be violated without approval of the Sanitary Engineer are as follows:

- A. Any garbage that has not been properly shredded (Sections 1.1.46 and 1.1.91)
- B. Any wastes containing iron, chromium, magnesium, copper, zinc, and similar toxic wastes in concentrations which may interfere with the treatment works.
- C. Any waters or wastes containing odor-producing substances exceeding limits which may be established by the Sanitary Engineer.
- D. Any waters or wastes containing more than 10 mg/l of soluble fats, oils, emulsions, or grease.
- E. Quantities of flow, concentrations, or both which constitute a "slug" as defined herein.
- F. Waters or wastes containing substances which are not amenable to treatment or reduction by the wastewater treatment process employed, or are amenable to treatment only to such degree that the wastewater treatment plant effluent cannot meet the requirements of other agencies having jurisdiction over discharge to the receiving waters.
- G. Any water or waters which produce a color which could interfere with the treatment process, analytical tests, or impart an unnatural color to the treatment plant's effluent.
- H. Any substance which exerts a significant chlorine demand over a 30 minute test period. Limits of chlorine demand shall be established by the Sanitary Engineer.

3.5.2 If any waters or waste are discharged or are proposed to be discharged to the public sewers

which waters contain the substances or possess the characteristics enumerated in Sections 3.4.1 and 3.5.1, and which in the judgment of the Sanitary Engineer, may interfere with, pass through, or otherwise be incompatible with the treatment works, wastewater treatment process, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance, the Sanitary Engineer may:

- A. Reject the waste;
- B. Require pretreatment to an acceptable condition for discharge to the public sanitary sewer.
- C. Require control over the quantities and rates of discharge; and/or
- D. Require payment to cover added cost of handling and treating the wastes not covered by existing taxes or sewer charges under the provisions of Sections 2.7.0 and 3.7.0.
- E. Discharge may be subject to penalties as defined in Section 2.13.0.

3.5.3 If the Sanitary Engineer permits the pretreatment or equalization of waste flows, the design and installation of the plants and equipment shall be subject to the review and approval of the Sanitary Engineer and the Ohio E.P.A. in accordance with the Ohio Revised Code, Section 6111. The property owner shall not commence construction of such facility until he has obtained such approvals in writing from the Sanitary Engineer and appropriate State agencies.

3.5.4 Grease, oil, and sand separators shall be provided when, in the opinion of the Sanitary Engineer, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts as specified in Section 3.5.1 (D), or any flammable wastes, sand, or other harmful ingredients; except that such separators shall not be required for private living quarters or dwelling units. All separators shall be of a type and capacity approved by the Sanitary Engineer and shall be located so as to be readily and easily accessible for cleaning and inspection.

3.5.5 Where grease, oil, and sand separators, pretreatment, or flow equalizing facilities are provided or required for any waters or wastes, they shall be maintained continuously in safe, satisfactory, and effective operation by the owner(s) at his/her expense. They shall be made available for inspection at any time. All grease, oil and sand separators shall meet the requirements of the County's Pretreatment Program, see Chapter 7

### 3.6.0 COMPLIANCE REQUIREMENTS

3.6.1 The Sanitary Engineer may require a user of sewer services to provide information needed to determine compliance with this Chapter. These requirements may include:

- A. Wastewaters discharged at peak rate and volume over a specified time period.
- B. Chemical analysis of wastewaters as per Standard Methods in accordance with Federal and State regulations.
- C. Information on raw materials, processes, and products affecting wastewater volume and quality.

- D. Quantity and disposition of specific liquid sludge, oil, solvent, or other materials important to sewer use control.
- E. Plans and specifications approved by a registered professional engineer of the user's property showing sewer and pretreatment facility details.
- F. Details of wastewater pretreatment facilities.
- G. Details of systems to prevent and control the losses of materials through spills to the municipal sewers.
- H. Such other information as may be required by the County's NPDES permit.
- I. Sampling Manhole
- J. Monitoring Flow Meter

3.6.2 All contributing non-residential users of the treatment facilities shall pretreat any pollutant in its wastewater which may interfere with, pass through, reduce the utility of processed sludge, or otherwise be incompatible with the treatment works. Pretreatment of such pollutants shall be in accordance with applicable Federal and State regulations, and as determined by the Sanitary Engineer. The County's WWTP's are designed for domestic strength waste and shall be treated as such.

All owner(s) of any source to which pretreatment standards are applicable, shall be in compliance with such standards within the shortest reasonable time, but not later than the date of compliance as established by the Sanitary Engineer. All owner(s) of any source to which pretreatment standards are applicable shall submit to the Sanitary Engineer semi-annual notices regarding specific actions taken to comply with such standards. Such notices shall be submitted on the first day of the months of January and July.

3.6.3 If any contributing non-residential user proposes to pretreat its wastes, the design and installation of the plants and equipment shall be subject to the review and approval of the Sanitary Engineer. Such approval must meet all the requirements of the County's Pretreatment Program and the County's Specifications and Standards. Such approval does not alleviate the user's responsibility of meeting these regulations.

3.6.4 When required by the Sanitary Engineer, the owner(s) of any property serviced by a building sewer carrying industrial wastes shall install a suitable structure(s) together with such necessary meters and other appurtenances in the building sewer to facilitate observation, sampling, and measurement of the wastes. Such structures, when required, shall be accessible and safely located, and shall be constructed in accordance with plans approved by the Sanitary Engineer. The structure shall be installed by the owner(s) at his/her expense and shall be maintained by the owner(s) so as to be safe and accessible at all times. Following approval and installation, such meters may not be removed without the consent of the Sanitary Engineer.

3.6.5 Within six (6) months after this Chapter becomes effective, each person who discharges non-residential wastes to a public sewer shall prepare and file with the Sanitary Engineer a report that shall include pertinent data relating to the quality and characteristics of the wastes discharged to the sewage works. Similarly, each person desiring to make a new connection to a public sewer for the purpose of discharging non-residential wastes shall prepare and file



with the Sanitary Engineer a report that shall include actual or predicted data relating to the quantity and characteristics of the waste to be discharged. Such report shall be filed prior to making any connection to the public sanitary sewer.

3.6.6 In the event of an accidental spill or slug discharge of non-residential waste to the treatment works, the user shall notify the Sanitary Engineer or the Wastewater Treatment Plant Operator immediately.

### 3.7.0 MISCELLANEOUS SEWER FEES AND CHARGES

The basic fees and charges can be found in Sections 2.7.0 to 2.7.6 and in Appendix A. Specific charges for the various services districts can be found in Sections 3.7.1 to 3.7.7.

#### 3.7.1 Connection Capacity Charge (Tap-In Fee) for the Valley View Sewer District only:

Commercial users within the original service area and that were not part of the court case have paid a front foot and acreage charge. They will be charged the current issuance and inspection permit fees as outline within.

Commercial users within the original service area and were part of the court case pay \$13,729.91 per unit adjusted by 7.5% per year from the year 2000, plus the current issuance and inspection permit fees.

All commercial users will be charged the equivalent monthly user fee as outlined within.

For vacant residential lots, a list of all paid residential units is on file with the Water Resources Department. If the vacant lot has been assessed \$13,729.91 per unit then their only charges are the current issuance and inspection permit fees. If the vacant lot has not been assessed or has been subdivided, the property is charged the current tap-in fee, issuance and inspection permit fees. All residential units will be charged the monthly user fees as outlined within.

#### 3.7.2 Connection Capacity Charge (Tap-In Fee) for the Chagrin Falls Park:

Sewer Tap-in Fees. Vacant lots pay the standard tap-in fee rates.

#### 3.7.3 Connection Capacity Charge (Tap-In Fee) for the Berkshire Industrial Park:

All future tap-in fee money comes directly to the Geauga County Department of Water Resources since Blake Kauffman has received all of his credits. There is a Phase 3 of this project that is allowed to use the system. The Sanitary line has to be at their costs and all standard tap-in fee rates apply.

#### 3.7.4 Connection Capacity Charge (Tap-In Fee) for the Auburn Corners:

All properties within the service area are zoned commercial. All the properties have been assessed based on front foot and acres. They will be charged the current issuance and inspection permit fees and then a monthly user fee based on the determined number of units.

#### 3.7.5 Cost Recovery Charges for Laurel Springs Force Main, Chillicothe Road:

All properties along Chillicothe Road (SR 306) from the Laurel Springs subdivision to the

Tanglewood Subdivision are subject to front foot cost recovery in addition to the standard tap-in fee. See the Laurel Springs agreement for the individualized cost recovery list based on parcel number.

3.7.6 Cost Recover Charges for Newbury Center, Kinsman Road:

All properties along Kinsman Road (SR 87) from Auburn Road east are subject to front foot cost recovery in addition to the standard tap-in fee. See the Newbury Center agreement for the individualized cost recovery list based on parcel number.

3.7.7 Other areas not listed may be subjected to cost recovery resolutions and/or capacity charges.

3.8.0 RATES AND BILLING METHODS

3.8.1 The users of the systems shall be divided into classes. Classes shall be groups or users for which wastewater characteristics are approximately equal and services provided are essentially the same. Initially, there shall be established five (5) classes of users, as follows:

- A. Industrial Users
- B. Residential Users
- C. Commercial, Institutional, and Governmental Users
- D. Low Flow Users – Residential
- E. Vacancy Users – Residential and Commercial

The user charges shall result in the distribution of operation, maintenance, and replacement costs of the treatment works within the jurisdiction of the County to each user class in proportion to such user's probable contribution of the total wastewater loading of the treatment works. Factors such as strength, volume, and delivery flow rate characteristics shall be included to ensure a proportional distribution of the costs.

3.8.3 The Sanitary Engineer may establish additional classes as determined to be necessary.

3.8.4 Charges for wastewater treatment service shall be paid by each user connected or required to be connected to the wastewater treatment systems and shall be computed in accordance with the probable demand a user places on the wastewater treatment system by assignment of an *equivalency factor*. The probable flow rate demand that users place on the wastewater treatment system is correlated to the demand expected by a single-family dwelling by the use of equivalency factors as shown on the following pages. Equivalency factors for types of users not listed shall be determined by the Sanitary Engineer on an individual basis:

**TABLE "A"**  
**EQUIVALENCY FACTORS**

CATEGORY:	BREAKDOWN	EQUIV FACTOR
Single Family Dwelling	per dwelling	1.000
Apartment	per unit	1.000
Condominiums	per unit	1.000
Mobile Homes	per unit	1.000
Mobile Home Parks	per home space	0.750
Rental Cottages	per cottage	0.250
Efficiency Rental	per unit	0.625
Assembly Halls	per seat capacity	0.005
Bowling Alleys (w/no food service)	per lane	0.188
Car Wash	per automatic bay	1.500
Churches (small w/no kitchen facilities)	per seat (seating capacity)	0.011
Churches (large w/kitchen facilities)	per seat (seating capacity)	0.017
Condominium Storage	per unit	0.250
Country Clubs	per member	0.125
Dance Halls	per person (capacity)	0.005
Drive-In Theater	per car space (capacity)	0.013
Dock Spaces and Rack Spaces	per dock or rack	0.100
Factories (w/no shower facilities)	per employee	0.063
Factories (w/shower facilities)	per employee	0.088
<b>FOOD SERVICE OPERATIONS</b>		
Ordinary Restaurant (not 24-hour)	per seat (seating capacity)	0.088
Restaurant next to a freeway	per seat (seating capacity)	0.250
24 Hour Restaurant	per seat (seating capacity)	0.125
Banquet Rooms	per seat (seating capacity)	0.013
Tavern	per seat (seating capacity)	0.088
Drive-in (curb side/drive thru)	per space (vehicle capacity)	0.125
Gas (fuel) Station	first pump island	2.500
	per additional island	1.250
Hospital (no resident employees)	per bed (bed capacity)	0.750
Institutions	per bed (bed capacity)	0.250
Laundries (coin operated)	per machine	0.350
Motels/Guest Rooms	per unit	0.250
Nursing and Rest Homes	per patient	0.375
	per resident employee	0.250
	per non-resident employee	0.125
Office Buildings	per employee	0.050
R.V Parks/Camps (w/collection sewers)	per R.V. or tent space	0.313
R.V. Parks/Camps (primitive-dump stations)	per R.V. or tent space	0.125
Retail Business	per employee	0.050
Schools (elementary)	per pupil	0.038
Schools (high & junior)	per pupil	0.050
Shopping Center (no food or laundry service)	per 100 sq ft floor space	0.050
Swimming Pools (w/no shower facilities)	per swimmer (capacity)	0.010
Swimming Pools (w/shower facilities)	per swimmer (capacity)	0.018
Youth & Recreation Camps	per person (capacity)	0.125

\* Total equivalency factor per establishment shall be a minimum of one(1).

\*\* If a person owns a mobile home (trailer) or recreational vehicle (travel trailer) and a dock space simultaneously, that person's "assessment" or "fee" shall be based on a mobile home or recreational vehicle only.

\*\*\*Food services operation equivalent factors are double due to double strength of BOD.

3.8.5 RESIDENTIAL USER CLASS:

SINGLE FAMILY DWELLING A detached building, mobile home, or recreational vehicle located on a subdivided lot or parcel of land that is not licensed by the Geauga County Health Department as a Mobile Home Park or Recreational Camp.

APARTMENTS One or more attached or detached units, located on a parcel of land, used for residential purposes and rented on a monthly or annual basis.

MOBILE HOME PARK (trailer park or manufactured home park) Any site or tract of land under single ownership that is licensed by the Geauga County Health Department as a Mobile Home Park. If a mobile home park rents dock spaces with mobile home site, park will only be billed for the mobile home site.

RENTAL COTTAGES Detached buildings used seasonally for recreational purposes and are not designed for year-round occupancy. Rental cottages are commercial units being rented on a daily or weekly basis.

EFFICIENCY RENTAL One of several units split out within a large establishment with total ownership held by one individual where each unit has a combined kitchen and living area with or without a separate sleeping room. Units are rented on a monthly or annual basis.

3.8.6 COMMERCIAL USER CLASS:

ASSEMBLY HALLS A building or structure used to accommodate a gathering of people to deliberate, legislate, worship, or entertain (no kitchen or food service facilities).

BOWLING ALLEYS A building or structure used to accommodate recreational lanes or alleys for purposes of bowling (does not include a kitchen or food service facilities).

CHURCH (small) (no food service) Building/structure used of religious worship.

CHURCH (large) (with food service) A building or structure used for religious worship, but also is capable of preparing and/or serving food for gatherings.

CONDOMINIUM STORAGE UNITS Several units within a larger establishment each equipped with no more than a single basic restroom, simple "slop" sink, and hose bib. The establishment must have an official recorded document (i.e. deed restrictions or official regulations) disallowing the units to be used as living units, overnight stay units, or retail business units. Use of said units shall be primarily for storage and which may include the unit owner/lessee for personal light maintenance type work

COUNTRY CLUBS A building or structure used, by members, as a club for social and recreational activities.

DANCE HALL A building or structure used for social dancing.

DRIVE-IN THEATER A parcel of property used as an outdoor theater allowing patrons to be accommodated while remaining in their automobiles.

FOOD SERVICE OPERATIONS:

ORDINARY RESTAURANT (not 24-hour) A building or structure which is used as a public eating place open for business only during the morning, afternoon, or evening hours. Said business is not open overnight.

24-HOUR RESTAURANT A building or structure which is used as a public eating place, open for business 24-hours per day.

BANQUET ROOM(S) A building or structure which is used to conduct banquets, receptions, and/or formal ceremonies (food service facilities on site).

RESTAURANT ALONG FREEWAY A building or structure, located adjacent to a freeway access point, which is used as a public eating place.

TAVERN (has very little food service) A building or structure which is open to the public and used as an establishment where alcoholic beverages are sold to be consumed on the premises.

CURB SERVICE (drive-in/thru) A building or structure, located on a parcel of property, which is used as a food service facility catering to persons sitting in parked automobiles or driving through in automobiles.

HOSPITALS A building or structure used as an institution where the sick and injured are given medical or surgical care.

INSTITUTIONS A building or structure used as an establishment that serves to instruct or train individuals.

LAUNDRIES (coin operated) A building or structure used to house a self-cleaning laundry where the machines are operated by coins.

MOTELS A building or structure which provides rooms for overnight lodging. The units are rented on a daily or weekly basis.

GUEST ROOMS A building or structure which provides room for overnight lodging. Rooms are rented on a daily or weekly basis. A minimum of 1.000 EDU applies to a guest house when a single family dwelling or apartment is not located within the same structure.

NURSING & REST HOMES A building or structure used as a facility to provide nursing care for the aged or chronically ill who are unable to care for themselves.

OFFICE BUILDING A building or structure used to house one or more kinds of businesses transacting or supplying a service.

RECREATIONAL VEHICLE PARKS AND CAMPS (travel trailer parks) Any site or tract of land which is licensed by the Geauga County Health Department as a Recreational Camp. If an RV park or camp area rents dock spaces with the sites, the camp area will only be billed for the RV or camp site. Different EDU's are assigned to parks with primitive camp sites and camp sites with collection sewers.

RETAIL ESTABLISHMENT A building or structure used in a commercial capacity to sell, purchase, or exchange goods and services.

SCHOOLS A building or structure used to provide formal instruction or education to students.

SERVICE STATIONS A building or structure used to service vehicles as a service.

SHOPPING CENTERS (without food service or laundries) A building or structure used to house a group of retail stores and service establishments.

YOUTH and RECREATIONAL CAMPS A tract of land which includes buildings or structures used on a seasonal basis for the harboring of individuals where the owner of the camp provides the habitation for the individuals.

DOCK SPACES and RACK STORAGE A commercial facility used for the storage of boats during the summer months from which a boat can be made operable within a short period of time. This includes dry rack storage. If a dock space is rented in conjunction with either an RV site, mobile home site, or camp site, the dock space will not be billed.

3.8.7 INDUSTRIAL USER CLASS:

FACTORIES (w/no showers) A building or structure used to manufacture products and does not have shower facilities for its employees.

FACTORIES (w/showers) A building or structure used to manufacture products and does provide shower facilities for its employees.

*CATEGORIES NOT LISTED SHALL BE DETERMINED BY THE GEAUGA COUNTY SANITARY ENGINEER IN ACCORDANCE WITH OHIO E.P.A. GUIDELINES.*

3.8.8 LOW FLOW USERS – RESIDENTIAL:

The County has established a sewer discount rate for residential units whose effluent discharge into the sewer system is low. The threshold limit the County utilizes is an average daily flow of 100 gallons per day.

Residents qualify for the reduced sewer rate once a year based on average monthly water usage. To determine water usage either certified water bills or a meter purchased from the County and placed on their well water is required. Residents that qualify will be given a fixed discount per cycle. See Appendix A: Fees and Fines for current rates. Any necessary meter replacement shall be at the expense of the customer. Failure to replace an inoperable meter in a timely fashion will result in the customer being billed for usage in the amount determined utilizing Table “A” section 3.8.4

3.8.9 VACANCY USERS – RESIDENTIAL AND COMMERCIAL:

The County has established a vacancy rate for qualified residential units.

The vacancy rate shall be substantiated by the customer attaching and sending in copies of bills from other usage based utilities, including but not limited to electric, gas and water bills covering the same time frame as the sewer bill. These copies shall be attached to the sewer bill payment stub and sent in along with payment for the regular bill minus the applicable discount. No vacancy claims will be considered passed 180 days after the billing period which credit is requested. No discounts or credits will be applied to any outstanding balances that are certified to the property taxes. Residential units that qualify will be given a fixed discount per cycle which will be applied to the next billing cycle.

Commercial units that qualify will be billed for one (1) unit of service. A minimum of one unit charge is required per connection/building/customer for commercial properties.

See Appendix A: Fees and Fines for current rates.

### 3.9.0 CHALLENGING THE NUMBER OF UNITS DETERMINED.

The number of sewer units calculated using Table “A” is an estimate based on empirical and experiential data as recorded in the Ohio EPA Sewer: Collection, Treatment and Disposal (the “Green” book). The County and/or the sewer user have the right to challenge this calculation. In the event of a challenge by the user, the user shall purchase a meter from the County and have it installed on his water supply. After six months of established readings the appropriate number of units shall be determined by determining the average gallons per day of flow then dividing by 270 gpd. The appropriate strength multiplier would then apply. Once a meter is installed for purposes of determining sewer units, the meter shall remain on the water source. Any necessary meter replacement shall be at the expense of the customer. Failure to replace an inoperable meter in a timely fashion will result in the customer being billed for usage in the amount determined utilizing Table “A” section 3.8.4. A review of the water usage and redetermination of the sewer units may be conducted by the County and adjustments made accordingly. Any credits to the account shall apply back to the day the meter was installed and programmed only. Credit is for user fees only. Minimum unit charge is one unit. See Section 2.7.5 for initial capacity tap-in fee determination.

### 3.10.0 RATES

Each user, regardless of user class, connected to the County wastewater treatment system shall pay the unit charges per equivalent dwelling unit. The system of user charges and capital charges shall be reviewed and revised periodically as required. See Appendix A for the current rates.

The sewer service charge is a continuous charge for all benefited properties whether occupied or vacant. The current owner is responsible for payment of all service charges incurred to the property. Sewer service charges are levied 6 times per year and bills are issued on a bi-monthly basis.

### 3.11.0 HIGH STRENGTH SURCHARGES

The majority of the County wastewater treatment plant systems are on a small scale and designed for residential waste. Any effluent discharge into the County’s sewers above domestic strength waste is a potential threat and can upset our systems.

Any user discharging wastewater containing BOD, SS, ammonia and/or phosphorus in excess of normal domestic wastes shall have their sewer service rate adjusted by a multiplier in proportion to the excess strength waste being discharged. In the event more than one (1) parameter exceeds domestic strength, the highest multiplier shall be used to determine surcharge.

If the County or the Ohio EPA feel there is a potential threat of a high strength discharge into the sewer system, the County shall require the user to install a sampling manhole. The County will obtain samples of the suspected generator on three separate days in a two week period. Should any of the test values of the three tests exceed the base domestic value for that parameter, the surcharge will begin immediately and be based on that average value. The surcharge will continue until tests are within the base range for that parameter. All tests

are to be charged to that facility. The County reserves the right to install a composite sampler to perform sampling in lieu of grab samples.

To avoid EPA violations and fines the County shall apply a proportional surcharge upon a user until these discharges return to domestic level. The County has the right to test for any parameter not listed herein that is part of or would affect their NPDES permit with the Ohio EPA. See chapter 7 Pretreatment for additional information.

Below are examples of the method surcharge calculations.

Parameter	Domestic or Allowable Limit	Concentration of Discharge	Multiplier
BOD	200 mg/l	385 mg/l	2.0
SS	200 mg/l	478 mg/l	2.5
NH <sub>3</sub> N	10 mg/l	18 mg/l	2.0
Phosphorus	7 mg/l	6 mg/l	no multiplier

The user's service fee would be multiplied by 2.5

These charges shall be reviewed periodically and revised as necessary. Each user shall pay a fee for each sampling and metering required for high strength surcharges or for ascertaining pretreatment compliance. Sampling periods shall not exceed one 24-hour day, multiple charges will be made. Charges for such services other than tests for BOD, SS, ammonia, and phosphorous shall be at the actual costs thereof as computed by the Sanitary Engineer. Samples for determining strength of wastes shall be taken after the flow has under gone pretreatment if pretreatment facilities are used.

### 3.12.0 MISCELLANEOUS CHARGES

In addition to the above referenced charges, each user shall pay the charges for miscellaneous service and monitoring as determined by the Sanitary Engineer whenever, in his opinion, it is deemed appropriate. The Sanitary Engineer shall turn over to the Geauga County Treasurer in the manner prescribed by law, all funds received as a result of the miscellaneous charges which will be credited to the appropriate fund.

### 3.13.0 UNSCHEDULED CHARGES

Any system user who is responsible for damage to the system shall be charged the full cost of repair of the damage to the system. The cost shall include, but is not limited to, labor, equipment, materials, administrative expense, interest on borrowed funds, engineering, legal, or other professional fees and charges to the County by other utilities or departments.

### 3.14.0 SETUP AND DISCONNECTION OF SEWER BILLING PROCEDURE

The following sewer billing procedure establishes how the initial and final sanitary sewer billing date shall be determined by the Geauga County Water Resources Department:

- A. When a structure's new building sewer gains access to the sanitary sewer whether via a grinder pump or a gravity service lateral, sewer billing shall commence on the date that the final inspection report identifies:



- 1 the service lateral has passed the testing and inspection; or,
- 2 verification has been made that sanitary sewer service has actually begun; or
- 3 notice of an occupancy permit from the Building Department.

B. When a structure has been disconnected from the sanitary sewer in accordance with section 3.15.0 a final bill will be issued, effective the date of disconnect, once the inspector's report is submitted to the Department of Water Resources. See section 2.5.11 for final billing when property ownership is transferred.

### 3.15.0 DISCONTINUING SERVICE

- A. Voluntary disconnection of service is only permitted for buildings that are and will remain vacant.
- B. Prior to any discontinuation of sanitary sewer service the property owner shall enter into an Agreement to Disconnect Sanitary Service with the County.
- C. The property owner shall pay all current and past due bills associated with the property.
- D. By permitting the disconnection, the County does not assume any responsibility for back-ups or flooding.
  - 1 It is the property owner's responsibility to ensure that wastewater can no longer be generated on the property.
  - 2 It is the property owner's responsibility to ensure that any illicit connections of clean or storm water do not exist.
  - 3 The Agreement to Disconnect Sanitary Service (above) may list steps that the property owner must take before disconnecting service, this does not release the property owner from ensuring that a sanitary sewer connection is not required for the property.
- E. In situations where a property owner's service lateral is connected to a pressure sanitary sewer via a grinder pump and has requested that sewer billing be permanently discontinued, a licensed contractor, hired by the property owner and under the inspection of the County shall remove the grinder pump core and install a plug or cap into the inlet pipe in the grinder pump to eliminate service to the structure. Also, proper arrangement must be made by the property owner to relocate the grinder pump's electrical supply at his expense, if applicable. A properly completed and signed Inspector's Report form shall be submitted to the office
- F. In the event the property disconnecting from the sanitary sewer is connected to a grinder pump servicing another property owner, the building sewer must be permanently capped as described in the Gravity Sewer Service section referenced below.
- G. In situations where a property owner's service lateral is connected to a gravity sanitary sewer and requests that sewer billing be discontinued, the property owner shall excavate and cap the service lateral at the right of way or easement line. A county

inspector must witness the installation of the lateral cap. The inspector shall then cause a sticker or tag to be applied to the cap informing the property owner that a repair permit from the County is required prior to reconnection to the sanitary sewer. Upon completion, the inspector shall submit a report to the office confirming compliance with this regulation and the date completed.

- H. In situations where the request for disconnection of service is due to a catastrophic event and the disconnection will be for less than six (6) months the property owner shall meet with the Sanitary Engineer to discuss alternatives to the above requirements.

### 3.16.0 RE-ESTABLISHMENT OF SERVICE:

To re-establish sanitary sewer service to a property that was connected to the sanitary sewer at a previous point in time and then disconnected (monthly user charge terminated) under the above referenced policy, the property owner shall:

- A. Secure a permit to re-establish service from the Water Resources Department
- B. Pay a permit fee and a re-establishment fee that is equal to the sum of twelve (12) monthly user charges (at the current monthly rate), per equivalent dwelling unit being re-established, for the sub-district in which it is located.
- C. The property owner shall expose the permanent building sewer cap and have the County inspector verify that it has not been tampered with or used since disconnection. If evidence shows that the cap has been tampered with or this procedure was not followed and connection has already taken place, the current property owner shall be billed the total monthly user charges from the date "final" inspection was made to discontinue billing on the structure to the current month plus late fees.

### 3.17.0 BASEMENT FLOODING PROCEDURE

The following procedure will be followed by the Water Resources Department personnel in responding to private property owners/sewer customer's complaints of basement flooding allegedly as a result of a County sanitary sewer back up:

- A. Upon receipt of a complaint concerning sewerage in a sanitary sewer customer's basement, the County, as soon as possible, will send County personnel to the flooded address to investigate the cause of the back-up and to inspect the flooded basement for damage. County sewers shall be checked for plugging and back-up to determine if basement flooding is as a result of County main line sewer failure or if flooding is as a result of private service lateral failure. The flooded basement will be inspected generally to determine what was damaged, the depth of the sewerage in the basement and as to whether or not there are any storm water connections to the County sanitary sewer system. Should the County main line sewer be plugged, the County shall immediately take the necessary steps, if any, to allow this sewer to become free-flowing again. Should the private service lateral be plugged, the property owner should be advised to contact a plumber to have it unplugged, however, the County should assist as much as possible before leaving and advising any steps that should be taken which might immediately relieve the flooded basement. A report shall be prepared including the incident date, location, time, depth of sewerage in basement, list any actions taken to relieve the problem, and cause of failure; said report shall be filed with the Sanitary Engineer.

- B. If damage occurs as a result of flooding, the resident should contact their homeowner's insurance company as soon as possible and report the loss to them. The resident's agent will follow up with the County. The County will submit their internal reports to the County's insurance carrier. A claims adjuster from our insurance carrier may contact the resident to review the claim and may require access to the damaged areas.
- C. Any blockage within the lateral from the house to actual tie-in to the mainline sewer is the customer's responsibility since they are the only user between these two points. If a blockage is found between the home and the cleanout the County will advise the property owner to contact a plumber. In the case of the blockage between the cleanout and the actual tie-in to the main line sewer the County will clear the lateral. The first incident the County will cover this cost. Any incidents after this, the County will unblock at the property owners expense.

## CHAPTER IV

### 4.0.0 WATER TREATMENT WORKS

#### 4.1.0 GUARANTEE OF SUPPLY AND SERVICE

- A. The County shall operate each of the water systems to meet the American Water Works Association and Cleveland Water Department standards to the best of their ability. The County cannot guarantee any fixed pressure or a continuous supply of water, but will, in an emergency, endeavor to notify affected customers of variances from normal operations when possible.
- B. Persons or entities using steam boilers, gas engines, or other equipment or whose operations depend on a supply of water direct from the service pipe, should have in mind ITEM "A" of this Section and provide storage of sufficient water to operate for a reasonable length of time.
- C. In case of a serious fire(s) or water shortage or when, for any cause, it is necessary to conserve the water supply by limiting the use thereof, such an order shall be made and shall be obeyed by all users of water affected by such an order and the County shall not be responsible for any damages resulting from any such limited use.
- D. Every reasonable effort will be attempted to restore service as soon as possible should an interruption of service occur. The County shall not be liable for any accidents or damages resulting from interruption of service. Whenever possible and as time permits, customers will be notified prior to shut down.
- E. The County shall have the right to shut off water service for nonpayment of bills, routine maintenance, emergency repairs, water main extensions, tests, water system improvements, noncompliance to the County's rule and regulation or whenever necessary. The County disclaims any responsibility for damages or accidents arising from the same. All privately owned valves and service lines are to be maintained in such condition as to allow termination and reinstatement of service at any time. Whenever possible and as time permits, customers will be notified prior to discontinuance of service.
- F. The County disclaims any responsibility for damage by water to any personal or real property caused by leaks, broken pipes, meters, or fixtures whether privately or publicly owned.

#### 4.2.0 BACKFLOW PREVENTION/CROSS CONNECTION CONTROL PROGRAM

- 4.2.1. To provide an effective means for protecting the public water system from contamination due to the backflow of contaminants through the water service connection into the public water system, all water service lines shall conform to the Ohio Administrative Code Chapters 3745-95 and 3745-99. The Department reserves all rights specified therein.
- 4.2.2 All new or upgraded water service lines shall be required to have a backflow preventer, as specified in Standards and Specifications.
- 4.2.3 The property owner and/or occupant who purchases water from the public water system is

liable for any installation of devices or actions taken on the premises that may endanger the quality or integrity of the public water system and presents either an actual or potential hazard to the potable water system.

4.2.4 The Department reserves the right, at any time, to order a property owner to install an approved backflow preventer on any existing water service line. Conditions that guarantee a required backflow:

- A. Premises having an auxiliary water system;
- B. Premises or consumer where any substance is handled in such a fashion as to create an actual or potential hazard to the public potable water system. This shall include any system where water is not under the sanitary control of the water purveyor where the process fluids may or may not originate from the potable water.

4.2.5 The following types of facilities will require the designated backflow prevention devices. The list is presented as a guideline and should not be construed as being final or complete. Each case will be judged by its own merit.

Abbreviations Used Are As Follows:

- RP Reduced Pressure Type Backflow Device
- DC Double Check Valve Backflow Preventer
- DCDC Double Check Detector Check Assembly
- RPDC Reduced Pressure Detector Check Assembly
- CCI Cross Connection Control Inspection

<u>TYPE OF FACILITY</u>	<u>TYPE OF PROTECTION</u>
Auxiliary Water Supply (any supply other than ours)	CCI and RP
Car Wash	RP
Chemical Plant	RP
Convenience Stores	DC
Film Laboratory or Development	RP
Fire Protection System:	
(without auxiliary water or process water)	DCDC
(with auxiliary water or process water)	RPDC
Food or Beverage Processing Plants	DC
Funeral Homes - Mortuaries	RP
General Office Buildings	DC
Laundries - Dry Cleaners	DC or RP
Machine Tool Plants (degree of hazard)	DC or RP
Medical Facilities:	
Hospitals	RP
Clinics	RP
Veterinary	RP
Offices	RP

Metal Processing/Production (degree or hazard)	DC or RP
Multi-residential Facilities	DC
Paper Products	RP
Petroleum Processing Plant	RP
Petroleum Storage Plant/Yard	DC or RP
Plating Facilities	RP
Restaurants	DC
Schools (degree of hazard)	RP
Sprinkling and Irrigation Systems	DC
Strip Shopping Malls	DC
Sewage Treatment Plants	RP
Sewage Pumping Station (degree of hazard)	DC or RP
Other	CCI and RP

4.2.6 Backflow preventers shall be tested on an annual basis. These results must be submitted to department on the standard County forms. Failure to comply will result in shutting water service off to the facility.

4.2.7 Backflow preventers installed outside of buildings shall be installed above grade and be enclosed in an electrically heated hot-box.

#### 4.3.0 HYDRANTS

- A. Only authorized representatives of the Department or members of the fire department carrying out their official duties may draw water from a hydrant.
- B. "Soft suction" (soft jacketed) type hoses should be used to connect to a public or private hydrant. This standard is to prevent anyone from suctioning water (via a pump) out of a hydrant at a faster rate than what the hydrant is regulated to flow which jeopardizes the integrity of the public water system. Fire departments who must use "hard suction" type hoses to connect to a hydrant shall not allow the pump to draw more water from the hydrant than what the hydrant can provide from static flow.
- C. Hydrants shall be opened and closed very slowly to prevent water hammer from developing within the water mains. Due to serious consequences of water hammer within the water system, quickly opening or closing hydrants shall be considered a violation of the Rules and Regulations. When opening a hydrant to draw water, the hydrant shall be opened to its fully open position. If less water is required than supplied by the hydrant in its open position, an external valve as approved by the Department must be inserted to regulate flow.
- D. The authorized operator of the hydrant being used must remain in the immediate vicinity of the hydrant at all times while the hydrant is being used (in the open position). The hydrant wrench used to operate the hydrant must be in the possession of the authorized operator while the hydrant is in use.
- E. Fire departments shall notify the Department of any hydrant used for carrying out their official duties. Notification shall be made the same day when possible or as soon as reasonably possible. The fire department shall also supply the Department with an

estimate of the amount of water used for the purposes of calculating water loss within the public water system.

- F. If a hydrant, or any part of the water system, is damaged by any person, group, or firm, the Department shall prepare an invoice for the necessary repairs, including labor and material costs, and send it to the responsible party who shall have thirty (30) days to remit payment to the Department.
- G. A ten (10) feet minimum diameter clearance shall be maintained around public hydrants at all times. No person, firm, or group shall place or cause to be placed any permanent/stationary or temporary/mobile objects within ten (10) feet of a hydrant.
- H. To maintain water quality, GCDWR from time to time will utilize hydrants to flush water mains. Such flushing can cause cloudy and/or rusty water. The county shall not be held liable to damage to customers water piping as a result of this standard operating procedure.

#### 4.4.0 WATER METERS/METER PITS

- A. Once water meters (including backflow prevention devices) are properly installed and approved, the County assumes ownership and standard maintenance responsibilities of the meters in accordance with these “Rules and Regulations” and the standard policies of the Department.
  - 1. A determination of the meter and service line size required for service to a property shall be made by the customer and reviewed by the Sanitary Engineer or his representative. The Department does not assume any liability for improper meter and/or service line sizing, levels, or variations in water pressure or other problems caused by improper sizing of the meter or service line. All meters shall be purchased from GCDWR.
  - 2. Meters will be installed by GCDWR personnel unless other arrangements are made prior to the service being installed.
  - 3. All water services shall be metered unless specifically exempted by these “Rules and Regulations.”
  - 4. All meters shall be installed in a meter pit within three (3) feet of the public right-of-way or easement line. If such a location is not practical or would jeopardize the integrity of the public water system, the location may be revised upon approval of the Sanitary Engineer or his authorized representative. Meter pits for water meters one inch (1”) in size or smaller shall be purchased from GCDWR. Meter pits/vaults for larger meters shall be purchased and installed by the property owner or licensed installer, however, the meter pit and meter setting shall be approved by GCDWR prior to installation.
  - 5. All primary meters (read by the Department and billed accordingly) shall be of the radio read type meter and as specified in the Standards and Specifications Manual unless otherwise approved by the Sanitary Engineer. All costs associated with the water meter and meter appurtenances shall be borne by the property owner unless otherwise stated in these Rules and Regulations.
  - 6. All water that passes through the customer’s meter shall be billed to the customer

whether the water is used, wasted, or lost due to leakage or other means. Water charges may be adjusted for the following reasons

- a. An inaccurate meter
  - b. A monitor meter adjustment
  - c. An improper billing of the account
  - d. Any other adjustment required to correct proven inequities in billing
  - e. No adjustment will be made for a problem on the customer's property, such as a service line break, which causes significant increase in water usage to the property above the normal average usage.
7. Secondary meters, for the purpose of metering water within a property or premises, may be purchased and installed by the property owner, at his own expense, wherever the property owner wishes individual metering. However, the Department will not read these meters, nor be responsible in any way for their accuracy, maintenance, or replacement. It shall be the property owner's sole responsibility to read and maintain secondary meters. Upon request from a property owner, the property owner may contract with the County to read secondary meters, purchased from the County, and send separate bills out for said secondary meters. A written contract shall be established between the two parties before the service is initiated.
  8. Each meter of two (2) inch in diameter or larger shall be a compound or turbine type meter. By-passes around meter settings shall be required for two (2) inch and larger meter installations not used for fire protection. Such by-pass installations shall be in accordance with the County's standard specifications. By-passes shall be sealed by the Department or its authorized agents.
  9. Meters or meter pit appurtenances owned by the County shall only be removed or altered by authorized employees of the Department except as otherwise approved by the Sanitary Engineer or the Operations Manager.
  10. If a meter fails to register or is found to be out of order, the customer will be charged at the average consumption rate for comparable periods, as shown by the meter records, when the meter is registering accurately.
  11. The Department may test and correct meters at its discretion. The Department's meters should be accurate to within 2 percent plus or minus on all flows above 20 gallons per minute (GPM) and within 10 percent plus or minus on ½ gallons per minute (GPM).
  12. Upon acceptance of water service, the customer agrees that the County shall have reasonable access to all meters.
  13. The Department may test meters upon a written request of a customer to verify the meter's accuracy. The written request shall include authorization from the consumer to debit the customer's account with a meter charge if the test proves the meter to be within the guidelines shown above. The customer should make arrangements to be present to witness the test. If the customer chooses not to



witness the test, the findings of the Department personnel conducting the test shall be accepted as final. Proper refund shall be made if the test shows the customer has been over charged. In order to protect the Department against unreasonable demands for this service, the first test showing the meter to be registering properly will be done without charge, any tests thereafter in which the meter is shown to be registering properly may be charged for the GCDWR personnel's time to perform the testing .

14. If damage occurs to a water meter or it's appurtenances due to negligence on the part of the consumer (or property owner), the consumer (or property owner) shall be billed for all costs incident to the repair or replacement of the damaged items.
  15. The cost of repairs to meters and appurtenances owned by the County made necessary because of normal wear and deterioration will be assumed by the County.
  16. Existing inside water meters (or approved new inside installations) shall have a drain installed in the area of the water meter to carry off all water that may leak from a meter or meter setting. The County is not responsible for any damage caused by water leaking from an inside meter or meter setting. The property owner is responsible for protecting the inside meter from any damage including freezing.
  17. Meters and appurtenances attached thereto shall not be tampered with. If the Department finds that a meter seal has been broken or there is evidence that a meter has been tampered with, the water will be shut-off and not turned on again until a payment, determined by the County, has been made to pay for the resealing of the meter, any water loss that may be detected, and any damage that may have occurred.
- B. All officially read **remote registers** will be operated and maintained in accordance with the same general provisions that apply to the meters.
- 1 Existing remote register systems may remain in place until the property's water service is upgraded to the standards of the Department. No new inside meters with remote registers shall be permitted except for extreme circumstances that are pre-approved by the Sanitary Engineer.
  - 2 In the event of a malfunction of the remote register, a visual reading of the register dial on the meter shall govern.
  - 3 All remote registers shall be sealed by the Department. In the event a seal has been broken, the Department shall investigate to determine who broke the seal and why. Violations may be issued as they warrant. Visual verification that the meter and the remote are working shall be completed prior to resealing the remote register.
  - 4 Periodically, the Department may verify that the remote register and the meter are on the same reading. If adjustments are needed to make the remote register equal to the meter register, either a debit or credit shall be applied to the following billing cycle, whichever is appropriate to properly "equalize" the account for the associated water meter.

#### 4.5.0 FIRE PROTECTION SERVICES

- A. Improvement drawings and specifications for fire protection service lines and systems shall be submitted by the property owner to the Department for approval prior to the issuance of a permit to connect or install. The improvement drawings shall show projected flow rates for the fire protection line and/or system and the estimated size of meter and service line needed to meet the demands of the system. An application for permit shall be completed, signed, and returned to the Department along with all applicable fees and charges.
- B. It shall be the responsibility of the property owner to install the fire service line from the public water main to the point of application including all material and labor to install the tap on the water main. All construction shall be under the supervision of the Department.
- C. Fire protection service lines are required to be monitored with a detector type check valve. The detector check valve and backflow preventer shall be installed in a vault(s) at or near the property line closest to the public water main.
- D. The domestic or process water supply for the structure shall not be connected at any point on the fire protection service line after the detector check valve.
- E. All fire protection systems shall have a backflow preventer installed within the system. The location shall be easily accessible for continuous inspection and maintenance. The type and locations shall be shown on the improvement drawings approved by the Sanitary Engineer.
- F. Fire pipes, valves, and other accessories which are part of the fire protection system shall be so installed as to be accessible for purposes of inspection by the Department at all times. Termination of underground construction of the fire service line will be at the first joint above the floor line.
- G. The use of drip or blow-off valves for draining fire systems shall be allowed only in cases of absolute necessity (as determined by the Department), and in no case shall their installation be permitted unless furnished with a County specified valve and the end of every such pipe shall be exposed to view at all times. The size of the drip or blow-off pipes shall be as approved by the Sanitary Engineer in each case.
- H. All fire pumps used to maintain pressure on an unmetered fire service line shall be supplied from a monitored source.
- I. All tanks, cisterns, or reservoirs maintained for fire protection purposes shall be metered for billing purposes at the expense of the premises or parties supplied.
- J. Fire protection service lines having a looped system with more than one source of supply from the public water main shall have a double check backflow preventer valve at each source. The check valve shall be located on private property and within ten (10) feet of the public right-of-way unless otherwise approved by the Sanitary Engineer. A standard manhole or vault shall be constructed over each check valve.
- K. All "anti-freeze" type fire protection systems shall have a "Reduced Pressure

Backflow Preventer” in the system at a location acceptable to the Department.

- L. The property owner shall submit to the County for its approval, the name of the contractor(s) employed to install the system. Any work to be done on the public portion of the water main (water main, service connection, meter) shall be completed by a contractor licensed with this Department. Once approval is granted, the property owner or the owner’s contractor shall notify the Department at least two (2) days in advance of any work on the system so an inspector may be assigned to the job. All inspection costs incurred by the Department shall be the responsibility of the property owner.
- M. Upon completion of construction, two (2) consecutive passing bacteriological tests shall be made by the property owner at his expense. The tests shall be conducted in accordance with the A.W.W.A. standards for testing new water mains/services and the test results shall ensure that all drinking water standards have been met. The fire protection service line shall be pressure tested in accordance with the Standards and Specifications of these Rules and Regulations. The pressure test shall be witnessed by an authorized representative of the Department.
- N. Private fire systems and the appurtenances connected therewith may be tested by parties owning the same or by the insurance inspectors under the following conditions:
  - 1. Notice shall be given to the Department, in writing, that such a test is desired. The notice shall be given five (5) working days in advance of when the test has been scheduled. The Department may have a representative present for the test.
  - 2. The property owner is responsible for all water used to conduct the test. A charge based upon usage (or estimated usage) shall be billed at the current water rates.
  - 3. Copies of the results of all tests conducted shall be submitted to the Department as soon as reasonably possible.
- O. Operations, maintenance, and repair of the fire protection system or service line and all appurtenances shall be the responsibility of the property owner. See paragraph B of this section.
- P. If at any time a fire protection system or service line is found to be in violation of these Rules and Regulations, all changes necessary to make said systems comply therewith must be made within thirty (30) days after written notice to do so is given by the Department. A copy of the written notice will be sent to the interested insurance company, if known. Failure to comply as directed will result in discontinuance of water service after a five (5) day period. Any violation that may result in risk to the health, safety, and/or welfare of persons shall be corrected immediately.
- Q. When requested by the Sanitary Engineer, plans and specifications for existing fire protection systems shall be furnished to the Department within thirty (30) days after notice to do so. The plans shall include the profile of the fire service within the public right-of-way.
- R. The Department does not guarantee, and will not be responsible for, a given volume

of water or pressure at any time. Property owners with fire protection systems should keep this in mind when in the planning stages of installing a fire suppression system.

- S. No changes, alterations, or extensions of any fire protection system or service line shall be made without first securing approval from the Sanitary Engineer. All changes, alterations, or extensions shall be inspected by the Department.

#### 4.6.0 TURN-OFF WITH NOTICE

- A. The supply of water through any service may be turned off with prior notice from the Department for any of the reasons listed below. The Department shall provide notice to the customer not less than one (1) time by certified mail. The turn off notice shall be no less than 48 hours and no more than 7 days depending on the circumstances. The reason for the turn-off and the measures the customer can take to prevent the turn-off or recover the service shall be provided to the customer. The reasons for turn-off with notice are as follows:

1. Non-payment of water or other charges assessed under the terms of these "Rules and Regulations."
2. Failure to pay the water bill at any location for which a customer has a valid contract, or the water bill at any property for which a customer has guaranteed payment. This includes failure to pay any sewer and/or water bills that have been certified to the property and any failure to pay on an assessment for sewer and/or water associated with said property.
3. When access to the premises cannot be achieved to inspect/verify an inside meter with a remote reader or when an inside meter cannot be accessed to obtain a reading for three (3) consecutive billing periods.
4. Failure to redeem a returned check, automated bank plan debit or credit card payment.
5. Failure to make designated payments in accordance with a signed Payment Agreement.
6. Cross-connections or interconnecting with any other supply of water when not approved by the Department. This includes installation of pipe and fixtures such that a possibility of back siphonage or backflow, in the opinion of the Sanitary Engineer or his authorized representative, exists.
7. Failure to properly repair a leaking service lateral within forty-eight (48) hours after notice is given from the Department to do so.
8. The use of water on any premises other than that recorded in the application, except as may herein otherwise be provided for.
9. Misuse, abuse, or illegal use of any service pipe, meter, curb stop, corporation stop, any appurtenance, or the seal on any water system appurtenance.
10. Failure to Comply with Section 4.2.6
11. Water to vacant property will be turned off by the Department unless otherwise arranged beforehand by the property owner.

