

STATE OF MICHIGAN
IN THE CIRCUIT COURT FOR THE COUNTY OF WASHTENAW

ANITA YU, JOHN BOYER, and
MARY RAAB,

Plaintiff,

Donald E. Shelton

Hon:
Case No./4-181 CC

vs.

THE CITY OF ANN ARBOR,
Defendant.

IRVIN A. MERMELSTEIN (P52053)
Attorney for Plaintiffs
2099 Ascot St.
Ann Arbor, MI 48103
734-717-0383

M. MICHAEL KOROI (P44470)
Co-Counsel for Plaintiffs
150 N. Main St.
Plymouth, MI 48170
734-459-4040

PLAINTIFFS' BRIEF IN SUPPORT OF
MOTION FOR PRELIMINARY INJUNCTION

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Now come the Plaintiffs Anita Yu, John Boyer, and Mary Raab, by and through the undersigned attorneys, Irvin A. Mermelstein and M. Michael Koroi, and submit the instant brief in support of their Motion for Preliminary Injunction as follows:

STATEMENT OF FACTS

Plaintiffs John Boyer and Mary Raab reside in the Fourth Ward in the City of Ann Arbor (hereinafter "the City") in a house they own as husband and wife. Plaintiff Mary Raab purchased the house in 1970. Plaintiff Anita Yu resides in the First Ward in the City of Ann Arbor, in a home of which she became sole owner in 1979.

Plaintiffs have commenced this proceeding against the City of Ann Arbor under the provisions of the Takings Clause of the Fifth Amendment of the United States Constitution, the Federal Civil Rights Act of 1871 (Chapter 42, Section 1983 of the United States Code), Article X, Section 2 of the Constitution of the State of Michigan of 1963 and Section 213.13 of the Michigan Compiled Laws Annotated.

The Plaintiffs seek just compensation, compensatory damages, injunctive relief and a declaration that Ann Arbor Ordinance 2:51.1 (hereinafter "the FDD Ordinance") is both unconstitutional and, also, has caused a "taking" of Plaintiffs' private property for public use without due process or just compensation. The City has implemented and enforced the FDD Ordinance through its Footing Drain Disconnection Program ("FDDP").

A. The City of Ann Arbor

The City of Ann Arbor currently has a land area of approximately 28.7 square miles. It is located on the Huron River and, generally, the west-central and northwestern portions of the City have the highest elevations and the lower elevations tend to be along the Huron River and near the southeast. The City is divided into five wards, each ward elects two members to City

Council. The mayor is elected via at-large voting by the electorate of the City and acts as the eleventh member and presiding officer of the City Council.

In the last quarter of the twentieth century, the City experienced extensive population growth and non-commitment development - commonly known as “urban sprawl”. The City’s infrastructure, especially its stormwater and sanitary sewer systems, did not expand in a manner that accommodated the scale of the urban development. This caused insufficient sanitary sewer capacity during rainstorms (due to infiltration of water into manholes and cracked sewer pipes) and unwanted sanitary sewer overflows into the Huron River (hereinafter “SSO’s”) became more common.

B. History of the FDDP

During the 1960's the City approved plats for subdivisions in southeastern Ann Arbor; these included three discrete phases each for both the Lansdowne and Churchill Downs developments in the Fourth Ward. Upon belief, the City was acutely aware at this juncture that these areas had clearly open demonstrable groundwater problems. In the Lansdowne development, one area contained a large pond (then dubbed the “Cow Pond”) that collected copious runoff and groundwater during normally heavy springtime rainfalls.

Actual construction in Lansdowne and Churchill Downs commenced about 1966. All houses were lawfully built with foundation (“footing”) drains connected to the sanitary sewer lines; as constructed, these houses passed their inspections by the City and received their respective Certificates of Occupancy.

The Michigan State Building Code ((One Family Residential Plumbing section) was amended in 1982 by legislative action to proscribe the connection of footing drains to sanitary sewer lines. These changes in state statute did not attempt to require removal of pre-existing

connections of residential footing drains to the sanitary sewers nor did it require the installation of any alternative modes of drainage or other retrofitting.

In 1997, the engineering firm Black and Veatch, was retained by the City to prepare an expert study of the City's storm sewer system. Upon information and belief, the report eventually generated by this engineering firm issued findings that severe problems existed in the storm sewer system of the City of Ann Arbor. Black and Veatch also reportedly issued recommendations on prospective remedial measures that it envisioned could be implemented. In its 1997 "*Storm Water Master Plan Report*" to the City of Ann Arbor, the Black and Veatch firm comprehensively delineated several inadequacies in the then-present storm water conveyance system including the age of the system's components, increased flows beyond the system's design capacity, increased runoff resulting from expanding development, sedimentation occurring during construction-related runoff, channel bank erosion, structural failures and the construction of private storm water facilities including detention basins that were not adequately maintained. As to the Malletts Creek watershed, the Black and Veatch firm specifically recommended that the existing storm water conveyance system be replaced. Upon information and belief, the City rejected the Black and Veatch report and did not undertake any of the recommended actions.