- B. The shut-off notice shall indicate the date of discontinuation of water service and the

amount due. This notice shall specifically state that this may be the only notice sent to the customer of the pending water shut-off. If the property is used for rental purposes and the monthly water bill is mailed to the tenant, a duplicate copy of the shut-off notice will be mailed to the property owner of record. A listing of those water services that remain shut-off 2-3 days after the shut-off date will be sent to the Geauga County Health Department.

- C. The supply of water, turned off under this Section, will not be turned on again until the cause of the turn-off has been corrected and either (1) all charges, including a standard service charge, have been paid; (2) a Payment Agreement is entered into; or (3) the current Payment Agreement is brought up to date. Water to a premise shall be turned back on only by employees or authorized agents of the Department.

#### 4.7.0 TURN-OFF WITHOUT NOTICE

- A. The supply of water through any service may be turned off by the Department without any notice for, but not limited to, the following reasons:
  - 1 Any situation deemed by the Department as jeopardizing the integrity of the public water system or has the potential to harm the public's health, safety, or welfare.
  - 2 Willful waste of water, as determined by the Sanitary Engineer.
  - 3 Making any additions or alterations in or about the service line without notice thereof being previously given to and permission obtained from the Department.
  - 4 Theft of service.
  - 5 When mail to an address has been returned repeatedly, when other efforts to obtain a good address have been unsuccessful, and when a bill is delinquent for two (2) billing periods for that property.
- B. The supply of water, turned off under this Section, will not be turned on again until the cause of the turn-off has been corrected and either (1) all charges, including a standard service charge, have been paid; (2) a Payment Agreement is entered into; or (3) the current Payment Agreement is brought up to date. Water to a premise shall be turned back on only by employees or authorized agents of the Department.

#### 4.8.0 TAMPERING WITH THE PUBLIC WATER SYSTEM

- A. Tampering with the public water system is prohibited and is a violation of these Rules and Regulations. Actions which constitute violations include, but are not limited to, the following:
  - 1 Unauthorized connections or reconnections of water service(s);
  - 2 Removing or reversing a meter;
  - 3 Unauthorized bypass of a meter;
  - 4 Tampering with locks, locking valves, and/or seals;
  - 5 Unauthorized water taps;
  - 6 Disconnections of the remote register;

- 7 Unauthorized hydrant usage;
  - 8 Tampering with public or private valves, curb stops, apparatus, or facilities for the purpose of obtaining service without authorization from the Department;
  - 9 Preventing access of County personnel to curb boxes and meter pits;
  - 10 Unauthorized entrance into meter pits or any tampering with the meter, meter pit, meter pit cover, locking device, radio read equipment, or any other equipment attached thereto.
  - 11 Any obstruction of the electronic radio transmission from the water meter which prevents the Department from obtaining water meter readings using the standard methods for radio read meters, including, but not limited to: gravel, asphalt, concrete, topsoil, structures placed over the meter pit, etc.
- B. Violations may result in the termination of service without notice, assessment of investigation and billing costs related to the termination of service, penalties, restitution for metered and/or unmetered water use and criminal prosecution. See Appendix A: Fees and Fines.

#### 4.9.0 DISCONNECTION OF WATER SERVICE FOR SEWER INSTALLATION

County approved procedures are to be followed where property owners or contractors are permitted to disconnect water services for the purpose of the installation of sewers, etc. Under no circumstances will this work be permitted without prior consultation and approval by the Department. A representative of the Department must be present at all disconnections and/or reconnections. The general procedures are as follows:

1. The property owner or contractor may disconnect water services when using a construction trench box. All disconnections shall occur at an existing connection point. He may roll services out of the way and reconnect the service when passed. Extreme care shall be taken not to cause leaks in the services.
2. All service lines are to be plugged and capped to prevent contamination.
3. The property owner is to be notified by the contractor prior to the disconnection. Also, the property owner is to be temporarily served with water (by the contractor) if service is to be disrupted for more than two (2) hours. The method of temporary water service shall be agreed upon by the property owner and the Department.
4. The Department shall inspect and approve all water lines prior to backfilling. The full circumference of the service pipe is to be available for inspection.
5. It is necessary to support the service pipe or water main across the ditch or other excavation in a manner approved by the Department.
6. Any water services that are backfilled prior to inspection and testing shall be uncovered for inspection by the property owner or contractor (at their cost).
7. The contractor or property owner shall be charged for all expenses incurred by the County on all work, including inspection, correction of faulty installation, damage to piping and meters due to foreign material, and other necessary work.

#### 4.10.0 DELINQUENT ACCOUNTS

- A. Water service and water billing may be discontinued to a property, at the property owner's written request. When the property owner makes a written request in the future to have the water turned back on, a re-establishment fee (and all delinquent charges, if applicable) shall be paid-in-full prior to restoring water service to the property.
- B. Requests for discontinuance of service, in occupied premises will not be honored or accepted.
- C. In the case where more than one party is supplied with water from the same service pipes, and one of the parties so supplied fails to pay the bills when due, or fails to comply with the "Rules and Regulations" the water shall be shut off from such service laterals without County liability in damages to any of the other parties serviced by such service laterals.
- D. All invoices for water service shall be mailed to the property owner of record. If the water invoices are to be mailed to someone other than the property owner of record, the record property owner shall complete and sign a Landlord Sewer / Water Billing Agreement prior to a change being made. It is the property owner's responsibility to notify this office, in advance, of any change of tenant. All address changes must be submitted in writing. The property owner is ultimately responsible for all water usage, the property owner has the option to receive copies of bills.
- E. All water that passes through a meter shall be charged for, whether used, wasted, stolen, or lost by leakage, at the standard water rate. Water charges may be adjusted for the following reasons:
  - 1 An inaccurate meter.
  - 2 A monitor meter adjustment.
  - 3 An improper billing of the account.
  - 4 Any other adjustment required to correct proven inequities in billing.
  - 5 No adjustment will be made for a problem on the customer's property, such as a service line break, which causes significant increase in water usage to the property, above the normal average usage.

4.11.0 MISCELLANCE FEES AND CHARGES

The basic fees and charges can be found in Section 2.10 and in Appendix A. Specific charges for the various services districts can be found below

4.11.1 Connection Capacity Charge (Tap-In Fee) for the Chagrin Falls Park:

Water Tap-in Fees. Properties not on the assessed list pay a \$1,995 tap-in fee. This is not adjusted with inflation.

4.11.2 Connection Capacity Charge (Tap-In Fee) for the Bainbridge Water:

Properties that front the existing distribution system are required to pay a trunk line fee of \$47.58 per front foot and a few of \$5256.19/ acre for the water tower and distribution line. Properties that request to utilize the water system and are installing their own distribution

line across their property are required to pay a trunk line fee of \$47.58 per front foot and a fee of \$1,366.40 per acre for the water tower. These rates are not adjusted with inflation.

4.11.3 Connection Capacity Charge (Tap-In Fee) for the **Country Lane Water:**

Properties that front the existing distribution system are required to pay a \$9,000 tap-in fee. This rate is not adjusted with inflation. In addition all issuance, inspection and meter fees apply.

4.11.4. Second Source Cost Sharing

A \$400 charge will apply to anyone benefiting from the Chagrin River Road water main project. This includes but is not limited to properties along Chagrin River Road, Brighton Park Court, properties in the greater Canyon Lakes development and Properties subject to the Bainbridge Cost Recovery defined below,

4.11.5 Bainbridge Road Cost Recovery

Any property subject to the Board of County Commissioners' Resolution 10-144 dated July 13, 2010 shall be subject to the cost recovery for the property being connected to the waterline as outlined in Exhibit A of said resolution. The cost recovery shall be paid at the time the permit to connect application is submitted. Cost recovery cannot be paid for in installments.

4.11.6 Other areas not listed may be subjected to cost recovery resolutions and/or capacity charges.



## CHAPTER V

### 5.0.0 SANITARY SEWER AND WATER PLANNING AND DESIGN

This Chapter shall provide general requirements of the Department of Water Resources to be considered by private developers designing sanitary sewer and water extensions, collection systems, and appurtenances connecting to the County water and wastewater treatment systems. Additional requirements, beyond what is specified in this Chapter, may be noted in the Department's Standards and Specifications and during the Water Resources Department plan review and comment process.

5.0.1 All design criteria shall be in accordance with Ohio E.P.A. standards, Ten State Standards, O.D.O.T., these Rules and Regulations, and the Geauga County Department of Water Resources Standards and Specifications.

5.0.2 The developer of any new subdivision, or parts thereof, shall, at his/her own expense, install sanitary sewers, water lines and appurtenances according to the specifications of the Ohio E.P.A. and these Rules and Regulations.

5.0.3 Sanitary sewer and water line extensions, installed by the County, into established subdivisions may occur based on the request of the Ohio EPA, Department of Health, Township Officials, Village Officials, or by the Property Owners. The assessment process may be used to pay for the new sanitary sewer or waterline.

5.0.4 All new extensions, public or private, and subsequent connections to the water and wastewater treatment systems shall be subject to the applicable fees and charges set forth in Section 2.7.0 of these Rules and Regulations.

5.0.5 The Geauga County Department of Water Resources Standards and Specifications for Sanitary Sewer Systems and Water Systems are incorporated into these Rules and Regulations as if completely reproduced herein.

### 5.1.0 PLAN AND PROFILE REQUIREMENTS

Property owners or developers extending public sanitary sewers, public waterlines, private collection sewers, or private waterlines shall meet with the Sanitary Engineer prior to beginning design to verify availability.

Sanitary sewers and waterlines which will be dedicated to the Board of County Commissioners shall have plans and specifications in accordance with the Department of Water Resources' Standards and Specifications submitted for review and approval. All plans and specifications shall be reviewed and approved by the County prior to the start of construction.

Property owners or developers installing new or extending existing private collection sewers and/or water lines which are connected to the public system shall submit plans and specifications drawn or approved by a professional engineer for approval. All plans and specifications shall be reviewed and approved by the County prior to the start of construction.

Property owners or developers installing a private building sewer or water line to one structure shall not be required to submit plans and specifications drawn or approved by a professional engineer unless said private building sewer or water line is installed within a public right-of-way (other than a "standard" service connection). The Property Owner shall submit a sketch drawing showing the proposed location of the sewer and/or water on the property. The sketch drawing shall also show any existing or proposed structures.

The County shall reserve the right to require professionally drawn plans and specifications for any proposed sanitary sewer installation and/or water lines when the Sanitary Engineer and/or Ohio E.P.A. deem(s) it necessary.

If private systems are not built to county standards with review, approval and inspection, the county will not take ownership of such systems at any time unless the system is upgraded to meet county standards.

#### 5.2.0 DESIGN/PLAN and SPECIFICATIONS REVIEW PROCESS

The following is a general overview of the G.C.D.W.R. plan review and approval process:

- A. Developer, Property Owner, Engineer, or Agent of the person proposing construction shall meet with G.C.D.W.R. to discuss the proposed project.
- B. For Sanitary Sewer projects the 208 Water Quality Management Plan (208 Plan) shall be followed
  1. The County in coordination with the Townships has established a 208 Plan defining the location of existing sanitary sewer facilities, possible proposed expansion areas, and areas to remain served by on-site systems
  2. If the proposed project is outside an area designated as "Existing Sewers" or "May Be Sewered", the person or organization proposing the project shall formally request a change to the 208 Plan to the County and to the Township.
    - a. It shall be the responsibility of the proposer of the project to present the project to the Township and request their acquiescence to expanding the 208 plan.
    - b. The Township shall submit a letter or an official copy of the approved Trustee meeting minutes to G.C.D.W.R. stating they have no objection to the inclusion of the proposed project area in the "May be Sewered" area of the 208 Plan.
    - c. G.C.D.W.R. will be available to both the Township and the proposer of the project to help with this process.
    - d. During the time when the Township is reviewing the expansion of the 208 Plan, the County will also be evaluating the expansion.
    - e. If the County and the Township have no objection to expanding the 208 Plan, the plan will be amended.
  3. If the proposed project location is within an "Existing Sewers" or "May be Sewered" area of the 208 Plan, G.C.D.W.R. will notify the Township of the

proposed project.

- C. Water projects shall be in compliance with the agreements between Geauga County and the Cleveland Department of Water Resources

If an area is outside of an agreed upon service area, the property owner shall contact the Township Trustees and the City of Cleveland Division of Water to determine if the extension of water service will be permitted.

- D. Once the above meeting with G.C.D.W.R. personnel has occurred, for sanitary sewers the proposed project is within a “May Be Sewered” area of the 208 plan, and water lines are in agreed upon service areas; plans should be prepared by a Registered state of Ohio Professional Engineer. Two sets of design plans shall be submitted by the developer or engineer to the G.C.D.W.R. for review, and comment.
  - 1. It is assumed that when G.C.D.W.R. receives construction plans for review that the Developer / Engineer has obtained all required Preliminary Plat, Zoning, and other necessary approvals that should be obtained prior to submitting construction plans. It is the Developer / Engineer’s responsibility to determine what other agencies and departments require.
  - 2. G.C.D.W.R. will review plans for conformance with the Rules & Regulations and Standards & Specifications of the G.C.D.W.R. only.
  - 3. It is the responsibility of the Developer / Engineer to determine which other agencies within the County, State or Federal Government should review and approve the plans prior to construction.

At a minimum, the plans should also be submitted to the County Engineer, the Soil & Water Conservation District, Township Road Department, and the Township Fire Department

- E. Plan review comments are sent by the G.C.D.W.R. to the developer and/or the engineer for the project.
- F. Once plans conform to the standards and specifications of G.C.D.W.R. or the changes to be made are minimal, preliminary approval of the plans will be given and the Sanitary Engineer will approve the plans “For EPA Approval Only”. The developer or engineer shall then submit the plans, PTI application and/or water supply data sheet and all appropriate fees to the EPA for approval

NOTE: Final approval of the plans shall not be given until the County has received notice that the EPA has approved the plans and/or the PTI has been issued.

- G. Once the EPA approval and/or PTI has been issued, the plans will be presented by G.C.D.W.R. to the Board of County Commissioners for approval.
- H. Once the plans have been approved by the Commissioners a pre-construction meeting shall be set.
- I. After the pre-construction meeting work may progress in accordance with the

## Standards and Specifications.

### 5.3.0 OHIO E.P.A. REQUIREMENTS

Pursuant to the Ohio Revised Code, Section 6111.44, all sanitary sewer installations, other than a building sewer to a single unit, shall obtain Ohio E.P.A. approval prior to construction. The G.C.D.W.R. will not recommend plan approval to the Board of County Commissioners nor permit construction until written Ohio E.P.A. approval has been received.

All sanitary sewer construction shall be in accordance with the regulations of the Ohio E.P.A., Ten State Standards, and these Rules and Regulations and Construction Standards and Specifications Manual.

Pursuant to the Ohio Revised Code, Section 6109.07, all waterline installations, other than service laterals to a single building shall obtain Ohio E.P.A. approval prior to construction. The G.C.D.W.R. will not recommend plan approval to the Board of County Commissioners nor permit construction until written Ohio E.P.A. approval has been received.

The office having jurisdiction for Geauga County is the Ohio E.P.A. Northeast District Office, 2110 E. Aurora Road, Twinsburg, Ohio 44087-1969

### 5.4.0 ENGINEER'S COST ESTIMATE

Property owners or developers installing sanitary sewers and/or waterlines that will be dedicated to the Board of County Commissioners for public use shall submit an itemized cost estimate calculated by a professional engineer for the proposed sanitary sewer improvements. Said cost estimate shall be submitted to the G.C.D.W.R. prior to plan approval.

### 5.5.0 PERFORMANCE BOND

When sewer and/or water lines are to be constructed within any public right-of-way, county easements or any public property and the ownership is to be turned over to the county a performance bond will be required prior to the start of construction.

The developer shall submit a professional engineer's cost estimate (signed and sealed by the engineer) for the improvements.

Exception: When all new sewer and/or water lines will be constructed on lands that will be platted as part of a subdivision, a performance bond will not be required.

The performance bond shall be in the amount of 150% of the engineer's cost estimate. The additional 50% shall be to cover the additional costs to the County (including but not limited to: prevailing wage costs, administrative costs, and inspection costs) to complete the project if required to do so by default of the developer.

### 5.6.0 EASEMENTS

The G.C.D.W.R. shall not issue a permit or permit construction until a recorded copy of all necessary easements are submitted and approved. Easement areas shown in the new platted

areas being submitted do not need additional recorded documentation. All easements shall indicate a perpetual easement specifying the right to own, operate, maintain, repair, and replace the sanitary sewer and/or waterline and appurtenances. The language of the easement shall be clear that the easement shall remain free of obstructions and that the grade within the easement shall not be changed. Sanitary sewer mains and waterlines shall require a minimum twenty (20) foot width subject to discretion of the Sanitary Engineer for each utility, unless additional utilities are being installed in the same easement area, then additional width shall be required as deemed necessary by the Sanitary Engineer. Building sewers shall be required to have a minimum width of ten (10) feet.

All existing or proposed easements shall be shown on the construction documents.

#### 5.7.0 WASTEWATER TREATMENT SYSTEM CAPACITY

During preliminary design, the developer shall contact the Sanitary Engineer and discuss any potential capacity problems within the wastewater treatment system. The Board of County Commissioners and Sanitary Engineer reserve the right to deny access to developers requesting to connect to the wastewater treatment system if treatment plant capacity does not exist.

If treatment plant capacity exists, but sanitary sewer or appurtenance capacity does not exist, the County shall require the developer to upgrade the necessary sewers or appurtenances to allow connection into the wastewater treatment system.

The determination of treatment system capacity availability may take into account the amount of capacity necessary to treat future sewer extensions within any area designated as "May Be Sewered" under the 208 plan. The designation of an area as "May Be Sewered" in no way guarantees that treatment capacity exists.

#### 5.8.0 TYPE OF SEWER SYSTEM

Gravity Sewers are the preferred sewer system within the County. If for some reason a gravity sewer CANNOT be constructed the County's preferred alternative is an Air-Vac, Inc. vacuum system.

If gravity sewer and a vacuum system cannot be constructed, a developer may request permission to install low-pressure sewer mains. Such request shall be submitted in writing to the Sanitary Engineer for approval prior to completing preliminary plans and specifications. Such request shall state the reasons why a gravity sewer cannot be constructed. Expense is not a valid argument that a gravity or vacuum sewer cannot be constructed. In addition to the written request, the developer shall submit a fifty (50) year cost effective analysis between the installation of gravity sewer mains/appurtenances and low pressure sewer mains/appurtenances if the County's general plan for the street/area does not specify pressure sewers. The study shall be completed by a professional engineer. If a low pressure system is deemed acceptable by the Sanitary Engineer, the developer may continue the design of using low pressure sewer mains and grinder pumps.

#### 5.9.0 WATER SYSTEM CAPABILITIES

During preliminary design, the developer shall contact the Sanitary Engineer and discuss

any potential problems with extending or connecting to the County's water system. The Board of County Commissioners and Sanitary Engineer reserve the right to deny connections to the water system if the system is deemed incapable of providing water to the development.

In order to ensure the necessary water quality and pressures within the water system, the developer may be required to construct, water towers, water storage facilities, booster stations, additional water line to loop the system or other appurtenances deemed necessary by the Sanitary Engineer.

#### 5.10.0 SUBDIVISION PLAT REQUIREMENTS

The County utilizes the platting process to accept sewer and water improvements.

The Developer shall contact the Geauga County Planning Commission to determine all platting requirements.

Prior to the Sanitary Engineer signing a subdivision plat and recommending acceptance to the Board of County Commissioners, the following conditions shall be met by the developer if the sanitary and water improvements are to be dedicated to the Board of Commissioners for public use:

- A. All sanitary sewer and/or water improvements shall be installed, tested and operational.
- B. As-Built Drawings shall be submitted to and approved by G.C.D.W.R.
- C. All punch list items shall be completed.
- D. All inspection and plan review fees shall be paid in full
- E. The Developer / Engineer / Contractor shall submit a certified Itemized Statement of Cost to G.C.D.W.R.
- F. A 1 year Maintenance Bond in the amount of 10% of the construction cost shall be provided to the County.
- G. The Developer shall submit a Notice of Completion and an Affidavit that all suppliers, contractors and others associated with the project have been paid. A list of all suppliers, contractors and others associated with the project shall accompany the Affidavit
- H. The dedication language on the plat shall clearly state that the developer dedicates the sanitary sewer mains and / or water lines and appurtenances (within the platted area) to the Board of County Commissioners of Geauga County, Ohio.
- I. If easements are being platted the exclusionary language as stated in section 5.6.0 shall be included in the plat language

#### 5.10.0 REVIEW AND INSPECTION FEES

The spent by County/Department personnel reviewing construction plans and inspection sewer and/or water installations shall be billed to the developer or the property owner.

The cost for plan review and construction inspection shall be billed at the rates as shown in Appendix A.

Additional fees for water usage and chlorination may also apply.

All fees shall be paid prior to the County approving the work and/or accepting the sewer and/or water systems for ownership, operation and maintenance.

Inspection fees for individual service laterals will be billed when a permit is pulled. The inspection fee is based on three (3) hour inspection. If the installation requires more than three (3) hours to complete, the County may bill for the additional time.

## CHAPTER VI

### 6.0.0 PRETREATMENT

#### 6.1.0 GENERAL PROVISIONS

##### 6.1.1 PURPOSE AND POLICY

This rule sets forth uniform rules and regulations for all dischargers into any Geauga County Publicly Owned Wastewater Treatment collection and treatment facilities. It enables Geauga County to protect public health in conformity with all applicable local, state, and federal laws relating thereto, including but not limited to the Clean Water Act (33 United States Code §1251 *et seq.*) and the General Pretreatment Regulations (40 Code of Federal Regulations Part 403).

The objectives of this rule are:

- A. To prevent the introduction of pollutants into any Geauga County wastewater facilities which will interfere with the operation or performance of the system or contaminate the resulting sludge;
- B. To prevent the introduction of pollutants into the Geauga County wastewater facilities which will pass through the systems, inadequately treated, into receiving waters or otherwise be incompatible with the facilities;
- C. To protect Geauga County Wastewater Treatment Works personnel who may be affected by wastewater and sludge in the course of their employment and the general public;
- D. To promote the reuse, and recycling of industrial wastewaters and sludge from the wastewater facilities;
- E. To provide for fees for the equitable distribution of the cost of operation, maintenance, and improvement of the POTW;
- F. To enable Geauga County Board of Commissioners to comply with its National Pollutant Discharge Elimination System permit conditions, sludge use and disposal requirements, and any other Federal or State laws to which the POTW is subject.

This rule shall apply to all Users of Geauga County's POTWs. The rule authorizes the issuance of

Wastewater Discharge Agreement or General Discharge Agreement; provides for monitoring, compliance and enforcement activities; establishes administrative review procedures; requires User reporting; and provides for the setting of fees for the equitable distribution of costs resulting from the program established herein.

#### 6.2.0 GENERAL SEWER USE REQUIREMENTS

##### 6.2.1 PROHIBITED DISCHARGES

- A. General Prohibitions. No user shall introduce or cause to be introduced into the



POTW any pollutant or wastewater which causes pass through or interference. These general prohibitions apply to all users of the POTW whether or not they are subject to categorical pretreatment standards or any other National, State, or local pretreatment standards or requirements.

- B. Specific Prohibitions. No user shall introduce or cause to be introduced into the POTW the following pollutants, substances, or wastewater that would cause a violation of Geauga County Department of Resources NPDES Permit:
- (1) Pollutants which create a fire or explosive hazard in the POTW, including, but not limited to, wastestreams with a closed-cup flashpoint of less than 140°F (60°C) using the test methods specified in 40 CFR 261.21;
  - (2) Wastewater having a pH less than 5.5 or more than 9.0, or otherwise causing corrosive structural damage to the POTW or equipment or harmful to the personnel of the plant.
  - (3) Solid or viscous substances in quantities or of such size capable of causing obstruction to the flow in sewers or other interferences with the proper operation of the wastewater facilities such as, but not limited to, ashes, bones, cinders, feathers, glass, metal, mud, paunch manure, plastics, sand, straw, shavings, rags, tar, wood, unground garbage, whole blood, hair and fleshings, entrails and paper dishes, cups, milk containers, either whole or ground by garbage grinders.
  - (4) Pollutants, including oxygen-demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause interference, pass through or a slug load.
  - (5) Wastewater having a temperature at the point of entrance to the sanitary sewer system, or which will inhibit biological activity in the treatment plant resulting in interference, but in no case wastewater which causes the temperature at the introduction into the treatment plant to exceed 104°F (40°C);
  - (6) Wastewater containing more than the maximum allowable limit of mg/l of fats, oil, and grease, Normal Allowable Discharge Limits, and in no case petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin, in amounts that will cause interference or pass through;
  - (7) Any waters or wastes containing toxic pollutants in sufficient quantity, either singly or by interaction with other wastes, to injure or interfere with any wastewater treatment process, to constitute a hazard to humans or animals, to create a public nuisance, to exceed the limitations set forth in the pretreatment standards, or to create any hazard in the receiving waters of the POTW. This includes pollutants which result in the presence of toxic gases, vapors, or fume within the POTW in a quantity that may cause acute worker health and safety problems;
  - (8) Trucked or hauled pollutants, including industrial and septic wastes, except at discharge points designated by the Sanitary Engineer in accordance with Section 6.6.4;

- (9) Noxious or malodorous liquids, gases, solids, or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance or a hazard to life, or to prevent entry into the sewers for maintenance or repair of the sewage disposal works;
- (10) Wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent;
- (11) Any radioactive wastes or isotopes of such half-life or concentration as may exceed limits in compliance with applicable state or federal regulations.
- (12) Any unpolluted water, such as, storm water, surface water, ground water, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, noncontact cooling water, and unpolluted wastewater, unless specifically authorized by the Sanitary Engineers;
- (13) Sludges, screenings, or other residues from the pretreatment of industrial wastes;
- (14) Medical wastes including pharmaceutical wastes (i.e. medications and medication preparation byproducts) except as specifically authorized by the Sanitary Engineers in a Wastewater Discharge Agreement;
- (15) Wastewater causing, alone or in conjunction with other sources, the treatment plant's effluent to fail a toxicity test;
- (16) Detergents, surface-active agents, or other substances which may cause excessive foaming in the POTW;
- (17) Any wastewater containing concentrations exceeding background levels of pollutants, for which local limit domestic monitoring has been conducted, unless otherwise specified in a Wastewater Discharge Agreement;
- (18) Quantities of flow, concentrations, or both which constitute a "slug".
- (19) Any substance which may cause the POTW's effluent or any other product of the POTW such as residues, sludges, or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation process. In no case shall a substance discharged to the POTW cause the POTW to be in noncompliance with sludge use or disposal criteria, guidelines, or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act [RCRA]), the Clean Air Act, the Toxic Substances Control Act, or state criteria applicable to the sludge management method being used.
- (20) Any hazardous wastes (as defined in Section 1004 of the Resource Conservation and Recovery Act) discharged to the headworks of the POTW by truck, rail, or a pipeline which is dedicated to only the discharge of hazardous wastes.
- (21) Any trucked or hauled septage (that is, septic tank wastes, cesspool wastes, portable toilet wastes, oil sand and grease interceptors, holding tanks, or

restaurant grease trap wastes) removed from residential, commercial, or industrial users, except at discharge points and at times designated by the Sanitary Engineer, and hauled to said designated points by waste haulers approved and permitted by the Sanitary Engineer. Furthermore, any trucked or hauled nonhazardous industrial waste is prohibited, except by special permit from the Sanitary Engineer and at designated points and times. The Sanitary Engineer will only approve the disposal of wastes generated within Geauga County.

(22) Any other substance, material, or waste stream that may result in a NPDES permit violation by Geauga County Department of Water Resources.

- C. The owner/user is responsible for the cost all sampling and testing of the wastestream discharge to prove or disprove that presence any prohibited items in the discharge wastestream. Sampling may be conducted randomly and unannounced by GCDWR.
- D. The removal of manhole lids, or other access to the sewer system which discharges to any GCDWR wastewater treatment plant for the purpose of discharging wastes at times and/or locations other than those designated by the Sanitary Engineers, or without the expressed permission of the Sanitary Engineers, shall be considered a violation and shall be subject to enforcement action including fines and penalties. Pollutants, substances, or wastewater prohibited by this section shall not be processed or stored in such a manner that they could be discharged to the POTW. The Sanitary Engineers may set additional or more stringent prohibitions than the above-specified prohibitions if in his opinion more severe prohibitions are necessary to protect the sewers or wastewater treatment process or equipment; to prevent causing an adverse effect on the receiving stream; or to protect the health and welfare of system employees or the public in general.
- E. Any User found to be discharging any waste as defined above, or other sewage in excess of normal domestic waste sewage shall be subject to additional sewer fees and/or the loss of sewer service as defined in Administrative Enforcement Remedies.

#### 6.2.2 LIMITATION ON WASTEWATER STRENGTH

- A. National Categorical Pretreatment Standards as promulgated by the U.S. Environmental Protection Agency (EPA) pursuant to the Act shall be met by all Dischargers. An application for modification of the national categorical pretreatment standards may be considered for submittal to the Regional Administrator by the County, when the County's wastewater treatment system achieves consistent removal of the pollutants as defined by 40 CFR 403.7.
- B. State Requirements State requirements and limitations on discharges to the POTW shall be met by all Dischargers which are subject to such standards in any instance in which they are more stringent than federal requirements and limitations or those in these or any other applicable Rules and Regulations.
- C. Local Pretreatment Program requirements and limitations of the Geauga County Pretreatment Program shall be met by all dischargers subject to such standards. In the event that any state, federal or local limits conflict, the more stringent standard will apply.

- (1) The Sanitary Engineer is authorized to establish Local Limits pursuant to 40 CFR 403.5(c). Such limits shall be specified in the industrial users' Wastewater Discharge Agreement. Established limits may be instantaneous or other durations such as maximum or monthly average limits.
- (2) All other industrial users of the POTW shall not discharge above generally accepted domestic levels without prior consent of the Sanitary Engineers. Local requirements and limitations on discharges to the POTW shall be met by all dischargers subject to those standards in any instance in which they are more stringent than federal or state requirement and limitations.
- (3) The Sanitary Engineer may develop Best Management Practices (BMPs), by ordinance or in individual Wastewater Discharge Agreement or General Agreement in order to regulate discharges to the sanitary sewer.

D. Sewer Surcharge for Exceeding Discharge Limits - (Strength of Wastewater Surcharge)

A customer who discharges commercial or industrial wastes to the wastewater system in excess of normal strength wastewater shall be subject to a strength of waste surcharge for the treatment of the higher strength waste that exceeds the normal waste. See section 3.11.0. Surcharges shall be in addition to any normal sewer service charges that may be based on flow or volume. GCDWR reserves the right to deny treatment capacity to any discharger based on the determination that additional organic loading by any one or combination of the normal strength wastewater stated below will hamper or reduce the effective operation of the POTW.

The waste strength used for the calculations for establishing the amount of the surcharge shall be determined periodically at the discretion of User or GCDWR or by agreement by proper sampling and analysis of samples over a three day period of time during normal business operations.

6.2.3 DILUTION

No User shall ever increase the use of process water, or in any way attempt to dilute a discharge, as a partial or complete substitute for adequate treatment to achieve compliance with a discharge limitation unless expressly authorized by an applicable Pretreatment Standard or Requirement. The Sanitary Engineer may impose mass limitations on Users who are using dilution to meet applicable Pretreatment Standards or Requirements, or in other cases, when the imposition of mass limitations is appropriate.

6.3.0 GEAUGA COUNTY'S RIGHT TO REVISION

The County reserves the right to establish, by ordinance or in individual Wastewater Discharge Agreement or in General Agreements, more stringent Standards or Requirements on discharges to the POTW consistent with the purpose of this ordinance.

6.4.0 MAINTENANCE AND REPAIR OF SANITARY SEWER LATERAL SERVICE LINES

Refer to Geauga County Sanitary Sewer General Rules for Maintenance and Repair of Sanitary Sewer Lateral Lines, Section 3.3.2.

6.5.0 AUTHORITY FOR CONTROL OF WASTEWATER DISCHARGE

If any water or waste are discharged or are proposed to be discharged to the public sewers which may contain the substances or possess the characteristics enumerated in Section 6.2.1 through 6.2.2 and which in the judgment of the Sanitary Engineer may have a deleterious effect upon the wastewater facilities, processes, equipment, or receiving water, including violation of applicable water quality standards, or which otherwise create a hazard to life or constitute a public nuisance the Sanitary Engineer may: Reject the waste; or

- A. Require pretreatment to an acceptable condition for discharge to the public sewers; or
- B. Require control over the quantities and rates of discharge; and/or
- C. Require payment to cover the additional cost of handling and treating the wastes under the provision of most current Geauga County Sewer and Water Rates.

If the Sanitary Engineer permits or requires pretreatment or equalization of waste flows, or the installation and operation of wastewater sampling or flow monitoring equipment, the design and installation of the plants and equipment shall be subject to the prior review and approval of the Sanitary Engineer and the Ohio EPA and subject to the requirements of all applicable codes, rules, and laws. When such facilities are provided, they shall be operated and maintained in satisfactory and effective condition by the permitted user at his expense. The permitted user will be responsible for all costs and associated fees: including; but not limited to sampling and lab costs.

#### 6.6.0 PRETREATMENT OF WASTEWATER

#### 6.6.1 PRETREATMENT FACILITIES

Users shall provide wastewater treatment as necessary to comply with these Rules and Regulations and shall achieve compliance with all categorical Pretreatment Standards, Local Limits, and the prohibitions set out in Sections 6.2.0 to 6.2.3 of these Rules and Regulations within the time limitations specified by EPA, the State, or Sanitary Engineer, whichever is more stringent. Any facilities necessary for compliance shall be provided, operated, and maintained at the User's expense. Detailed plans describing such facilities and operating procedures shall be submitted to Sanitary Engineer for review, and shall be acceptable to Sanitary Engineer before such facilities are constructed. The review of such plans and operating procedures shall in no way relieve the User from the responsibility of modifying such facilities as necessary to produce a discharge acceptable to the County under the provisions of this ordinance.

#### 6.6.2 ADDITIONAL PRETREATMENT MEASURES

Users shall provide wastewater treatment as necessary to ensure compliance with all National, State and Local Categorical Pretreatment Standards and with these rules and regulations. The Prohibition Discharge guidelines must be followed and may require wastewater pretreatment prior to discharge to the sanitary sewers. Pretreatment may include:

- A. Whenever deemed necessary, Sanitary Engineer may require Users to restrict their discharge during peak flow periods, designate that certain wastewater be discharged only into specific sewers, relocate and/or consolidate points of discharge, separate sewage wastestreams from industrial wastestreams, and such other conditions as may

be necessary to protect the POTW and determine the User's compliance with the requirements of this ordinance.

- B. The Sanitary Engineer may require any person discharging into the POTW to install and maintain, on their property and at their expense, a suitable storage and flow-control facility to ensure equalization of flow. An individual Wastewater Discharge Agreement or a General Discharge Agreement may be issued solely for flow equalization.
- C. Grease, oil, and fat interceptors shall be provided when, in the opinion of Sanitary Engineer, they are necessary for the proper handling of wastewater containing excessive amounts of fats, grease, and oil, except that such interceptors shall not be required for residential users unless they are licensed as a FSE or have a business at their residence that may contribute an excessive amount of grease, fat, or oil laden discharge to their wastestream. All interception units shall be of a type and capacity approved by Sanitary Engineer, shall comply with Geauga County's Fats, Oil, and Grease Management Regulations and shall be so located to be easily accessible for cleaning and inspection. Such interceptors shall be inspected, cleaned, and repaired in accordance with Geauga County's Fats, Oil, and Grease Management Regulations by the User at their expense.
- D. Oil, Sand and/or Grit Interceptors are required and shall be installed in accordance with the International Plumbing Code, Ohio version, Chapter 10 and enforced by Geauga County Health District. Metals such as copper, lead, molybdenum, zinc, and oil and grease are among the pollutants commonly found in vehicle service wastewater. This wastewater is required to plumb through a sand/oil interceptor and drain to the sanitary sewer. Interceptors shall be installed in, but not limited to, the gasoline and diesel service stations, repair garages, oil change and lubrication facilities, maintenance and/or service garages, car wash facilities with engine or undercarriage cleaning capability, factories with oil and grease bearing liquid waste discharge, and any such facility that may discharge any oil-bearing, grease bearing, or flammable wastes or introduce sand and grit into the sewer system. This includes any commercial business or shop located at a residential site that may contribute oil and grease laden discharge to the sanitary sewers.

The Interceptor:

- (1) Shall be constructed of impervious material capable of withstanding abrupt changes in temperature.
- (2) They shall be of substantial construction, watertight and equipped with easily removable covers which when bolted down shall be gas and water tight.
- (3) Shall be installed and connected so that they shall be accessible at all times for inspections and cleanings of the intercepted waste material.
- (4) Shall be placed as close to the source as possible.
- (5) Shall be located on the outside of the building if possible unless written permission from the GCDWR is obtained.
- (6) Shall be accessible for inspections and service without the use of scaffolds or ladders or the removal of bulky equipment or dumpsters.
- (7) Discharge line shall be clearly marked.

- (8) Shall serve only one business establishment or building. Multiple businesses or building connections to a single sand/oil interceptor is not permitted unless approved in writing by GCDWR.
  - (9) Shall have current drawings of the oil separator units and waste line for the facility including influent and discharge lines and sanitary connections.
  - (10) Shall establish a regular monitoring, pumping, and maintenance schedule.
  - (11) Tanks must be traffic bearing design unless otherwise approved by GCDWR in writing.
  - (12) May require an alarm system.
- E. Oil separators shall be designed in accordance with Section 1003.4.2.1 and 1003.4.2.2 of the International Plumbing Code, Ohio Version, Chapter 10 regarding installation of oil interceptors design requirements. They shall have a depth of not less than 2 feet (610 mm) below the invert of the discharge drain. The outlet opening of the separator shall have not less than an 18 inch (457 mm) water seal.
  - F. Sand/grit interceptor intended for the collection of heavy solids shall be designed and located so as to provide easy access for cleaning and shall have a water seal of not less than 6 inches in accordance with the International Plumbing Code. Sand/grit interceptors must be properly operated and maintained to prevent collection line blockage and heavy solids and oil from entering the oil separator.
  - G. The owner shall keep records on the operation and maintenance of grease, oil or sand interceptors or traps and shall make such reports available to the county upon request.
  - H. Users with potential to discharge flammable substances may be required to install and maintain an approved combustible gas detection meter.
  - I. All system Users shall discharge less than the established local limits of total cyanide, total chromium, copper, zinc, cadmium, nickel, lead, mercury, and silver into the County System. Users with the potential to discharge toxic or hazardous metals as stated in Sections 6.2.1 (B) (7) that may cause the POTW to violate the NPDES discharge limits, that may exceed the allowable discharge limits, that may cause damage to the treatment system or treatment process, or be harmful to the environment or individuals, may be required to implement a Best Management Practice (BMP) plan to ensure continued compliance with the discharge limits that may include the installation and maintenance of the proper equipment, implement a monitoring program, and/or record keeping, to eliminate or reduce the toxic discharge to an allowable limit.
  - J. All system Users identified as discharging or potentially discharging mercury shall be required to develop and implement BMP that is approved by either the Ohio EPA or the County for reducing the potential for a discharge of mercury. Such Users may be required to eliminate mercury sources to the collection system. Geauga County may require Users to identify, reduce, or manage Mercury sources to the collection system in order to meet NPDES permit discharge limits and to comply with sludge disposal regulations. Industries may be required to provide a mercury inventory list. Where necessary, in the opinion of the Sanitary Engineer, the User shall provide and operate,

at his own expense, such pretreatment as may be required to reduce the wastewater characteristics to meet the above requirements.

- K. Geauga County may require User's to identify, reduce, or manage Silver sources to the collection system in order to meet NPDES permit discharge limits and to comply with sludge disposal regulations. Silver Best Management Practices (BMP) must be implemented if in the opinion of the Sanitary Engineer it is necessary.
- L. Users with the potential to discharge flammable substances may be required to install and maintain an approved combustible gas detection meter.
- M. User of other commercial business that had a plumbing permit issued and discharges to Geauga County Wastewater facility, such as but not limited to, laundries and butcher shops, must comply with all International Plumbing Code requirements with regards to pretreatment, cleaning apparatus, and maintenance procedures to ensure adequate pretreatment of wastes.
- N. If it is determined that a toxic or hazardous material or metal, mercury, silver, or other wastes as stated in Section 6.2.1, Prohibited Discharges, is being discharged and/or is in noncompliance, the User shall be subject to any or all of the enforcement regulations of these rules in order to ensure discharge compliance.

### 6.6.3

#### ACCIDENTAL DISCHARGE / SLUG DISCHARGE CONTROL PLANS

Each user shall provide protection from accidental discharge of prohibited or regulated materials or substances established by the Sanitary Engineer. Where necessary, facilities to prevent accidental discharge of prohibited materials shall be provided and maintained at the User's cost and expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to the Sanitary Engineer for review, and shall be approved by the Sanitary Engineer before construction of the facility.

Users shall notify the Sanitary Engineer immediately upon accidentally discharging wastes in violation of these rules and regulations to enable counter-measures to be taken to minimize damage to the Sewage Disposal System, treatment processes and the receiving waters. The notification shall include location of discharge, date and time thereof, type of waste, concentration and volume, and corrective action. This notification shall be followed, within 15 days of the date of occurrence, by a detailed written statement describing the causes of the accidental discharge and the measures being taken to prevent future occurrence. Such notification will not relieve users of liability for any fines provided for in these rules and regulations, or for any expense, loss or damage to the sewer system, treatment plant, or treatment process, or for any fines imposed on the County on account thereof. This shall include slug loads.

In order that employees of the business or facility be informed of County requirements, a notice shall be furnished and permanently posted on the facility bulletin board advising employees whom to call in case of an accidental discharge in violation of these rules and regulations. The Sanitary Engineer shall evaluate whether each User needs an accidental discharge/slug discharge control plan or other action to control Slug Discharges. Sanitary Engineer may require any User to develop, submit for approval, and implement such a plan or take such other action that may be necessary to control Slug Discharges. Alternatively,



Sanitary Engineer may develop such a plan for any User. An accidental discharge/slug discharge control plan shall address, at a minimum, the following:

- A. Description of discharge practices, including non-routine batch discharges;
- B. Description of stored chemicals and applicable MSDS;
- C. Procedures for immediately notifying Sanitary Engineer of any accidental or Slug Discharge, as required by Section 6.8.3 of these rules and the report of any potential problems.
- D. Procedures to prevent adverse impact from any accidental or Slug Discharge. Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants, including solvents, and/or measures and equipment for emergency response.
- F. **Any and all accidental discharges or overflow events discharging to the surface of the ground, ditch, swale, storm sewer etc. must be reported to the Ohio Environmental Protection Agency emergency Response at (1-800-282-9378) AND the Geauga County Department Emergency Hotline at (440-286-7292 or 1-866-286-7292).**

#### 6.6.4 HAULED WASTEWATER

Septic tank waste may be introduced into the POTW only at locations designed for accepting hauled waste and designated by the Sanitary Engineer, and at such times as are established by the Sanitary Engineer and only if they are a GCDWR licensed permitted hauler. Such waste shall not violate Section 6.2.0 through 6.2.3 inclusive of this Rule or any other requirements established by Geauga County. The Sanitary Engineer may collect samples of each hauled load to ensure compliance with applicable Standards. The Sanitary Engineer shall require septic tank waste haulers to obtain GCDWR approval to dump hauled waste water at the County's approved dump site. All waste haulers must also be Licensed Hauler with Geauga County General Health District.

- A. GCDWR prohibits the disposal of hauled industrial waste at any County wastewater facility. The discharge of hauled industrial waste is subject to enforcement action of Section 6.12.0 through 6.12.6.
- B. Waste haulers must provide a waste-tracking form for every load. This form shall include, at a minimum, the name and address of the waste hauler, licensed permit number, truck identification, names and addresses of sources of waste, and volume and characteristics of waste.

#### 6.7.0 INDUSTRIAL WASTE DISCHARGE AGREEMENT REQUIRED

##### 6.7.1 DISCHARGE AGREEMENT REQUIRED

No person shall discharge industrial waste, either directly or indirectly, into the County sanitary sewer system that exceeds normal domestic wastewater without prior written

consent by first applying for and obtaining a written Discharge Agreement from the Geauga County Sanitary Engineer.

All Industrial Users discharging or proposing to connect to or discharge sewage, industrial wastes and other wastes to the County Sewage Disposal System shall comply with all terms of these rules and regulations within 90 days after the effective date of said rules and regulations.

Industrial Users shall complete and file with the County an Industrial Waste Discharge Agreement Application. Existing and proposed new Industrial Users shall file said application at least 90 days prior to connecting to and/or discharging industrial wastes to the County Sewage Disposal System. The application shall be made on forms provided by the County and the Industrial Waste Discharge Agreement shall not be issued unless and until the User has submitted to the County the following required information:

- A. The name, address, and location of the User;
- B. The User's Standard Industrial Classification (SIC) number according to the Standard Industrial Classification Manual, Bureau of the Budget, 1972, as amended;
- C. The wastewater constituents and characteristics of the User's wastes including but not limited to those mentioned in these rules and regulations, as determined by reliable chemical and biological analyses. Sampling and analysis shall be performed in accordance with procedures established by the U.S. EPA contained in 40 CFR, Part 136, as amended. Documentation submitted with application shall include a baseline monitoring report including a proposed compliance schedule;
- D. The time and duration of discharges;
- E. The average daily and instantaneous peak wastewater flow rates, in gallons per day, including daily, monthly and seasonal variations, (both immediate connections and future planned alternate buildout) if any. All flows shall be measured unless other verifiable techniques are approved by the County due to cost or nonfeasibility;
- F. Full construction plans must include but not be limited to; site plans, floor plans, mechanical and plumbing plans and details to show all sewers, sewer connections, inspection manholes, sampling chambers and appurtenances by size, location and elevation as submitted to Geauga County Building Department;
- G. The activities, facilities and plant processes on the premises including all materials which are or may be discharged to the sewers or works of the County;
- H. The nature and concentration of any pollutants or materials prohibited by these rules and regulations in the discharge, together with a statement regarding whether or not compliance is being achieved with these rules and regulations on a consistent basis and if not, whether additional operation and maintenance activities and/or additional pretreatment is required for the User to comply with these rules and regulations;
- I. Where additional pretreatment and/or operations and maintenance activities will be required to comply with these rules and regulations, the User shall provide a declaration of the shortest schedule by which the User will provide such additional pretreatment and/or implementation of additional operational and maintenance activities. The completion date in this schedule shall not be later than the compliance

date established for the applicable pretreatment standard. The following conditions shall apply:

- (1) The schedule shall contain dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the User to comply with the requirements of these rules and regulations including, but not limited to dates relating to hiring an engineer, completing preliminary plans, completing final plans, executing contract for major components, commencing construction, completing construction, and all other acts to achieve compliance with these rules and regulations.
  - (2) Under no circumstances shall the County permit a time increment for any single step directed toward compliance which exceeds 9 months.
  - (3) Not later than 14 days following each completion date in the schedule and the final date for compliance, the User shall submit a progress report to the County, including no less than a statement as to whether or not it complied with the increment of progress represented by that date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay, and the steps being taken by the User to return the construction to the approved schedule. In no event shall more than 9 months elapse between such progress reports to the County.
- J. A listing of each product produced by type, amount, process or processes and rate of production;
- K. The type and amount of raw materials, including MSDA, utilized average and maximum per day;
- L. All application forms shall be signed by a responsible corporate officer or an authorized representative of that individual;
- M. All industrial users, that are subject to categorical pretreatment standards shall be required to submit baseline monitoring reports ("BMRS") to the County;
- N. Spill control practices.

The County will evaluate the complete application form and data furnished by the user. Within 30 days and after full evaluation, the County will notify the user of the County's acceptance by issuing an Industrial Waste Discharge Agreement subject to terms, conditions and/or limitations provided for herein, or rejection thereof and the basis therefore. Failure to comply with the provisions of an approved compliance schedule or other terms and conditions as set forth in such Industrial Waste Discharge Agreement shall be cause for revocation of said Agreement and will subject said user to enforcement actions and penalties as hereinafter provided.

An Industrial User shall be required to contact the Ohio EPA regarding any NPDES, or additional permits, sampling, reporting, and monitoring, or other requirements that may be necessary.

#### 6.7.2 AGREEMENT REQUIRED

No person shall discharge without a County Wastewater Discharge Agreement to any County wastewater facility within the County or in any area under the jurisdiction of the

county, and/or to the wastewater disposal facilities any wastewater except as authorized by the Sanitary Engineer in accordance with the provisions of this chapter.

- A. The property owner shall secure all necessary permits (and pay all required fees) from the County for all sanitary sewer connections, extensions or any construction that involves sanitary sewer facilities which will become part of or connect to the System.
- B. The issuance of a connection permit by the County does not relieve the permit holder of the responsibility of securing permits from other governing agencies including but not limited to the Ohio EPA.
- C. Permits shall be available on site at all times when work is in progress and should be presented upon request to an authorized representative of the System.
- D. Permission to begin the use of newly constructed sewer lines will not be granted until acceptance, approval and final inspection of the facility by the County.

#### 6.7.3 PERMIT TO CONNECT TO THE SYSTEM

- A. Refer to Chapter 2 for connection to Sanitary Sewers permit procedure.
- B. The Industrial User must complete the Industrial Discharge survey and application prior to connection and discharge of wastes to the sanitary sewer.
- C. Permits shall be signed by the property owner and the installer who is approved and registered to connect to the System. The permit shall constitute a contract by which the property owner and installer agree to abide by all Rules and Regulations.

#### 6.7.4 APPLICATION FOR SEWER SERVICE

Refer to chapter 2 for connection to Sanitary Sewers application process.

#### 6.7.5 WASTEWATER DISCHARGE AGREEMENT: GENERAL AGREEMENT

All major contributing industries proposing to connect to or contribute to the wastewater disposal facility and those other industrial users seeking a Wastewater Discharge Agreement pursuant to Section 6.7.3 shall obtain such Agreement before connecting to or contributing to the sewer system. All major contributing industries and such industrial users as defined above connected to or contributing to the system shall obtain a Wastewater Discharge Agreement within 180 days after the effective date of these regulations.

- A. At the discretion of the Sanitary Engineer, the Sanitary Engineer may use General Agreements to control discharges to the POTW if the following conditions are met. All facilities to be covered by a General Agreement must:
  - 1. Involve the same or substantially similar types of operations;
  - 2. Discharge the same types of wastes;
  - 3. Require the same effluent limitations;
  - 4. Require the same or similar monitoring; and
  - 5. In the opinion of the Sanitary Engineer, are more appropriately controlled under a General Agreement than under individual Wastewater Discharge Agreement.

- B. To be covered by the General Agreement, the User must file a written request for coverage that identifies its contact information, production processes, the types of wastes generated, the location for monitoring all wastes covered by the General Agreement, and any other information the POTW deems appropriate.
- C. The Sanitary Engineer will retain a copy of the General Agreement, documentation to support the POTW's determination that a specific User meets the criteria in Section 6.7.5 (A) (1) to (5) and applicable State regulations, and a copy of the User's written request for coverage for three (3) years after the expiration of the General Agreement.
- D. The Sanitary Engineer may not control a User through a General Agreement where the facility is subject to production based categorical Pretreatment Standards or categorical Pretreatment Standards expressed as mass of pollutant discharged per day or for Users whose limits are based on the Combined Wastestream Formula or Net/Gross calculations.

#### 6.7.6 APPLICATION SIGNATORIES AND CERTIFICATIONS

- A. All Wastewater Discharge Agreement applications, User reports and certification statements must be signed by an Authorized Representative of the User.
- B. If the designation of an Authorized Representative is no longer accurate because a different individual or position has responsibility for the overall operation of the facility or overall responsibility for environmental matters for the company, a new written authorization satisfying the requirements of this Section must be submitted to the Sanitary Engineer prior to or together with any reports to be signed by an Authorized Representative.

#### 6.7.7 WASTEWATER DISCHARGE AGREEMENT CONTENTS

A Wastewater Discharge Agreement shall include such conditions as are deemed reasonably necessary by the Sanitary Engineer to prevent Pass Through or Interference, protect the quality of the water body receiving the treatment plant's effluent, protect worker health and safety, facilitate sludge management and disposal, and protect against damage to the POTW.

#### 6.7.8 INDIVIDUAL AND GENERAL WASTEWATER DISCHARGE AGREEMENT TRANSFER

Individual Wastewater Discharge Agreements are issued to a specific User for a specific operation or as designated in the Individual Discharge Agreement. A Discharge Agreement shall not be reassigned, transferred, or sold to a new owner, new User of different premises or a new or changed operation without the prior approval of the Sanitary Engineer. Any succeeding owner or User shall also comply with the terms and conditions of the existing Agreement.

Wastewater Discharge General Agreement may be transferred to a new owner or operator only with at least sixty (60) days advance notice to the Sanitary Engineer and the Sanitary Engineer approves the Wastewater Discharge Agreement transfer. The notice to the Sanitary Engineer must include a written certification by the new owner or operator which:

- A. States that the new owner and/or operator have no immediate intent to change the facility's operations and processes;

- B. Identifies the specific date on which the transfer is to occur; and,
- C. Acknowledges full responsibility for complying with the existing Wastewater Discharge Agreement.

Failure to provide advance notice of a transfer renders the Wastewater Discharge Agreement void as of the date of facility transfer.

#### 6.7.9 WASTEWATER DISCHARGE AGREEMENT REVOCATION

The Sanitary Engineer may revoke a Wastewater Discharge Agreement for good cause, including, but not limited to, the following reasons.

- A. Failure to notify the Sanitary Engineer of significant changes to the wastewater prior to the changed discharge, (A significant change shall consist of the addition of a new component in the discharge that would be subject to pretreatment requirements, a change in an existing constituent that would place that constituent subject to pretreatment requirements, an increase in an existing constituent subject to pretreatment requirements by 10% or more, or an increase in flow by 25% or more);
- B. Failure to provide prior notification to the Sanitary Engineer of changed conditions pursuant to 6.8.2 of this Rule
- C. Misrepresentation or failure to fully disclose all relevant facts in the wastewater discharge application;
- D. Falsifying self-monitoring reports and certification statements;
- E. Tampering with monitoring equipment;
- F. Refusing to allow the Sanitary Engineer timely access to the facility premises and records;
- G. Failure to meet effluent limitations;
- H. Failure to pay fines;
- I. Failure to pay sewer charges;
- J. Failure to meet compliance schedules;
- K. Failure to complete a wastewater survey or the Wastewater Discharge Agreement application;
- L. Failure to provide advance notice and receive approval of the transfer of business ownership of a permitted facility as stated in 6.7.8;
- M. Discovery of evidence indicating that a User has diluted a discharge to meet applicable pretreatment standards; or
- N. Violation of any Pretreatment Standard or Requirement, or any terms of the wastewater discharge permit or this Rule.

Agreement revocation will follow the procedures as outlined in Sections 6.11.1 through 6.11.9 of the Administrative Enforcement Section of this rule, unless the revocation is determined to be an emergency as provided in Section 6.11.8 regarding Emergency Suspension.

Wastewater Discharge Agreement shall be voidable upon cessation of operations or transfer of business ownership, unless transferred under section 6.7.8. All Wastewater Discharge Agreements issued to a User are void upon the issuance of a new Wastewater Discharge Agreement to that User.

#### 6.7.10 WASTEWATER DISCHARGE AGREEMENT REISSUANCE

Agreement Duration is determined by the Sanitary Engineer. Discharge Agreements shall be issued for a specified time period, not to exceed five years. The Agreement holder shall apply for an Agreement reissuance not less than 90 days prior to the expiration of the existing permit. The Sanitary Engineer shall not be required to reissue any Agreement for the same length of time as the original period which the reissued Agreement replaces.

A User with an expiring Wastewater Discharge Agreement shall apply for Wastewater Discharge Agreement re-issuance by submitting a complete permit application, in accordance with Section 6.7.3 of this Rule.

#### 6.7.11 AGREEMENT/PERMIT MODIFICATIONS

The County reserves the right to amend any Wastewater Discharge Agreement issued hereunder in order to assure compliance by the User with applicable laws and regulations. Within 9 months of the promulgation of a National Categorical Pretreatment Standard, the Wastewater Discharge Agreement of each User subject to such standards shall be revised to require compliance with such standards within the time frame prescribed by such standards. All National Categorical Pretreatment Standards adopted after the enactment of these rules and regulations shall be adopted by the County as part of these rules and regulations. A user subject to a National Categorical Pretreatment Standard operating under the terms of a valid Industrial Wastewater Discharge Agreement, shall submit to the County within 180 days after the promulgation of an applicable National Categorical Pretreatment Standard, the additional information required by Section 6.7.1, the User shall be informed of any proposed changes in the rules and regulations at least 30 days prior to the effective date of change. Any changes or new conditions in the rules and regulations shall include a reasonable time schedule for compliance.

Wastewater Discharge Agreement shall specify no less than the following:

- A. Fees and charges to be paid upon initial Agreement issuance;
- B. Limits on the average and maximum wastewater constituents and characteristics regulated thereby;
- C. Limits on average and maximum rate and time of discharge and/or requirements for flow regulations and equalization;
- D. Requirements for installation and maintenance of inspection and sampling facilities;
- E. Special conditions as the County may reasonably require under particular circumstances of a given discharge including sampling locations, frequency of sampling, number, types, and standards for tests and reporting schedule;
- F. Compliance schedules;
- G. Requirements for submission of special technical reports or discharge reports where same differ from those prescribed by these rules and regulations.

## 6.8.0 REPORTING REQUIREMENTS FOR INDUSTRIAL USERS

### 6.8.1 PERIODIC COMPLIANCE REPORTS

- A. Any User subject to a Pretreatment Standard set forth in these rules and regulations shall submit to the County within 90 days following the final compliance date of such Pretreatment Standard, or, in the case of a New User, within 90 days after commencement of the discharge to the County's Sewage Disposal System and thereafter during the months of June and December, unless required more frequently by the County, a report indicating the nature and concentration of prohibited or regulated substances in the effluent which are limited by the Pretreatment Standards hereof. In addition, this report shall include a record of all measured or estimated average and maximum daily flows during the reporting period. Flows shall be reported on the basis of actual measurement, provided however, where cost or feasibility considerations justify, the County may accept reports of average and maximum flows estimated by verifiable techniques. The County, for good cause shown considering such factors as local high or low flow rates, holidays, budget cycles, or other extenuating factors may authorize the submission of said reports on months other than those specified above.
- B. Reports of Users shall contain all results of sampling and analysis of the discharge, including the flow and the nature and concentration, or production and mass where required by the County. The frequency of monitoring by the User shall be as prescribed in the applicable Pretreatment Standard of these rules and regulations. All analyses shall be performed in accordance with 40 CFR, Part 136 and amendments thereto. Where 40 CFR, Part 136 does not include a sampling or analytical technique for the pollutant in question, sampling and analysis shall be performed in accordance with the procedures set forth in the EPA publication, Sampling and Analysis Procedures for Screening of Industrial Effluents for Priority Pollutants, April 1977, and amendments thereto, or with any other sampling and analytical procedures approved by the Administrator of the USEPA.
- C. Reports shall state whether the applicable Pretreatment Standards or Requirements are being met on a consistent basis and, if not, what additional facilities and/or pretreatment are necessary to gain compliance with applicable Pretreatment Standards or Requirements.

### 6.8.2 REPORTS OF CHANGED CONDITIONS

Each User must notify the Sanitary Engineer of any significant changes to the User's operations or system which might alter the nature, quality, or volume of its wastewater at least thirty (30) days before the change.

### 6.8.3 REPORTS OF POTENTIAL PROBLEMS

- A. In the case of any discharge, including, but not limited to, accidental discharges, discharges of a non-routine episodic nature, a non-customary batch discharge, a Slug Discharge or Slug Load, that might cause potential problems for the POTW, the User shall immediately telephone and notify the Sanitary Engineer of the incident. This notification shall include the location of the discharge, type of waste, concentration and volume, if known, and corrective actions taken by the User.



- B. Within five (5) days following such discharge, the User shall, unless waived by the Sanitary Engineer, submit a detailed written report describing the cause(s) of the discharge and the measures to be taken by the User to prevent similar future occurrences. Such notification shall not relieve the User of any expense, loss, damage, or other liability which might be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the User of any fines, penalties, or other liability which may be imposed pursuant to this Rule.
- C. A notice shall be permanently posted on the User's bulletin board or other prominent place advising employees who to call in the event of a discharge described in paragraph A, above. Employers shall ensure that all employees, who could cause such a discharge to occur, are advised of the emergency notification procedure.
- D. Significant Industrial Users are required to notify the Sanitary Engineer immediately of any changes at its facility affecting the potential for a Slug Discharge.
- E. **The User is responsible for immediately reporting any wastewater overflow events that discharge to the surface of the ground, including but not limited to, storm drains, drainage ditches, parking lots, swales, etc. to the OEPA Emergency Unit Phone Number (1-800-282-9378) and to GCDWR Response Emergency Hotline, Phone Number (440-286-7292) or (1-866-886-7292).**

6.9.0 MONITORING FACILITIES

6.9.1 MONITORING AND SAMPLE COLLECTION

The County shall require any industrial User discharging industrial wastes to provide and operate at the User's own expense, a monitoring facility to allow inspection, sampling, and flow measurement of each sewer discharge to the County. Each monitoring facility shall be situated on the User's premises, except where such a location would be impractical or cause undue hardship on the User.

There shall be ample room in or near such sampling facility or manhole(s) to allow accurate sampling and preparation of samples for analysis. The facility, sampling, measuring and recording equipment, meters, and other appurtenances to adequately sample and measure the wastes discharged as may be required shall be maintained at all times in a safe and proper operating condition at the expense of the User.

Whether constructed on public or private property, the sampling and monitoring facilities shall be provided in accordance with the County's requirements and all applicable local construction standards and specifications. Construction shall be completed within 120 days of receipt of permit by the User.

6.9.2 INSPECTION AND SAMPLING

The County may inspect the monitoring facilities of any User to determine compliance with the requirements of these rules and regulations. The User shall allow the County or its representatives to enter upon the premises of the User at all reasonable hours, for the purposes of inspection, sampling, or records examination. The County shall have the right to set up on the User's property such devices as are necessary to conduct sampling, inspection,

compliance monitoring and/or metering operations, and to make copies of such records as deemed necessary.

### 6.9.3 SAMPLE COLLECTION

Samples collected to satisfy reporting requirements must be based on data obtained through appropriate sampling and analysis performed during the period covered by the report, based on data that is representative of conditions occurring during the reporting period.

- A. Except as indicated in Section B below, the User must collect wastewater samples using 24-hour flow proportional composite sampling techniques, unless time-proportional composite sampling or grab sampling is authorized by the Sanitary Engineer. Where time-proportional composite sampling or grab sampling is authorized by Geauga County, the samples must be representative of the discharge. Using protocols (including appropriate preservation) specified in 40 CFR Part 136 and appropriate EPA guidance, multiple grab samples collected during a 24-hour period may be composited prior to the analysis as follows: for cyanide, total phenols, and sulfides the samples may be composited in the laboratory; for volatile organics and oil and grease, the samples may be composited in the laboratory. Composite samples for other parameters unaffected by the compositing procedures as documented in approved EPA methodologies may be authorized by Geauga County, as appropriate. In addition, grab samples may be required to show compliance with Instantaneous Limits.
- B. Samples for oil and grease, temperature, pH, cyanide, phosphorous, ammonia, total phenols, sulfides, and volatile organic compounds must be obtained using grab collection techniques approved by the Ohio EPA and composited in the lab.
- C. Alternative methods for analysis of pollutants may be used subject to mutual agreement between the Sanitary Engineer and the industrial User. The User shall pay the cost incurred in the sampling and analysis program, including control manholes.

### 6.9.4 POWERS AND AUTHORITY OF INSPECTORS.

Whenever it is necessary for the purposes of these rules and regulations, the Sanitary Engineer and the agents of the Federal and State EPA, may immediately enter upon any property, where wastewater is created or discharged, upon presentation of proper credentials and identification for the purposes of inspection, observation, measurement and sampling and testing.

While performing the necessary work on the private properties referred to hereinabove, the Sanitary Engineer shall observe all safety rules established by the person for the premises and the person shall be held harmless for injury or death to the County employees. The County shall indemnify the person against loss or damage to its property by County employees and against liability claims and demands for personal injury or property damage asserted against the person, except as such may be caused by negligence or failure of the person to maintain safe conditions as required.

### 6.10.0 COMPLIANCE MONITORING

### 6.10.1 RIGHT OF ENTRY: INSPECTION AND SAMPLING

Sanitary Engineer shall have the right to enter the premises of any User to determine whether the User is complying with all requirements of this ordinance and any individual Wastewater Discharge Agreement or orders issued hereunder. Users shall allow the Sanitary Engineer ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and the performance of any additional duties.

- A. Where a User has security measures in force which require proper identification and clearance before entry into its premises, the User shall make necessary arrangements with its security guards or appropriate employees so that, upon presentation of suitable identification, the Sanitary Engineer shall be permitted to enter without delay for the purposes of performing specific responsibilities.
- B. The Sanitary Engineer shall have the right to set up on the User's property, or require installation of, such devices as are necessary to conduct sampling and/or metering of the User's operations.
- C. The Sanitary Engineer may require the User to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the User at its own expense. All devices used to measure wastewater flow and quality shall be calibrated as indicated and required by the manufacturer to ensure their accuracy.
- D. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the User at the written or verbal request of the Sanitary Engineer and shall not be replaced. The costs of clearing such access shall be borne by the User.
- E. Unreasonable delays in allowing the Sanitary Engineer access to the User's premises shall be a violation of these regulations.

#### 6.10.2 SEARCH WARRANTS

If Sanitary Engineer has been refused access to a building, structure, or property, or any part thereof, and is able to demonstrate probable cause to believe that there may be a violation of these Rules and Regulations, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program of Geauga County designed to verify compliance with these Rules and Regulations or any permit or order issued hereunder, or to protect the overall public health, safety and welfare of the community, the Sanitary Engineer may seek issuance of a search warrant from the Geauga County Court of Common Pleas of Geauga County, Ohio.

#### 6.10.3 CONFIDENTIAL INFORMATION

Information and data on a User obtained from reports, surveys, Wastewater Discharge Agreement applications, Individual Wastewater Discharge Agreement, and monitoring programs, and from the Sanitary Engineer inspection and sampling activities, shall be available to the public without restriction, unless the User specifically requests, and is able to demonstrate to the satisfaction of the Sanitary Engineer, that the release of such information would divulge information, processes, or methods of production entitled to protection as trade secrets under applicable State law. Any such request must be asserted at the time of submission of the information or data. When requested and demonstrated by the User furnishing a report that such information should be held confidential, the portions of a report which might disclose trade secrets or secret processes shall not be made available for

inspection by the public, but shall be made available immediately upon request to governmental agencies for uses related to the NPDES program or pretreatment program, and in enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics and other effluent data, as defined at 40 CFR 2.302 shall not be recognized as confidential information and shall be available to the public without restriction.

#### 6.11.0 ADMINISTRATIVE ENFORCEMENT REMEDIES

##### 6.11.1 NOTIFICATION OF VIOLATION

When the Sanitary Engineer finds that a user has violated, or continues to violate, any provision of this rule, a Wastewater Discharge Agreement or order issued hereunder, or any other pretreatment standard or requirement, the Sanitary Engineer may serve upon that User a written Notice of Violation either personally or by Certified Mail. Within 10 days of the receipt of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted by the User to the Sanitary Engineer in writing. Submission of this plan in no way relieves the User of liability for any violations occurring before or after receipt of the Notice of Violation. Nothing in this section shall limit the authority of the Sanitary Engineer to take any action, including emergency actions or any other enforcement action, without first issuing a Notice of Violation.

##### 6.11.2 ENFORCEMENT AUTHORIZATION

The County shall issue orders under 40 CFR Section 403.8(f) (1) (iii) of the General Pretreatment Standards. These orders shall be used to place an industrial User on an enforceable schedule to comply with pretreatment standards (e.g. install pretreatment, operate and maintain facilities) including appropriate interim limits and assessing administrative penalties.

Any discharger who is found to have violated an Agreement and/or administrative order of the County or has failed to comply with any provision of Pretreatment requirements shall be subject to the imposition of administrative fees in accordance with Section 6.11.7

##### 6.11.3 CONSENT ORDERS

The Sanitary Engineer may enter into Consent Orders, assurances of voluntary compliance, or other similar documents establishing an agreement with any User responsible for noncompliance. Such documents will include specific action to be taken by the User to correct the noncompliance within a time period specified by the document. Such documents shall have the same force and effect as the administrative orders issued pursuant to Section 6.12.4 of this rule and shall be judicially enforceable.

##### 6.11.4 SHOW CAUSE HEARING

The Sanitary Engineer may order a User which has violated, or continues to violate, any provision of this rule, a Wastewater Discharge Agreement or order issued hereunder, or any other pretreatment standard or requirement, to appear before the Sanitary Engineer and show cause why the proposed enforcement action should not be taken. Notice shall be served on the User specifying the time and place for the meeting, the proposed enforcement action, the reasons for such action, and a request that the User show cause why the proposed

enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least 10 days prior to the hearing. Such notice may be served on any authorized representative of the User. A show cause hearing shall not be a bar against, or prerequisite for, taking any other action against the User.

#### 6.11.5 COMPLIANCE ORDERS

When the Sanitary Engineer finds that a User has violated, or continues to violate, any provision of this rule, a Wastewater Discharge Agreement or order issued hereunder, or any other pretreatment standard or requirement, the Sanitary Engineer may issue an order to the User shall be responsible for the discharge directing that the User come into compliance within a specified time. If the User does not come into compliance within the time provided, sewer service may be discontinued unless adequate treatment facilities, devices, or other related appurtenances are installed and properly operated. Compliance orders also may contain other requirements to address the noncompliance, including additional self-monitoring and management practices designed to minimize the amount of pollutants discharged to the sewer. A compliance order does not relieve the User of liability for any violation, including any continuing violation. Issuance of a compliance order shall not be a bar against, or a prerequisite for, taking any other action against the User.

#### 6.11.6 CEASE AND DESIST ORDERS

When the Sanitary Engineer finds that a User has violated, or continues to violate, any provision of this rule, a Wastewater Discharge Agreement or order issued hereunder, or any other pretreatment standard or requirement, or that the User's past violations are likely to recur, the Sanitary Engineer may issue an order to the User directing it to cease and desist all such violations and directing the user to:

- A. Immediately comply with all requirements; and
- B. Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations and/or terminating the discharge. Issuance of a cease and desist order shall not be a bar against, or a prerequisite for, taking any other action against the User.

#### 6.11.7 ADMINISTRATIVE FINES

- A. When the Sanitary Engineer finds that a User has violated, or continues to violate, any provision of this rule, a Wastewater Discharge Agreement or order issued hereunder, or any other pretreatment standard or requirement, the Sanitary Engineer may fine such User in an amount up to but not to exceed one thousand dollars (\$1,000), in accordance with O.R.C. 6111.99 (A) and (D) pursuant to O.R.C. 6111.07 (Prohibitive Discharges). Such fines shall be assessed on a per violation, per day basis. In the case of monthly or other long term average discharge limits, fines shall be assessed for each day during the period of violation.
- B. Refer to Geauga County General Sewer Rules Section 2.5.0 for unpaid charges, fines, and penalties.

- C. Users desiring to dispute such fines must file a written request and reason for dispute for the Sanitary Engineer to reconsider the fine within 10 days of being notified of the fine. The Sanitary Engineer shall convene a hearing on the matter, have further discussion with the User or decide the fine is not warranted. The Sanitary Engineer may add the costs of preparing administrative enforcement actions, such as notices and orders, to the fine if fines are found to be warranted.
- D. Issuance of an administrative fine shall not be a bar against, or a prerequisite for, taking any other action against the User.

#### 6.11.8 EMERGENCY SUSPENSIONS

The Sanitary Engineer may immediately suspend a User's discharge, after informal notice to the User, whenever such suspension is necessary to stop an actual or threatened discharge which reasonably appears to present or cause an imminent or substantial endangerment to the health or welfare of persons. The Sanitary Engineer may also immediately suspend a User's discharge, after notice and opportunity to respond, that threatens to interfere with the operation of the POTW, or which presents, or may present, an endangerment to the environment.

- A. Any User notified of a suspension of its discharge shall immediately stop or eliminate its contribution. In the event of a User's failure to immediately comply voluntarily with the suspension order, the Sanitary Engineer may take such steps as deemed necessary, including immediate severance of the sewer connection, to prevent or minimize damage to the POTW, its receiving stream, or endangerment to any individuals. The Sanitary Engineer may allow the User to recommence its discharge when the User has demonstrated to the satisfaction of the Sanitary Engineer that the period of endangerment has passed, unless the termination proceedings in Section 6.11.9 of this rule are initiated against the User.
- B. Any User that is responsible, in whole or in part, for any discharge presenting imminent endangerment shall submit a detailed written statement, describing the causes of the harmful contribution and the measures taken to prevent any future occurrence, to the Sanitary Engineer prior to the date of any show cause or termination hearing under Sections 6.11.4 or 6.11.9 of this rule. Nothing in this section shall be interpreted as requiring a hearing prior to any emergency suspension under this section.

#### 6.11.9 TERMINATION OF DISCHARGE

In addition to the provisions in Section 6.7.8 of this rule, any User who violates the following conditions is subject to discharge termination:

- A. Violation of Wastewater Discharge Agreement conditions;
- B. Failure to accurately report the wastewater constituents and characteristics of its discharge;
- C. Failure to report significant changes in operations or wastewater volume, constituents, and characteristics prior to discharge;
- D. Refusal of reasonable access to the user's premises for the purpose of inspection, monitoring, or sampling; or

- E. Violation of the pretreatment standards in Section 6.6.0 to 6.6.4 Geauga County General Sewer Use Rules and Regulations.

Such User will be notified of the proposed termination of its discharge and be offered an opportunity to show cause under Section 6.11.4 of this rule why the proposed action should not be taken. Exercise of this option by the Sanitary Engineer shall not be a bar to, or a prerequisite for, taking any other action against the User.

#### 6.12.0 JUDICIAL ENFORCEMENT REMEDIES

##### 6.12.1 INJUNCTIVE RELIEF

When the Sanitary Engineer finds that a User has violated, or continues to violate, any provision of this rule, a Wastewater Discharge Agreement, or order issued hereunder, or any other pretreatment standard or requirement, the Sanitary Engineer may petition the Court through Geauga County's Prosecuting Attorney for the issuance of a temporary or permanent injunction, as appropriate, which restrains or compels the specific performance of the Wastewater Discharge Agreement, order, or other requirement imposed by this rule on activities of the User. The Sanitary Engineer may also seek such other action as is appropriate for legal and/or equitable relief, including a requirement for the User to conduct environmental remediation. A petition for injunctive relief shall not be a bar against, or a prerequisite for, taking any other action against a User.

##### 6.12.2 CIVIL PENALTIES

See Penalty Section 2.13.0 of Geauga County General Sewer Rules and Regulations.

The County reserves the right to recover legal fees and costs if it is required to take judicial enforcement to address chronic violations of the pretreatment standards.

##### 6.12.3 CRIMINAL PROSECUTION

- A. A User who willfully or negligently violates any provision of this rule, a Wastewater Discharge Agreement, or order issued hereunder, or any other pretreatment standard or requirement shall be punished according to applicable state and federal law.
- B. A User who willfully or negligently introduces any substance into the POTW which causes personal injury or property damage shall, upon conviction, be punished according to applicable state and federal law.
- C. A User who knowingly makes any false statements, representations, or certifications in any application, record, report, plan, or other documentation filed, or required to be maintained, pursuant to this rule, Wastewater Discharge Agreement, or order issued hereunder, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device, method, or sample required under this rule shall, upon conviction, be punished by applicable state and federal law.

##### 6.12.4 REMEDIES NONEXCLUSIVE

The remedies provided for in this rule are not exclusive. The Sanitary Engineer may take any, all, or any combination of these actions or any other action available at law against a noncompliant User. Enforcement of pretreatment violations will generally be in accordance

with Geauga County's Enforcement Response Plan. However, the Sanitary Engineer may take other action against any User when the circumstances warrant. Further, the Sanitary Engineer is empowered to take more than one enforcement action against any noncompliant User.

#### 6.12.5 PUBLIC NUISANCES

A violation of any provision of this rule, a Wastewater Discharge Agreement, or order issued hereunder, or any other pretreatment standard or requirement is hereby declared a public nuisance and shall be corrected or abated as directed by the Sanitary Engineer. Any person(s) creating a public nuisance shall be subject to the provisions of R.C. 6111.04 governing such nuisances, including reimbursing Geauga County Department of Water Resources for any costs incurred in removing, abating, or remedying said nuisance.

#### 6.12.6 PENALTIES FOR PROHIBITED WASTEWATER DISCHARGES

In addition to all the enforcement mechanisms in this section, each Industrial User found to be in noncompliance will be subject to charges for the handling, treatment, removal, and disposal of all identified, prohibited materials or conditions that are discharged to the public sewer system prior to the corrections. Such penalties do not relieve the industrial Users of their obligation to take prompt action in achieving compliance.

#### 6.13.0 SUPPLEMENTAL ENFORCEMENT ACTION

##### 6.13.1 PERFORMANCE BONDS

The Sanitary Engineer may decline to issue or reissue a Wastewater Discharge Agreement to any User who has failed to comply with any provision of this rule, a previous Wastewater Discharge Agreement, or order issued hereunder, or any other pretreatment standard or requirement, unless such User first files a satisfactory bond, payable to Geauga County, in a sum determined by the Sanitary Engineer to be necessary to achieve consistent compliance.

##### 6.13.2 LIABILITY INSURANCE

The Sanitary Engineer may decline to issue or reissue a Wastewater Discharge Agreement to any User who has failed to comply with any provision of this rule, a previous Wastewater Discharge Agreement, or order issued hereunder, or any other pretreatment standard or requirement, unless the User first submits proof that it has obtained financial assurances sufficient to restore or repair damage to the POTW caused by its discharge.

##### 6.13.3 WATER SUPPLY SEVERANCE

Whenever a User has violated or continues to violate any provision of this rule, a Wastewater Discharge Agreement, or order issued hereunder, or any other pretreatment standard or requirement that has its water service provided by Geauga County, after the proper notification, the water service to the User may be severed or wastewater discharge line may be blocked (capped) or enforced by other legal options to prevent discharge to Sanitary Sewer due to violations. Service will only recommence, at the User's expense, after it has satisfactorily demonstrated its ability to comply. Such User will be notified of the proposed termination of its discharge and be offered an opportunity to show cause under Section 6.11.4 of this rule why the proposed action should not be taken.



#### 6.14.0 ENFORCEMENT ACTIONS

##### 6.14.1 NOTIFICATION OF NONCOMPLIANCE

Any Discharger which experiences an upset in operations which places the Discharger in a temporary state of noncompliance with these Rules and Regulations shall inform the County thereof within 24 hours of first awareness of the commencement of the upset. Where such information is given orally, a written follow-up report thereof shall be filed by the Discharger with the County within five days.

The report shall specify:

- (1) Description of the upset, the cause thereof, and the upset's impact on a Discharger's compliance status.
- (2) Duration of noncompliance, including exact dates and times of noncompliance, and if the noncompliance continues, the time by which the compliance is reasonably expected to occur.
- (3) All steps taken or to be taken to reduce, eliminate, and prevent recurrence of such an upset or other conditions of noncompliance.

When it can be demonstrated that circumstances exist which would create an unreasonable burden on a Discharger to comply with the time schedule imposed by these Rules and Regulations, a one-time request for extension of time may be presented for consideration by the County.

The Sanitary Engineer will take prompt, appropriate enforcement action to alleviate any threat of danger to the health and welfare of people, County facilities or the environment. An Enforcement Response Guide will be used as a basis to determine the level of enforcement action appropriate to a particular violation. Circumstances surrounding the violation will be considered when using the Enforcement Response Guide to determine the proper enforcement action to be taken.

All enforcement responses shall be initiated by the GCDWR. Ultimate responsibility for the enforcement of the program lies with the Geauga County Sanitary Engineer and the County Commissioners.

#### 6.15.0 MISCELLANEOUS PROVISIONS

##### 6.15.1 RECORD RETENTION

All Users subject to these rules and regulations shall retain and preserve for no less than three (3) years, any records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling, and chemical analyses made by or in behalf of a User in connection with its discharge. All records which pertain to matters which are the subject of Administrative Adjustment or any other enforcement or litigation activities brought by the County pursuant hereto shall be retained and preserved by the User until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

##### 6.15.2 PROTECTION FROM DAMAGE

No person shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface or tamper with any structure, appurtenance, or equipment which is a part of the County sewage system. Any person violating this provision shall be subject to immediate arrest under charge of disorderly conduct.

6.15.3 PROHIBITIONS

No person shall violate any section or provision of this chapter or any other made in pursuance thereof, nor shall any person obstruct or interfere with the execution of any order or willfully or illegally fail to obey such order.

6.15.4 RECOVERY OF COSTS INCURRED BY THE COUNTY

Any User violating any of the provisions of these Rules and Regulations, or who discharges or causes a discharge producing a deposit or obstruction, or causes damage to or impairs the County's wastewater disposal system shall be liable to the County for any expense, loss, or damage caused by such violation or discharge. The County shall bill the User for the costs incurred by the County for any cleaning, repair, or replacement work caused by the violation or discharge. Refusal to pay the assessed costs shall constitute a violation of these rules and regulations enforceable under the provisions of 6.7.9, Individual and General Wastewater Discharge Agreement Revocation, of these rules and regulations.

## CHAPTER VII

### 7.0.0 GENERAL PROVISIONS FOR FATS, OIL, AND GREASE (FOG)

#### 7.1.0 GREASE TRAPS AND INTERCEPTORS

Geauga County Department of Water Resources hereby establishes rules for pretreatment of Fats, Oil and Grease in all Geauga County Sanitary Sewer Service Areas. They are as follows:

- 7.1.1 Purpose - The Purpose of these Rules is to outline the Wastewater Pretreatment requirements for Food Preparation Establishments and other commercial customers that discharge fats, oils, and grease in their wastewater flow. All new and existing facilities that generate and discharge fats, oils, and grease in their wastewater flow shall install, operate and maintain a FOG pretreatment system. The requirements of these Rules shall supplement and be in addition to the requirements of the Sewer Standard for Geauga County.
- A. Scope - To allow for the maximum beneficial public use of Geauga County public sewer system and to aid in the prevention of sewer line blockages and obstructions from contributions and accumulation of fats, oils and grease (FOG) into the sanitary sewer system. This rule will specify appropriate FOG discharge requirements from industrial and commercial establishments, particularly Food Service Establishments preparing and serving facilities.
  - B. This Rule establishes quantity and quality standards on all wastewater and/or waste discharges containing FOG, which may alone or collectively cause or contribute to FOG accumulation in the sewer facilities causing or potentially causing or contributing to the occurrence of sewer backups and/or sanitary sewer overflows (SSOs).
  - C. The specific objectives of this Rule are:
    - 1. To prevent the introduction of wastewaters containing fats, oils and grease (FOG) in amounts which may cause stoppages or obstruction of flow, or in any other way prevent or inhibit operation of a Publicly Owned Treatment Works (POTW), including the sanitary sewer collection system and/or treatment plant;
    - 2. To prevent the introduction of pollutants into a POTW that may be incompatible with a POTW;
    - 3. To protect the water quality of streams, creeks and other waterways traversing the County;
    - 4. To enable the Geauga County Department of Water Resources (GCDWR) to comply with its National Pollutant Discharge Elimination System (NPDES) permit conditions, sludge disposal conditions, sludge use and disposal requirements, and any other Federal or State laws to which the POTW is subject; and,
    - 5. To protect the environment and the health, safety and welfare of the public and the POTW workers by regulating the pretreatment, transport and disposal of liquid wastes.
  - D. This Rule enables Geauga County to protect public health in conformity with all applicable local, state, and federal laws relating thereto, including but not limited to the Clean Water Act (33 United States Code §1251 *et seq.*) and the General Pretreatment

Regulations (40 Code of Federal Regulations Part 403). This Rule shall be interpreted in accordance with the definitions set forth in Section 703. The provisions of this Rule shall apply to the direct or indirect discharge of all wastewater or waste containing FOG carried to the sewer facilities of the County.

- E. In accordance with the authority vested in the Board of Commissioners of Geauga County by Ohio Revised Code (ORC) 6111.032(A) and (B), this rule shall apply to all commercial customers and Food Service Establishment (FSE) users of the Geauga County wastewater treatment and collection system.

#### 7.1.2 APPLICABILITY

These requirements are applicable to all business that may contribute fats, oil, or grease to the GCDWR sewer system and any Food Service Establishments including those that are undergoing:

- A. New construction.
- B. Interior remodeling to accommodate expansion or operation modifications
- C. Changes in ownership/occupancy.
- D. Any facility which may be experiencing difficulty achieving compliance with maintenance and/or wastewater discharge limitations.
- E. Any facility going through major changes in their menu.

#### 7.2.0 GENERAL LIMITATIONS, PROHIBITIONS, AND REQUIREMENTS ON FATS, OILS, AND GREASE (FOG) DISCHARGES

##### 7.2.1 FOG DISCHARGE REQUIREMENTS

All Food Service Establishments must Register with GCDWR as a FSE FOG Discharger annually as to the size and type of FSE. Registration process will include submitting of renewal application, pumping receipts, Best Management Practices documents, in-house maintenance reports and maintenance logs. Registration will require, but is not limited to the following information: notice of size/capacity of the facility, changes in menu, ownership or management, or usage, etc. and any corrections to the application form. Failure to comply with the Registration process may result in enforcement proceedings as defined in Section 7.10.3 Enforce Options of these rules which may include issuance of a Wastewater Discharge Permit to include but is not limited to required sampling and monitoring.

All new and existing FSE or other commercial facilities that discharge fats, oils or grease in their wastewater flow must be registered annually with GCDWR. They shall install, operate and maintain a FOG pretreatment system and/or a BMP program to prevent discharge of fats, oil, or grease in excess of the allowable discharge limit to the POTW.

##### 7.2.2 FOOD SERVICE ESTABLISHMENT REQUIREMENTS

All Food Service Operations or Establishments licensed by Geauga County General Health District as required by the Ohio Revised Code that discharges wastewater to Geauga County Department of Water Resource Wastewater Treatment Plants are subject to the following

requirements:

- A. Grease trap or interceptor requirements: All Registered food service establishments that have the potential to discharge fat, oil, or grease laden wastewater are required to install, operate and maintain an approved type and adequately sized grease trap or interceptor necessary to maintain compliance with the objectives of this section. All grease interceptors must meet the requirements of the International Plumbing Code, Ohio version, the rules and regulations of GCDWR. Internal grease traps must be inspected and approved by Geauga County General Health District plumbing inspector.
- B. All existing food establishments, determined by the Sanitary Engineer, or designated personnel to have a reasonable potential to adversely impact the County's sewer system will be notified of their obligation to install an adequately sized grease trap or interceptor within the specified period set forth in the notification letter.
- C. Variance from Grease Interceptor Requirements: Grease interceptors required under this section shall be installed unless the Geauga County Board of Health in conjunction with GCDWR determines the installation of a grease interceptor would not be feasible. The food establishment bears the burden of demonstrating that the installation of a grease interceptor is not feasible. The Geauga County Board of Health may authorize the installation of an indoor grease trap where the installation of a grease interceptor is not feasible due to space constraints or other considerations. The sizing and type of grease trap installed must comply with the requirements of these rules.
- D. Interceptors shall be provided, installed, operated, and maintained by the FSE and/or property owner whenever liquid or wastes are received by the plumbing system, which may contain flammable, explosive, noxious, toxic, gaseous or other materials that may be hazardous to the building drainage system, the wastewater system, sewage treatment plant processes and personnel.
- E. All grease trap or interceptors shall be of such capacity and volume as to retain the liquid for a sufficient length of time to permit the deleterious and detrimental materials to separate from the other wastes before they are discharged into the building drain or sewer. (If necessary, strainers shall be installed to retain and collect solid materials one half inch or larger in any dimension.) Inspection reports must be kept current and readily available upon request and be submitted at time of Registration or Permit renewal.

Grease trap or interceptors shall be located so as to be readily accessible at all times, with sufficient head room and clear of obstructions and debris around them to permit easy inspection and the removal of the accumulated materials from within the interceptor at such intervals and at such times as may be necessary to assure the continued efficient operation of the interceptor and as necessary to prevent the entrance of the deleterious and detrimental materials into the sewerage system. All materials removed shall be disposed of in a manner that will not permit them to enter the sewer system or wastewater treatment plant.

- A. Interceptors for kitchen wastes shall be installed so that they will receive all kitchen wastes. Grease interceptors shall be installed immediately outside the building where there is easy access for cleaning, unless it is impractical, in which case they may be installed adjacent to or outside the food preparation area.

- B. The grease trap shall be inspected weekly and every thirty (30) days, or more frequently if needed, cleaned to remove the grease wastes. The materials removed in cleaning shall be removed from the premises for disposal and not deposited in the plumbing or sewer systems. Inspection reports must be kept current and readily available upon request and be submitted at time of Permit renewal.
- C. All grease interceptors/traps for sewers discharging to the Geauga County Sewer System must be registered and or permitted by Geauga County Department of Wastewater Resources, using a permit and registration application available from Geauga County Department Water Resources.

### 7.2.3 PROHIBITIONS AND LIMITATIONS

No user shall allow wastewater discharge concentration from subject's interceptor, grease trap or alternative pretreatment technology to exceed the allowable discharge limits as stated in Appendix A of the Industrial Pretreatment Rules and as defined by EPA test method 1664 A (hexane extraction method) or in such amounts to cause pass through or obstructions in the sanitary sewer system. Geauga County has the authority to require the User to install a sampling manhole between the interceptor/grease trap and their sanitary lateral that discharges to the Geauga County Wastewater Treatment system.

The following **prohibitions and limitations** shall apply to all Food Service Establishments:

- A. No Food Service Establishment (FSE) shall discharge or cause to be discharged Fats, Oil, or Grease concentrations from subject grease interceptor, grease trap or alternative pretreatment technology into the sewer system that exceeds a concentration level of the allowable discharge limit of Oil and Grease established by GCDWR. Any concentration that may accumulate and/or cause or contribute to blockages in the sewer system or at the sewer system lateral which connects the Food Service Establishment to the sewer system is prohibited. Geauga County has the authority to require the user to install a sampling manhole between the interceptor/grease trap and the User/FSE sanitary lateral that discharges to the Geauga County Wastewater Treatment Plant.
- B. Discharge of wastes through food grinders and/or garbage disposal type devices to sewer lines intended for grease interceptor/grease trap service is discouraged. Waste foods should be screened out or removed by hand and properly disposed of in trash collection bins or garbage cans for removal.
- C. Any water or waste containing fats, wax, grease or oils, whether emulsified or not, in excess of the allowable discharge limit or containing substances which may solidify or become viscous at temperatures between **32 degrees and 150 degrees Fahrenheit or zero and 65 degrees Centigrade is prohibited.**
- D. Sanitary wastes that do not require separation (i.e. urinals, toilets, wash basins, etc.) are prohibited from connection to sewer lines intended for grease interceptor/grease trap service.
- E. Introduction of any additives into a Food Service Establishment's wastewater system for the purpose of emulsifying FOG or biologically/chemically treating FOG for grease remediation or as a supplement to interceptor maintenance is prohibited, **unless a prior specific written authorization from the Sanitary Engineer is obtained.**

- F. Disposal of waste cooking oil into drainage pipes connected to the County sewage collection system is prohibited. All waste cooking oils shall be collected and stored properly in receptacles such as barrels or drums for recycling or other acceptable methods of disposal. Documentation of proper disposal must be submitted to the GCDWR as required in Section 7.9.1 (Monitoring and Reporting) of these rules.
- G. Discharge of any waste including FOG and solid materials removed from the grease control device or solids interceptor to the sewer system is prohibited. Solids and/or grease removed from solids interceptors and grease control devices shall be disposed of according to all applicable regulations as part of the operation and maintenance requirements for grease interceptors. Disposal shall be properly documented through completion of a Grease Trap / Grease Interceptor/ Solids Interceptor Manifest Form, Attachment D, or some other appropriate disposal manifest. FOG that has accumulated in a grease interceptor shall not be discarded down any drain or toilet or be allowed to pass into any sewer lateral, sewer system, storm drain, or public right of way during maintenance activities.
- H. Operation of grease interceptors with FOG and solids accumulation exceeding 25% of the design hydraulic depth of the grease interceptor (25% Rule) is prohibited.
- I. The discharge from all dishwashers are prohibited from connection to an internal grease trap where water temperature from the dishwasher may cause a pass through event of fats, oil, and grease to the lateral connection line and sanitary sewers. Dishwasher must be connected to a separate grease trap from the general trap for the kitchen sinks. Discharge of dishwasher to an external grease interceptor is acceptable

### 7.3.0 FOG PRETREATMENT REQUIREMENTS

All Food Service Establishments shall comply with applicable provisions specified in Section 7.9.1 (Monitoring and Reporting) of this Rule regarding Monitoring, Reporting and Inspections. General compliance shall be established as follows:

#### A. New Construction/Tenant Finish Food Service Establishments

New construction FSE's shall include and install grease trap or interceptors prior to commencing discharges of wastewater to the sewer system, unless otherwise specified by the Geauga County Department of Water Resources in writing. Potential FSE's and tenant finish FSE's shall provide space and plumbing segregation for the future installation of one grease interceptor for each tenant space prior to commencing discharges to the sewer system.

#### B. Existing Food Service Establishments

1. For existing Food Service Establishments, existing grease interceptors shall be properly sized, operated and maintained in accordance with sections 7.4.0 to 7.5.4.
2. If it is determined by GCDWR inspections, monitoring, sampling that an existing Food Service Establishment with either a grease trap or interceptor contributes a

significant amounts of FOG which have caused or contributed to grease related blockage(s) in the sewer system, or which have sewer laterals connected to trouble areas, or do not meet discharge limits, may be required to service and clean their grease interceptor on a modified, more frequent schedule as determined by the Sanitary Engineer. More frequent GI maintenance may be a requirement for any FSE deemed to have reasonable potential to adversely impact the sewer system.

3. Existing Food Service Establishments without a grease interceptor or trap or an adequate interceptor or trap which have caused or contributed to grease related blockage(s) in the sewer system, or which have sewer laterals connected to trouble areas, may be required to install an appropriately sized grease interceptor. Existing FSE's which have been determined to contribute significant FOG to the sewer system by the Sanitary Engineer based on inspection or sampling shall be required to install an appropriately sized grease interceptor.

Should a FSE not comply with GCDWR' requirement to install a GI, the Sanitary Engineer may issue the FSE a FOG Wastewater Discharge Permit which will specify grease interceptor installation requirements and could include the assessment of surcharge penalties.