Severe rainstorm in Ann Arbor in 1998 and 2000 resulted in at least 200 basement sewer backups in the City of Ann Arbor's sewer districts wherein the plaintiffs' homes are respectively located, and significant unpermitted sanitary sewer overflows into the Huron River. As a direct consequence of the number of houses affected, City residents demanded an end to the sewer backups and a class action was filed on behalf of affected homeowners. Plaintiffs were not parties to such class action. Simultaneously, the Michigan Department of Environmental Quality

(“MDEQ”) demanded that the city take action to end the SSO’s.

In 2000, MDEQ demanded mitigation of future unpermitted SSO’s, but did not mandate any particular remedial measures, such as an upgrading of the City’s sewer system. Upon information and belief, the City was unwilling to upgrade the sewers because of the size of the projected funds that would be required to properly upgrade and enlarge the sanitary sewer system. The City then retained Camp Dresser McKee (CDMI) to offer a solution that would satisfy demands of the MDEQ. In June of 2001, CDMI’s final recommendation was that the City “take action to remove rain and groundwater inflow sources into the City sanitary sewer system by implementing a comprehensive citywide footing drain disconnection program within the City of Ann Arbor.”

C. The FDD Ordinance and Implementing Documents

On August 20, 2001, the City approved the FDD Ordinance entitled “Program for Footing Drain Disconnection from POTW” (“FDD Ordinance”) (a copy of the FDD Ordinance is attached as Exhibit “1” to the Complaint). The FDD Ordinance sets several priorities. First, the FDD Ordinance declared “improper” all footing drain connections to the sanitary sewer system that were legal and in existence at the plaintiffs’ homes for over forty (40) years). In this vein, the FDD Ordinance authorized the Director of the Utility Department (“Director”) for the City to designate certain City sewer districts as Target Areas and to order property owners within the Target Area by certified mail letter to remedy “improper storm water inflows” from their property within ninety (90) days of the order or face a monthly non-metered user charge of one-hundred dollars (\$100.00) on their sewer bills.

Second, the FDD Ordinance permitted the Director to create a roster of approved private contractors to perform services pursuant to the program and, also, established a system under

which the property owner would purportedly enter into a direct contractual relationship with a contractor and the City would not be a party.

Third, the FDD Ordinance authorized the City to pay for some or all of the allowed work subject to the Director's discretion. This offer of subsidy and other incentives, however, was conditioned on selection by the homeowner of one of five "pre-qualified" FDD contractors, which choice necessarily entailed the services of CDMI as "construction manager" for the FDD. The FDD Ordinance and the Homeowners Information Packet, in tandem, threatened, intimidated and penalized homeowners who wished to have their own contractor perform the FDD, or to perform the FDD themselves, by denying all or a part of the aforesaid subsidy and depriving such homeowner of City services otherwise provided free (such as permitting, inspection, and direct payment of the FDD Contractor) for a homeowner who selected a "pre-qualified" contractor and the consequent services of CDMI.

Finally, the FDD Ordinance made clear that responsibility for maintaining any improvements constructed under the FDDP, including the maintenance of sump pumps and other equipment, the furnishing of water and electricity, the purchase and installation of any backup systems and all needed repair work would reside with the homeowner and not on the City. The City provided to plaintiffs, after completion of the FDDs in their homes the City's FDDP Maintenance Manual which prescribed the operation and maintenance tasks related to the FDD's completed at the target properties.

D. The FDDP is implemented.

Upon information and belief, as of the date of the filing of the Complaint herein, over 2,000 involuntary FDD's have been completed. At no time was the City of Ann Arbor under any obligation to complete the FDDs at the plaintiffs' homes, whether imposed by federal, state, or other statute, law, regulation, court order, administrative order and/or consent agreement entered into with any agency of government, or any other legal requirement. The sole authority to mandate and then physically complete the FDDs at the plaintiffs' home was the City's own FDD Ordinance.

Until 2002, when Plaintiffs John Boyer and Mary Raab complied with the FDD Ordinance and disconnected their footing drain from the perimeter of their home, their basement had been dry and they had experienced no flooding, dampness or other water problems in their residence. In conjunction with the disconnection of their footing drain, a sump and sump pump were installed in the basement, which discharges into their backyard. Since their footing drains were disconnected, their backyard and basement have flooded on a significant and recurring basis. Two flooding events were especially severe, with the basement living space under water while the sump pumps were completely operational (Affidavits of John Boyer at ¶¶ 11-26 and Mary Raab at ¶¶ 11-18).

Mr. and Ms. Raab have paid the complete FDD costs, including "upgrades" such as a six-hundred dollar (\$600.00) backup hydraulic pump that should have been installed initially, together with cleanup costs, electrical charges and the costs associated with two or more gallons per minute of City water required to operate the hydraulic backup during the regular power outages experienced in their Fourth Ward residence (Affidavits of John Boyer at ¶ 15 and Mary

Raab at ¶¶ 15-17).