4. Existing Food Service Establishments or Food Service Establishments that undergo remodeling or a change in operations as defined in this Rule, may be required to install a grease interceptor.
5. Should a FSE not comply with GCDWR's requirement to clean their GI on a more frequent basis, the Sanitary Engineer may issue the FSE a FOG Wastewater Discharge Permit which will specify the modified cleaning and servicing schedule and could include the assessment of surcharge penalties. **Failure to comply with these rules or requirements and install a grease interceptor as requested by a specified date will result in discharge termination procedures and may include sealing the lateral lines.**

- C. Limited Food Preparation Establishment as defined in this Rule, may or may not be required to install a grease control device. The Geauga County Department of Water Resources will make such determinations on a case by case basis. At a minimum the LFPE will be required to have a BMP in place to control oil and grease. Any future expansion of the LFPE may be re-evaluated and may require a grease interceptor or grease trap.

#### 7.3.1 FOG INTERCEPTOR AND TRAP REQUIREMENT AND APPROVAL

- A. Service connections with non-residential wastewater containing grease, grit, oil, or any other deleterious materials shall have interceptors installed on the service lateral. The design of any required separator shall be submitted for review and approval by GCDWR prior to installation.
- B. Grease traps or grease interceptors shall be required to receive the drainage from fixtures and equipment with grease-laden waste located in food preparation areas may include but is not limited to areas such as, in restaurants, hotel kitchens, school kitchens, bars, factory cafeterias/lunchrooms, gas station with FSE license, clubs, other



commercial kitchen, or business where foods are prepared that may generate fats, oil, or grease.

- C. Oil interceptors are required at repair garages, oil change and lubrication facilities, car washing facilities with engine or undercarriage cleaning capability, and at factories where oily and grease bearing liquid wastes is produced. Oil Separator regulations are covered in the GCDWR Pretreatment Rules Section, Additional Pretreatment Measures.
- D. A grease trap or a grease interceptor shall not typically be required for individual dwelling units or any private living quarters unless the site has a licensed FSE commercial kitchen, bakery and confectionary shops, or businesses that operate at the location that justify the need for a trap, interceptor, or separator.
- E. Installation of a grease trap or interceptor may be required by the GCDWR for FSE or businesses as a means to control the FOG entering the sanitary sewer system. The following conditions or requirements may be required:
  - 1. When grease separation is required by applicable plumbing codes, the Geauga County General Health District, or GCDWR, a grease interceptor shall be installed immediately outside the building where there is easy access for cleaning, unless the applicant demonstrates that such an interceptor is impractical. If the applicant can demonstrate the installation of the outside interceptor is impossible to the satisfaction of the GCDWR, GCDWR may authorize installation of an interior grease trap with a minimum 50 pound size, conforming to Standard PDI-G101 (Plumbing and Drainage Institute). At a minimum, traps or interceptors shall conform to the requirements of Section 1003 of the Ohio Plumbing Code. The interior GT shall be located as near as possible to the source but at such a distance from the source to allow for adequate separation of oil and grease in the trap or interceptor. The distance from the source shall also allow for easy maintenance.
  - 2. New and Tenant Finish FSE's shall be required to submit copies of facility site plans, floor plans, mechanical and plumbing plans, and details to show all sewer locations and connections, FOG control device, grease interceptor or other pretreatment equipment and appurtenances by size, location, and elevation for evaluation. The submittal shall be to GCDWR Engineers, in a form and content acceptable to the County for timely review prior to construction. The review of the plans and procedures shall in no way relieve the Food Service Establishments of the responsibility of modifying the facilities or procedures in the future, as necessary to produce an acceptable discharge, and to meet the requirements of this Rule or any requirements of other Regulatory Agencies. GCDWR Engineers will confer with the Geauga County General Health District to determine the adequacy of the proposed FOG control mechanism(s), and may require changes to the plans when needed.
  - 3. The County may require the drawings be prepared by an Ohio Registered Mechanical or Plumbing Engineer.

#### 7.4.0 GREASE CONTROL DEVICE SIZING PROCEDURES AND REQUIREMENTS

It is the responsibility of the generator and his/her contractors to ensure that the wastewater discharged from their facility is in compliance with the County's discharge limits as stated in Chapter 2 in the Geauga County Pretreatment Rules. For the purpose of plan review, a general assessment of grease trap/interceptor design and size will be performed using the current recommendations from the International Plumbing Code, Ohio Version using the guidelines and formulas in Appendix B of these regulations. Food Service Equipment and Operation, grease interceptors and traps shall be sized in a manner that would allow the FSE or business to achieve compliance with the established FOG discharge limits.

#### 7.4.1. GENERAL GREASE CONTROL DEVICE SIZING AND RATING STANDARDS

Sizing methods described herein are intended to assist in determining grease trap and/or interceptors sizes that will afford the County's sanitary sewer system a minimum degree of protection against grease and other obstructing materials. In approving a customer's plumbing or grease interceptor design, the County does not accept liability for the failure of a system to adequately treat wastewater to achieve effluent quality requirements required. It is the responsibility of the generator and/or contractors to insure the appropriate level of treatment necessary for compliance with wastewater regulations

The following requirements apply to any Grease Control Device installed:

- A. Grease interceptor and/or trap sizing shall conform to the specifications of the current edition of the International Plumbing Code, Ohio version, or as required by Geauga County Department of Water Resources.
- B. Provide for a minimum hydraulic retention time in accordance with the Uniform Plumbing Code, Ohio version, or other applicable plumbing code used by the local agency.
- C. Minimum acceptable sizing shall be accomplished using current recommendation found in the PDI-G101 and the International Plumbing Code as follows:
  1. Sizing according to the formulas found in Appendix 2, Tables A, B, and C, or the current recommendation found in the most current PDI- G101 Testing and Rating procedures for Grease Traps and Interceptors and International Plumbing Code.
  2. In the case of a "single service" kitchen with no food preparation (heat and serve only) and which use only disposable paper and plastic service utensils or an approve variance, must have a properly designed interceptor or trap that allows for adequate retention time to provide for separation. The trap must meet PDI-G101 specifications. In these instances, the grease trap is to be installed in an area separate from the food handling area and the trap must be readily accessible for cleaning and maintenance. The trap/interceptor must not be located where it is easily accessible to a floor drain.

#### 7.4.2 GREASE INTERCEPTOR SIZING PROCEDURES AND REQUIREMENTS

All Food Service Establishments shall provide wastewater acceptable to the County under the requirements and standards established herein before discharging to any public sewer. Any Food Service Establishment required to provide FOG pretreatment shall install, operate, and maintain an adequately sized grease interceptor necessary to maintain compliance with the objectives of this Rule.

- A. Multiple Fixtures - Where multiple fixtures are served by a single interceptor, calculate the total capacity of all fixtures, establish the maximum number of fixtures that may be drained simultaneously and apply this factor to the total capacity to determine the maximum simultaneous capacity. See Appendix B
- B. Facility Operation - Where applicable, or directed by GCDWR, grease interceptor sizing shall be based upon the actual facility loading and operation of the facility. The procedure to size Food Service Establishment (FSE) grease interceptors to suit facility operations is provided in Appendix B.
- C. Dishwashers – An adequate sized grease interceptor is recommended for all commercial dishwasher. The size of the interceptor is determined by the GPM discharge rate of the dishwasher as specified by the manufacturer. See Appendix B.
- D. Minimum size of outside grease interceptor size shall be 1000 gallons and a minimum of two compartments with fittings designed for grease retention. GI installation shall conform to the current edition of the Ohio version of the International Plumbing Code or as required by Geauga County Department of Water Resources.
- E. In instances where it is physically impossible to install an outside grease interceptor, a letter must be submitted to Geauga County Department of Water Resources stating the reason it cannot be installed. An alternative option must also be submitted to GCDWR for approval at the time of the request. Approval of the alternative by GCDWR shall be obtained prior to any installation or alteration of the facility.....
- F. Grease interceptors shall be installed at a location where it shall be easily accessible for inspection, cleaning and removal of grease. The grease interceptor may not be installed in any part of the building where food is handled. Location of the grease interceptor must meet the approval of the Geauga County Department of Water Resources.
- G. Access manholes with a minimum diameter of 24 inches, shall be provided over each grease interceptor chamber. The access manholes shall extend at least to finished grade and be designed and maintained to prevent water inflow or infiltration. The manholes shall also have readily removable covers to facilitate inspection, grease removal and wastewater sampling activities.
- H. The use of food waste disposal units is discouraged. Waste foods shall be properly disposed of in trash collection bins or garbage cans for removal...

#### 7.4.3 GREASE TRAP SIZING PROCEDURES AND REQUIREMENTS

New and/or existing Food Service Establishments shall be required to install grease trap(s) in the waste line(s) leading from drains, sinks, and other fixtures or equipment where grease may be introduced into the sewer system in quantities that can cause blockage.

- A. As a result of PDI's testing and rating procedure, 4 different sized grease traps that are acceptable to GCDWR are specified in Appendix B. The sizes are based on certification standard flow rates and grease retention capacity rating for traps.
- B. Where an existing dishwasher is used, a second grease trap is recommended for each commercial dishwasher. The size of the trap is determined by the GPM discharge rate of the dishwasher as specified by the manufacture. Select proper trap of equivalent or next

higher rate Appendix B. The dishwasher discharge must comply with Section 7.2.3 and meet the allowable discharge limits established by the Rules and/or obtain express written consent by GCDWR.

- C. New or remodeled FSE shall NOT install or connect a garbage disposal or dishwasher internal grease trap in the new or remodeled facility served by the FSE. The dishwasher shall be connected to an adequately sized external grease interceptor. The size must meet the approval of the GCDWR prior to installation.
- D. Upon approval by the Sanitary Engineer or designated personnel, a grease trap complying with this section must be installed in the waste line leading from sinks, drains and other fixtures or equipment in food service establishments where grease may be introduced into the drainage or sewer system in quantities that can effect line stoppage or hinder sewage treatment or private sewage disposal.
- E. Grease traps sizing and installation shall conform to International Plumbing Code, Ohio Version, as inspected and approved by Geauga County General Health District and as required by Geauga County Department of Water Resources.
- F. No grease trap shall be installed which has a stated rate of flow of more than fifty- five (55) gallons per minute, or less than twenty (20) gallons per minute, except when specially approved by the Sanitary Engineer, or designated personnel.
- G. No dishwasher shall be connected to or discharge into any grease trap without express written consent and approval from GCDWR.
- H. Wastewater in excess of one hundred forty (140) degrees F/sixty (60) degrees C shall not be discharged into grease trap.

#### 7.5.0 GREASE CONTROL DEVICE MAINTENANCE

##### 7.5.1 MAINTENANCE PROCEDURES AND REQUIREMENTS

All FSE must size, operate, and maintain the grease control device serving their facility in such a way to achieve a discharge limit that meets the allowable discharge limits established by GCDWR.

##### 7.5.2 GENERAL MAINTENANCE FOR GREASE TRAPS AND INTERCEPTORS

- A. New and existing Grease Interceptors and Grease Traps shall be maintained in efficient operating condition by periodic removal of the full content of the interceptor which includes wastewater, accumulated FOG, floating materials, sludge and solids from interceptor and trap walls, baffles and floors
  - 1. Cleaning procedure shall include removal of oil and greases scum layer, settled solid from the bottom of the interceptor or trap, scraping of all walls and baffles, cleaning and removing accumulated grease from inlet and outlet pipes, and any other surface of the interceptor or trap. An inspection of the unit and all components, seams and joints shall also be completed and recorded
- B. All existing and newly installed Grease Interceptors and Grease Traps shall be maintained according to manufacturer recommendations and in a manner consistent

with a maintenance frequency approved by the Sanitary Engineer pursuant to this section.

- C. Any Grease Interceptor and Grease Trap must be operated and maintained in such a manner to prevent FOG from entering the Sanitary Sewer system in such an amount to exceed the allowable discharge limits or that may cause a blockage in any portion of the sanitary sewer.
- D. The user shall maintain a written record of inspection and maintenance for three (3) years. All such records will be available for on-site inspection by representatives of Geauga County Department of Water Resources during all operating hours.

### 7.5.3 GREASE INTERCEPTOR MAINTENANCE REQUIREMENTS

- A. Grease interceptors shall be kept free of inorganic solid material such as grit, rocks, gravel, sand, eating utensils, cigarettes, shells, towels, rags, etc., which could settle into this pocket and thereby reduce the effective volume of the device.

The maintenance frequency for all Food Service Establishments with a grease interceptor shall be determined by one of the following methods:

1. All Food Service Establishments with a Grease Interceptor shall fully pump and clean out their grease interceptor not less than every **90** days or more frequently if the contents exceed **25%** accumulation as stated in 7.10.02 A.(1).
  2. Routine servicing and cleaning (at least every **90** days) of the grease interceptor shall include removing and properly disposing of all grease and solids from the interceptor, scraping and cleaning baffles, walls and side walls, and submitting proper documentation of the same to the Sanitary Engineer upon request.
  3. Grease interceptors shall be fully pumped out and cleaned at a frequency such that the combined FOG and solids accumulation does not exceed **25%** of the total design hydraulic depth of the grease interceptor. This is to ensure that the minimum hydraulic retention time and required available hydraulic volume is maintained to effectively intercept and retain FOG discharged to the sewer system.
  4. Remove all accumulated grease cap and sludge pocket as required. If the grease interceptor, at any time, contains FOG and solids accumulation that does not meet the requirements described in Section 7.10 A (1), the Food Service Establishment shall be required to have the grease interceptor serviced within five (5) business days such that all fats, oils, grease, sludge, and other materials are completely removed from the grease interceptor. If it is determined that an overflow or blockage situation exists, the interceptor shall be serviced immediately. If deemed necessary, the Sanitary Engineer may also require a FOG Discharge Permit and/or increase the maintenance frequency of the grease interceptor from the current frequency. Wastewater, accumulated FOG, floating materials, sludge, solids, and other materials removed from the grease interceptor shall be properly disposed offsite by waste haulers in accordance with federal, state and/or local laws.
- B. No FOG that has accumulated in a grease interceptor shall be allowed to pass into any sewer lateral, sewer system, storm drain, or public right of way during maintenance

activities. Any and all overflow events must be immediately reported to Geauga County Department of Resources Emergency Hotline - Phone Number (440-286-7292), (1-866-286-7292) AND the Ohio EPA Emergency Response (1-800-282-9378).

#### 7.5.4 GREASE TRAP MAINTENANCE REQUIREMENTS

New and existing Grease Trap must be maintained in proper operating condition at all times to ensure the FSE does not exceed the allowable discharge limits established by GCDWR.

- A. The grease trap shall be visually inspected every week by the FSE owner or employees to ensure that it is in good working condition and functioning properly. The visual inspections shall be recorded.
- B. New and existing grease traps shall be properly maintained in efficient operating conditions by removal of the accumulated grease every thirty (30) days or more frequently as required by GCDWR. Cleaning of the grease trap done minimum of every 30 days or more frequently if needed to ensure the allowable discharge limit established by GCDWR are met. No such collected grease shall be introduced into drainage piping or public or private sewer.
- C. New and existing grease traps shall be maintained free of all food residues and any FOG waste removed during the cleaning and scraping process. Materials removed from grease traps shall be disposed of properly and NEVER placed in any plumbing fixture (utility sink, toilet, drain, etc.) that would result in the FOG being discharged to GCDWR sanitary sewer collection system.
- D. Existing FSE with dishwasher discharge shall be monitored to ensure the FSE meets the allowable discharge limits and all requirements for discharge, operation, and maintenance of grease traps stated in these regulations. If the FSE does not have a grease interceptor and discharges the dishwasher directly into a grease trap, the FSE may be required to install a separate grease trap specifically for the dishwasher or direct entire kitchen waste flow into a new grease interceptor if the discharge does not meet the allowable discharge limits.
- E. New and existing grease traps shall be inspected every time the grease trap is cleaned and periodically between cleanings to check for leaking seams and pipes, and for effective operation of the baffles and flow regulating device. Grease traps and their baffles shall be maintained free of all caked on FOG and waste. Removable baffles shall be removed and cleaned during the cleaning and maintenance process.

#### 7.6.0 SEWER SYSTEM OVERFLOWS (SSOs), ABATEMENT ORDERS, AND COST RECOVERY (CLEAN UP COSTS)

Food Service Establishments found to have contributed to a sewer blockage, SSOs or any sewer system interferences resulting from the discharge of wastewater or waste containing FOG, may be ordered to install and maintain a grease interceptor, and may be subject to a more restrictive plan to abate future problems. Furthermore, sewer lateral failures and SSOs caused by Food Service Establishments alone or collectively, are the responsibility of the private property owner or FSE(s).

If the County must act immediately to clear a sewer blockage or contain and clean up an SSO caused by blockage of a private or public sewer lateral or system serving a Food Service Establishment, or acts at the request of the property owner or operator of the Food Service Establishment, or request for another agency, the County's costs for such abatement shall be entirely borne by the property owner or operator of the Food Service Establishment, and may constitute a debt to the County as specified in Section 7.11.0. The final obligation of any repairs is initially and ultimately the responsibility of the property owner.

#### 7.7.0 COMMERCIAL PROPERTIES

Property owners of commercial properties or their official designee(s) shall be responsible for the installation of a separate grease interceptor or trap for each Food Service Establishment tenant located on a single real property parcel. Maintenance of grease interceptors shall be the responsibility of the FSE operator.

Generally, any commercial or industrial facility that meets both the following criteria is a FOG FSE:

- 1) The facility is licensed by Ohio Revised Code 3717 to maintain a Food Service Operation License or a Retail Food Establishment License (or equivalent); and
- 2) The facility is required by the applicable plumbing code to have a three (3) or two (2) compartment sink, dishwasher and/or grease trap/interceptor.

#### 7.8.0 BEST MANAGEMENT PRACTICES

All food service operations or retail food establishments (FSE) that produce, or may produce wastewater containing Fats, Oils and Grease (FOG) that are discharged, directly or indirectly, to the Geauga County sewer system shall be required to develop and implement a Best Management Practice (BMP). The BMP shall meet the following minimum criteria:

- A. All FSEs shall prepare a written FOG BMP designed to minimize the amount of FOG waste discharged to the sanitary sewers. The FOG BMP shall list grease sources, and identify handling/cleaning practices that will minimize oil and grease discharges. The FOG BMP shall also list standard operating procedures to minimize oil and grease discharges or buildups in sanitary sewers.
- B. The FOG BMP shall specify the necessary inspection, cleaning frequency, and record keeping for maintaining any grease traps or interceptors located on site. The FOG BMP shall include the manufacturer's recommendations or instructions for operation and maintenance of the grease traps or interceptors or both. If recommendations or instructions from the manufacturer are not available or inefficient, the FOG FSE shall develop operation and maintenance procedures based on best professional judgment or as required by GCDWR.
- C. The FOG BMP shall be signed and dated by a responsible company official.
- D. The FOG BMP shall be reviewed on an annual basis and notation made as to the date of the review.
- E. The FOG FSE shall follow its FOG BMP.

- F. If requested, the FSE shall make its FOG BMP and all relevant supporting documents available to an inspector from Geauga County Department of Water Resources, Geauga County General Health District or other authorized agencies. If requested, the FOG FSE shall provide copies of the BMP to the inspector. If the Sanitary Engineer request changes or modifications to the FOG BMP, the changes shall be made by the FOG FSE within the specified time period. If the changes or modifications are not performed within the specified time period, the Sanitary Engineer may pursue further administrative action.

7.8.1 REQUIREMENT FOR BEST MANAGEMENT PRACTICES

- A. All Food Service Establishments or other identified entities shall implement Best Management Practices in accordance with the requirements and guidelines established by the GCDWR under its FOG Control Program in an effort to minimize the discharge of FOG to the sewer system.
- B. All Food Service Establishments shall be required, at a minimum, to comply with the following Best Management Practices:
  - 1. Installation of floor drain grates/screens. Approved floor drain grates/screens shall be installed in accordance with the International Plumbing Code, Ohio version, on all drainage pipes in food preparation areas.
  - 2. Segregation and collection of waste cooking oil. All waste cooking oil shall be collected and stored properly in recycling receptacles such as barrels or drums. Such recycling receptacles shall be maintained properly to ensure that they do not leak. They shall be stored in a separate area and away from any floor drains. Licensed waste haulers or an approved recycling facility must be used to dispose of waste cooking oil. Manifest or hauling receipt for waste cooking oil must be available or submitted upon request indicating disposal of waste cooking oil.
  - 3. Proper disposal of food waste. All food waste shall be disposed of directly into the trash or garbage, and not in sinks.
  - 4. Employee training must be documented as to the type, procedure taught, and content of the training based on the facilities Training Manual or the BMP for handling of fats, oil, and grease at the FSE. The employee must sign off on the training with employee signature and date of training. The information is to be kept in the Maintenance Log Book
  - 5. Employees of the food service establishment shall be trained by ownership/management shall be trained upon employment and at least annually, on the following subjects:
    - a. How to “dry wipe” pots, pans, dishware and work areas to remove grease before washing.
    - b. How to properly dispose of food waste and solids in leak proof closed plastic bags prior to disposal in trash bins or containers to prevent leaking and odors.
    - c. The location and use of absorption products to clean under fryer baskets and other locations where grease may be spilled or dripped.



- d. How to properly dispose of grease or oils from cooking equipment into a grease receptacle such as a barrel or drum without spilling.
6. Maintenance of kitchen exhaust filters. Filters shall be cleaned as frequently as necessary to be maintained in good operating condition. The wastewater generated from cleaning the exhaust filter shall be disposed properly through a grease interceptor or grease trap. Exhaust filter shall not be washed and cleaned in parking lots or paved areas where the runoff may enter and storm drain, sewer drain, ditch, ravine, creek, or any waterway of the State of Ohio.
7. Kitchen signage. Best management and waste minimization practices shall be posted conspicuously in the food preparation and dishwashing areas at all times.

#### 7.9.0 MONITORING, REPORTING, NOTIFICATION, AND INSPECTION REQUIREMENTS

##### 7.9.1 MONITORING AND REPORTING CONDITIONS

###### A. Monitoring for Program Compliance and General Reporting

1. The Sanitary Engineer may require periodic reporting of the status of implementation of Best Management Practices.
2. The Sanitary Engineer may require visual monitoring at the sole expense of the FSE or Designee to observe the actual conditions of the Food Service Establishment's sewer lateral and sewer lines downstream.
3. Other reports may be required such as compliance schedule progress reports, FOG control monitoring reports, and any other reports deemed reasonably appropriate by the Sanitary Engineer to ensure compliance with this Rule.

###### B. Specific Reporting Requirements

Food Service Establishments with a grease interceptor or trap shall record the appropriate documentation of all grease interceptor cleaning, pumping and/or maintenance activities on the appropriate Inside Grease Trap/Interceptor Maintenance Log provided by Geauga County Department of Water Resources (GCDWR). The Food Service Establishment is responsible for all Maintenance Records and Documents and Inspection Reports pertaining to the operation and maintenance of the grease removal device. Appropriate documentation includes, but is not limited to, waste hauler manifests, GCDWR Grease Trap/Interceptor Manifest Form, receipts, Waste Cooking Oil Manifest, Inside Grease Trap/Interceptor Maintenance Log and invoices. Documentation may be faxed, mailed, emailed or hand delivered to GCDWR at the time of Permit Renewal or issuance. Inspection reports, Maintenance Logs, and Pumping Manifest or other required information must be submitted with the annual renewal application.

###### C. Record Keeping Requirements

The Food Service Establishment or Designee shall maintain on the premises current inspection records showing dates inspected and the inspector and the results of the inspection. In addition, the manifests, receipts and invoices of all cleaning, maintenance, grease removal of/from the grease control device, and disposal carrier

and disposal site location shall be kept and available for no less than three (3) years. The FSE or Designee shall, upon request, make the manifests, receipts and invoices available to any County representative or inspector. These records may include:

1. A logbook of grease interceptor, grease trap, solids interceptor or grease control device cleaning and maintenance practices.
2. A record of Best Management Practices being implemented, including employee training.
3. Copies of records and manifests of grease interceptor or grease trap waste hauling activities.
4. Records of sampling data and sludge height monitoring for FOG and solids accumulation in the grease interceptors.
5. Records of any spills and/or cleaning of the lateral or sewer system.
6. Any other information deemed appropriate by the Sanitary Engineer to ensure compliance with this Rule.

D. Falsifying Information or Tampering with Process

It shall be unlawful to make any false statement, representation, record, report, plan or other document that is filed with the County, or to tamper with or knowingly render inoperable any grease control device, monitoring device or method or access point required under this Rule.

7.9.2 INSPECTION AND SAMPLING CONDITIONS

- A. The Sanitary Engineer may inspect and/or sample or order the inspection and sampling of the wastewater discharges of any Food Service Establishment to ascertain whether the intent of this Rule is being met and the FSE is complying with all requirements. The FSE shall allow the County access to the premises, during normal business hours, for purposes of inspecting the Food Service Establishment's grease control devices or interceptor, reviewing the manifests, receipts and invoices relating to the cleaning, maintenance and inspection of the grease control devices or interceptor.
- B. The Sanitary Engineer shall have the right to place or order the placement on the Food Service Establishment's property or other locations as determined by the Sanitary Engineer, such devices as are necessary to conduct sampling or metering operations. Where a Food Service Establishment has security measures in force, the FSE shall make necessary arrangements so that representatives of the County shall be permitted to enter without delay for the purpose of performing their specific responsibilities.
- C. The Sanitary Engineer shall have the right to inspect and copy all notices, monitoring reports, waste manifests, and records maintained by the FSE including, but not limited to, those related to wastewater generation and wastewater disposal. All such records shall be kept by the FSE for a minimum of three (3) years.
- D. Any grab or composite sample taken from a sample point is considered to be representative of the discharge to the public sewer.

### 7.9.3 RIGHT OF ENTRY

Persons or occupants of premises where wastewater is created or discharged shall allow the Sanitary Engineer, or other County representatives, reasonable access to all parts of the wastewater generating and disposal facilities for the purposes of inspection and sampling during all times the discharger's facility is open and operating or any other reasonable time. No person shall interfere with, delay, resist or refuse entrance to County representatives attempting to inspect any facility involved directly or indirectly with a discharge of wastewater to the County's sewer system.

If it is found that the interceptor needs to be cleaned, the Sanitary Engineer shall so order in writing. If the interceptor is not cleaned in an approved manner within fourteen (14) calendar days, the Sanitary Engineer may pursue further enforcement action.

### 7.9.4 NOTIFICATION OF PLANNED CHANGES

All Geauga County Department of Water Resources' Customers, Registered Food Service Establishments, Property Owner, or Designee shall notify GCDWR at least **90** days in prior to any facility change in operations, remodeling, or process modifications that may result in new or substantially increased FOG discharges or a change in the nature of the discharge. FSE or Designee shall notify GCDWR in writing of the proposed change in operations or remodeling and shall submit any information requested by GCDWR for evaluation of the effect of such changes on FOG discharge to the sewer system.

FSE changes may require the installation of a grease interceptor or other grease control device.

### 7.10.0 ENFORCEMENT

#### 7.10.1 PURPOSE AND SCOPE

- A. Specific enforcement provisions must be adopted to govern discharges to the County's wastewater system by Food Service Establishments to ensure that the County's sewer facilities are protected and are able to operate with the highest degree of efficiency, and to protect the public health and environment.
- B. The County will determine noncompliance with the provisions of this FOG Control Rule through visual inspections, records review, sampling, and/or monitoring of Food Service Establishments.
- C. When a Food Service Establishment is found to be in noncompliance with one or more of the provisions of this Rule, the County will generally issue a written Notice of Violation (NOV) to the FSE. If the FSE fails to properly address the causes and/or sources of the noncompliance, then the County may pursue additional enforcement options.

#### 7.10.2 NOTICE OF VIOLATION

A written Notice of Violation (NOV) may be issued by the County to a Food Service Establishment for failure to:

- A. Properly maintain and clean grease interceptor (failure to comply with 25% Rule), including failure to make necessary repairs.
- B. Properly maintain and clean grease trap, including failure to make necessary repairs.
- C. Implement Kitchen Best Management Practices (BMPs) for FOG control.
- D. Maintain appropriate records.
- E. Submit appropriate records to GCDWR within the specified period of time, as detailed in Section 7.9.1.
- F. Properly dispose of waste oil and grease and waste material;
- G. To report any overflow or spillage to appropriate authorities. Geauga County Department of Water Resources AND Ohio EPA;
- H. Comply with any other provision as defined in this Rule.

Upon receiving a Notice of Violation, the FSE shall have fourteen (14) days to complete corrective action and submit evidence of compliance to the Sanitary Engineer.

### 7.10.3 ENFORCEMENT OPTIONS

Should a Food Service Establishment fail to respond to a NOV, (Notice Of Violation) or fail to respond adequately, the Sanitary Engineer may pursue one or more of the following enforcement options:

- A. Notify the local Health Department of the FSE's noncompliance.
- B. Assess noncompliance fees to the FSE

The purpose of the noncompliance fee is to compensate the County for costs of additional inspection and follow-up, sampling, monitoring, laboratory analysis, and administrative processing incurred as a result of the noncompliance, and shall be in addition to, and not in lieu of, any penalties as may be assessed pursuant to Sections 2.13.0 of the Geauga County General Sewer Rules and Regulations. Pursuant to R.C. 6111.09, GCDWR may assess fines up to \$1,000.00 per day, per violation, and retroactive to the first known day of noncompliance as needed. The noncompliance fee shall be determined on a case by case basis.

- C. Place the FSE under a FOG Wastewater Discharge Permit

### 7.10.4 FOG WASTEWATER DISCHARGE PERMIT REQUIREMENT

Food Service Establishments proposing to discharge or currently discharging wastewater containing FOG into the County's sewer system may be issued a FOG Wastewater Discharge Permit by GCDWR.

FOG Wastewater Discharge Permits may be required on an "as needed" basis, as determined by GCDWR, for FSE's that do not fully comply with the terms and conditions of this Rule. FOG permits are designed to bring FSE's into compliance with these Rules.

GCDWR may develop all necessary FOG Wastewater Discharge Permits for Food Service Establishments for any non-compliance issues or request stated in the NOV. FSE's are required to provide accurate information to the County, as requested.

The conditions of FOG Wastewater Discharge Permits shall be enforced by GCDWR' Sanitary Engineer in accordance with these Rule and applicable State and Federal Regulations.

GCDWR will charge an annual FOG Wastewater Discharge Permit fee as stated in General Rules Fee Schedule, to be paid by the Food Service Establishment.

#### 7.10.5 FOG WASTEWATER DISCHARGE PERMIT CONDITIONS

FOG Wastewater Discharge Permit may contain any or all of the following conditions or limits:

- A. Limits on discharge of FOG and other priority pollutants.
- B. Requirements for installation, proper operation and maintenance (cleaning) of grease interceptors and other grease control devices.
- C. Requirements for implementation of Best Management Practices.
- D. Requirements for maintaining and reporting status of Best Management Practices.
- E. Requirements for maintaining and submitting logs and records, including waste hauling records and waste manifests.
- F. Requirements to self-monitor.
- G. Requirements for the Food Service Establishment to construct, operate and maintain, at its own expense, FOG control device and sampling facilities.
- H. Additional requirements as otherwise determined to be reasonably appropriate by the Sanitary Engineer to protect the County's system or as specified by other Regulatory Agencies.
- I. Other terms and conditions, which may be reasonably applicable to ensure compliance with this Rule.

#### 7.10.6 FOG WASTEWATER DISCHARGE PERMIT MODIFICATION OF TERMS AND CONDITIONS

The terms and conditions of an issued permit may be subject to modification and change by the sole determination of the Sanitary Engineer during the life of the permit based on:

- A. The discharger's current or anticipated operating data;
- B. The County's current or anticipated operating data;
- C. A determination by the Sanitary Engineer that such modification is appropriate to further the objectives of this Rule.

The Permittee may request a modification to the terms and conditions of an issued permit.

- A. The request shall be in writing stating the requested change, and the reasons for the change.

- B. The Sanitary Engineer shall review the request, make a determination on the request, and respond in writing.
- C. The Permittee shall be informed of the acceptability of the request within thirty (30) days of receipt of the request.
- D. The Permittee shall be informed of any change in the permit limits, conditions, or requirements at least forty-five (45) days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.

7.10.7 FOG WASTEWATER DISCHARGE PERMIT TERMINATION

An issued FOG wastewater discharge permit may be terminated by the Sanitary Engineer during the life of the permit based on:

- A. The discharger's current or anticipated operating data;
- B. The County's current or anticipated operating data;
- C. Recent compliance history of the Food Service Establishment;
- D. A determination by the Sanitary Engineer that such modification is appropriate to further the objectives of this Rule.

The Permittee may request permit termination. The request shall be in writing stating the requested termination, and the reasons for the termination. The Sanitary Engineer shall review the request, make a determination on the request, and respond in writing.

The Permittee shall be informed of the acceptability of the termination request within thirty (30) days of receipt of the request.

7.10.8 FOG WASTEWATER DISCHARGE PERMIT DURATION AND RENEWAL

FOG Wastewater Discharge Permits shall be issued for a period not to exceed five (5) years.

FOG Wastewater Discharge Permits that are not renewed prior to their expiration shall remain in effect until formal termination or renewal

7.10.9 FOG DISCHARGE PERMIT COMPLIANCE SCHEDULE

As part of a FOG Wastewater Discharge Permit, GCDWR may enter into a Compliance Schedule with a Food Service Establishment. A Compliance Schedule may contain terms and conditions including but not limited to requirements for installation of a grease control device, immediate and regular pumping and maintenance of grease control device, submittal of drawings or reports, submittal of waste hauling records, implementation of best management and waste minimization practices, payment of fees, or other provisions to ensure compliance with this Rule. The Sanitary Engineer shall not enter into a Compliance Schedule until such time as all amounts owed by the FSE to the County, including user fees, noncompliance sampling fees, and/or other amounts due are paid in full, or an agreement for deferred payment secured by collateral or a third party, is approved by the Sanitary Engineer.

7.10.10 TERMINATION WATER AND/OR SEWER SERVICE

Whenever the FSE violates or continues to violate any provision of these rules, their FOG Discharge Permit, Notice of Violation, or any other FOG discharge requirements of GCDWR may have their service terminated after proper notification as stated in Section 4.6.0 of the Industrial Pretreatment Rules. All costs for physical termination shall be paid by the owner or operator of the Food Service Establishment or Designee as well as all costs for reinstating service.

7.11.0 DAMAGES TO FACILITY OR INTERRRUPTION OF NORMAL OPERATIONS

Any person who discharges any waste which causes or contributes to any sewer blockage, SSOs (sanitary sewer overflow), obstruction, interference, damage, or any other impairment to the County's sewer facilities or to the operation of those facilities shall be liable for all costs associated with cleaning or repairing the facilities together with expenses incurred by the County to resume normal operations. **Any overflow must be reported to Geauga County Department of Water Resources immediately. The Ohio EPA must be notified of the overflow incident within 24 hours of the occurrence. THE PROPERTY OWNER OR PERSON IN CHARGE OF THE BUSINESS IS RESPONSIBLE FOR NOTIFYING BOTH THE GEAUGA COUNTY DEPARTMENT OF WATER RESOURCES AND THE OHIO EPA.**

A surcharge of the County's costs may be added to the costs and charges to reimburse the County for miscellaneous overhead, including administrative activity and record keeping. The total amount shall be payable within forty five (45) days of invoicing by the County.

7.12.0 PENALTIES

See section 2.13.0 for Penalties.

THIS PAGE INTENTIONAL LEFT BLANK



# APPENDIX A

## FEES

## SANITARY SEWER FEES

<u>Type of Fee</u>	<u>Charge</u>
• Permit Fee	\$50
• Service Connection Inspection Fee	\$150*
• Capacity Fee per Sewer Unit	\$6,000
• Monthly Unit Sewer Service Charge	See Service Area Chart
• Reduced Sewer Discount**	\$35 / cycle**
• Vacant Sewer Discount***	\$55 / cycle ***
• Cost Recovery Charge	Dependent on Service Area
• Permit Renewal Fee	\$50 PLUS difference in Capacity Fee paid and Current Capacity Fee
• Continuation Fee	\$50
• Strength of Waste Surcharge	See section 3.11.0
• Repair Permit	no charge

## WATER FEES

<u>Type of Fee</u>	<u>Charge</u>
• Permit Fee	\$50
• Service Connection Inspection Fee	\$150*
• Meters ¾" or 1"	\$200
2" through 8"	Varies based on meter size and cost of County to purchase
• Meter Assembly	\$200
• Meter Programming	\$150
• Meter Pit (1" meter or smaller)	\$350
• Meter Pit (2" meter)	Varies based on cost of County to purchase or property owner can purchase, see section 4.4.0
• Meter Pit (3" meter and larger)	Property owner shall purchase and install, see section 4.4.0
• Second Source Fee	\$400
• Tap Fee	\$550
• Commercial Fire Service 1" – 2" service	\$15/cycle
3" service	\$25/cycle
4" service	\$30/cycle
6" service	\$50/cycle
8" service	\$75/cycle
• Permit Renewal Fee	\$50 PLUS difference in Capacity Fee paid and Current Capacity Fee
• Continuation Fee	\$50
• Repair Permit	no charge

## MISCELLANEOUS FEES

<u>Type of Fee</u>	<u>Charge</u>
• Installer License	\$150
• Septage Dumping License	\$100
• Treated Sludge Disposal	\$0.05/gallon
• Septage Disposal	\$0.05/gallon
• Standard Service Charge	\$50/hour
• Capacity (Tap-In) Fee Payment Plan	
• Interest Rate	8%/year (five years)
• Inspection Rate	\$50/hour
• Plan Review Fee	\$75/hour
• Maintenance Fee	\$60/hour plus equipment costs
• Certification Fee	6% of amount owed
• Late Fee	6% of current amount due
• Illicit (clean water) connection	\$20/month

\* Inspections in excess of 3 hours may be charged additional inspection fees.

\* Reduced Sewer Discount is a deduction from the standard sewer rate, credited the customer account for the cycle [two (2) month period]

\*\*\* Vacant Sewer Discount is a deduction from the standard sewer rate, credited the customer account for the cycle [two (2) month period].

\*\*\* Vacant Sewer Discount is for Residential Customers only, commercial and industrial customers who obtain a vacant rate pay one (1) sewer unit.

THIS PAGE INTENTIONALLY LEFT BLANK

**GEAUGA COUNTY DEPARTMENT OF WATER RESOURCES  
COST OF LABORATORY SERVICES**

(Revised 3-11-10)

<b>CODE</b>	<b>ANALYSIS</b>	<b>COST</b>
31501	Total Coliform/Bacteria	\$ 15.00
00610	Ammonia	\$ 20.00
00620	Nitrate	\$ 15.00
00615	Nitrite	\$ 15.00
00310	BOD (Biochemical Oxygen Demand)	\$ 25.00
80082	CBOD	\$ 20.00
00300	DO (Dissolved Oxygen)	\$ 5.00
31616	Fecal Coliform (pond)	\$ 20.00
31648	E. Coli	\$ 20.00
00556	Oil & Grease	\$ 48.00
00665	TPO <sub>4</sub> (Phosphorous)	\$ 25.00
00400	pH	\$ 8.00
00530	SS (Suspended Solids)	\$ 15.00
00625	TKN	\$ 30.00
00531	VSS (Volitile Suspended Solids)	\$ 15.00
00719	CN (Cyanide)	\$ 25.00
00410	Alkalinity	\$ 12.00
74023	Stability	\$ 15.00
00940	Chloride	\$ 25.00
01010	Barium	\$ 15.00
01032	Sulfate	\$ 15.00
01038	Potassium	\$ 15.00
50060	Cl <sub>2</sub> (Chlrine Residual)	\$ 10.00
00950	Fluoride	\$ 17.00
00900	Hardness	\$ 15.00
00335	COD (Chemical Oxygen Demand)	\$ 20.00
00630	Nitrate/Nitrite	\$ 30.00
00627	Sludge TKN	\$ 30.00
10000	NPDES Preparation	\$ 35.00
Various	Heavy Metals (Fe, Mn, Pb, Cu)	\$ 15.00
70300	Dissolved Solids	\$ 15.00

Groups of Metals     Cd, Cu, Cr, Pb, Ni, Zn                     \$    120.00  
(71900)

Well Drilling             Conductivity, pH, Alkalinity, Hardness,             \$    150.00  
(DRILL)                     Iron, Sodium, TDS, Barium, Chloride  
Potassium, Sulfate



# **APPENDIX B**

## **GREASE TRAP AND GREASE INTERCEPTOR SIZING**

THIS PAGE INTENTIONALLY LEFT BLANK



Section 7.29

**Plumbing and Drainage Institute Grease Trap Sizing and Rating  
Table A**

PDI Size Symbol	20	25	35	50
Flow Rate (GPM)	20	25	35	50
Flow Rate (liter/s)	1.26	1.58	2.20	3.16
Grease Capacity (Lbs.)	40	50	70	100
Grease Capacity (Kg)	18.2	22.7	31.8	45.4

Reference: Table A1.2, Standard PDI-G101 (Modified)

**Procedure for Sizing Grease Interceptor Based on Fixtures  
Table B**

Steps	Formula	Example
1	Determine cubic content of fixture by multiplying length x width x depth	A sink 48" long by 24 " wide by 1 2" deep. Cubic content $48 \times 24 \times 1 2 = 13,824$ cubic inches.
2	Determine capacity in gallons. 1 gal. = 231 cubic inches	Contents in gallons: $13,824 / 231 = 59.8$ gallons
3	Determine actual drain age load. The fixture is normally filled to about 75 % of capacity with water. The items being washed displace about 25% of the fixture content, thus actual drainage load = 75% of fixture capacity.	Actual drainage load: $0.75 \times 59.8 = 44.9$ gallons
4	Determine flow rate using a one (1) minute drainage period. Drainage period is the actual time required to completely drain the fixture.  Flow rate = Actual Drainage Load / Drainage Period	Calculate the flow rate for one-minute period: $44.9 / 1 = 44.9$ G PM flow rate
5	Select Interceptor. From the "Sizing and Rating Table" select interceptor which corresponds to the flow rate calculated. Note: Select next larger size when flow rate falls between two sizes listed.	For a one-minute period- 44.9 GPM requires PDI size "50"

Reference: Table A1.3, Standard PDI-G101 (Modified)







**Grease Trap/Interceptor Manifest**

<b>GENERATOR</b> -To be filled out by Facility / Restaurant Representative	
Date Pumped And Cleaned _____	
Business Name: _____	
Address _____	City _____ State _____ Zip _____
Phone _____	Contact Person _____
Customer Billing Address _____	City _____ State _____ Zip _____
Waste Tank or Trap Capacity _____ Gallons	Pumping Frequency _____
Waste From - Inside grease trap _____	Outside Grease Interceptor/ Trap _____
Grit Trap _____	Other (explain) _____
<p>I CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE WASTE MATERIAL REMOVED FROM THE ABOVE PREMISES CONTAINS NO HAZARDOUS MATERIAL.</p> <p>I ALSO CERTIFY THAT I, AS A REPRESENTATIVE OF THIS BUSINESS, WITNESSED THE PUMPING AND INSPECTION OF THIS TRAP.</p>	
_____ Owner/Representive Signature	_____ Print Name

<b>TRANSPORTER</b> - To Be Filled Out by Hauler	
Business Name: _____	Phone _____
Address _____	City _____ State _____ Zip _____
Truck License Number _____	Vehicle Permit Number _____
Hauled Waste Disposal Site _____	
Address _____	City _____ State _____ Zip _____
Phone _____	Gallons Pumped _____
Tank Pumped Empty _____	Cleaned and Scraped _____
<p>I CERTIFY THAT THE INFORMATION PROVIDED IS CORRECT AND THAT ONLY THE TYPE WASTE SPECIFIED IS CONTAINED IN THE SERVICE VEHICLE.</p> <p>I ALSO CERTIFY THAT THE WASTE REMOVED FROM THE GENERATOR WILL BE DISPOSED OF IN ACCORDANCE WITH COUNTY, STATE, AND FEDERAL LAW.</p>	
Hauler Signature _____	_____ Print Hauler Name
Truck Account/License # _____	

Document to be kept on file for three year as per 7.16. of the Geauga County Sanitary Sewer Rules.



**Waste Cooking Oil Manifest**

**GENERATOR** -To be filled out by Facility / Restaurant Representative

Date Pumped And Cleaned \_\_\_\_\_

Business Name: \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ Contact Person \_\_\_\_\_

Customer Billing Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Number of barrels hauled \_\_\_\_\_ Hauling Frequency \_\_\_\_\_

Name of Hauling Company \_\_\_\_\_ Driver's Name \_\_\_\_\_

Address \_\_\_\_\_ Phone Number \_\_\_\_\_ - \_\_\_\_\_

I CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE WASTE MATERIAL REMOVED FROM THE ABOVE PREMISES CONTAINS NO HAZARDOUS MATERIAL.

I ALSO CERTIFY THAT A REPRESENTATIVE OF THIS BUSINESS WITNESSED THE PUMPING AND INSPECTION OF THIS TRAP AFTERWARDS.

Hauler Signature \_\_\_\_\_ Print Name \_\_\_\_\_ Date \_\_\_\_\_

Manager Signature \_\_\_\_\_

**TRANSPORTER** - To Be Filled Out by Hauler

Business Name: \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Truck License Number \_\_\_\_\_ Vehicle Permit Number \_\_\_\_\_

Hauled Waste Disposal Site \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ Number of Barrels Hauled \_\_\_\_\_

I CERTIFY THAT THE INFORMATION PROVIDED IS CORRECT AND THAT ONLY THE TYPE WASTE SPECIFIED IS CONTAINED IN THE SERVICE VEHICLE.

I ALSO CERTIFY THAT THE WASTE REMOVED FROM THE GENERATOR WILL BE DISPOSED OF IN ACCORDANCE WITH COUNTY, STATE, AND FEDERAL LAW.

Truck Account/License # \_\_\_\_\_

Signature \_\_\_\_\_ Driver Name Print \_\_\_\_\_ Date \_\_\_\_\_









**GEAUGA COUNTY**  
**DEPARTMENT OF WATER RESOURCES**  
**STANDARDS AND SPECIFICATIONS**

**GEAUGA COUNTY**  
**DEPARTMENT OF WATER RESOURCES**  
**470 CENTER STREET, BUILDING 3, CHARDON, OHIO 44024**  
**(440) 279-1970 FAX (440) 285-9549**

**BOARD OF GEAUGA COUNTY COMMISSIONERS**

Walter M. Claypool

Blake A. Rear

Ralph Spidalieri



**Director of Geauga County Water Resources**

Douglas L. Bowen, P.E.

**Gauga County Sanitary Engineer**

Gerard R. Morgan, P.E.

THIS PAGE INTENTIONAL LEFT BLANK

# TABLE OF CONTENTS

## GENERAL PROVISIONS

A. Designation.....	1
B. County.....	1
C. Board.....	1
D. County Sanitary Engineer.....	1
E. Conflicts.....	1
F. Validity.....	1
G. Contractor Registration.....	2

## SANITARY DESIGN REQUIRMENTS AND CRITERIA

A. Tributary Area.....	3
B. Gravity Sewer.....	3
C. Sewer Depth.....	4
D. Location.....	5
E. Manholes.....	5
F. Stream and Ditch Crossings; Sedimentation and Erosion Control.....	6
G. Utility Crossings and Parallel Installations.....	7
H. Service Connections.....	7
I. Testing.....	9
J. Pump Stations.....	10
K. Force Mains.....	14
L. Bedding and Backfill.....	15
M. Acceptance of Sanitary Sewers by the County.....	15

## WATER MAIN DESIGN REQUIREMENTS AND CRITERIA

A. Water Mains.....	18
B. Valves.....	19
C. Hydrants.....	20
D. Tees.....	20
E. Testing.....	21
F. Chlorination.....	21
G. Inspection.....	21
H. Service Connections.....	21
I. Meters and Pits.....	23
J. Backflow Prevention.....	23
K. Water Use During Construction.....	26
L. Construction Plans.....	26

MINIMUM PLAN REQUIREMENTS

A. Title Sheet.....28  
B. Plan.....28  
C. Profile.....30  
D. General Notes & Details.....31

## **General Provisions**

### **A. Designation**

This and all following rules and regulations, together with such additions and amendments as may be hereafter adopted, are hereby designated as the Geauga County Department of Water Resources Rules and Regulations.

### **B. County**

When County is referred to, it shall mean Geauga County, Ohio.

### **C. Board**

When Board is referred to, it shall mean the Board of County Commissioners of Geauga County, Ohio.

### **D. County Sanitary Engineer**

The County Sanitary Engineer shall act as agent for the Geauga County Commissioners in all matters pertaining to sanitary engineering under the jurisdiction of the Geauga County Commissioners, most specifically to the planning, engineering design, supervision of construction, operation, maintenance and management of all sanitary engineering works and facilities under the jurisdiction of the County Commissioners sewage, water and solid waste and in the administration and enforcement of the provisions of Ohio Revised Code Chapters 6117, 6103, and 343 relative to the "County Sanitary Engineer" his office and department.

The terms Geauga County Department of Water Resources (GCDWR) and Geauga County Department of Water Resources Engineering Section (GCDWR Engineering) are interchangeable and refer to the Office of the Sanitary Engineer.

### **E. Conflicts**

If any of these Rules and Regulations are in conflict with, or become in conflict with, Rules and Regulations of the State and/or Federal Environmental Protection Agency or the Ohio Revised Code they are Hereby adjusted to meet EPA or Revised Code Provisions, to the extent that they are in conflict.

### **F. Validity**

Each section or part of a section in this document is hereby declared to be a separate and distinct enactment. If any section or portion thereof in this document as adopted, is found to be void, invalid, unconstitutional, inoperative, or ineffective for any cause, it shall not affect the validity of any other section or part thereof. The Sanitary Engineer, upon application in specific cases, may vary the terms of these regulations in a manner which will not be contrary to the public interest, where, owing to specific conditions, a literal enforcement of the regulation will result in unnecessary hardship, and so that the spirit of these regulations will be observed and substantial justice done.

## G. Contractor Registration

No person or persons, firm, corporation or any employee of such person, firm, or corporation, shall install any house connection pipe, unless such person or persons shall have first obtained from the Sanitary Engineer a license for doing such work. The work shall at all times be under the supervision of the contractor licensed to do such work. Any competent person, firm or corporation shall, on application to the Sanitary Engineer, be granted an installer's license, such application to be accompanied by satisfactory evidence of qualifications and responsibility. The qualifications to be furnished with each initial and subsequent annual application shall be accompanied by a notarized statement containing the following:

- 1) Statement of the installer's previous experience. The statement shall list all villages, cities, counties, etc., in which the contractor has worked in the past three years and shall specify whether the work was for sewer or water installation/work.
- 2) Individual references from engineers, inspectors, service directors, etc., who are personally familiar with the installer's workmanship and character.
- 3) At least one business reference from a material supplier and one credit reference is required.
- 4) A statement giving an itemized list of the type of the equipment the installer owns.
- 5) A list of the installer's full-time employees.
- 6) Performance bond in an amount not less than five thousand dollars (\$5,000.00) made payable to the Board of County Commissioners.
- 7) Submission of proof of public liability and property damage insurance in an amount determined by the Sanitary Engineer.
- 8) The installer's license will be good until the 31st day of December of the year for which it is issued unless previously revoked.
- 9) Payment of license fee in an amount set by the Geauga County Board of Commissioners.
- 10) Passing a basic knowledge test.
- 11) Failure by the licensed installer to comply with any of the rules and regulations as published herein or the direct and proper orders of the County Sanitary Engineer or any of his duly authorized deputies or representatives will be deemed just cause for the revocation of a sewer installer's license.



## Sanitary Design Requirements and Criteria

### CLEAN WATER CONNECTIONS TO THE SANITARY SEWER LINE ARE NOT PERMITTED

#### A. Tributary Area

- 1) Meeting with GCDWR – The developer and/or Consulting Engineer shall meet with GCDWR prior to beginning any development plan. The information disseminated in this meeting shall include but not be limited to the location of the proposed project, the size of the project, a general description of how the project is to be served by sanitary sewer.
- 2) 208 Plan – Any proposed sanitary sewer system shall conform with the existing township 208 plan. If the proposed service area for a sanitary sewer is not within an existing “future allowable sanitary service” area as designated on the 208, the proposed project may initiate a review of the 208 plan.
- 3) Future Sewer Extension – If the new sanitary sewer is within an existing “future allowable sanitary service” area, the sanitary sewer / wastewater treatment plant shall be sized as to permit future connections / extensions.

#### B. Gravity Sewer

- 1) Pipe Type and Roughness – Pipe material shall be designated on all construction plans. Allowable pipe material for sanitary sewer gravity lines is SDR 35 PVC (for sewers less than 15 feet deep) and SDR-26 PVC (for sewers in excess of 15 feet deep). Pipe shall meet the requirements of ASTM 3034

All hydraulic calculations shall be based on a pipe roughness coefficient of  $N=0.013$  (Manning’s n) regardless of pipe material.

- 2) Joints – All pipe joints shall meet the requirements of ASTM D3212 and shall have gaskets conforming to the requirements of ASTM C-443, section 3.
- 3) Pipe Size
  - a) No public gravity sewer conveying raw wastewater shall be less than 8 inches in diameter.
  - b) No service connection shall be less than 6 inches in diameter.
- 4) Pipe Slope –
  - a) All sewers shall be designed and constructed to have a mean velocity, when flowing full, of not less than 2.0 feet per second, based on Manning’s formula using an “n” value of 0.013.
  - b) The following shall be the minimum design grades for the various pipe sizes:

<u>Size</u>	<u>Minimum Grade</u>
6" (service connection only)	1.00%
8"	0.40%
10"	0.28%
12"	0.22%
15"	0.15%
18"	0.12%

- c) Maximum - Excessive velocities should be avoided where possible. When proposed design velocities exceed 15 feet per second, OEPA design requirements shall apply.
  - d) End of Sewer Run - Sewers that will not require future extensions shall have adequate grade to provide sufficient cleansing velocity to compensate for reduced flows.
- 5) Average Sanitary Flow - A rate of 0.0002 CFS per capita (based on 130 gpcd) multiplied by the design density for the area under consideration shall determine the average sanitary flow.
  - 6) Peak Sanitary Flow - To determine the peak sanitary flow, the average flow is multiplied by a peak factor of 3.5.
  - 7) Infiltration - Shall be computed at a rate of 0.003 CFS per acre of total area tributary to the portion of the collection system under analysis.
  - 8) Design Flow - The design flow is the sum of the peak sanitary flow and the total infiltration up to the point in question.
  - 9) Construction
    - a) Contractor shall utilize all proper and current construction and safety standards
    - b) All work shall be inspected by Geauga County Department of Water Resources personnel or a dually appointed representative.
    - c) Any work performed without proper inspection being performed may be required to be uncovered for inspection and/or required to be redone at the discretion of the Department of Water Resources.

### **C. Sewer Depth**

Sanitary sewers, and any future extensions thereof, shall be designed to service all adjacent properties without the use of individual grinder pumps for properties. This requirement shall be for commercial as well as residential development with or without basements. Certain circumstances may dictate this depth requirement is not possible, or practical, and in such cases, GCDWR reserves the right to waive the requirement. For such a situation, the consulting engineer shall meet with GCDWR prior to plan preparation to obtain approval.

All proposed sanitary sewers shall be designed such that the maximum depth of sewer is sixteen feet (16'). Any depths greater than this shall require pre-approval from the Sanitary Engineer before plans are submitted.

#### **D. Location**

- 1) Sanitary sewers shall remain on the same side of a road for the entire length of the roadway.
- 2) Sanitary sewers shall be located within existing or proposed public rights-of-ways
- 3) If a sewer is unable to be located within the right-of-way because of a Federal State or County agency's requirements, the sewer shall be located within an easement adjacent to the public right-of-way.
  - a) The Federal, State or County agency shall provide in writing that the sewer will not be permitted to be installed within the right-of-way.
  - b) The easement shall be parallel and adjacent to the right-of-way for the entire length of the easement.
  - c) The easement shall be a minimum of twenty feet (20') wide.
  - d) The sewer shall be a minimum of ten feet (10') outside the right-of-way.
  - e) It is the responsibility of the entity wishing to install the sewer to obtain all necessary easements.
- 4) The sewer shall be installed on the same side of the road for the entire length of the street.
- 5) If a sewer needs to be installed in a location other than as above, the location shall be approved by the Sanitary Engineer prior to plans being submitted.

#### **E. Manholes**

- 1) Required Locations - Manholes are to be constructed at the following locations:
  - a) At changes of pipe size.
  - b) At changes of pipe slope.
  - c) At changes of pipe alignment.
  - d) At changes of pipe material. (Example: PVC to Concrete)
  - e) At all commercial and industrial service connections
  - f) At intermediate intervals not exceeding 350' or approved by GCDWR.
  - g) At the end of all sanitary sewer runs.
- 2) Materials – All manholes on proposed sewer lines shall pre-cast concrete manholes in conformance with the GCDWR standard detail for pre-cast manholes. The manhole base shall be pre-cast or shall be a 12" min poured concrete (3000psi) pad.
- 3) Protection – All manholes shall be located outside of low points, swales, flood routes,

etc. or otherwise protected from inflow by raising the rim above the 100 year storm runoff elevation or by installing a sealed manhole lid (as approved by GCDWR).

- 4) Over Existing Sewers - When a proposed sewer is to be connected to an existing sewer this shall be accomplished via the following methods (listed in order of acceptability).
  - a) Utilizing an existing manhole.
    - i) A hole shall be cored into the existing manhole and the pipe inserted into the hole.
    - ii) The new pipe shall be grouted into place.
    - iii) LSM shall be placed around the pipe and the manhole to a minimum of half the pipe diameter to ensure the pipe does not settle.
  - b) Placing a new pre-cast manhole at that location on the existing sewer line
    - i) A minimum of one run of the existing pipe upstream and downstream shall be removed.
    - ii) The new manhole shall be placed at the desired location
    - iii) New pipe shall be placed from the existing sewer line into the new manhole using rubber boots. The new pipe shall be set on new bedding material and meet all requirements for new pipe. The holes shall be grouted and sealed.
  - c) A doghouse manhole with poured concrete floor shall be used as a last resort where an existing manhole is not accessible and installation of a new pre-cast manhole is not feasible.
- 5) Drop Manholes –
  - a) Sewers entering proposed manholes two feet (2') or more above the invert of the manhole, shall have an **outside** drop constructed.
  - b) Proposed sewers shall be set such that the new invert is not more than two feet (2') above the invert of the manhole, **inside** drops are not permitted. If the slope of the proposed pipe will be excessive in order to meet this requirement the engineer preparing the plans shall meet with the Sanitary Engineer to discuss and obtain permission to utilize an inside drop.
- 6) Cleanouts - Cleanouts on mainline sanitary sewers will not be permitted under any circumstances. All access points to mainline sanitary shall be manholes.

## **F. Stream and Ditch Crossings; Sedimentation and Erosion Control**

- 1) Alignment - Sewers crossing open channels shall be designed to cross as nearly perpendicular to the channel as possible. Whenever possible, the number of these crossings shall be minimized to mitigate the amount of sediment pollution produced by construction..
- 2) Sewer Depth - The depth from the channel bed to the crown of the pipe shall be a minimum of four feet (4').

3) Backfill and Encasement –

- a) Backfilling of pipe within any ditch and across any stream shall be accomplished using suitable material as to limit the amount of water that will penetrate the backfill material to the gravel fill around the pipe.
- b) When the required four feet (4') minimum cover cannot be met, six inch (6") concrete encasement on all sides of the pipe will be required. When PVC pipe is used for the sanitary sewer, the concrete encasement shall extend from manhole to manhole on both sides of the ditch or stream.

4) Watercourse Erosion Protection

- a) proper watercourse erosion protection shall be placed overtop of the backfilled trench.
- b) The Contractor shall minimize the amount of time disturbed land remains in an unstable condition. The Contractor shall stabilize all disturbed areas within fourteen (14) calendar days after initial clearing operations are begun.
- c) The contractor shall utilize all appropriate erosion control measures as approved by the Geauga County Department of Soil and Water Conservation.

## **G. Utility Crossings and Parallel Installations**

All sanitary sewers shall be installed with a minimum of ten feet (10') horizontal separation (outside of pipe to outside of pipe) and eighteen inches (18") vertical separation (outside of pipe to outside of pipe) from all water lines and service connections.

All sanitary sewers shall be installed with a minimum of eight feet (8') horizontal separation (outside of pipe to outside of pipe) and twelve inches (12") vertical separation (outside of pipe to outside of pipe) from all storm sewers.

## **H. Service Connections**

- 1) Every building shall have a separate service connection.
- 2) Each service connection shall be a minimum 6" diameter.
- 3) Each service shall be installed at a minimum slope of 1.00%
- 4) Each service connection shall be SDR 35 at a minimum. For pipes under existing or proposed pavement it is recommended that SDR 26 be used.
- 5) Bedding for pipe shall be #57 limestone without fines.
- 5) All wyes shall be preformed manufactured wyes installed with the mainline sewer.
- 6) All service connections shall be installed up to the right of way with the mainline sanitary sewer.
- 7) All service connections shall have a cleanout installed at the right of way line.
- 8) Additional cleanouts shall be installed for each 300 feet of service line installed.
- 9) Cleanouts shall have a 2 foot section of rebar duct-taped to the riser 1 foot below final grade.

- 10) Cleanouts in yard areas shall have a PVC cap installed.
- 11) Cleanouts in pavement area shall have an East Jordan casting number 1578 installed over the riser. The casting shall be set on compacted soil around the riser section.
- 12) Grease Traps / Oil Separators
  - a) All new buildings that are proposed to have a restaurant, bar or other eating establishment shall have a grease trap installed along the service connection line.
    - i) The proposed grease trap shall be sized per the Ohio Building Code.
    - ii) The proposed grease trap shall not be installed further than 50 feet from the point where the service line enters the building.
  - b) All new buildings that are proposed to have floor drains within an area where cars will be parked (no matter what the duration) shall have an oil separator installed along the service connection line.
    - i) The proposed oil separator shall be sized per the Ohio Building Code.
    - ii) The proposed oil separator shall not be installed further than 50 feet from the point where the service line enters the building.
  - c) A maintenance and cleaning schedule and procedure shall be submitted to the Department of Water Resources prior to the County accepting the service.
  - d) It is the property owner's responsibility to maintain and clean the grease trap / oil separator according to the schedule and procedure submitted and to maintain a log showing that the appropriate steps have been taken.
  - e) The Department of Water Resources from time to time will inspect the grease trap / oil separator and review the maintenance log to verify the property owner's compliance. If maintenance is not being properly completed / documented or during an inspection it is determined that the grease trap / oil separator is not working properly, the property owner will be issued a notice of such non-compliance and will be given two (2) months to correct any errors. If the problems are not corrected or an agreement is not reached between the Department and the property owner within the two (2) month period, the service for the property will be disconnected until the problems are corrected and the property owner will be charged a reconnection fee.
- 13) Clean Water Connections
  - a) No clean water connection is permitted to be made to a service line or to a sanitary sewer.
  - b) If a clean water connection is found, the Property Owner will be required to:
    - i) Remove any observed connections.
    - ii) Repair the service line, sanitary sewer, or cleanout to the satisfaction of the County.
    - iii) Hire an approved sewer inspection company to televise the service line and/or the sanitary sewer and provide the County with a copy of the video prepared from the inspection to prove no other connections exist.

- iv) All of the above items will be done at the Property Owner's expense.
- v) All of the above items will be done in the presence of a GCDWR representative.
- c) The property owner will be given two (2) months to perform the above items. Failure to complete the items and/or make arrangements with the County to extend the deadline will result in the Property Owner being surcharged twenty dollars (\$20.00) per month on their sanitary sewer bill.

## I. Testing

- 1) All sanitary sewer lines shall be tested in accordance with the standards as listed below.
- 2) Any sewer line that fails to meet the standards shall be repaired and/or replaced by the developer / contractor at their expense and the sewer line will not be accepted by the Geauga County Department of Water Resources until all deficiencies are corrected and the sewer passes the appropriate tests.
- 3) All sewer lines shall be flushed prior to any tests being performed.
- 4) All testing shall be done in the presence of a representative of GCDWR. Any tests performed without a GCDWR representative or designee present will not be accepted.
- 5) All gravity sewer lines shall be air tested.
  - a) The air test shall be performed at a pressure of 10psi for duration based on pipe diameter and sewer length.

Pipe Diameter	Minimum Test Time /100 feet
8"	1.2 minutes
10"	1.5 minutes
12"	1.8 minutes
15"	2.1 minutes
18"	2.4 minutes
24"	3.6 minutes

- b) The maximum allowable leakage during the low pressure test is 1.0 lbs.
- 6) All gravity sewers shall be deflection tested.
  - a) Deflection tests shall be run on the gravity sewer after the sewer has been in place for more than 30 days.
  - b) Deflection testing shall be completed utilizing a Mandrel test.
  - c) The maximum allowable deflection is 5%.
- 7) After all gravity sewers have passed air and deflection tests, the sanitary sewer shall be video inspected.

One color copy of the video shall be delivered to GCDWR.

- 8) All sanitary manholes shall be vacuum tested per ASTM C1244 standards.

## **J. Pump Stations**

- 1) All pump stations shall meet the requirements of the Ten State Standards.
- 2) Where permitted –
  - a) Sanitary pump stations shall only be permitted in areas that are not capable of being served by a gravity sanitary sewer system.
  - b) Regardless of when the extension of a gravity sewer system to the area in question may be constructed, the gravity sewer extension shall be the preferred method for servicing an area with sanitary sewer.
  - c) In the event that an area cannot be sewered by gravity, a written request must be submitted to the Geauga County Sanitary Engineer outlining in detail what type of development is being proposed, the size of the development why the area cannot be served by gravity, and any other information deemed necessary by the Sanitary Engineer.
  - d) If a sanitary pump station is required, the pump station shall be constructed in accordance with the standards set forth below
- 3) Power Supply - The pump station shall be powered utilizing main power supplied by a public electric company.
  - a) The Design Engineer is responsible for determining the required electric service for the pump station. This includes but is not limited to contacting the local electric company to verify service availability, necessity of a transformer, etc.
  - b) The power supply to the pump station shall be solely for the operation of the pump station.
  - c) 3 phase electric is required. If 3 phase is not available, the Design Engineer shall determine what it will take to bring 3 phase to the site and then contact GCDWR to discuss options.
  - d) For 5 HP motor or less, a 120/208 service may be used. For motors greater than 5HP 277/480 service is required.
  - e) The Engineer preparing the plans shall coordinate with the electric company and Geauga County Department of Water Resources to establish an account and determine the requirements of the electric company.
- 4) Wet Well - The wet well shall be a minimum six foot (6') diameter concrete structure, sized in accordance with the latest version of the Ten State Standards.
  - a) The wet well shall be traffic bearing
  - b) The wet well and Valve Pit (if required) shall be separate underground structures. Single unit structures are not permitted.
  - c) The wet well shall have a hinged lockable lid.
  - d) The rim of the wet well shall be set at of one foot (1') above the surrounding



grade.

- e) The wet well structure shall be concrete.
- 5) Valve Pit (as required) – The valve pit shall be a separate watertight concrete structure from the wet well.
- a) The rim of the valve pit access point shall be set at least six inches (6”) higher than the rim of the Wet Well.
  - b) The valve pit shall have a sump installed to allow for the installation of a sump pump to drain the pit if necessary. No direct connection between the valve pit and wet well is permitted.
  - c) The valve pit shall have a hinged lockable lid.
  - d) The valve pit structure shall be concrete.
- 6) Pumps – Each pump station shall have two pumps installed and GCDWR shall be supplied with a third spare pump.
- a) Pump manufacturer shall be: Yeoman, Gorman-Rupp, Hydromatic, or Essco. The use of any other manufacturer’s product will require pre-approval during the design prior to preparing plans.
  - b) Pumps shall be easily removable and replaceable without dewatering the wet well or disconnecting any piping in the wet well.
- 7) Check Valves – Check valves shall be installed after the pumps outside of the wet well in the valve pit, prior to combining the lines to the forcemain to prevent reverse flow when a pump is not operating. (Refer to County Standard Details)
- 8) Pump Station Emergency Operation – Each pump station shall be designed to operate during power outages and pump failures.
- a) Back-Up Generator – A back-up generator shall be designed as part of every pump station. The back-up generator shall automatically operate in case of a power failure. The back-up generator shall be capable of running the whole lift station without specialized control setup.
    - i) The back-up generator shall be diesel powered, and supplied with a storage tank for the diesel to permit operation of the generator for a minimum of 24 hours.
    - ii) The generator shall be manufactured by Kohler, Onan, Katolight, or Cummins-Bridgeway. A backup generator from any other manufacture shall be pre-approved.
    - iii) Automatic Transfer Switch shall be fully Automatic, shall monitor voltage on all incoming power legs (including each phase of a 3 phase line). Shall be capable of running the whole lift station. Shall be equivalent to others currently in use by GCDWR.
  - b) Emergency Pumping – Each pump station shall be equipped with an emergency pumping capability.

- i) A four inch (4") suction pipe shall be installed in the wet well and protrude through the top for the connection of a portable pump. The suction line shall have a 90° bend set thirty inches (30") above grade with a Female Cam Lock Quick Disconnect Coupling with Male Plug in it.
  - ii) A tee or wye shall be installed on the forcemain line to allow for the connection of the portable pump discharge. A valve shall be installed on the forcemain line prior to the tee / wye to segregate the forcemain from the pump station pumps.
- 9) Controls – The pump station shall be controlled utilizing ultrasonic transducers with float backups.
- a) Ultrasonic Transducer shall be MJK Shuttle or Pulsar transducers with Stainless Steel Brackets. The use of another type of ultrasonic transducer shall only be allowed if pre-approval is obtained.
  - b) Emergency Float Backup and Alarm shall be set in the wet well on the opposite side from the inlet pipe(s). Each float shall be individually hung from a Stainless Steel anchor mounted on the top of the wet well utilizing a stainless steel chain. The float, chain and anchor shall be resistant to harsh wastewater environment.
  - c) Float Settings – The float control settings shall be set for:
    - i) High Level – For Able Security Cellular Alarm System and also powered by Able Securities Alarm Panel.
    - ii) Pumps on
    - iii) Pumps off / Low Level Lockout
    - iv) Backup float control shall Auto Reset
  - d) The pump station shall be designed to allow for onsite control and for the remote monitoring of the pump station and for the addition of remote access components for remote control and adjustments. This shall be accomplished utilizing Sieman's Microcat 9700 system and interfaced to Iconics Genesis HMI software program at central office.
  - e) 9700 system settings
    - i) Low Level Alarm
    - ii) Lead Pump on
    - iii) Lag Pump on
    - iv) Lead Pump off
    - v) Lag Pump off
    - vi) High Level Alarm
    - vii) Alternation of all pumps
  - f) Only one control panel shall be used which is listed above. In special situations

approved by GCDWR where a specific control panel is required the system above shall be used to remotely monitor the panel and wet well.

- g) Stations with 2 or more pumps shall have time delay start controls on all pumps except the #1 pump, thus preventing any 2 or more pumps from starting at the same time. These shall also be part of the emergency float backup controls.
- 10) Metering – The flows from the pump station shall be monitored using an electromagnetic meter.
- a) The meter shall be a Krohne Enviromag 4000 or Siemens Sitrans FM.
  - b) The meter shall be capable of reading flows with 95% accuracy
  - c) The meter shall be supplied with a 4 – 20 ma output relational to the GPM reading to allow for a wall mounted chart recorder to be used.
- 11) Chart Recorder – The chart recorder shall be a Honeywell DRG 4300 wall-mounted unit with a seven day charting utilizing a single pen.
- 12) Enclosure For All Components – The Engineer preparing plans shall contact the Geauga County Sanitary Engineer with the basics of the pump station design to determine the type of enclosure necessary. GCDWR has and allows building enclosures, small housing units, and above ground control boxes. The required type of unit will be determined based on the location and size of pump station and security of the site. The top of all control panel boxes shall be at 6 foot height. Exterior boxes shall be a Stainless Steel NEMA 4X enclosure.
- 13) Security – The pump station shall be secured from unauthorized access.
- a) For small systems, the wet well hatch and above ground control box shall be locked with padlocks supplied by GCDWR.
  - b) For large systems, the entire site shall be fenced with a six feet (6') chain link fence with barbed wire mounted atop the fence. The fence shall have an eight feet (8') wide gate to allow truck access to the pump station. The gate shall be pad locked supplied by GCDWR.
  - c) Building doors shall be keyed to the GCDWR key system by a locksmith approved by GCDWR.
  - d) Building doors shall be access controlled by the Able Security Cellular Alarm System.
  - e) It is the contractor / developer's responsibility to maintain security during construction.
- 14) Piping
- a) Each pump effluent pipe shall be ½ the forcemain diameter.
  - b) The pump effluent pipes shall utilize 45° bends to connect the two pumps to the forcemain line.
  - c) All piping within the wet well and valve pit shall be ductile ion with polyethylene

lining.

- d) All pipe joints shall be mechanically restrained joints.
- e) Where piping exits the wet-well and/or the valve pit, the void between the pipe and the hole shall be filled with silicon sealant and link seal. The pipe shall not touch any part of the hole.

15) Start Up

- a) Once all testing of the forcemain has been completed, and the pump station with all equipment and buildings has been installed the contractor shall notify the Department of Water Resources to schedule a start-up of the equipment.
  - b) Start up shall be done in the presence of the Department of Water Resources representatives.
  - c) All operation & maintenance manuals shall be presented to the department representatives at that time.
- 16) Signage – A sign two feet by four feet (2'X4') shall be mounted on the fence gate (large systems) or on the control box (small systems) as shown below.

PROPERTY OF THE  
GEAUGA COUNTY COMMISSIONERS  
NO TRESPASSING  
IN CASE OF EMERGENCY  
CALL  
(440) 279-1970

**K. Force Mains**

- 1) All forcemains shall be designed in accordance with the Ten State Standards
- 2) The material for forcemains shall be ductile iron with 60 mil interior polyethylene lining. SDR-26 PVC meeting the requirements of ASTM D-2241 may be used upon proof to GCDWR that the pressure within the forcemain system will be low enough to allow its use.
- 3) Cleanouts shall be installed on all forcemains longer than 600 feet. Cleanouts shall be installed at intervals not exceeding 600 feet. Cleanouts shall be in accordance with the GCDWR standard detail.
- 4) Air Relief Valves shall be installed at all high points along the forcemain. Air Relief valves can be used to reduce the number of cleanouts necessary on a forcemain. Air Relief valves shall be in accordance with the GCDWR standard detail.
- 5) All bends, cleanouts, and air relief valves shall be properly blocked with concrete blocking per the GCDWR standard details.
- 6) Discharge into a Manhole
  - a) The invert of the forcemain shall be 6" above the invert of the outlet pipe from the

manhole.

- b) Prior to the forcemain entering the manhole, the forcemain shall be deflected vertically down twelve inches (12") for ten feet (10') and then deflected back to create a trap in the forcemain.
  - c) The interior of the receiving manhole shall be treated to protect it from corrosion.
- 7) Markings – All forcemain shall be marked underground by a six inch (6") wide green colored four (4) mil thick polyethylene marker tape set one foot (1') above the top of the forcemain pipe.
  - 8) Testing – All forcemain piping shall be pressure tested at a pressure of 1.5 times the normal operating pressure or 100 psi whichever is greater.

#### **L. Bedding and Backfill**

- 1) All sewer pipes shall be installed in accordance with the standard GCDWR details.
- 2) Gravity pipe shall be placed on a bedding of #57 limestone.
  - a) Minimum depth of bedding between the bottom of the trench and the bottom of the gravity pipe shall be six inches (6").
  - b) Bedding shall be placed and compacted prior to pipe being placed in the trench.
- 3) #57 limestone shall be placed around and atop gravity pipe to a minimum of 12" above the outside of the pipe.
- 4) For pipe installed under existing or proposed paved areas (including but not limited to roadways, sidewalks, parking lots, and driveways) the backfill above the pipe shall be premium fill to the base of the proposed pavement.
- 5) For pipe installed outside of an existing or proposed paved area may be backfilled utilizing onsite friable material.
- 6) All backfill shall be compacted in lifts.
  - a) Premium backfill shall be compacted in four inch (4") lifts.
  - b) Regular backfill shall be compacted in six inch (6") lifts.

#### **M. Acceptance of Sanitary Sewers by the County**

- 1) Upon completion of the construction of the sanitary sewers including all testing as referenced above, the contractor shall notify Water Resources to schedule a walk-through of the site.
- 2) At the walk through, a punchlist shall be created of all remaining items to be completed.
- 3) All punchlist items shall be completed by the contractor and approved by Water Resources before the sewer will be accepted by the County.
- 4) The following items are required to be submitted to the County prior to final acceptance of the sewers:
  - a) Tape and report of television inspection of the sewer line.

Geauga County Department of Water Resources  
Standards and Specifications

- b) As-built drawings on Mylar
- c) Inspection & Review Fees
- d) Itemized statement of construction cost
- e) Affidavit stating all payments have been made for the entire development.
- f) Maintenance Bond in the sum of 10% of the construction cost.
- g) Notice of Completion by Developer

## Water Main Design Requirements and Criteria

All water main improvements shall be submitted to GCDWR for review and approval before any work may progress.

All Water Main, Water Services, and Appurtenances shall conform with the standards as listed in these sections.

Any variances from these standards shall require prior approval from the Geauga County Sanitary Engineer.

### A. Water Mains

- 1) Pipe
  - a) All water main pipe shall be minimum Class 52 Cement Lined Pipe
  - b) All water main pipe shall have Plain Rubber-Gasket Push-On Joints with radially compressed locked in place Rubber Ring Gasket.
- 2) Fittings
  - a) All fittings shall have Retained Mechanical Joints
  - b) Megalug or Uniflange Field Lock Gaskets may also be required due to soil conditions
  - c) All Bolts and Nuts shall be coated with a rust inhibiting material and wrapped with an AWWA approved plastic
  - d) Zinc caps shall be installed on every other bolt.
- 3) Depth
  - a) All water main pipe shall be installed at a minimum depth of six feet (6') below established grade.
  - b) When water main is crossing over an obstruction minimum cover shall be no less than five feet (5').
  - c) Any variances from the minimum six feet (6') of cover including the five feet (5') from above shall require prior approval from GCDWR.
- 4) Location
  - a) Water mains shall remain on the same side of the roadway for the entire length of the road.
  - b) If it is necessary for a water main to change sides of the road:
    - i.) The change shall be approved by the Sanitary Engineer prior to plans being submitted.
    - ii.) The location of the change shall be at a roadway intersection. The change will be permitted at other than a roadway intersection for the following reasons:

- Distance between the pavement and the right-of-way is less than ten feet (10')
  - Sanitary sewer is located on the same side of the road and the required offset distance from the sanitary is not obtainable.
  - Connection to another existing waterline.
- c) Water mains shall be located within existing or proposed public rights-of-ways
- d) If a water main is unable to be located within the right-of-way because of a Federal, State or County agency's requirements, the water main shall be located within an easement adjacent to the public right-of-way.
- i) The Federal, State or County agency shall provide in writing that the water main will not be permitted to be installed within the right-of-way.
  - ii) The easement shall be parallel and adjacent to the right-of-way for the entire length of the easement.
  - iii) The easement shall be a minimum of twenty feet (20') wide.
  - iv) The water main shall be a minimum of ten feet (10') outside the right-of-way.
  - v) It is the responsibility of the entity wishing to install the water main to obtain all necessary easements.
- e) If a water main is to be installed in a location other than as above, the location shall be approved by the Sanitary Engineer prior to plans being submitted.
- 5) Bends and Deflections
- a) Deflections between pipe sections at joints shall not be greater than two degrees (2°)
  - b) Any required deflection greater than two degrees (2°) shall be accomplished using bends.
  - c) All bends shall be properly blocked using concrete blocking against undisturbed soil. Wood blocking is not permitted.
- 6) Trench Bedding and Backfill
- a) All water main pipe shall be installed on a bedding of sand
  - b) The Pipe trench shall be backfilled to a minimum twelve inches (12") over top of the pipe. All sand backfill shall be properly compacted.
  - c) Water main under or within five feet (5') of existing or proposed pavement including sidewalk and driveways shall be backfilled above the sand bedding and backfill with ODOT 304.
  - d) Water main in all other areas shall be backfilled with excavated soil.

## **B. Valves**

- 1) All valves shall be either Mueller or Kennedy Resilient Seat NRS valves with two inch (2") operating nut.



- a) All valves shall open left (counterclockwise)
  - b) ADD LANGUAGE FOR VALVE BOXES
- 2) Operating of any valve shall only be done by an authorized GCDWR representative.
- a) Any damage caused by the operation of a valve by an unauthorized person will be the responsibility of the contract to repair at no cost to GCDWR.
  - b) To have a valve operated contact GCDWR at (440) 279-1970.

### **C. Hydrants**

Fire hydrants on the water distribution system are for the purpose of fighting fires, as well as the protection and preservation of public health, property and safety. Any other usage of hydrants shall be considered a convenience.

- 1) All hydrant assemblies including valve branch tee outlet, pipe and offset shall be six inch (6") nominal size.
- 2) All hydrants shall be Mueller Super Centurion or Kennedy K81 hydrants.
- 3) All hydrants shall be national standard
- 4) All hydrants shall have one and one-half inch (1-1/2") pentagon left opening operating nuts and caps
- 5) All hydrants shall have a six and one-half foot (6.5') bury depth.
- 6) All hydrants shall have five inch (5") pumper nozzle with Storz Fittings
- 7) All hydrants shall be the same for each street, subdivision, and/or project.
- 8) Maximum distance between hydrants is 300 feet.
- 9) Hydrants shall not be set closer than three and one-half feet (3.5') from the edge of any paved surface.
  - a) If because of obstruction or grade a hydrant cannot be set back from the pavement appropriately, additional protection shall be added for the hydrant:
  - b) Suitable protection consists of:
    - Bollards
    - Guardrail
    - Other products that are pre-approved by GCDWR and the local Fire Department.

### **D. Tees**

- 1) All tees shall be installed at the time the water main is constructed.
- 2) Tees shall be installed for all water main connections greater than two inch (2").
- 3) All tees shall comply with section B.(2) "Fittings" above.
  - a) All tees shall be set with concrete blocking against undisturbed soil. Wood blocking is not permitted.

- b) If connecting to an existing water main, a new tee shall be cut into the existing line. Tapping sleeve and valves may be used with prior approval from the Geauga County Sanitary Engineer.
- c) Tees shall be used for all fire hydrant connections.

### **E. Testing**

- 1) All shall be completed in accordance with AWWA C-600 Specification.
- 2) All water mains shall be tested to a pressure of 150 psi or 1.5 times the normal residual pressure whichever is greater.
- 3) Any failures shall be found and repaired by the contractor at no cost to GCDWR.

### **F. Chlorination**

- 1) The contractor shall provide a tap for disinfection as designated by GCDWR as part of construction.
- 2) The contractor shall provide a six square foot (6 SF) sheeted and shored pit at the location of the chlorination tap.
- 3) All chlorination shall be done in accordance with GCDWR specifications and AWWA C-651.
- 4) All chlorination and de-chlorination shall be performed by contractor
- 5) All chlorine sampling shall be performed by GCDWR personnel.
- 6) The water for all testing shall be provided by the contractor at the contractor's expense. GCDWR can provide the water to the contractor if requested. Any water used will be billed to the contractor. Final approval and acceptance of water line will not be granted until all payments have been received.
- 7) If the water line fails to pass chlorination, the contractor will be responsible to clean the line. Retesting will done at contractor's expense.

### **G. Inspection**

- 1) Any work performed on water main and water service connections shall be inspected by qualified representatives of GCDWR.
- 2) Any work performed without a proper inspection will be required to be excavated to verify compliance with GCDWR standards.
- 3) The contractor shall notify GCDWR at least 48 hours in advance of any work, except in the case of an emergency.

### **H. Service Connections**

- 1) Service connections shall not be installed until the water main has been properly installed, tested and chlorinated in accordance with AWWA and GCDWR standards.
- 2) The minimum size service tap and line is one inch (1").
- 3) Water Main Tapping

- a) All water taps shall be performed by a licensed contractor
- b) All water taps shall be inspected by a representative of GCDWR.
- c) A service permit shall be obtained from GCDWR before any tap is permitted.
- 4) If Fire Protection is required, separate fire service and domestic service lines shall be installed.
  - a) A single tap the size of the fire service line may be utilized with the domestic service line tapped off the fire service line five feet (5') inside the public right of way and separate lines to the building from that point.
  - b) Fire service lines shall require backflow preventers.
- 5) For all 2" and smaller service lines, the line material shall be Type K soft copper. Fittings for Type K soft copper shall be high quality copper brass with approved compression type joints. For service lines over 200 feet in length, plastic pipe may be utilized with prior consent from GCDWR and shall be installed per requirements outlined by GCDWR when approval of plastic pipe installation is provided.
- 6) For all 3" and larger service lines, the line material shall be minimum Class 52 Cement Lined Ductile Iron Pipe or Class K Copper
- 7) Properties where underground vessels are being used or have been used for the storage of petroleum or other health hazard materials SHALL use Type K soft copper tubing. In addition, any property within 50 feet of a property with such underground vessels SHALL use type K soft copper tubing for the water service line.
- 8) No domestic service line shall supply more than one building.
- 9) All service lines shall be installed with six feet (6') of cover. The service line may be placed deeper than six feet (6') to allow for surface grading after installation. If surface grading will make the service line deeper than six feet (6'), the grade shall be brought up to final grade before the service line is installed.
- 10) If the service line cannot be buried to the required depth due to underlying rock or man-made structures or utilities, the service line must be wrapped with insulating tubing.
- 11) If more than one domestic service line is used to supply water to one building such water service shall be approved by GCDWR prior to construction. Multiple water service lines may be placed in a single ditch with a minimum of 6 inches between each service line.
- 12) Water service lines are not permitted within the same trench as sanitary or storm service lines.
- 13) Unless approved by the County Sanitary Engineer or designee, there must be no bends before the meter pit.
- 14) Unless otherwise approved, all service lines must be the same size as the tap.
- 15) All meters will be the same size as, or one size smaller than, the service line.
- 16) The service line shall be one continuous type of material with no sweated or cemented joints underground.

- 17) Water service lines must maintain a ten feet (10') clearance from sanitary sewers.
- 18) Any building served by a well shall have the well supply permanently isolated from the plumbing system prior to connection to the county water supply. For additional information, refer to Backflow Prevention Rules.
- 19) Any water service connections disturbed or disconnected during construction shall be replaced with all new material from the corp. stop to the meter pit or curb shutoff as directed by GCDWR.
- 20) Service lines shall not cross property lines unless one parcel is landlocked and therefore does not have frontage on a right-of-way. In such case a water service easement shall be obtained and recorded prior to the issuance of water service permit.
- 21) One-inch connections shall have a minimum distance of five feet (5') between taps when the taps are made on the same side of the water main. One-inch taps made on opposite sides of the water main require a minimum offset distance of 18 inches.
- 22) Taps larger than one-inch shall be have a minimum offset distance of five feet (5').
- 23) All taps shall have a minimum offset distance of five feet (5') from any hydrant, tee or valve.
- 24) All taps shall be a minimum two feet (2') from any bell or bend.

## **I. Meters and Pits**

- 1) All water metering shall be done outside of buildings in pits. Internal metering may be permitted on a case by case basis with prior approval from the County Sanitary Engineer.
- 2) Meters shall be the same size or one size smaller than the service line
- 3) Meters up to two inch (2") shall be installed in Ford Meter Pits per the standard details as shown in the specifications Appendix section.
- 4) All meters shall be Badger meter with remote read capability in accordance with GCDWR standards.
- 5) GCDWR will maintain all metering systems.

## **J. Backflow Prevention**

Backflow or cross-connection control is intended to prevent the contamination or pollution of the public and consumer's potable water system.

Cross-connection control devices allow for the protection of the public water supply by isolating within the consumer's water system any contaminants or pollution which could backflow through the service connection.

- 1) Backflow preventers are required for the following situations:
  - a) All commercial buildings (both domestic and fire service)
  - b) Irrigation systems
  - c) Water systems with master meters

- d) Temporary hydrant hookups (special permission is required from GCDWR for any hydrant connections)
  - e) Properties that have or have access to second source water unless actual or potential cross-connections are abated or controlled to the satisfaction of the County Sanitary Engineer.
- 2) Cross connection of public water systems (including service to individual buildings) with a well or other water source is not permitted.
  - 3) All backflow preventers must be registered with GCDWR.
  - 4) All backflow preventers shall be tested when installed, yearly and upon repair to ensure the integrity of the system.
    - a) Property owners will be notified by GCDWR when their backflow preventer is due for yearly testing.
    - b) Testing shall be completed by an approved testing contractor.
    - c) Test results shall be submitted to GCDWR.
    - d) The property owner is responsible for repairing and/or replacing any backflow preventer that fails testing.
    - e) If a property owner fails to have their backflow preventer tested and/or repaired / replaced, their water service will be disconnected until the backflow preventer is properly tested and proof of the backflow preventer passing the test has been submitted to GCDWR.
  - 5) The location of the backflow preventer shall be after the service meter.
  - 6) For settings outside of buildings
    - a) The backflow preventer shall be installed in a vault or pit.
    - b) If the backflow preventer is being installed above grade, the backflow preventer shall be installed in a hot box.
  - 7) The type of device required for proper protection of the water system will be determined based on the proposed usage of water.
  - 8) A list of approved devices by category is available from the American Society of Sanitary Engineer's website.

Abbreviations Used Are As Follows:

RP	Reduced Pressure Type Backflow Device
DC	Double Check Valve Backflow Preventer
DCDC	Double Check Detector Check Assembly
RPDC	Reduced Pressure Detector Check Assembly
CCI	Cross Connection Control Inspection

<u>TYPE OF FACILITY</u>	<u>TYPE OF PROTECTION</u>
-------------------------	---------------------------

Auxiliary Water Supply (any supply other than ours)	CCI and RP
Car Wash	RP
Chemical Plant	RP
Convenience Stores	DC
Film Laboratory or Development	RP
Fire Protection System:	
(without auxiliary water or process water)	DCDC
(with auxiliary water or process water)	RPDC
Food or Beverage Processing Plants	DC
Funeral Homes - Mortuaries	RP
General Office Buildings	DC
Laundries - Dry Cleaners	DC or RP
Machine Tool Plants (degree of hazard)	DC or RP
Medical Facilities:	
Hospitals	RP
Clinics	RP
Veterinary	RP
Offices	RP
Metal Processing/Production (degree or hazard)	DC or RP
Multi-residential Facilities	DC
Paper Products	RP
Petroleum Processing Plant	RP
Petroleum Storage Plant/Yard	DC or RP
Plating Facilities	RP
Restaurants	DC
Schools (degree of hazard)	RP
Sprinkling and Irrigation Systems	DC
Strip Shopping Malls	DC
Sewage Treatment Plants	RP
Sewage Pumping Station (degree of hazard)	DC or RP
Other	CCI and RP

Irrigation Systems	RP
	(above grade in hot-box or in building)

## **K. Water Use During Construction**

- 1) The contractor shall notify GCDWR if use of GCDWR water will be required during construction.
- 2) GCDWR representatives will install a metered connection to an existing fire hydrant or a temporary service connection to an existing water main to be determined based on time of year, length of service required and amount of water needed.
  - a) The contractor will be required to open a water account with GCDWR
  - b) GCDWR will bill the contractor on a bi-monthly basis for the water usage.
- 3) Any unauthorized use of water, including but not limited to opening a hydrant with out permission, tapping an existing water main, and using an existing service without permission will be considered theft and reported to the appropriate authorities for action. The contractor's license with GCDWR will be revoked.

## **L. Construction Plans**

All plans shall be prepared in accordance with the "Geauga County Department of Water Resources Standards" "Plan Requirements" section.

THIS PAGE INTENTIONAL LEFT BLANK



## Minimum Plan Requirements

### A. Title Sheet

The Title Sheet shall contain the following items:

- a) Location Map - This map shall show the relative location of the project to well known landmarks so as to determine the location of the project within the City at a quick glance. No scale is required on the Location Map.
- b) Benchmarks - A suitable benchmark shall be provided for every 1,000 lineal feet of sewer shown on the plan, with a minimum of two (2) on each plan. The benchmarks shall be established through a bench circuit with elevations based on the most recent North American Vertical Datum (NA VD) determination. Where a benchmark has a previous determination which differs from the most recent, show the earlier elevation in parentheses following the present elevation i.e. 730.05 (729.98-1929).
- c) Estimate of Quantities - An accurate estimate of those items being constructed under the sanitary sewer plan shall be included. The description of the item shall be such that it is easily recognizable.
- d) Special Notes Any notes which the engineer preparing the plan feels may be required due to circumstances of the particular project should be included on the cover sheet. (Example: Gas lines in the vicinity of the proposed sewer line should include a note to contact the Gas Company prior to construction in the vicinity of their line. Notes should include the company's name, address, contact person, telephone number, and any other pertinent information.)
- e) Signature of Plan Preparer The plans shall be signed by the Professional Engineer preparing the plan or in responsible charge.
- f) On the bottom right side of the title sheet a signature shall be provided. This signature block shall look as follows:
- g) Approvals. The following language and signature line shall be located on the right side of the cover sheet.

#### APPROVALS

Signatures below signify only concurrence with the general purpose and general location of the project. All technical details remain the responsibility of the engineer preparing the plan.

\_\_\_\_\_  
Sanitary Engineer

### B. Plan

All plan sheets shall consist of the following:

- a) North Arrow – each sheet shall have a north arrow correctly oriented.
- b) Stationing – Where a roadway is present or proposed, the stationing for the project shall

be based on the centerline of the roadway. When a sanitary sewer or water line is to be constructed through a parcel of land and not within or parallel to a roadway, the stationing shall be based on the centerline of the sanitary sewer and / or water line. To avoid confusion, when the sanitary sewer and / or water line is to be constructed through a parcel of land and not within or parallel to a roadway, the stationing shall begin with 100+00 at the last manhole stationed off the roadway centerline.

Match lines and break lines, in plan and profile views, shall be made at 100' stations, or at structures.

- c) Scale – Horizontal scale shall be stated on all sheets. Horizontal scale shall also be shown in bar scale format below the north arrow. Plan views shall be prepared at a minimum horizontal scale of 1"=50'. Where applicable a larger scale shall be used. GCDWR prefers a horizontal scale of 1"=20'.
- d) Line Weights - Appropriate line weights are to be used for the various items shown on the plan. All items shown on the plan are to be labeled and clearly distinguishable from each other. For ease of distinction, the proposed sanitary sewer and / or water lines should be the heaviest line weights used.
- e) Property Crossings - All properties through which the sanitary sewer and / or water line passes shall have indicated on the plans the property owner's name, parcel acreage, parcel ID number, and the deed book and page number of the title instrument. This includes on-site and off-site properties.

When a sanitary sewer and / or water line is to be constructed through a property the bearing of the line shall be shown on the Improvement Plans. This bearing will be used to verify the easement on the Plat.

- f) Utilities - All existing and proposed utilities and sewer lines within, or adjacent to the project site shall be shown on the plan and clearly identified as to type, size, location, and ownership.
- g) Easements - All existing and proposed easements shall be shown on the Improvement Plans. For proposed easements the bearings and distances of the easements shall be shown. The volume and page of existing easements shall be shown.
- h) Service lines - Proposed service lines shall be shown on the Improvement Plans. These service lines shall be shown to the proposed or existing right-of-way or easement, unless the plans include the construction of proposed buildings.

Service lines shall be run perpendicular to the centerline of the proposed or existing streets.

All service lines shall be stationed per the road centerline stationing. If a service line is not perpendicular to the road centerline, the stationing of the line at the connection to the main and the stationing at the right-of-way shall be shown.

- i) Mainline Sewer – Whenever possible all sanitary sewer and water lines shall be located within a road right-of-way (existing or proposed). The sanitary sewer and water lines shall be constructed on opposite sides the road. See sanitary sewer and water line specifications for further requirements. When sanitary sewers or water lines are required to be constructed outside a road right-of-way the sewer or waterline shall be

centered within an easement.

- j) Surveying and Layout – Each sanitary sewer structure, sanitary service, fire hydrant, water valve, water meter vault, water line bend, tee, water service, and any other sanitary or water structure shall be referenced in the plan view by station and offset.
- The size, type and length of sewer lines shall be shown for each run between manholes.
- The size and length of all water lines shall be shown between all bends, hydrants, valves, tees, and meters.
- k) Driveways – All estimated locations of future driveways shall be shown on the plans. Service lines shall be placed such that they will not be located under proposed driveways.

## C. Profile

All profiles shall consist of the following:

- a) Profiles – A profile shall be provided for every plan view.
- b) Scale – The vertical scale shall be stated on each sheet. The horizontal scale of the profile shall always be the same as the scale of the corresponding plan view as stated above.
- Vertical scale for all sanitary sewer profiles, unless approved otherwise by GCDWR, shall be 1"=5',
- c) Stationing – The stationing shall match the plan view stationing whether that be roadway centerline or sewer / water centerline. The stationing of the profile shall match as close as possible to the stationing of the plan view as it is laid out on each page.
- d) Sanitary Structures - All sanitary structures shall be identified by structure label and shall state the type of structure, station, and rim elevation. Each sanitary structure shall show the inverts of all pipes in the manhole (influent and effluent).
- Existing structures shall be drawn utilizing dashed lines and proposed structures shall be drawn utilizing solid lines.
- e) Sanitary Sewer Pipes – All sanitary sewer pipes (both existing and proposed) shall have the following information included in the profile view: size, type, length and slope for each run between manholes.
- f) Service Risers – If based on the Engineer's design a service line will require a riser, the riser and the length of riser shall be shown in the profile view of the sanitary sewer. All risers shall be in even lengths (i.e. 2', 4', 6' etc)
- g) Water Lines - In the profile view the water line shall be shown to be constructed with a minimum of 6' of cover. All deflections and/or vertical bends necessary to avoid obstructions shall be shown with elevations of the water lines at such deflections and/or bends.
- h) Fire Hydrants – All fire hydrants shall be shown in the profile view. The elevation of the finished grade at the hydrant shall be shown.
- i) Ground Surfaces - Existing and proposed ground surfaces shall be shown and clearly

marked. Existing surfaces shall be dashed and proposed ground surfaces shall be solid. Ground elevations (existing and proposed) shall be shown at 50 feet intervals along the alignment. All elevations shown on the plans shall be based on the most recent N.A.V.D.

- j) Utilities and Storm Sewers - When other existing or proposed utilities or storm sewers are within or adjacent to an existing or proposed right of way where sanitary sewers and / or water lines are to be constructed, these items shall also be shown in the profile.
- k) Crossings - The centerline station, invert elevations, size and type of all sanitary sewers, storm sewers, water lines and other utilities that cross the sanitary sewer and / or water lines shall be shown on the profile.

#### **D. General Notes & Details**

The engineer shall contact GCDWR to obtain the most current general notes for sanitary sewers and water lines before beginning any set of plans.

The current set of sanitary sewer general notes as of the printing of these standards are included in Appendix A.

The current set of water general notes as of the printing of these standards are included in Appendix B.

Appendix C has the current GCDWR standard sanitary sewer details.

Appendix D has the current GCDWR standard water details.

THIS PAGE INTENTIONAL LEFT BLANK



APPENDIX A  
Sanitary General Notes

**The following notes shall be included on all sanitary sewer construction plans unless otherwise authorized by the Geauga County Sanitary Engineer**

## SANITARY SEWER GENERAL NOTES

A preconstruction meeting scheduled with the Contractor and the Geauga County Department of Water Resources shall be held prior to any work starting. In addition, the Contractor shall provide two (2) working days notice to the Geauga County Department of Water Resources prior to beginning work to arrange for inspection. Non-call in job cancellation may be charged a minimum of 2 hours of inspection time.

The Standard Specifications of the Ohio Department of Transportation, 2005 Edition, including all supplemental specifications and standard drawings shall govern earthwork, drainage for this project. For the purpose of this plan,

Stationing shown herein is along the survey baseline for sanitary sewer work, including sanitary sewer laterals.

All sanitary sewer work contemplated must be in accordance with current regulations and rules of the Geauga County.

Roof drains, foundation drains, and other clean water connections to the sanitary sewer system are prohibited.

The Contractor shall include the cost of compacted backfill material including compaction tests under all existing and proposed pavements in price bid per cubic yard of premium backfill.

The Contractor shall be responsible for all construction signing and traffic control in accordance with the Ohio manual of Uniform Traffic Control Devices.

Construction techniques, such as tunneling shall be used to eliminate damage to trees located within the project limits, when so noted.

It is the obligation and responsibility of the Contractor to make any additional investigations of surface and subsurface conditions prior to submitting his proposal. In the event that any Contractor or Bidder desires to make any additional testing, notice must be given to the Geauga County Department of Water Resources and all other local jurisdictions as necessary. All areas disturbed by these investigations must be immediately restored to its original condition.

Inspection services for all sanitary sewer work shall be performed by the Geauga County Department of Water Resources (GCDWR). The Contractor shall notify GCDWR a minimum of 48 hours in advance of work requiring inspection. The cost of this inspection shall not be included as part of the Contractor's responsibility.



All shop drawings for sanitary items shall be submitted to Geauga County Department of Water Resources for review and approval prior to purchase and installation by the Contractor.

The county has the right to reject any portion of the work that has not been inspected.

## LATERALS AND WYES

Sanitary sewer wyes are to be installed to service each lot. All wye branches shall be performed wyes. Laterals are to be installed to service each lot located within the project area and at such additional locations as shown on the plans. It shall be the Contractor's responsibility to confirm the actual field location desired by each homeowner within the area, and install the respective lateral at that location. This location process shall be coordinated with the field representative of the Geauga County Department of Water Resources.

Elevations of houses shown on the plans are first floor elevations unless otherwise noted. Laterals shall be installed with sufficient depth to provide adequate cover and service to those houses and at the elevations shown. Laterals shall be installed at one percent (1.0) minimum slope.

After installing the wye branch and connection, the end of the connection shall be sealed with an air tight spigot cap or air tight plug and the cap or plug shall be painted green. The end of the sanitary connection shall be marked with a 2" x 2" hardwood stake extending vertically from the end of the connection to a point approximately 3 foot above the surface of the ground.

The material for all Wye branches, risers, and connections shall conform to the following requirements unless otherwise noted: Polyvinyl Chloride (PVC) ASTM D-3034 (SDR 35) for depths less than fifteen feet (15') and (SDR 26) for depths over fifteen feet (15'). Pipe shall have o-ring gaskets conforming to sections of ASTM F-477 and joints per ASTM 3212 or solvent cement joints per ASTM D-2564.

## PIPE MATERIAL AND BACKFILL

All pipe shall be of the following types unless otherwise noted on the plan and profile sheets of these plans. Sanitary Sewer: PVC, ASTM D-3034, SDR 35 for depths less than fifteen feet and SDR 26 for depths over fifteen feet, all pipe w/ joints meeting ASTM D-3212, gaskets conforming to Section 3 of ASTM C-443

Bedding and backfill to twelve inches (12") above crown of pipe shall be No. 57 limestone only unless otherwise preapproved by the Geauga County Sanitary Engineer.

All sewers and service laterals installed underneath or within five feet (5') of existing or future pavement shall be backfilled above the twelve inch (12") backfill described above with approved granular material and compacted with a vibratory plate compactor or other machine mounted compaction equipment approved by the Geauga County Department of Water Resources. The minimum compaction requirement shall conform to ODOT Item 203. Compaction tests will be

required by the Geauga County Department of Water Resources and shall be paid for by the Contractor. See Trench and Bedding Details.

Backfill material in all other trenches shall be compacted with machine mounted compaction equipment to the satisfaction of the Geauga County Department of Water Resources.

No slag products shall be permitted for pipe bedding or backfill.

Material specifications called for herein and on the plans represent the minimum required for each application. The Owner may request or the Contractor may desire to substitute alternate materials. Any such substitution must be equivalent in quality to the material called for on the plans and must be approved in writing from the Geauga County Department of Water Resources.

## MATERIAL TESTING, PERMITS AND TELEVISIONING

The Contractor shall be responsible for the cost of all material testing and televising as directed by the Engineer.

All inspections and testing shall be done by an experienced and qualified firm engaged in these types of work as approved by the Geauga County Department of Water Resources.

All sanitary sewers must be flushed and pass the latest proposed low pressure air test requirements of the County of Geauga.

All PVC sanitary sewers shall pass a deflection test. The deflection test shall be run after the final backfill has been in place for more than thirty (30) days. The Contractor shall use the County's mandrel for testing a maximum deflection of five percent (5%). The test shall be performed without a mechanical pulling device and shall be done in the presence of a representative of the Geauga County Department of Water Resources.

Manholes will be subject to a low pressure vacuum test

All sanitary sewers shall have a color television inspection in accordance with Geauga County Department of Water Resources specifications. A copy of such television inspection shall be submitted to the Geauga County Department of Water Resources for review and approval prior to the sanitary sewer being accepted by the County.

If the installation fails to meet the requirements of any of these tests and/or inspections, the Contractor shall repair all defects and retest the installation.

## SEEDING AND MULCHING

Sediment control shall be accomplished by seeding and mulching immediately upon completion of excavation or fill and finished grading in accordance with Item 659 of the Ohio Department of

Transportation, Construction and materials Specifications or as directed by the Geauga County Department of Water Resources.

Restoration of all disturbed areas shall immediately follow excavation and grading operations. Delay in restoration shall necessitate temporary erosion control measures approved by the Geauga County Department of Water Resources at the Contractors cost.

All disturbed drainage channels, swales, ditches and berms shall be restored to the original shape and grade. All disturbed drive culverts shall be replaced in the original locations and grade, at the Contractor's expense and as directed by the Geauga County Department of Water Resources, except as noted on the plans.

All seeded areas shall be watered as necessary to establish grass growth. All work shall be complete and grass growth established prior to the release of funds for grading and seeding.

## DRAINAGE SYSTEMS

The Contractor shall maintain all existing storm water drainage courses (whether shown on the plans or not) at all times during the construction of this project. This shall include but not be limited to ditches, drainage pipes, driveways culverts, roadway culverts and creeks. The Contractor shall also be responsible to comply with OEPA, Geauga County SCS and any COE regulations for siltation, erosion control and storm water runoff included in the respective bid item for culvert replacement. Any other drive culverts damaged by the construction process shall be replaced at the Contractors expense.

## UTILITIES

It is the obligation and responsibility of the Contractor to make his own investigation of subsurface conditions prior to submitting his proposal.

It shall be the Contractor's responsibility to repair or replace in like kind, any and all existing utilities which may become disturbed during construction of this project. Any such repairs or replacements shall be accomplished with the utility Company's concurrence as to methods of repair or replacement and material used, and under their direct supervision and control. All costs associated with repair or replacement of existing utilities shall be included in the Contractor's bid.

The location of all existing underground utility facilities are shown on the plans from data available at the time of the field survey in accordance with Section 153.64 of the Ohio Revised Code. The Contractor shall be responsible for notification of the existing utility owners, local townships and Utility Protection Service in accordance with Section 153.64 of the Ohio Revised Code and outlined herein.

OHIO UTILITIES PROTECTION SERVICE  
1006 West Ryan - Room 427  
Youngstown, Ohio 44051  
Phone: 800-362-2764

AMERITECH  
15915 Libby Road  
Maple Heights, Ohio 44137  
Phone: 216-587-4630

EAST OHIO GAS  
1201 East 55th Street  
Cleveland, Ohio 44103  
Phone: 216-736-6729

THE ILLUMINATING COMPANY  
7757 Auburn Road  
Concord, Ohio 44077  
Phone: 440-953-7764

TCI OF LAKE COUNTY  
7757 Auburn Road  
P.O. Box 380, Painesville  
Phone: 440-942-0870

OHIO DEPT. Of TRANS.  
13595 West Center St.  
Burton, Ohio 44021  
Phone: 400-834-4441

APPENDIX B  
Water General Notes

**The following notes shall be included on all water line improvement plans unless otherwise authorized by the Geauga County Sanitary Engineer**

## WATER GENERAL NOTES

1. THE WATER MAIN SHALL BE INSTALLED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE GEAUGA COUNTY DEPARTMENT OF WATER RESOURCES WATER MAIN LOCATION SHALL BE AS FOLLOWS: MAIN AND HYDRANTS SHALL BE ON RIGHT SIDE OF STREET BASED ON FLOW DIRECTION, IF MAIN DEAD ENDS. IF SYSTEM LOOPS, LOCATION WILL BE APPROVED BY GCDWR TO MATCH EXISTING EQUIPMENT. ALL PIPES SHALL BE MINIMUM DUCTILE IRON CLASS 52 CEMENT LINED AND HAVE SOCKET BY PLAIN RUBBER-GASKET PUSH-ON JOINTS WITH RADIALY COMPRESSED LOCKED IN PLACE RUBBER RING GASKET.
2. ALL FITTINGS INCLUDING VALVES, TEES, HYDRANTS, CROSS CONNECTIONS AND BENDS ETC. SHALL BE RETAINED MECHANICAL JOINTS MEGALUG OR UNIFLANGE FIELD LOCK GASKETS MAY ALSO BE REQUIRED BY THE INSPECTOR DUE TO SOIL CONDITIONS. ZINC CAPS SHALL BE ADDED TO EVERY OTHER BOLT. BOLTS AND NUTS SHALL BE COATED WITH A RUST INHIBITING MATERIAL AND WRAPPED WITH AN AWWA APPROVED PLASTIC.
3. MINIMUM DEPTH OF WATER MAIN COVER SHALL BE SIX FEET BELOW ESTABLISHED GRADE EXCEPT WHERE CROSSING OVER OBSTRUCTIONS, WHERE COVER SHALL BE FIVE FEET UNLESS OTHERWISE NOTED.
4. ALL WATER MAIN TRENCHES AND EXCAVATIONS UNDER EXISTING OR FUTURE PAVEMENT, SIDEWALKS OR DRIVES SHALL BE BACKFILLED WITH COMPACTED SAND TO A MINIMUM DISTANCE OF FIVE FEET (5') OUTSIDE OF THE PAVEMENT, SIDEWALK OR DRIVE. HYDRANT & WATCH VALVE BACKFILL SHALL BE "PEA" WASHED STONE FOR DRAINAGE.
5. ALL HYDRANT ASSEMBLIES INCLUDING VALVE BRANCH TEE OUTLET, PIPE AND OFFSETS SHALL BE NOMINAL SIX-INCH (6") SIZE. THE CONTRACTOR IS RESPONSIBLE TO FACE ALL HYDRANT NOZZLES TOWARD THE PAVEMENT PRIOR TO TESTING AND CHLORINATION OF THE WATER MAIN. ALL HYDRANTS SHALL BE OF THE TYPE KENNEDY K81 OR MUELLER SUPER CENTURION. HYDRANTS SHALL BE NATIONAL STANDARD AND BE PAINTED SAFETY YELLOW. OPEN LEFT, 1 1/2" PENTAGON OPERATING NUT AND CAPS, NATIONAL STANDARD THREADS. 6.5 FEET BURY DEPTH. THE 5" PUMPER NOZZLE SHALL BE A STORZ FITTING. THE HYDRANT TYPE SHALL BE THE SAME FOR THE ENTIRE PROJECT UNLESS OTHERWISE APPROVED.
6. CONCRETE PIERS OR THRUST BLOCKS ARE REQUIRED BEHIND ALL TEES, HORIZONTAL BENDS AND HYDRANT ELBOWS. THE CONTRACTOR SHALL INSTALL A CONCRETE THRUST BLOCK BEHIND ALL BRANCH SLEEVES IN WHICH

THE NOMINAL TAP SIZE IS ONE-HALF OR GREATER THAN THE NOMINAL DIAMETER OF THE PIPE TO BE TAPPED. THE CONCRETE PIER SHALL BE IN PLACE AND CURED PRIOR TO THE HYDROSTATIC TESTING OF THE CONNECTING MAINS. THE CONCRETE PIER BEHIND THE TAPPING SLEEVE IS REQUIRED ON ALL CONNECTING MAINS AND SERVICE CONNECTIONS. WHERE TEES AND CROSSES ARE LEFT FOR FUTURE LINES, RESTRAINED VALVES SHALL BE INSTALLED WHERE NEEDED AND ONE LENGTH OF CAPPED PIPE RESTRAINED TO THE VALVE.

7. ALL COMMERCIAL AND/OR INDUSTRIAL WATER SERVICE CONNECTIONS SHALL BE INSTALLED SIX FEET (6') BELOW ESTABLISHED GRADE. ALL WATER SERVICE CORPORATION BOXES, METER PITS, ETC..., SHALL BE INSTALLED IN GRASS AREA. SERVICE LINES INSTALLED ABOVE 3 FEET DUE TO OBSTACLES, APPROVED BY THE INSPECTOR, SHALL BE ARMORFLEX INSULATED.

8. ALL VALVES (MUELLER OR KENNEDY) SHALL OPEN LEFT (COUNTERCLOCKWISE) & ARE RESILIENT SEAT NRS WITH STANDARD 2" OPERATING NUT. OPERATION OF ANY VALVE OR ALTERATION OF ANY PART OF THE WATER SYSTEM BY CONTRACTORS OR THEIR EMPLOYEES IS PROHIBITED. TO HAVE VALVES OPERATED, CONTACT THE INSPECTOR ASSIGNED TO THE SITE OR CONTACT THE GEAUGA COUNTY DEPARTMENT OF WATER RESOURCES (GCDWR) OFFICE AT (440) 279-1970.

8. WATER FOR BUILDING PURPOSES WILL BE AVAILABLE AT FIRE HYDRANTS. PERMITS TO USE HYDRANTS SHALL BE OBTAINED BY CONTACTING THE GCDWR OFFICE AT (440) 279-1970. VIOLATORS OPERATING HYDRANTS WITHOUT A PERMIT WILL BE FINED.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OHIO UTILITY PROTECTION SERVICE, O.U.P.S., AT 1-800-362-2764 AND THOSE OWNERS OF UNDERGROUND UTILITIES IN THE CONSTRUCTION AREA PER SECTION 163.64 OF THE OHIO REVISED CODE.

10. THE CONTRACTOR SHALL REPAIR AT HIS OWN EXPENSE ALL UTILITIES INCLUDING WATER LINES, SANITARY SEWERS AND STORM SEWERS DAMAGED DURING CONSTRUCTION.

11. WHERE THE PLANS PROVIDE FOR PROPOSED WATER MAIN OR CONNECTIONS TO BE CONNECTED TO OR CROSS EITHER UNDER OR OVER AN EXISTING UTILITY, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING UTILITY BOTH AS TO LINE AND GRADE BEFORE CONTRACTOR STARTS TO LAY THE PROPOSED WATER MAIN OR CONNECTION. IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING UTILITY TO BE CONNECTED DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN UTILITY SLOPE, THE ENGINEER AND GCDWR SHALL BE NOTIFIED PRIOR TO STARTING CONSTRUCTION OF ANY PORTION OF THE WATER MAIN WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

12. ALL WATERMAIN INSTALLATION AND PRESSURE TESTING SHALL BE IN ACCORDANCE WITH AWWA C-600 SPECIFICATIONS. ALL WATER MAINS SHALL BE TESTED TO A PRESSURE OF 150 OR 1.5 TIMES THE NORMAL RESIDUAL PRESSURE WHICH EVER IS GREATER. ANY DEFICIENCIES SHOWN BY THE TESTS SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST. ADDITIONALLY, ANY DAMAGE TO WATER MAIN FACILITIES (WHETHER PART OF CONSTRUCTION OR EXISTING) SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
13. THE CONTRACTOR SHALL PROVIDE TAPS FOR DISINFECTION BY CHLORINATION. THE GCDWR SHALL DETERMINE LOCATIONS AND NUMBER OF TAPS. CONTRACTOR SHALL PROVIDE A SIX SQUARE FOOT (6 SF) SHEETED AND SHORED PIT AT LOCATIONS OF CHLORINATION TAPS. ALL CHLORINATION SHALL BE PER GCDWR SPECIFICATIONS AND AWWA C-651 SPECIFICATIONS. THE CHLORINATION SHALL BE PERFORMED BY THE CONTRACTOR UNDER THE SUPERVISION OF A GCDWR REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS ASSOCIATED WITH CHLORINATION INCLUDING THE COST OF THE WATER USED FOR FLUSHING THE LINES.
14. A PROFESSIONAL SURVEYOR SHALL TAKE ACTUAL FIELD MEASUREMENTS OF THE MAIN DURING INSTALLATION AND SHALL FURNISH TO THE GCDWR THE AS-BUILT RECORD MYLARS BEFORE FINAL TESTING OF THE MAIN.
15. WHEN IT IS REQUIRED TO LOWER THE WATER MAIN TO CLEAR AN OBSTACLE AND COVER WILL BE GREATER THAN EIGHT FEET (8'), IT SHALL BE REQUIRED THAT BENDS BE INSTALLED TO BRING THE WATER MAIN UP TO THE STANDARD SIX FEET (6') OF COVER.
16. WHEN A WATER SERVICE CONNECTION IS DISTURBED OR DISCONNECTED DURING TRENCH OR SHEETING EXCAVATION, THE CONTRACTOR SHALL REPLACE THE WATER CONNECTION WITH ALL NEW MATERIAL FROM THE CORPORATION SHUTOFF TO THE CURB SHUTOFF VALVE. USE SUITABLE BACKFILL MATERIAL AND COMPACT SUFFICIENTLY IN AREAS WHERE MAINS AND WATER SERVICE CONNECTIONS HAVE BEEN DISTURBED.
17. ALL WATER WORK REQUIRED SHALL BE AT THE EXPENSE OF THE PROJECT AND SHALL CONFORM TO THE GCDWR STANDARDS.
18. THE RESIDENTIAL BUILDER/DEVELOPER OR HOME OWNER IS HEREBY NOTIFIED TO FURNISH SPACE AND ACCESS FOR WATER METER INSTALLATION IN A PIT IN THE YARD. PIPING AND METER INSTALLATION WILL BE PER GCDWR STANDARDS.
19. THE BUILDER OF A COMMERCIAL OR INDUSTRIAL BUILDING SHALL FURNISH SPACE FOR METER AND THE REQUIRED BACKFLOW PREVENTER AT



ENTRY POINT OF DOMESTIC WATER LINE INTO THE BUILDING. FIRELINES SHALL BE APPROVED BY GCDWR PRIOR TO CONSTRUCTION.

20. PRIOR TO CONSTRUCTION OR ACCEPTANCE OF NEW WATERLINE, ALL NECESSARY EASEMENTS, LAND AND/OR ACCESS SHALL BE CREATED AND RECORDED.

21. BARRICADES, TRAFFIC CONTROL, TEMPORARY ACCESS, ACCESS FOR EMERGENCY VEHICLES AND ACCESS TO EXISTING HOMES SHALL BE SUPPLIED AND MAINTAINED BY THE CONTRACTOR TO INSURE THE SAFETY OF THE PUBLIC DURING CONSTRUCTION AND IN ACCORDANCE WITH OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

22. ALL CURRENT APPLICABLE O.S.H.A., COUNTY, STATE AND FEDERAL LAWS AND REGULATIONS INCLUDING SAFETY AND WORK SHALL BE ADHERED TO BY THE CONTRACTOR.

23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE FOR THE MAINTENANCE ON ALL WATER MAINS/APPURTENANCES IN THE EXCAVATION AREAS SHOULD ANY REPAIRS BE NEEDED.

24. ALL DEAD END LINES SHALL END AT A HYDRANT OR BLOW OFF VALVE 2" FLUSHING ASSEMBLY.

25. FIRE SERVICE CONNECTION REQUEST REQUIRES THE FOLLOWING: DISTANCE FROM MAIN, LOCATION OF POST INDICATOR VALVE, BACKFLOW PREVENTER AND SIAMESE CONNECTION. THE BACKFLOW PREVENTER SHALL BE A MINIMUM OF DCDC.

26. THE CONTRACTOR SHALL CONTACT THE GCDWR OFFICE (440) 279-1970 A MINIMUM OF TWO DAYS PRIOR TO THE START OF ANY WORK ON THIS PROJECT AND PRIOR TO ANY WORK REQUIRING INSPECTION.

27. ALL WATER AND SEWER LINE CROSSINGS SHALL HAVE A 18" MIN. VERTICAL SEPARATION O.D. TO O.D. ALL WATER AND SEWER LINE PARALLELS SHALL HAVE A 10' MIN. HORIZONTAL SEPARATION O.D. TO O.D.

28. ALL CONSTRUCTION SHALL CONFORM TO THE DEPT. OF LABOR, BUREAU OF LABOR STANDARDS SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION AND THE CONTRACT WORK HOURS AND SAFETY ACT. (CHAPTER XVII TITLE CFR, PART 1926 AND ALL REVISIONS)

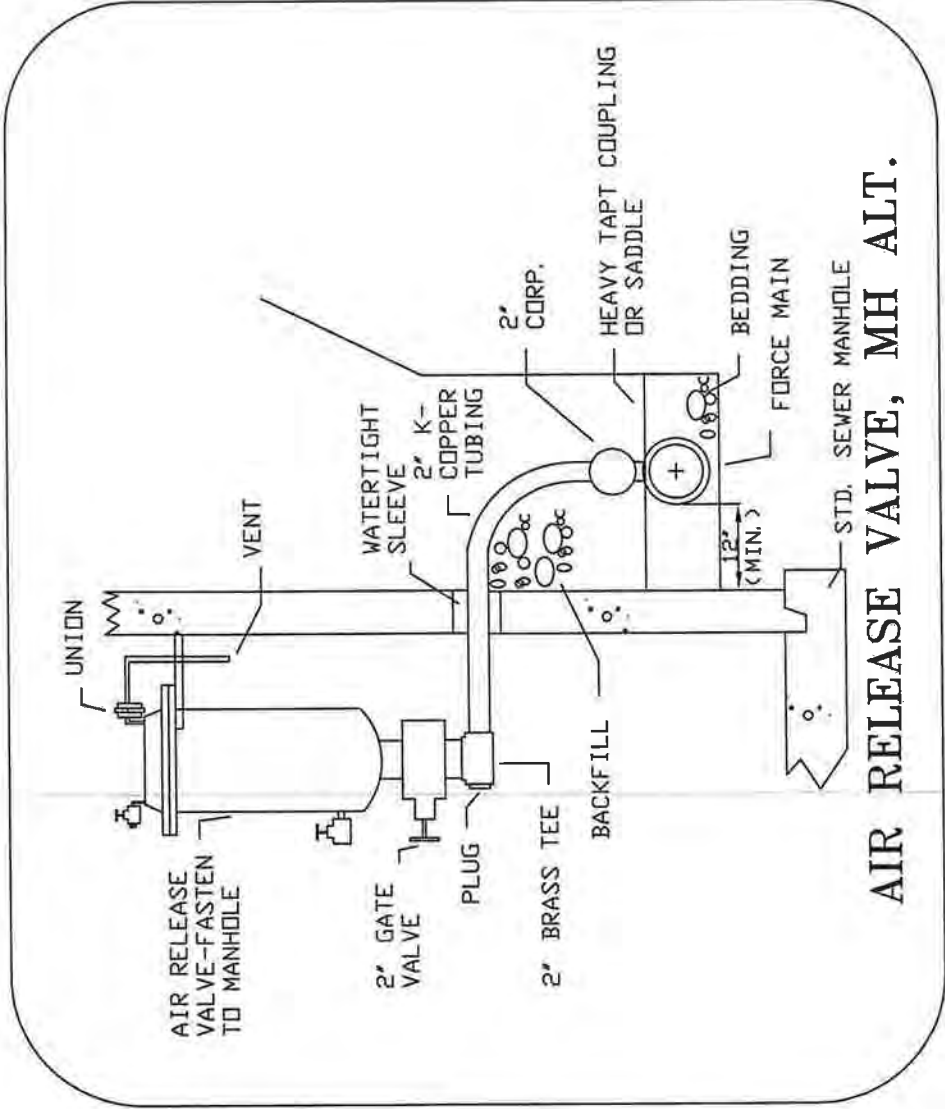
29. A MINIMUM 35 PSI SHALL BE MAINTAINED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.

30. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.

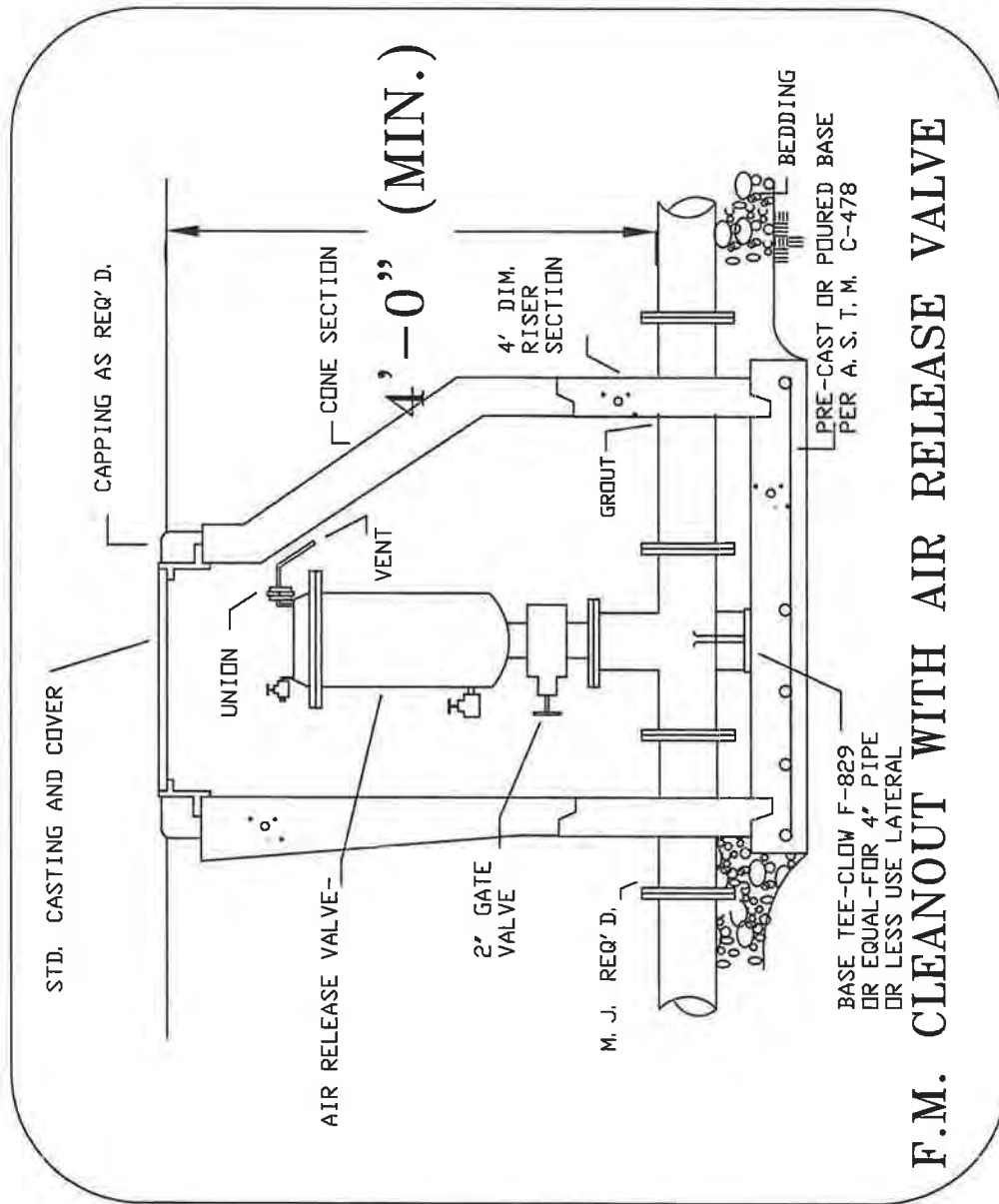
THIS PAGE INTENTIONAL LEFT BLANK

APPENDIX C  
Sanitary Sewer Details

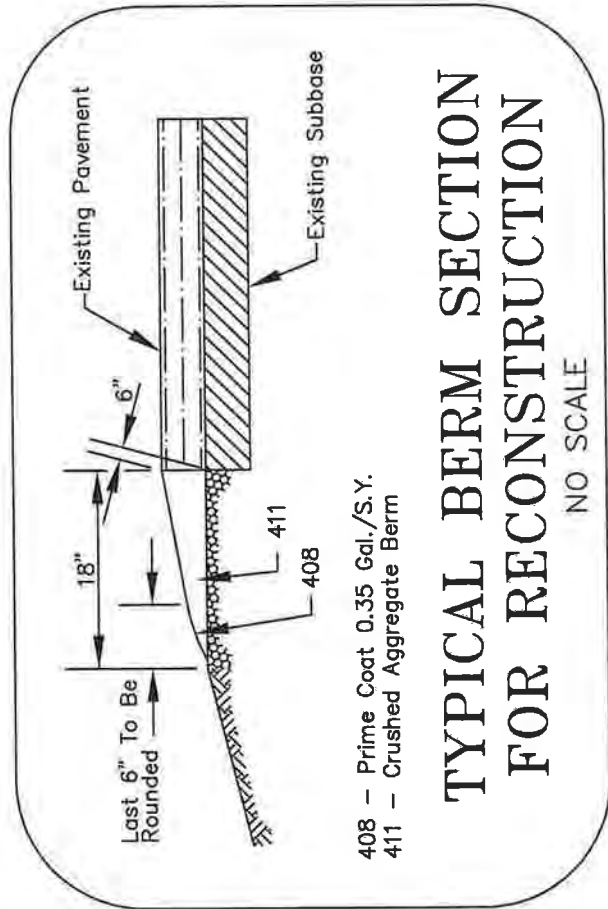
THIS PAGE INTENTIONAL LEFT BLANK

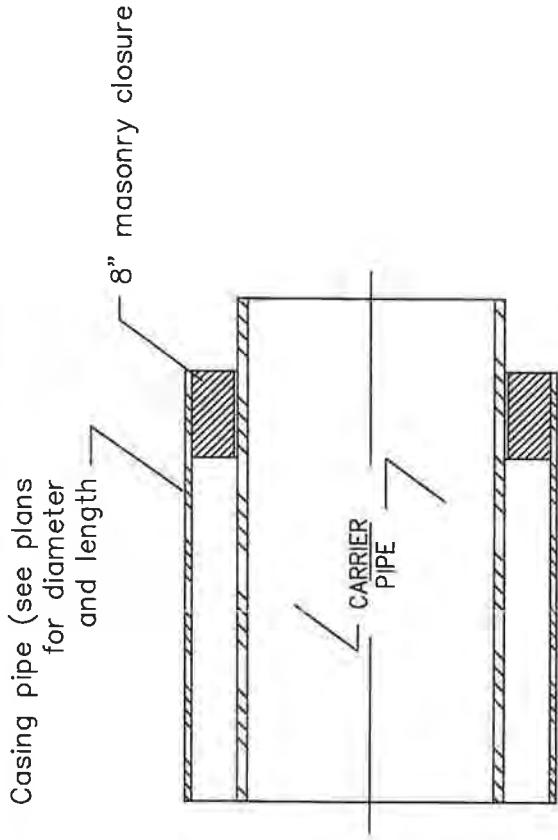


**AIR RELEASE VALVE, MH ALT.**



**F.M. CLEANOUT WITH AIR RELEASE VALVE**

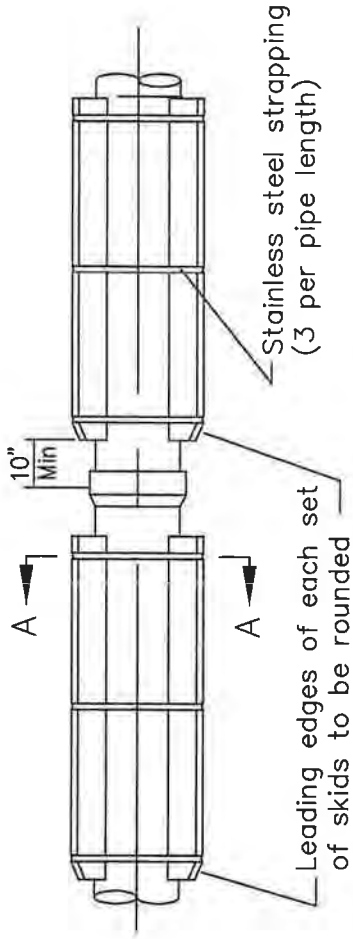




**CASING PIPE CLOSURE DETAIL**

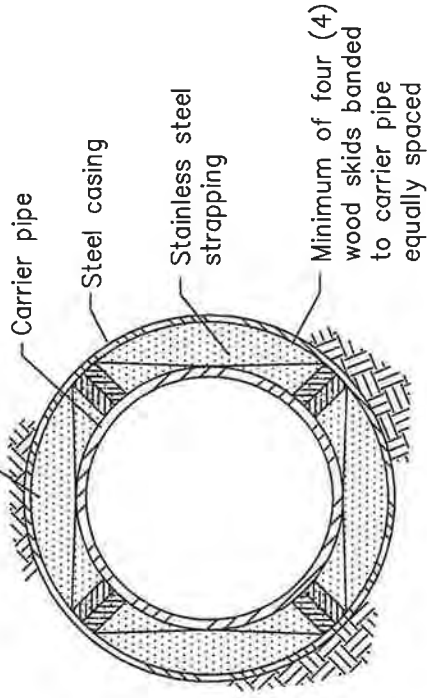
NOTE: Minimum thickness for new casing pipe is 3/8". Minimum thickness for used casing pipe is 1/2 inches.

NOTE: Casing diameter to be a minimum of 6 inches greater than the largest O.D. of the carrier pipe.



**PIPE SKID DETAIL**

Contractor fill steel casing pipe with grout after installation of the carrier pipe

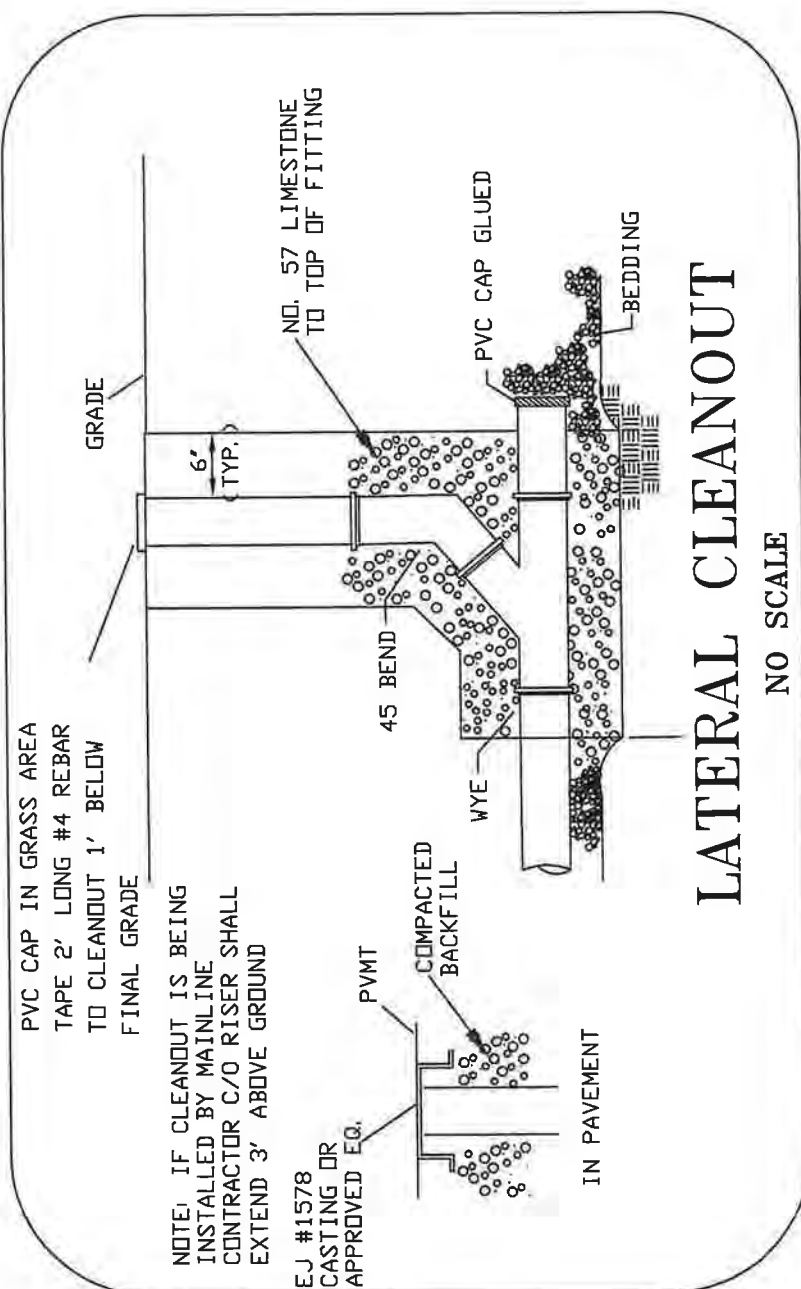


**SECTION "A - A"**

# BORING DETAIL

NO SCALE





PVC CAP IN GRASS AREA  
 TAPE 2' LONG #4 REBAR  
 TO CLEANOUT 1' BELOW  
 FINAL GRADE

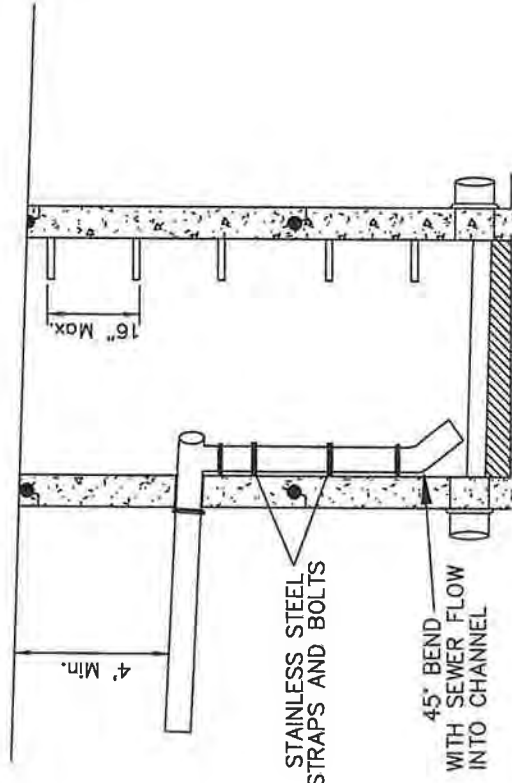
NOTE: IF CLEANOUT IS BEING  
 INSTALLED BY MAINLINE  
 CONTRACTOR C/O RISER SHALL  
 EXTEND 3' ABOVE GROUND

EJ #1578  
 CASTING OR  
 APPROVED EQ.

# LATERAL CLEANOUT

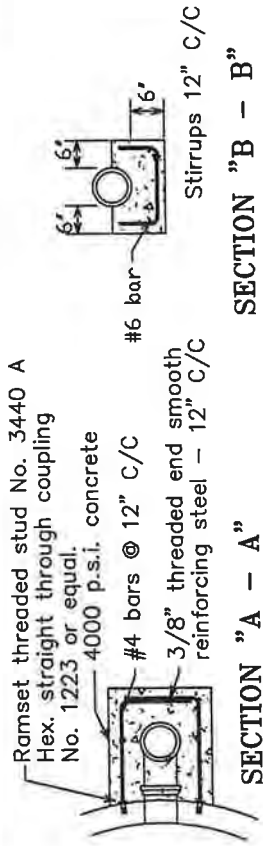
NO SCALE

- MANHOLE SHALL BE CORED
- LINK SEAL OR EQUAL SHALL BE USED
- DROP PIPE SHALL BE BOLTED TO INSIDE MANHOLE

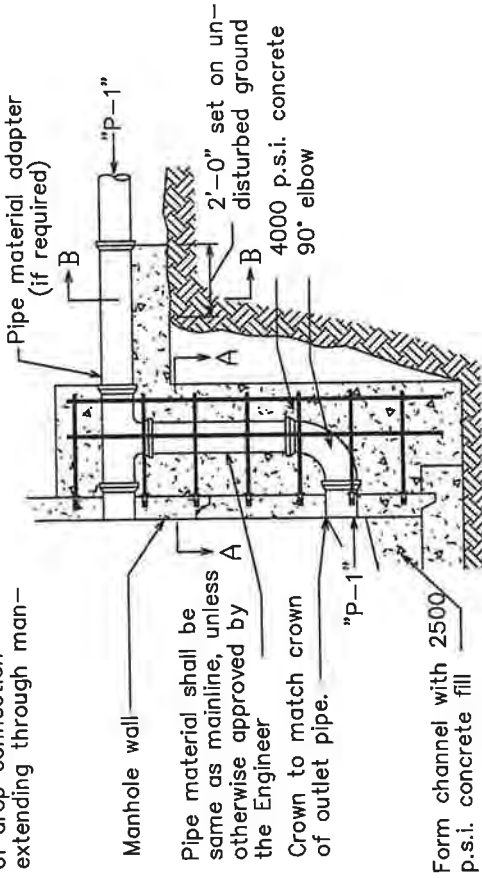


# INSIDE DROP MANHOLE DETAIL

NO SCALE



Upper horizontal pipe of drop connection extending through man-

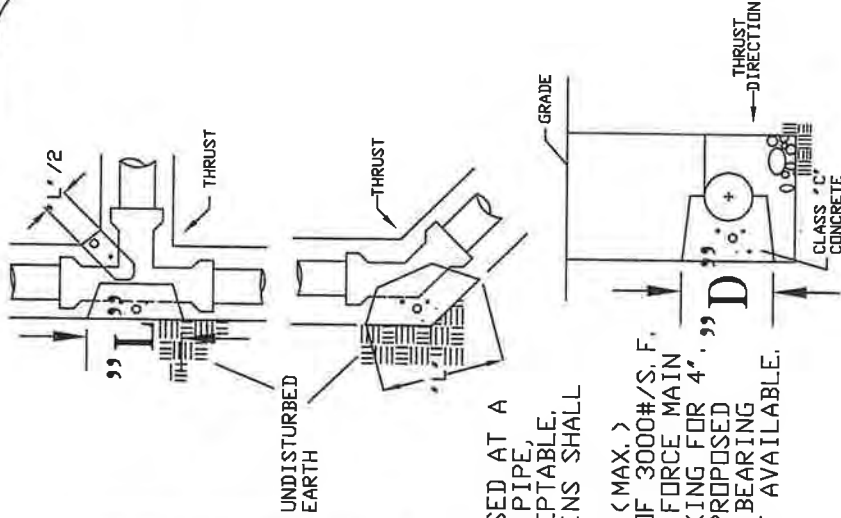


ELEVATION VIEW

# DROP MANHOLE CONNECTION DETAIL TYPE II PRECAST MANHOLE

NO SCALE

MINIMUM AREA TO BE PROVIDED AREA (S. F.) = LxD			
SIZE	90° BEND	45° BEND	TEE
4"	1.3	0.7	0.9
6"	2.7	1.3	1.9
8"	4.7	2.5	3.3
10"	7.6	4.1	5.5
12"	10.9	5.9	7.6
14"	14.6	7.9	10.3
16"	19.0	10.3	13.4
18"	21.2	11.5	15.0
20"	23.9	14.0	18.5
24"	36.1	20.0	26.1



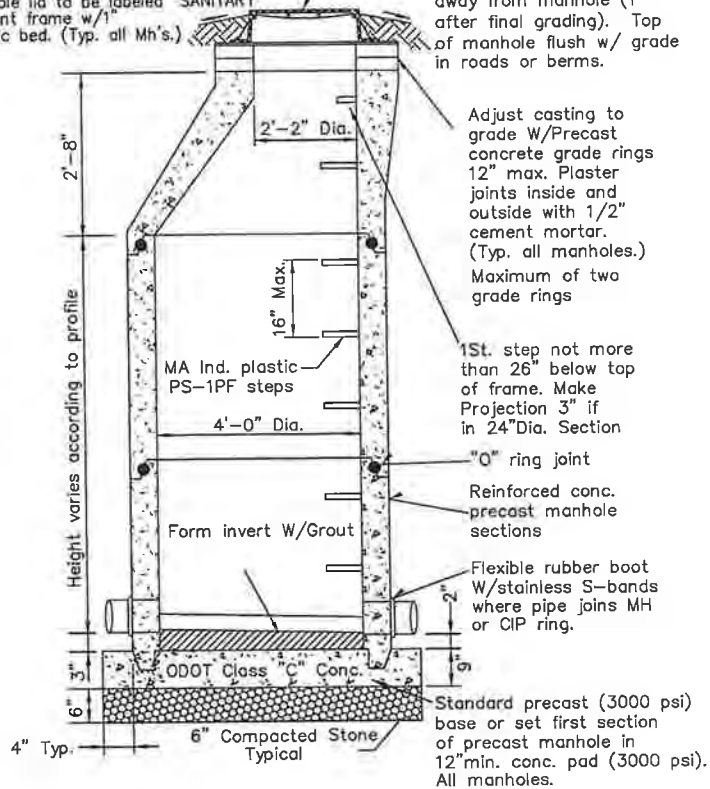
**NOTE:**

- FLEXIBLE ADAPTER TO BE USED AT A CONNECTION OF DISSIMILAR PIPE, CONCRETE COLLARS NOT ACCEPTABLE. ALL FITTINGS ON FORCE MAINS SHALL BE CAST IRON.
- TABLE BASED ON 150 P. S. I. (MAX.) AND A SAFE BEARING LOAD OF 3000#/S. F.
- D=2.5x PIPE DIAMETER; FOR FORCE MAIN SMALLER THAN 4" USE BLOCKING FOR 4".
- CONTRACTOR SHALL SUBMIT PROPOSED BLOCKING WHENEVER A SAFE BEARING LOAD OF 3000#/S. F. IS NOT AVAILABLE.

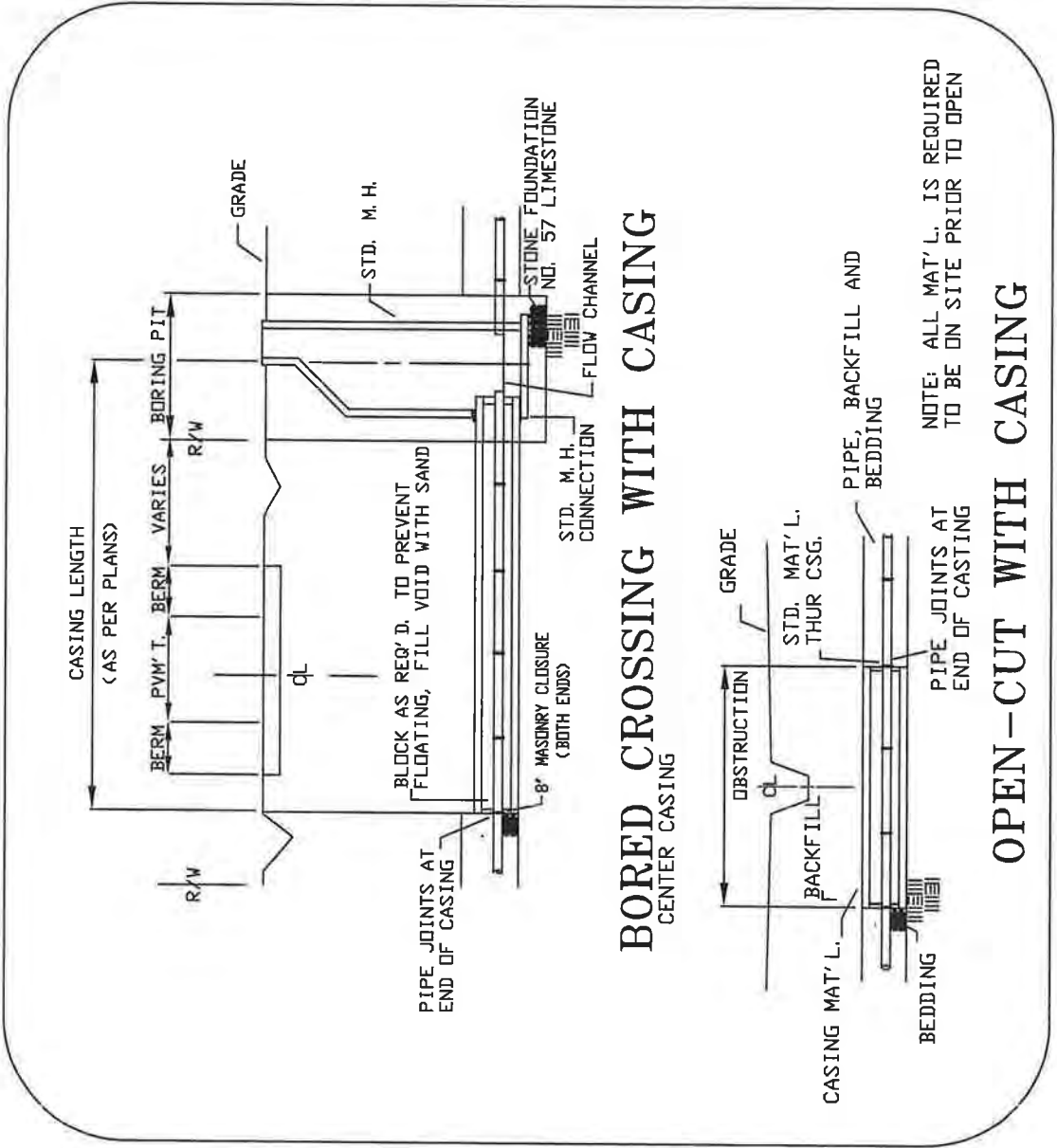
## FORCE MAIN BLOCKING

Manhole frame & lid to be EJIW 1710  
 Lid to be bolted down in flood plain  
 and drainage ways.  
 Manhole lid to be labeled "SANITARY"  
 Cement frame w/1" mastic bed. (Typ. all Mh's.)

Prior to final grading, top of Manhole 3" above grade in yards w/grade sloped away from manhole (1" after final grading). Top of manhole flush w/ grade in roads or berms.



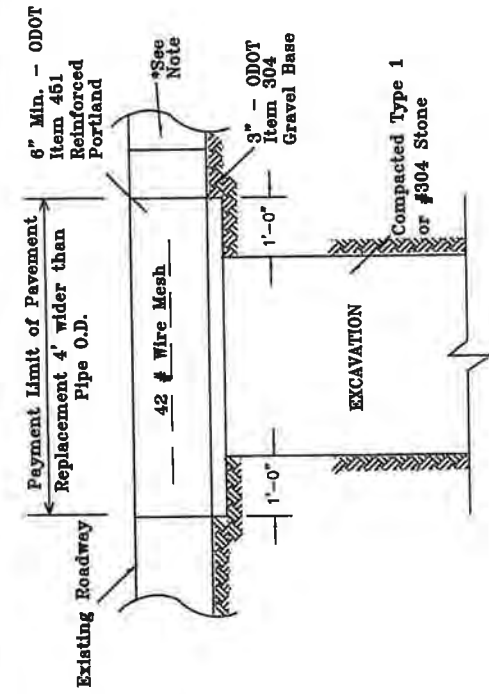
## TYPE I SANITARY PRECAST MANHOLE



**BORED CROSSING WITH CASING**  
CENTER CASING

NOTE: ALL MAT'L. IS REQUIRED TO BE ON SITE PRIOR TO OPEN

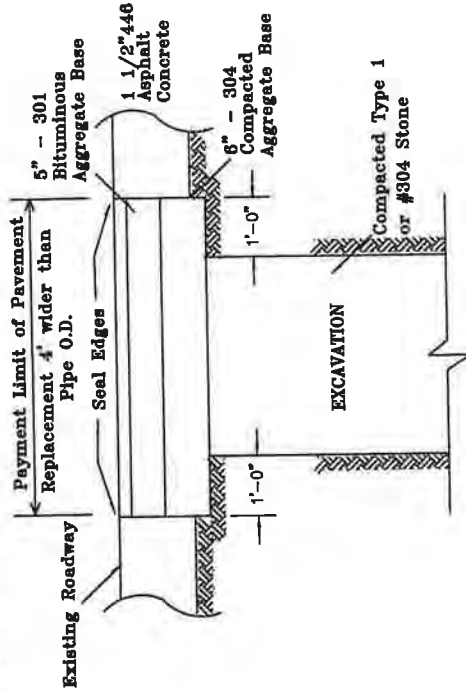
**OPEN-CUT WITH CASING**



## CONCRETE DRIVEWAY REPLACEMENT

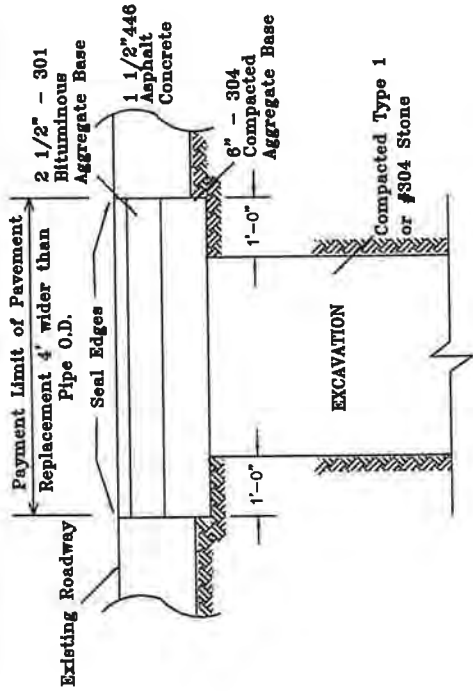
NO SCALE

\*Note: Where width is less than 3'-0" or existing pavement is deteriorated. The contractor shall replace additional pavement as directed by the engineer. Payment for additional pavement replacement as directed by the Engineer shall be at the same unit price bid. \*As per ODOT 451



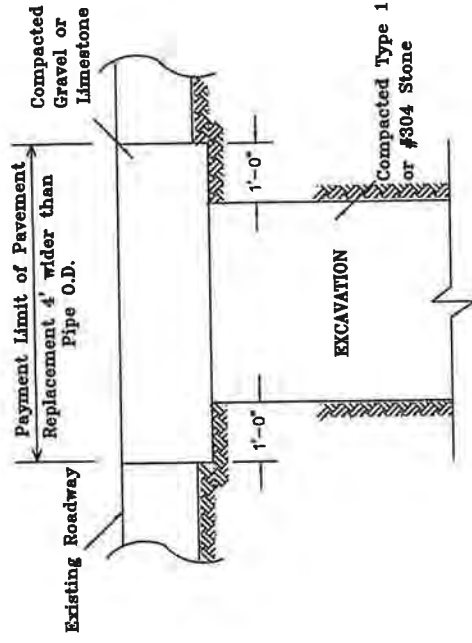
## ASPHALT CONCRETE REPLACEMENT

NO SCALE



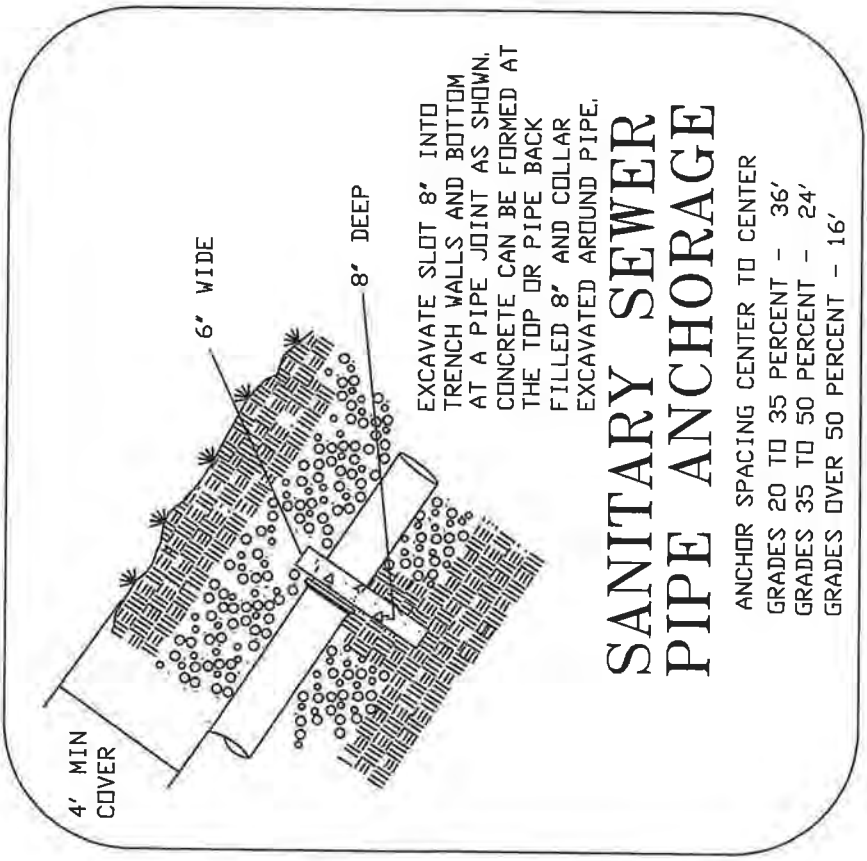
## ASPHALT DRIVEWAY REPLACEMENT

NO SCALE



## GRAVEL DRIVEWAY REPLACEMENT

NO SCALE

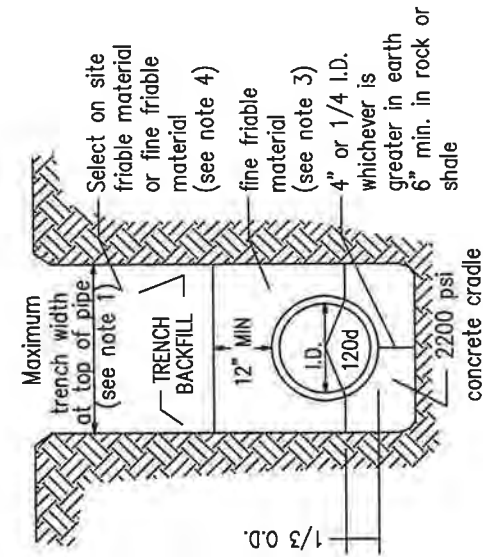


EXCAVATE SLOT 8' INTO  
 TRENCH WALLS AND BOTTOM  
 AT A PIPE JOINT AS SHOWN.  
 CONCRETE CAN BE FORMED AT  
 THE TOP OR PIPE BACK  
 FILLED 8' AND COLLAR  
 EXCAVATED AROUND PIPE.

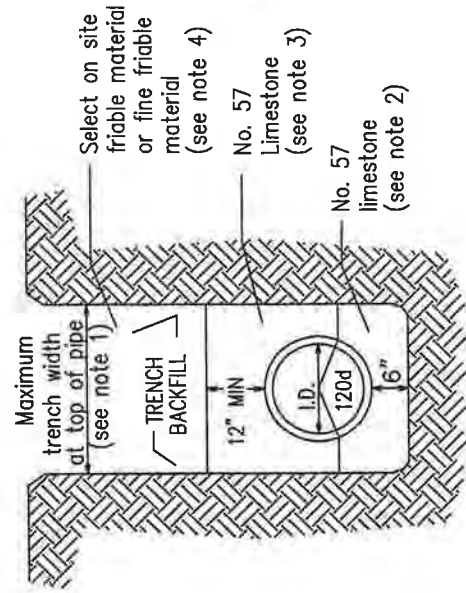
## SANITARY SEWER PIPE ANCHORAGE

ANCHOR SPACING CENTER TO CENTER
GRADES 20 TO 35 PERCENT - 36'
GRADES 35 TO 50 PERCENT - 24'
GRADES OVER 50 PERCENT - 16'

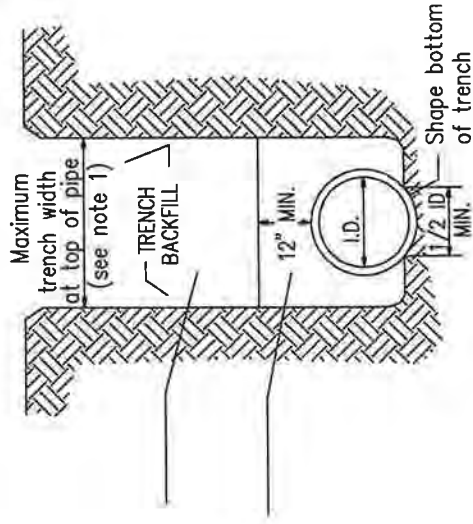




CLASS "A" BEDDING



CLASS "B" BEDDING



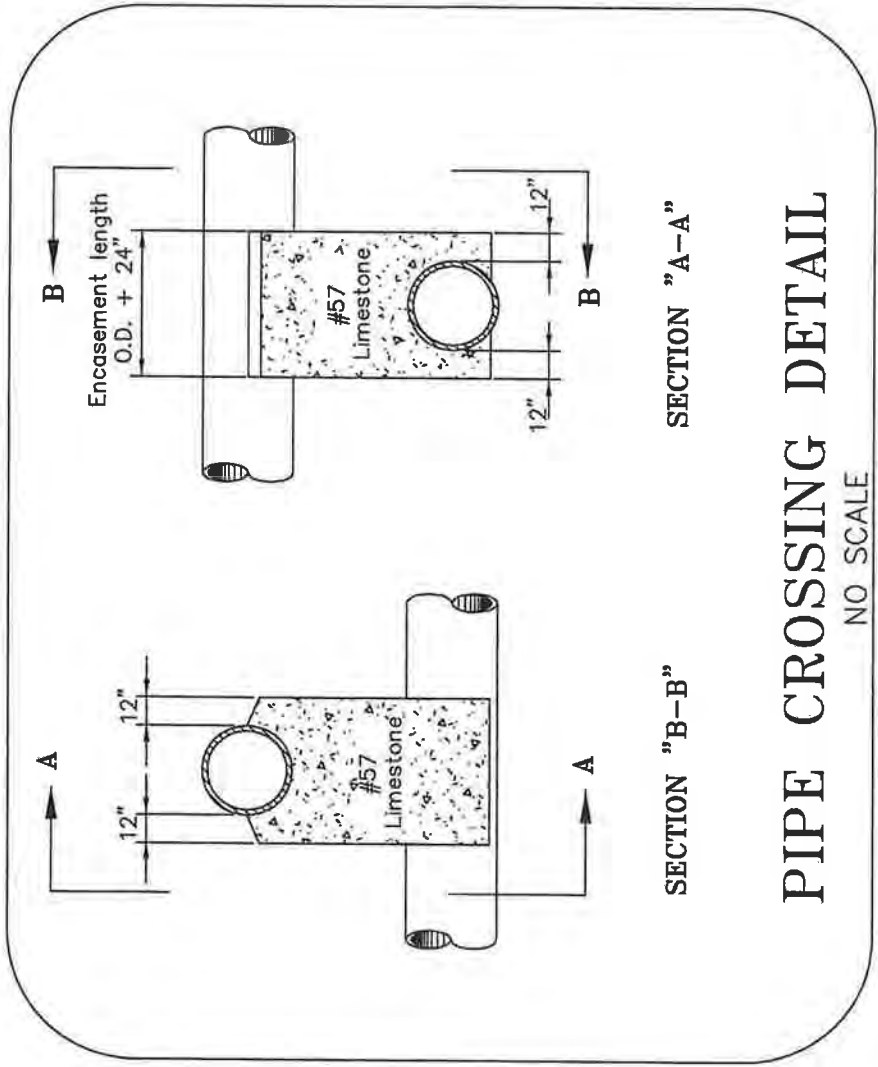
CLASS "C" BEDDING

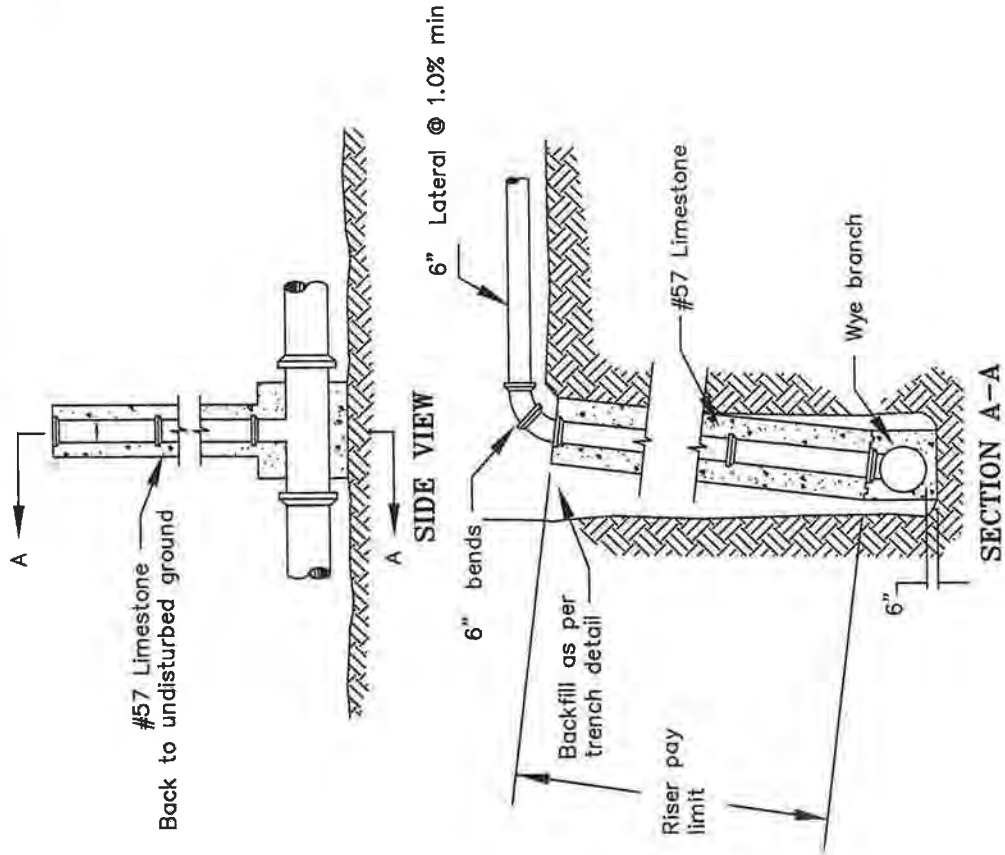
TRENCH AND BEDDING NOTES

1. Maximum trench width at top of pipe shall be O.D. plus 24" for all pipe sizes up to and including 24" I.D. and O.D. plus 30" for pipe sizes larger than 24" I.D.
2. Pipe bedding shall be No. 57 limestone to springline of pipe.
3. Pipe backfill for PVC Pipe Material and all pipes under pavement and structures and all areas shall be No. 57 Limestone to 12" above top of pipe. The backfill material shall extend to a minimum of three feet beyond each edge of pavement or structure.
4. Remaining backfill under pavement and structures shall be No. 10 limestone or gravel compacted in lifts not to exceed 4" to top of trench. The backfill material shall extend a minimum of 3 feet beyond each edge of pavement or structure. In areas outside of pavement, select on site friable material approved by the Engineer may be used in lifts not to exceed 6" to top of trench.
5. All bedding shall be Class "B" unless otherwise noted on the plans or authorized by the Engineer.
6. Waterline bedding shall be Class "C".
7. Slag bedding shall not be used.
8. Clay dams shall be required when and where necessary per the sole discretion of the Engineer.

PIPE BEDDING DETAIL

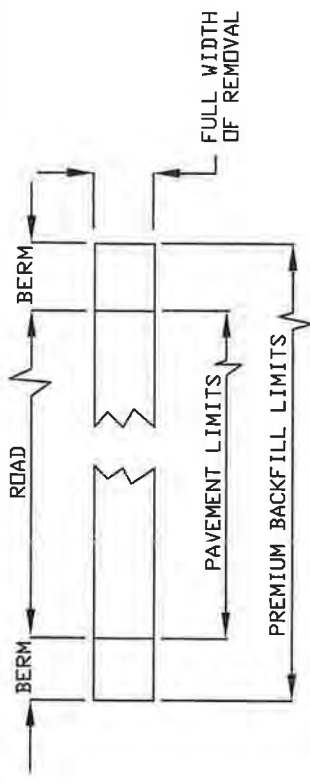
NO SCALE



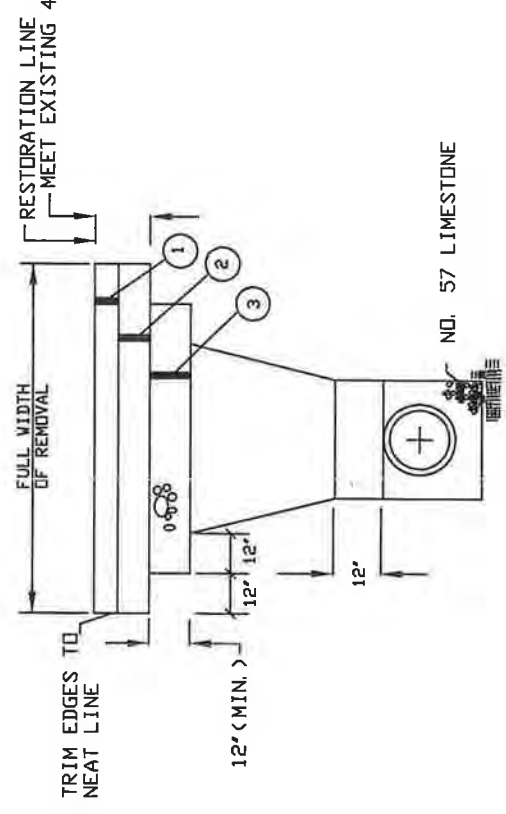


# SANITARY SEWER RISER DETAIL

NO SCALE



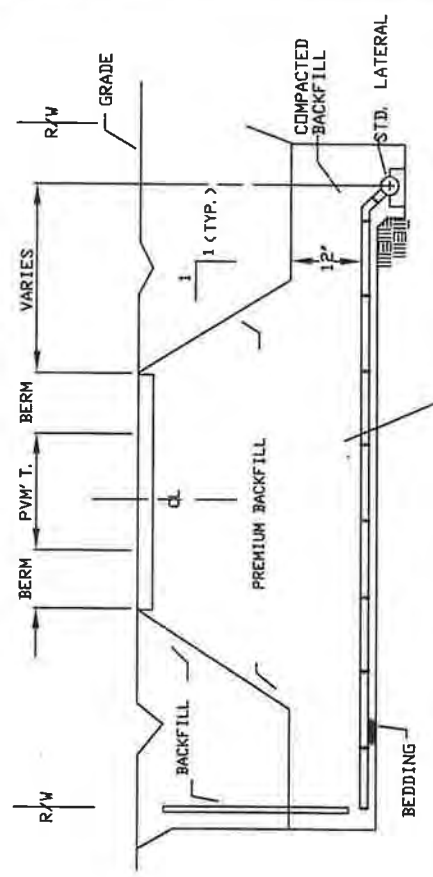
PLAN VIEW



TRENCH SECTION

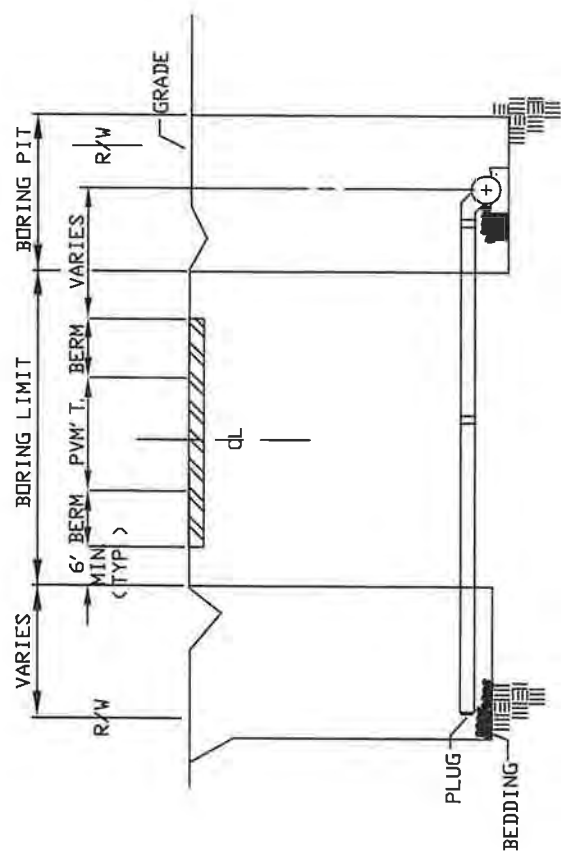
- 1 PAVEMENT SURFACE COURSE:  
ODOT ITEM 446 ASPHALT  
CONCRETE (1 1/2" THK.)
- 2 PAVEMENT BASE COURSE:  
ODOT ITEM 446 ASPHALT  
CONCRETE (2 1/2" MIN.)
- 3 AGGREGATE BASE COURSE:  
ODOT #4 CHOKED WITH  
ITEM 304 (12" MIN.)

	FT.
BERM	8
STATE	4
COUNTY	4
TWP	4
DRIVEWAY	2



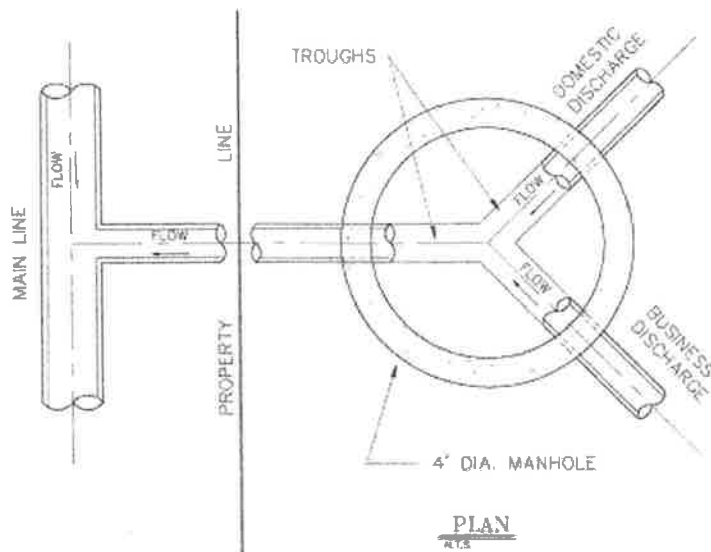
NOTE: PAVEMENT RESTORATION NECESSITATED BY SEVER LINE CONSTRUCTION SHALL MEET ODOT SPEC TO COMPOSITION OF EXISTING PAVEMENT OR AS REQUIRED BY HIGHWAY PERMIT UNLESS OTHERWISE SPECIFIED.

IN LAYERS NOT EXCEEDING 6' IN DEPTH AND COMPACTED BY MECHANICAL DEVICES TO NOT LESS THAN 100% OF MAXIMUM DRY DENSITY. SAND BACKFILL REQ'D. UNDER PAVEMENT, DRIVEWAYS, ETC.



ROAD CROSSING (OPEN-CUT) BORED CROSSING WITHOUT CASING

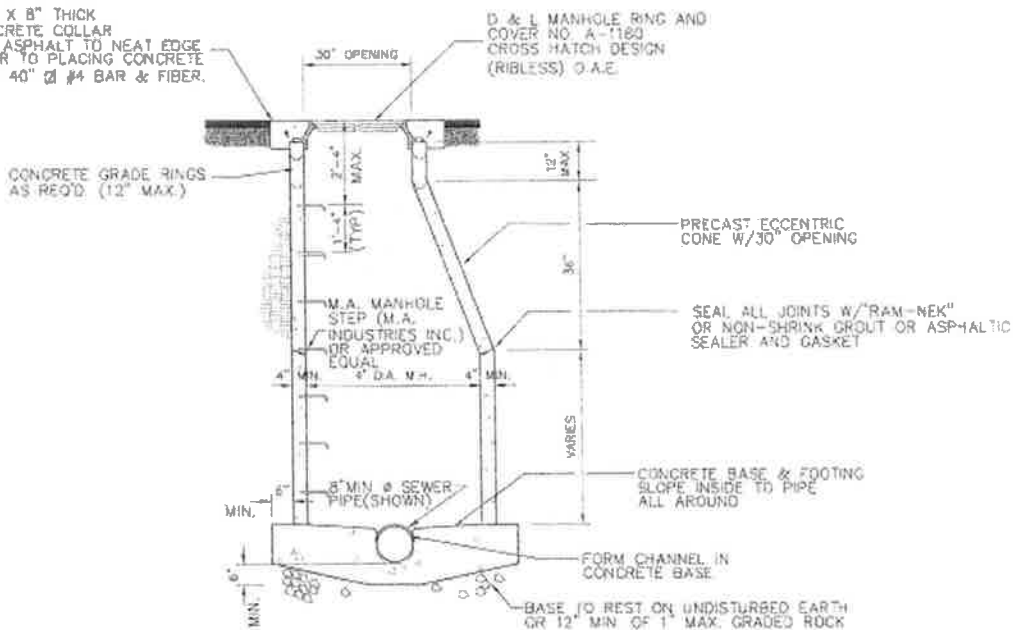
NO SCALE



**NOTE:**

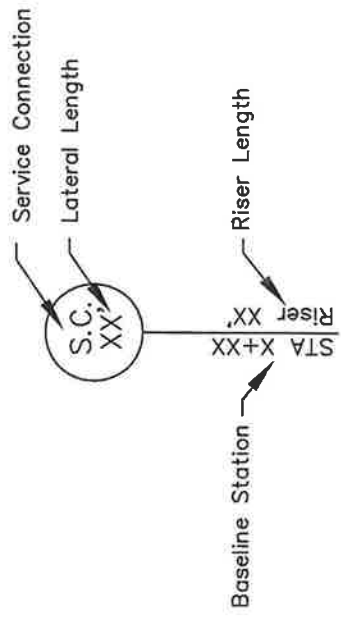
1. MANHOLES IN ROADWAYS REQUIRE CONC. COLLAR. MANHOLES IN UNIMPROVED AREAS SHALL BE SET 6 INCHES ABOVE FINISH GRADE (NO CONC. COLLAR REQ'D)
2. MANHOLE LID, RING AND CONCRETE COLLAR TO BE SET 1/4 INCH BELOW TOP OF ASPHALT.

4"  $\phi$  X 8" THICK  
CONCRETE COLLAR  
CUT ASPHALT TO NEAT EDGE  
PRIOR TO PLACING CONCRETE  
WITH 40"  $\phi$  #4 BAR & FIBER.

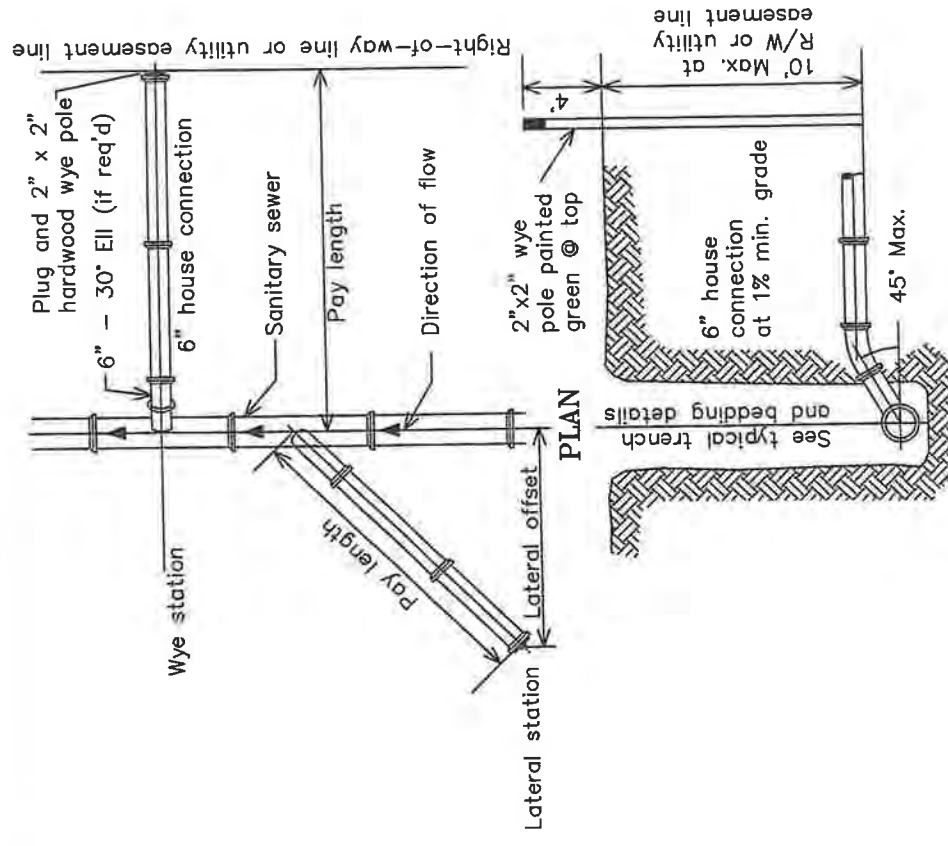


**SECTION**  
**TYPICAL MANHOLE FOR**  
**SANITARY SEWER**

NTS



# SERVICE CONNECTION



PLAN

SECTION

# SANITARY SEWER LATERAL DETAIL

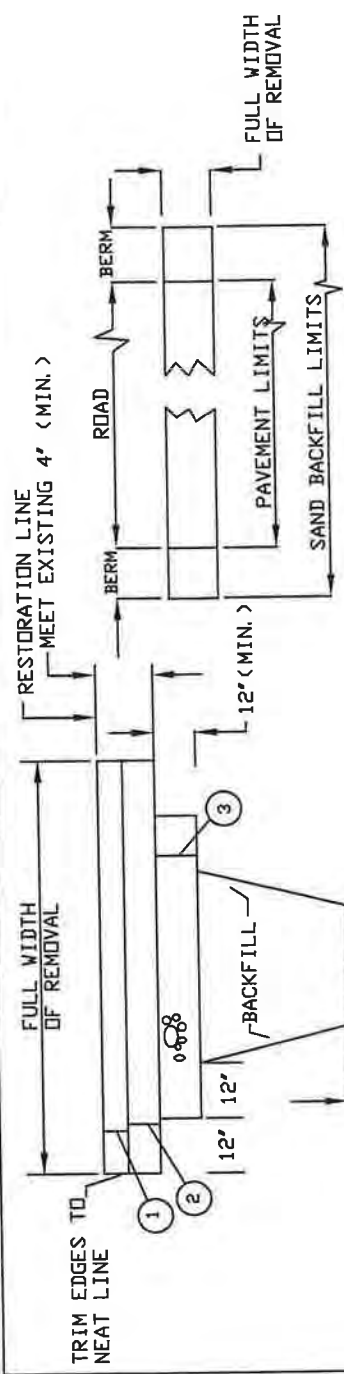
NO SCALE

THIS PAGE INTENTIONAL LEFT BLANK



APPENDIX D  
Water Details

THIS PAGE INTENTIONAL LEFT BLANK



PLAN VIEW

COUNTY ENGINEER REQUIREMENTS FOR BACKFILL UNDER PAVEMENT SHALL BE ODOT 304 FULL TRENCH W/TOP 1 FOOT BEING 304 LIMESTONE

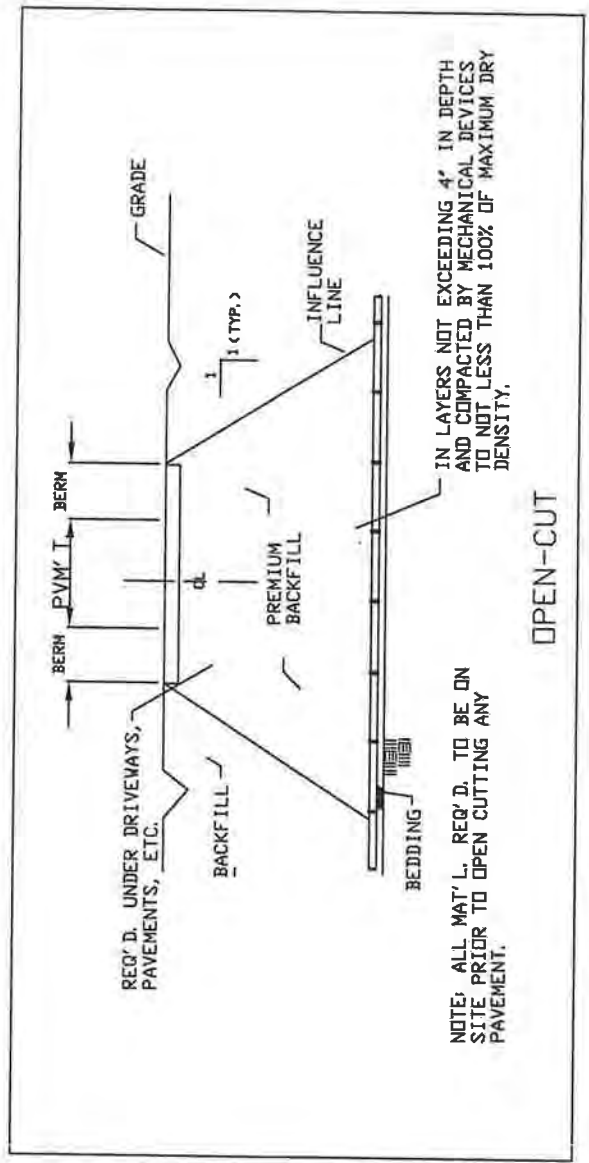
BERM	FT.
STATE	8
COUNTY	4
TWP	4
DRIVEWAY	2

TRENCH SECTION

- 1 PAVEMENT SURFACE COURSE: ODOT ITEM 446 ASPHALT CONCRETE (1 1/2" THK.)
- 2 PAVEMENT BASE COURSE: ODOT ITEM 446 ASPHALT CONCRETE (2 1/2" MIN.)
- 3 AGGREGATE BASE COURSE: ODOT #4 CHOKED WITH ITEM 304 (12" MIN.)

NOTE: PAVEMENT RESTORATION NECESSITATED BY WATER MAIN CONSTRUCTION SHALL BE PERFORMED UNDER ITEM 801-TO COMPOSITION OF EXISTING PAVEMENT OR AS REQUIRED BY HIGHWAY PERMIT-UNLESS OTHERWISE SPECIFIED.

ROAD CROSSING (OPEN-CUT)



REQ' D. UNDER DRIVEWAYS, PAVEMENTS, ETC.

BACKFILL

PREMIUM BACKFILL

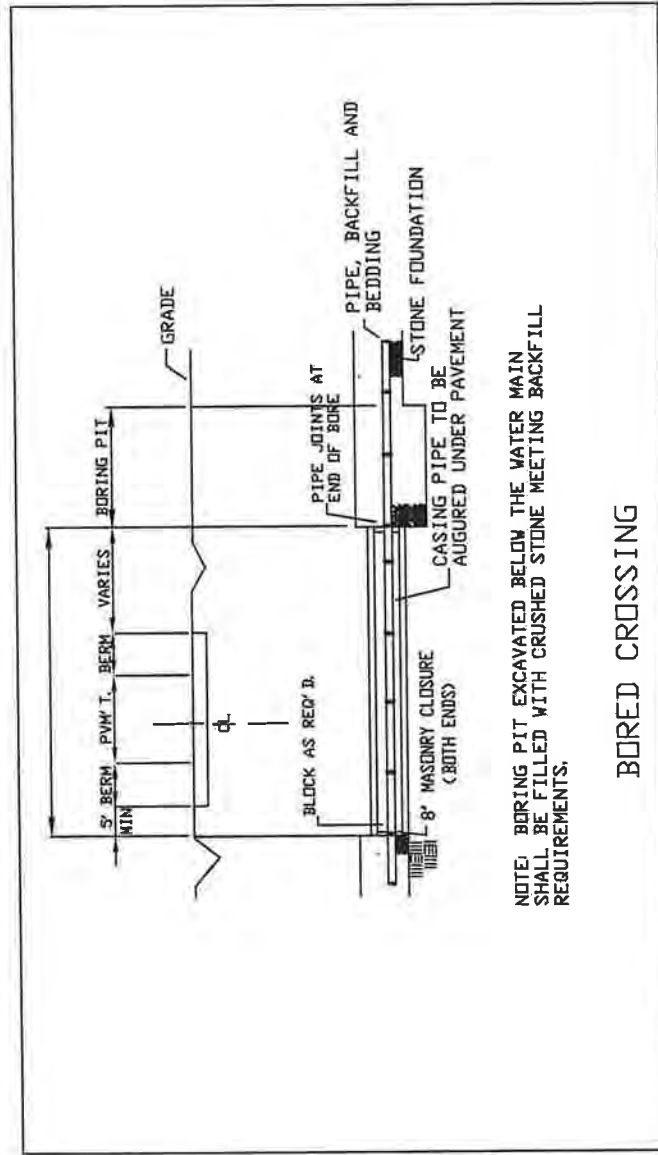
INFLUENCE LINE

BEDDING

IN LAYERS NOT EXCEEDING 4' IN DEPTH AND COMPACTED BY MECHANICAL DEVICES TO NOT LESS THAN 100% OF MAXIMUM DRY DENSITY.

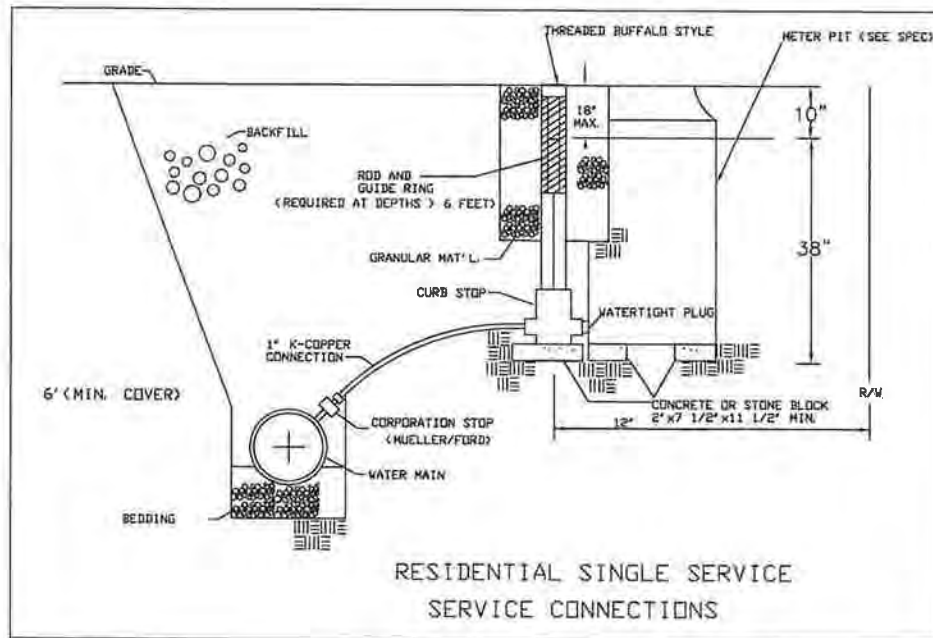
NOTE: ALL MAT' L. REQ' D. TO BE ON SITE PRIOR TO OPEN CUTTING ANY PAVEMENT.

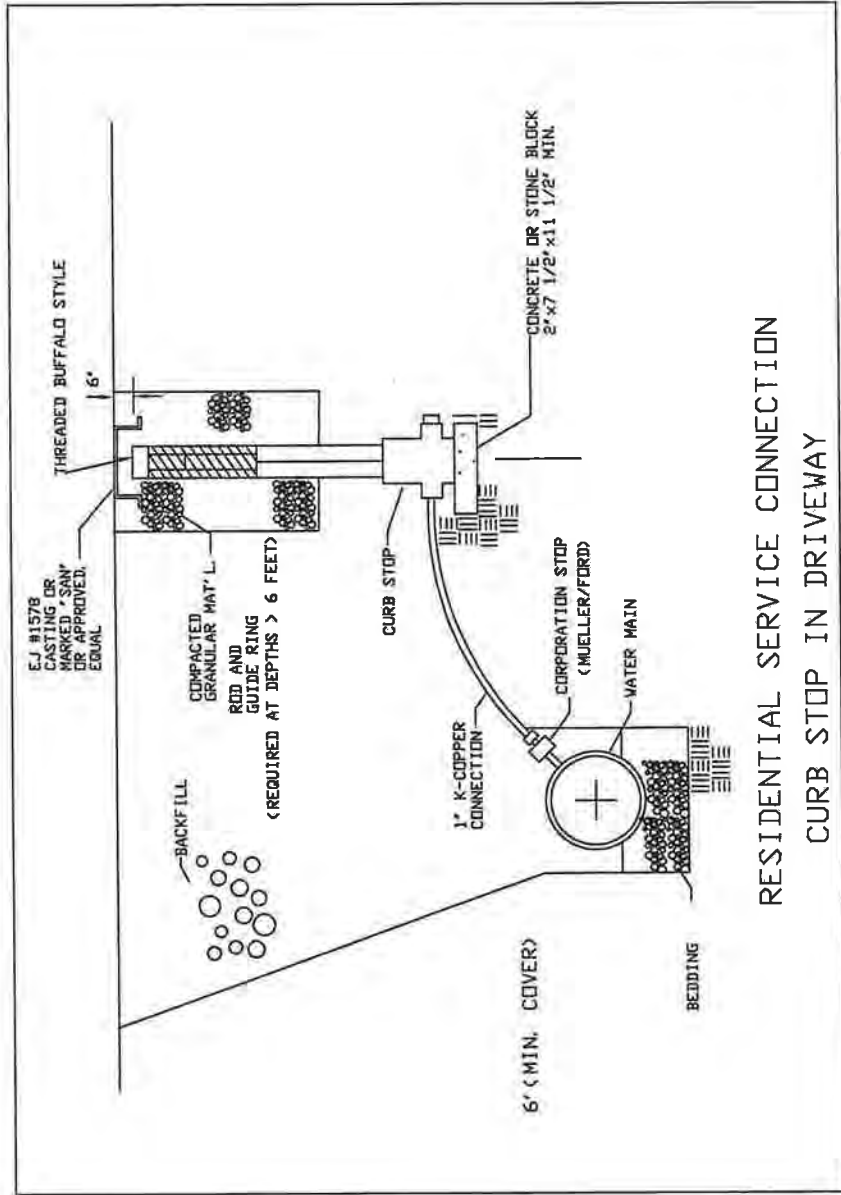
OPEN-CUT



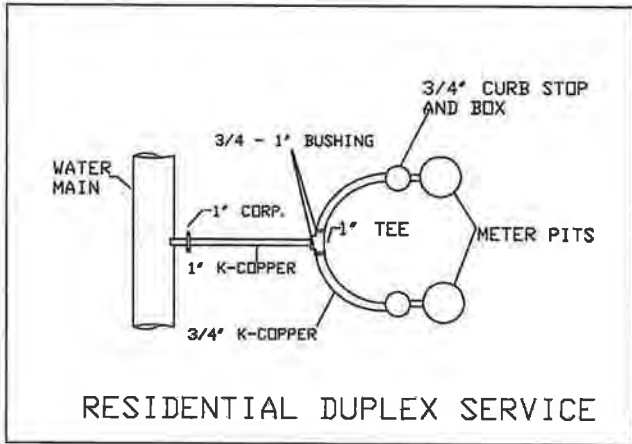
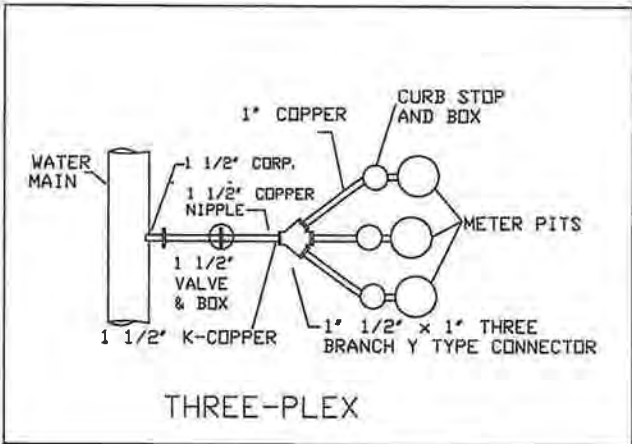
NOTE: BORING PIT EXCAVATED BELOW THE WATER MAIN SHALL BE FILLED WITH CRUSHED STONE MEETING BACKFILL REQUIREMENTS.

### BORED CROSSING





RESIDENTIAL SERVICE CONNECTION  
CURB STOP IN DRIVEWAY





# Plastic Pit Setter for Moderate to Cold Climates

For 5/8", 5/8"x3/4", 3/4" and 1" Meters

## How To Order A Plastic Pit Setter

To order a Plastic Pit Setter refer to the drawing on the opposite page and answer each of the following questions to create a Catalog Number for the **Plastic Pit Setter** that meets your setting requirements.

Example: PSBH-222-18-72 = a standard single lid style Plastic Pit Setter with an angle ball valve inlet, outlet angle check valve, for a 5/8"x3/4" meter, inlet and outlet connections for flared copper, 18"x72" pit diameter and depth.

NOTE: To maintain the frost protection principles of meter pit design select a 20" pit diameter for 3/4" and 1" single meter settings and for 5/8"x3/4" tandem meter settings.

NOTE: **Covers** for Plastic Pit Setters **are listed and sold separately in Catalog Section D**. A modest selection of covers is shown on pages 12 and 13 of this catalog section.

① What type of pit setting is required? \_\_\_\_\_

+

② What type of inlet valve is required? \_\_\_\_\_

+

③ What type of outlet valve is required? \_\_\_\_\_

+ (Insert Dash)

④ What meter size is required? \_\_\_\_\_

+

⑤ What type of inlet connection is required? \_\_\_\_\_

(see note below)

+

⑥ What type of outlet connection is required? \_\_\_\_\_

(see note below)

+ (Insert Dash)

⑦ What pit diameter and depth is required? \_\_\_\_\_

Depth is measured from ground level to service line.

The service line is 2" higher than bottom of pit setter.

**Note:** Setters with angle ball valve will be reduced port unless otherwise requested. Reduced port valves usually provide suitable water flow. (Add "-FP" to end of catalog number for full port.)

△1" Angle Cascading Dual Check Valves contain 3/4" internal components.

**NOTE:** Inlet and outlet connections are 3/4" in size, for 5/8", 5/8"x3/4" and 3/4" meter settings, and 1" for 1" meter settings, unless otherwise specified.

A variety of inlet and outlet couplings for Copper, PEP, PVC, and Lead are available. See Catalog Section J. Engineering Drawings are available for standard and/or custom pit setter designs.

\***Grip Joint** - for CTS is available. Add "-G" to the Catalog Number.

\*\*Not available for 1" meter. Ford recommends a 20" pit diameter with 5/8" and 5/8"x3/4" tandem and dual meter settings.

**FA-6** \*\*\*Not available for 3/4" or 1" meters.

TYPE OF SETTING	CODE
Standard for Single Lid Cover	PS
Standard for Double Lid Cover	PD
** Tandem for Single Lid Cover	PTS
** Tandem for Double Lid Cover	PTD
*** Dual Service Line	
for Single Lid Cover	PDS
*** Dual Service Line	
for Double Lid Cover	PDD

INLET VALVE TYPE	CODE
Angle Key Valve	V
Angle Ball Valve	B
Angle Compression Valve	G
No Inlet Valve	-

OUTLET VALVE TYPE	CODE
Angle Key Valve	V
Angle Compression Valve	G
Angle Check Valve	H
△ Angle Dual Check Valve	HH
Angle Cartridge Dual Ck Valve	HC
No Outlet Valve	-

METER SIZE	CODE
5/8" Meter	1
5/8"x3/4" Meter	2
3/4" Meter	3
1" Meter	4

TYPE OF INLET	CODE
Flared Copper	2
PET/CTS Pack Joint*	4
Male Iron Pipe	8

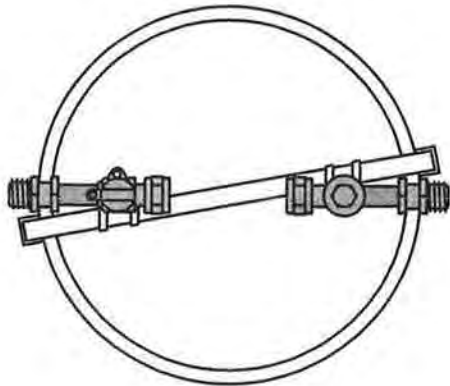
TYPE OF OUTLET	CODE
Flared Copper	2
PET/CTS Pack Joint*	4
Male Iron Pipe	8

PIT DIAMETER AND DEPTH	CODE
*** 18"x36"	18-36
*** 18"x48"	18-48
*** 18"x60"	18-60
*** 18"x72"	18-72
20"x36"	20-36
20"x48"	20-48
20"x60"	20-60
20"x72"	20-72

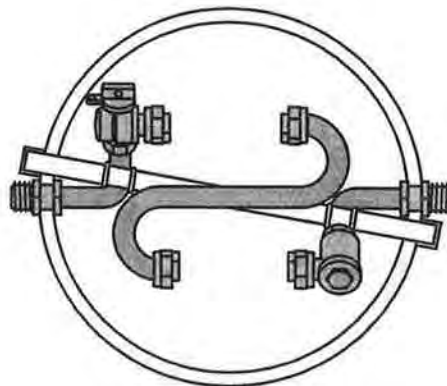
# Plastic Pit Setter for Moderate to Cold Climates

For 5/8", 5/8"x3/4", 3/4" and 1" Meters

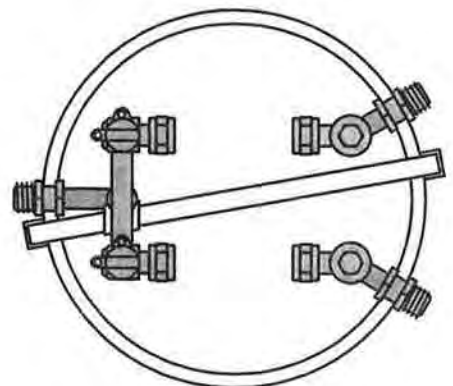
Plastic Pit Setter Design for Single Lid Type (Cover with a 4" depth)



Single Meter Setting



Tandem Setting



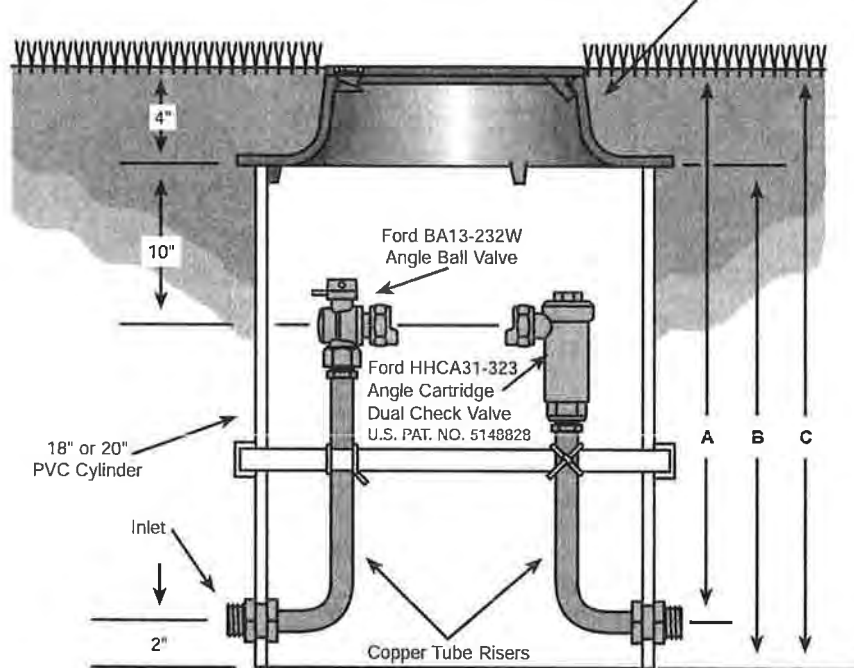
Dual Setting

## Vertical Measurements

(Pit Diameter is 18" or 20")

PIT DEPTH	SERVICE LINE DEPTH "A"	PVC CYLINDER LENGTH "B"	TOTAL PIT DEPTH "C"
3 Ft. Pit	36"	34"	38"
4 Ft. Pit	48"	46"	50"
5 Ft. Pit	60"	58"	62"
6 Ft. Pit	72"	70"	74"

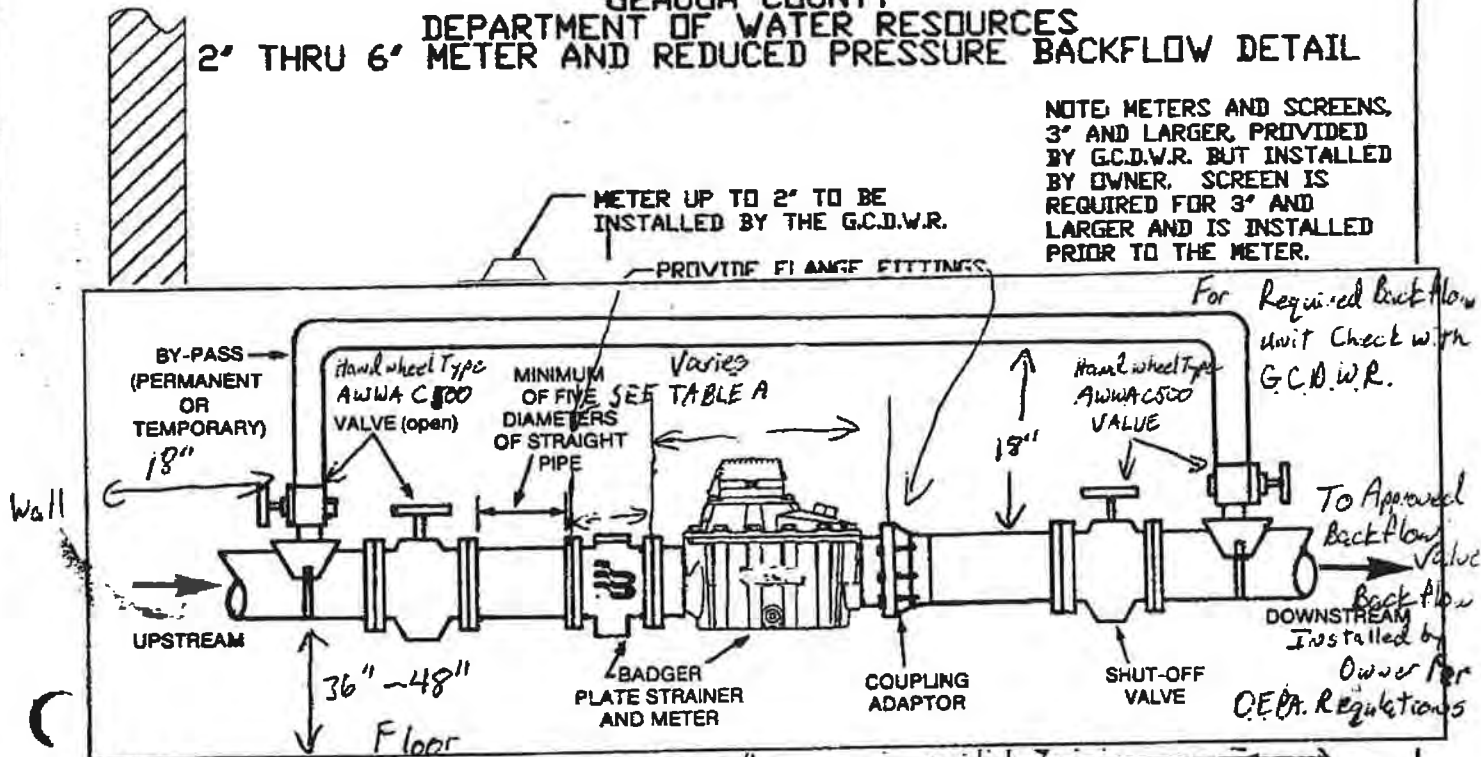
Ford Type "A", "C", "X" or "PMBC-3" Single Lid Cover with a 4" depth.



The drawing above shows a Plastic Pit Setter with optional Inlet Angle Ball Valve and Outlet Angle Cartridge Dual Check Valve.

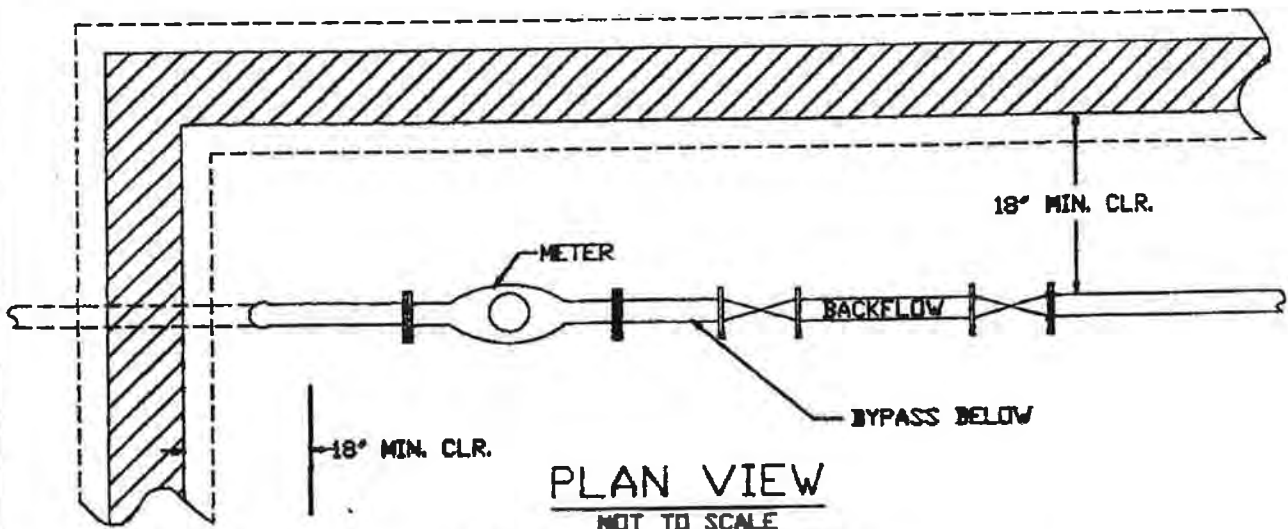
**EXHIBIT F2**  
**GEAUGA COUNTY**  
**DEPARTMENT OF WATER RESOURCES**  
**2' THRU 6' METER AND REDUCED PRESSURE BACKFLOW DETAIL**

NOTE: METERS AND SCREENS, 3" AND LARGER, PROVIDED BY G.C.D.W.R. BUT INSTALLED BY OWNER. SCREEN IS REQUIRED FOR 3" AND LARGER AND IS INSTALLED PRIOR TO THE METER.



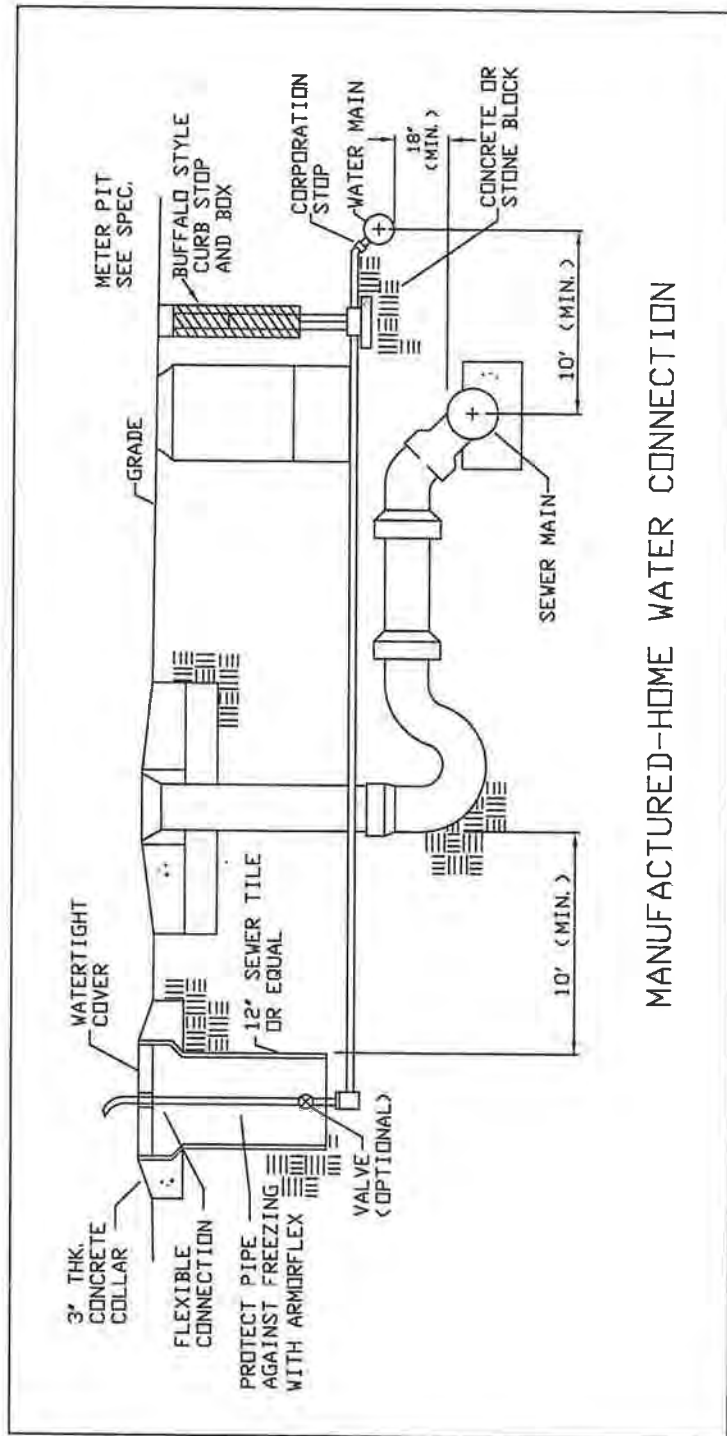
**SIDE VIEW**  
 NOT TO SCALE

FLOOR DRAIN OR EQUIVALENT REQUIRED WITHIN 5'-0".

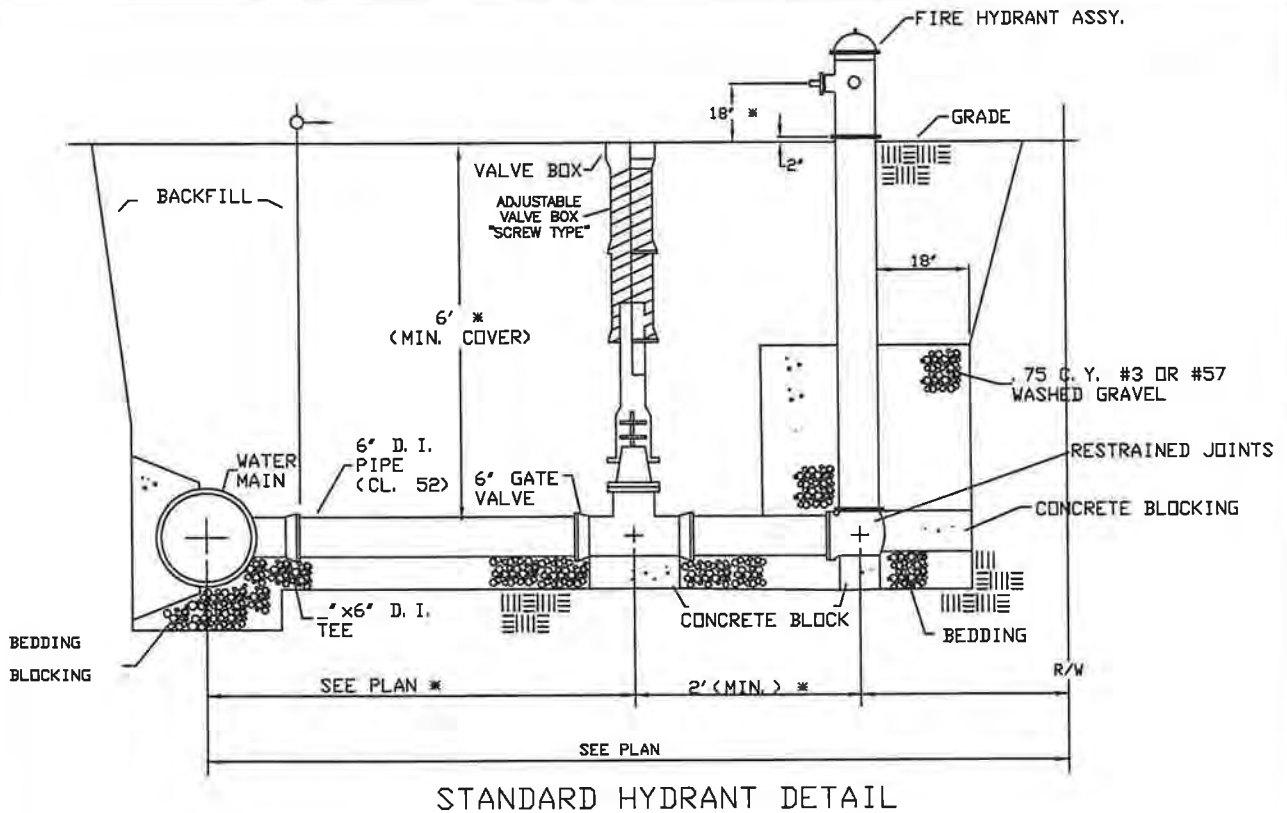
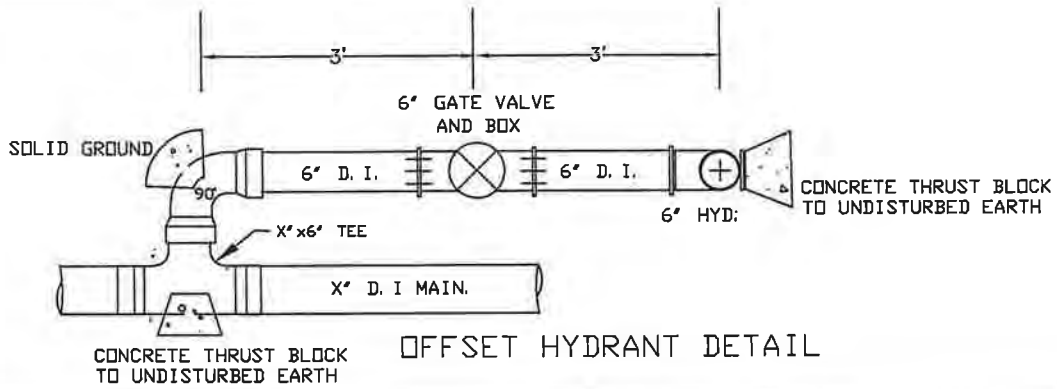
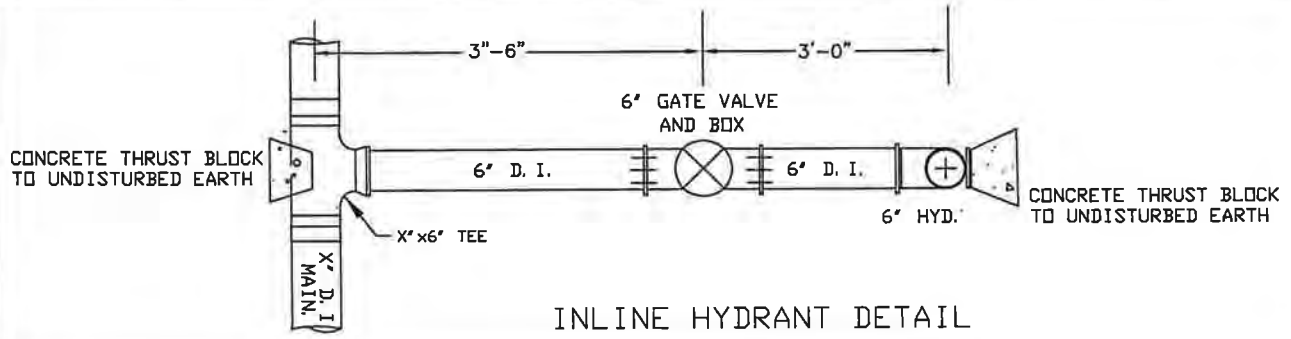


**PLAN VIEW**  
 NOT TO SCALE

- NOTE:
1. SUPPORT PIPES AS NECESSARY.
  2. 2" & 3" METER REQUIRE 4 BOLT ROUND FLANGE. PUT HOLES ON FLANGE SQUARE WITH THE FLOOR.
  3. 4" & 6" METER REQUIRE 8 BOLT ROUND FLANGE.
  4. CONTACT GEAUGA CO. PLUMBING INSPECTOR FOR INSPECTION AND ANY ADDITIONAL REQUIREMENTS.



MANUFACTURED-HOME WATER CONNECTION

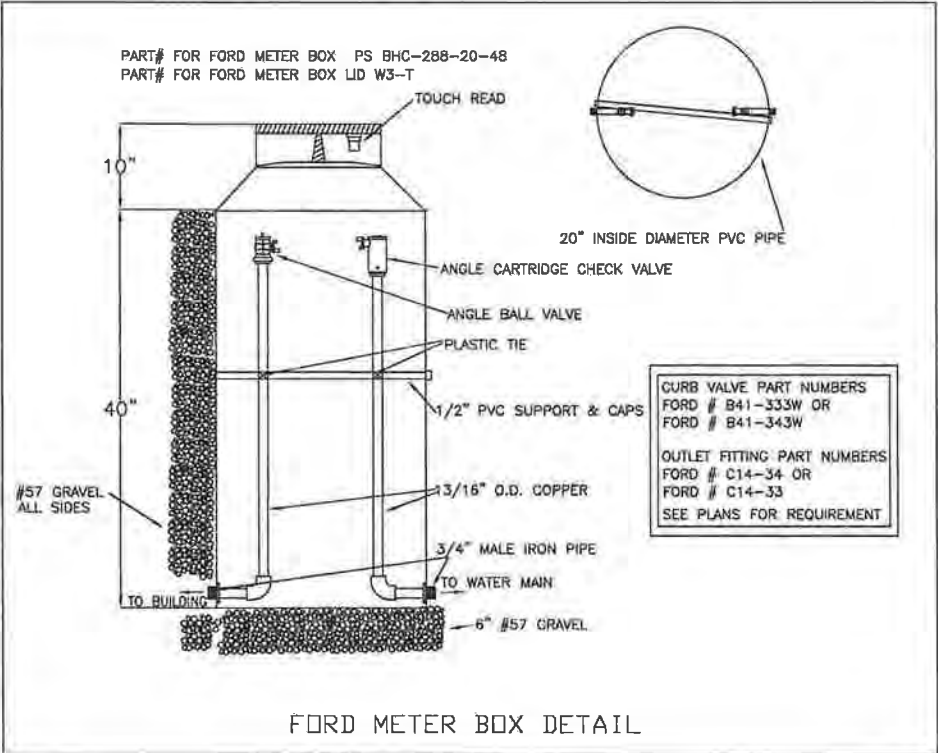


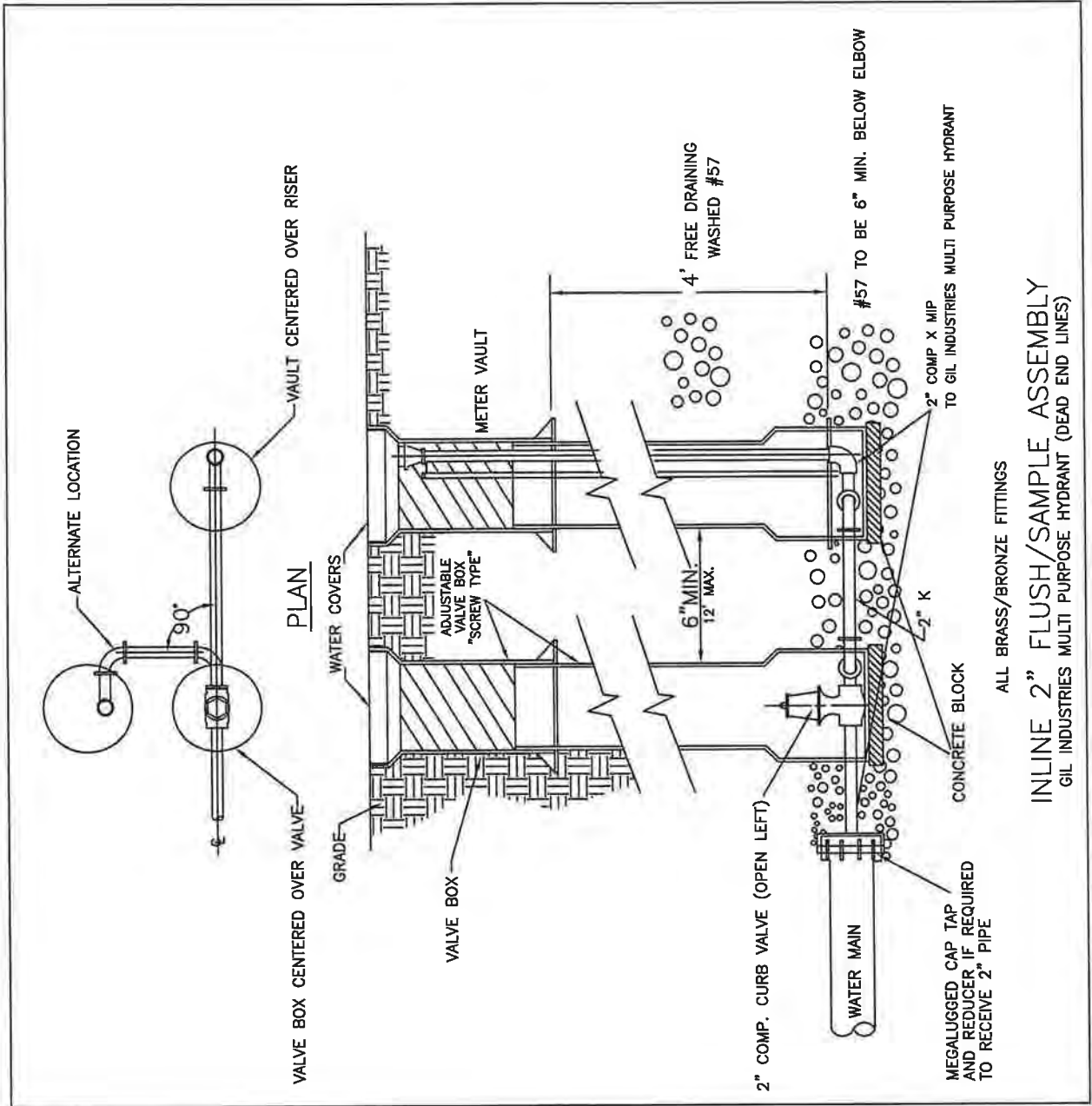
**NOTE:**

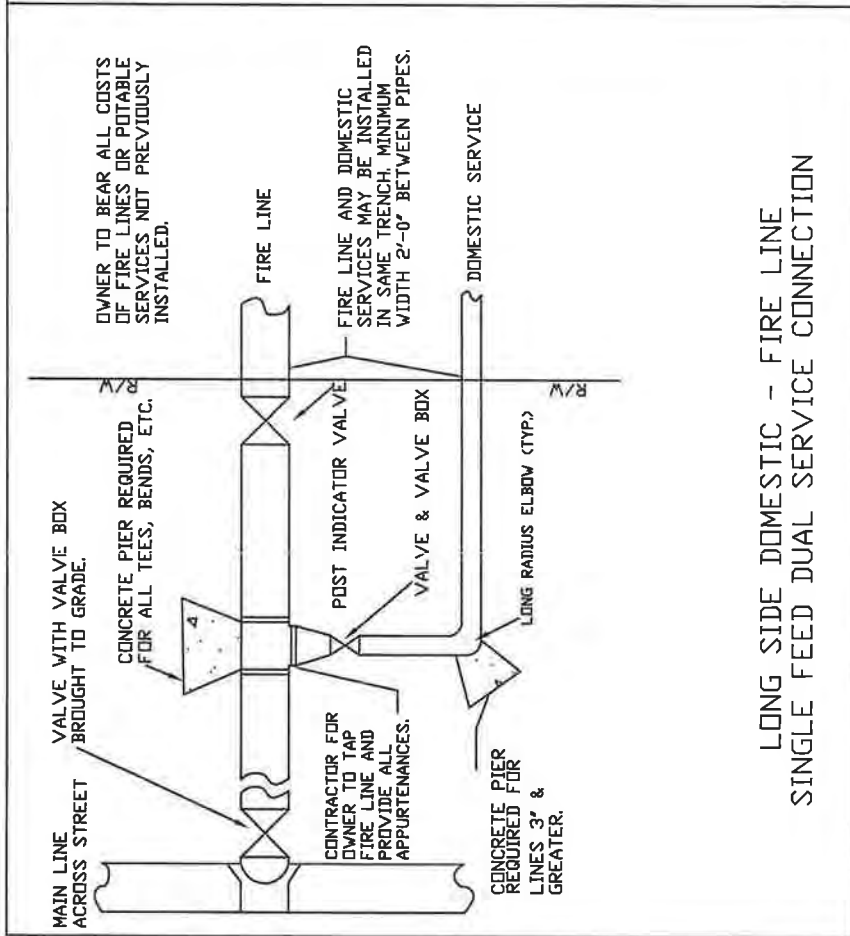
FASTITE JOINTS, MEGALUG, UNIFLANGE OR MUELLER "AQUAGRIP" VALVES OR HYDRANTS FLANGE BOLTED JOINTS TIE RODS AND BLOCKING REQUIRED TO PREVENT SEPARATION OF JOINTS DEPENDING ON MATERIAL. METHOD MUST BE APPROVED BY THE ENGINEER.

ALL VALVES OPEN TO THE LEFT (COUNTERCLOCKWISE) ALL HYDRANTS OPEN TO THE LEFT, BE NATIONAL STANDARD HYDRANTS. SEE GCDWR SPECIFICATIONS FOR RECOMMENDED MANUFACTURE/TYPE AND ADDITIONAL REQUIREMENTS (MUELLER, KENNEDY).

NO VALVES OR HYDRANTS SHALL BE LOCATED IN A DITCH OR CULVERT WAY.

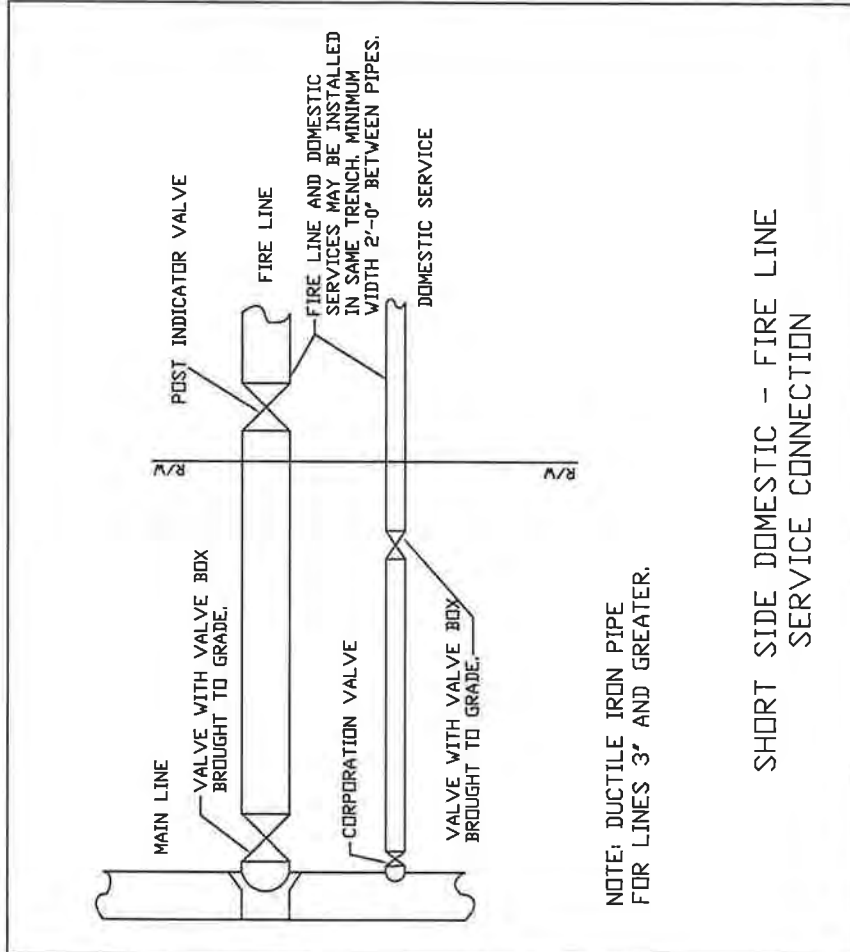






LONG SIDE DOMESTIC - FIRE LINE  
SINGLE FEED DUAL SERVICE CONNECTION

NOTE: TAPS TO MAINLINE SHALL BE BY G.C.D.W.R., OR REPRESENTATIVE.  
CONCRETE PIERS REQUIRED ON ALL TEES, BENDS, ETC. FOR LINES 3' AND GREATER  
SEE GCDWR SPECIFICATIONS FOR METER AND BACKFLOW PREVENTER REQUIREMENTS COMMERCIAL/INDUSTRIAL

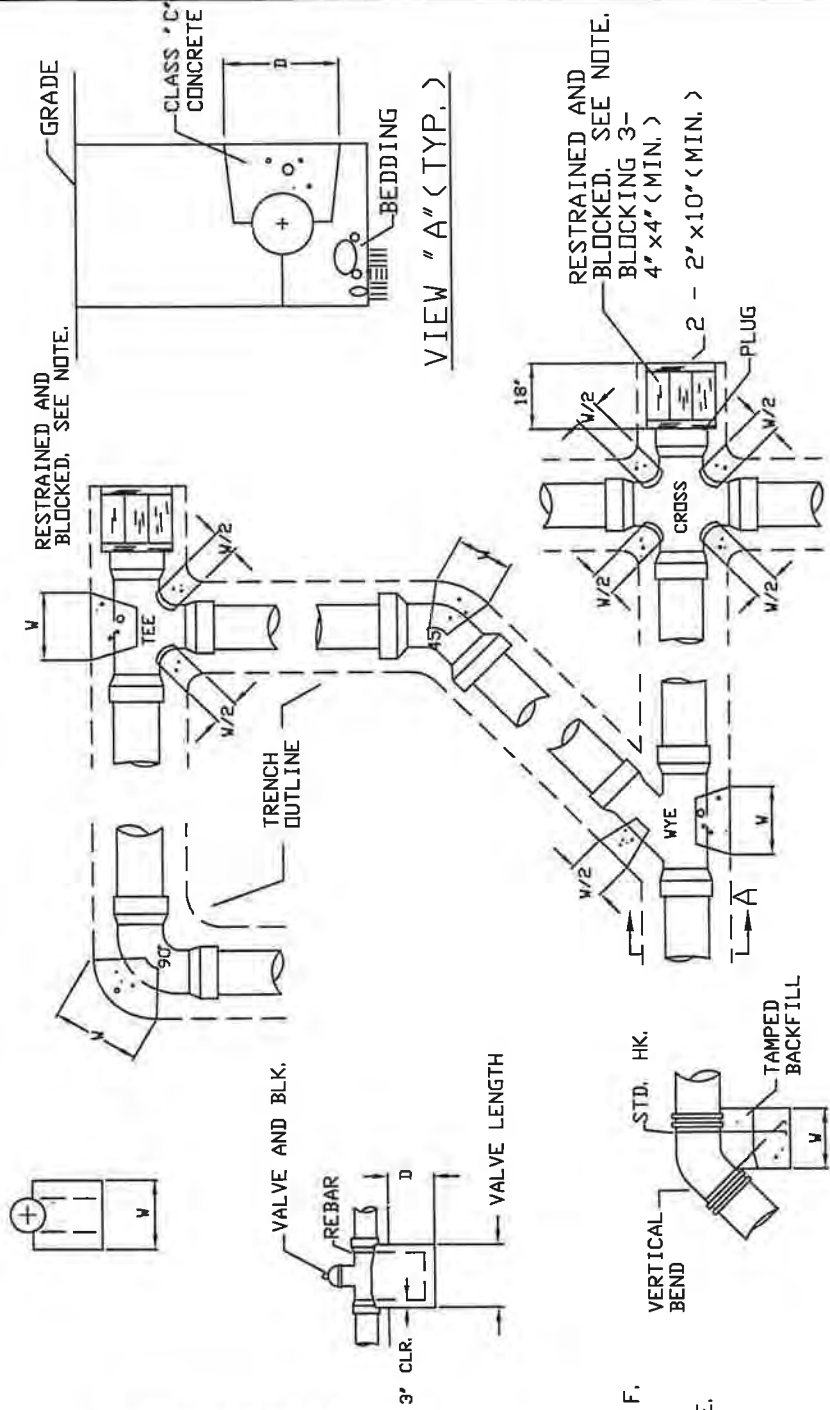


SHORT SIDE DOMESTIC - FIRE LINE  
SERVICE CONNECTION

NOTE: DUCTILE IRON PIPE  
FOR LINES 3' AND GREATER.



MINIMUM AREA TO BE PROVIDED AREAS, F. > WxD			
SIZE	90° BEND	45° BEND	TEE VALVE
4"	1.3	0.7	0.9
6"	2.7	1.3	1.9
8"	4.7	2.5	3.3
10"	7.6	4.1	5.5
12"	10.9	5.9	7.6
14"	14.6	7.9	10.3
16"	19.0	10.3	13.4
18"	23.9	11.5	15.0
20"	29.9	14.0	18.5
24"	36.1	20.0	26.1



VIEW "A" (TYP.)

**NOTE:**

- FLEXIBLE ADAPTER TO BE USED AT A CONNECTION OF DISSIMILAR PIPE, CONCRETE COLLARS NOT ACCEPTABLE.
- TABLE BASED ON 150 P. S. I. (MAX.) AND A SAFE BEARING LOAD OF 3000#/S. F.
- CONTRACTOR SHALL SUBMIT PROPOSED BLOCKING WHENEVER A SAFE BEARING LOAD OF 3000#/S. F. IS NOT AVAILABLE.
- COST OF ADDITIONAL BLOCKING TO BE INCLUDED IN THE UNIT PRICES BID.

**CONCRETE BLOCKING**