Plaintiff Anita Yu completed the footing drain disconnection in 2003. She currently does not experience flooding out of the sump but the sump pump runs regularly. The sump pump was installed in an inaccessible location for her. She has had a disabling condition for many years that has made it impossible (without pain) to manipulate the tools required to perform the maintenance tasks in her crawl space ordered in the Maintenance Manual delivered directly to Plaintiffs' homes under the FDD Ordinance and posted at the City's FDDP website. She also has suffers a recently-diagnosed and rare late-onset degenerative muscular condition that will make it impossible to perform the mandated operation and maintenance without retaining a contractor at her sole expense. Prior to the FDD , she never experienced any storm water flooding events or sewage back-ups within her basement or crawlspace areas and had no water flowing into and through her crawl space and into a sump pump. Prior to the FDD, she had complete peace of mind concerning drainage of ground water and stormwater from her footing drains and now she is required to operate and maintain equipment installed by force of law (Affidavit of Anita Yu at ¶¶ 10-29).

E. The Plaintiffs' rights have been violated

Because the Plaintiff's homes were constructed decades ago pursuant to building permits in conformity with then-applicable building codes and other relevant standards and the Plaintiffs or their predecessors-in-title received Certificates of Occupancy from the City, the Plaintiffs acquired vested property rights to the connections of their footing drains to the City's sanitary sewer related thereto.

Upon information and belief, the FDD Ordinance was not passed in response to emergency conditions or some other imminent threat to public health, safety or welfare. Rather,

the FDD Ordinance was enacted by the City supposedly to create a solution to long-standing and self-created conditions in the least expensive way possible.

Inclusion into the FDD program is selective and at the discretion of the City. Only about 5% of houses constructed prior to 1982 (all located in the only five Target Areas the City has ever designated under the FDD Ordinance) have been required by the City to be in the FDD program. The City has not announced plans to designate further target areas.

Those that are chosen to be mandatory participants in the FDD scheme are supplied with a "Homeowner Information Packet", which includes the City's own statement of the amount of work and type of work to be done. (A copy of the currently available Homeowner Information Packet is attached as Exhibit "2" to the Complaint. The Homeowner Packet delivered to Plaintiffs, John Boyer and Mary Raab is attached as Exhibit "A" to the Affidavit of John Boyer). It contains a brief description of the FDD construction and visitation process, with drawings and diagrams showing how much permanent interior and exterior work is included in the FDD. FDDP-mandated participants perform non-volunteer physical labor required by a local ordinance, with neither compensation for their work, reimbursement for their expenses, nor reimbursement for the payments to contractors who perform the mandatory labor.

There are various steps in the sequence of government action directed at the Plaintiffs under the FDDP:

- (A) the Homeowner's Packet (each targeted household receives one by hand delivery or left unaddressed on doorstep);
- (B) multiple inspections and visits by the City's "Contract Manager" City employees and the selected plumbing firms;
- (C) meetings by City and contractor representatives with homeowners in small groups by invitation only - one small group at a time-for the purpose of promoting the FDDP;

(D) the actual FDD, including the physical invasion and permanent physical occupation described in the Affidavits of each of Plaintiffs Anita Yu, John Boyer and Mary Raab.

Further, the Homeowner Packet specifically refers the owner to other publications of the FDDP, including Frequently Asked Questions and documents posted at the FDDP website, at which the most recent version of the Homeowner Information Packet is also posted (See Exhibit "3" attached to the Affidavit of John Boyer).

The Homeowner Packet, in fact, describes multiple entries by City contractors and the selected pre-qualified FDD contractor into houses for inspections before and after installation. None of these entries have been made pursuant to a warrant, in response to a fire, any emergency, or even under a building permit. Homeowners who have completed FDDs are performing non-volunteer physical labor mandated by the FDD Ordinance and implementing documents for the sole supposed benefit of others, without compensation for their work or the incidental monetary expenses of their work or the payment of a contractor to perform their labor. The "FDDP Maintenance Manual" is supplied to homeowners upon whom the FDDP is imposed and describes some of these labor burdens - it amounts to a work order. (The Maintenance Manual is attached as Exhibit "B" to the Affidavit of John Boyer). Additionally, the affidavits presented in support of the motion at bar describe work and physical labor the homeowner must provide that are not delineated in the Maintenance Manual.

Homeowners are encouraged by the City to purchase a back-up battery and/or hydraulic back-up pump as part of the FDDP, but the City does not underwrite the cost of such equipment, which experience has shown is necessary to provide reliability of the sump pumps.

Plaintiff Anita Yu did not receive a back-up battery as part of the installation. She needs to have one because the pump runs, but has not purchased one due its cost and maintenance

requirements. If she buys the battery and it discharges during a power outage, she will have to recharge the battery. Without charging equipment for the battery (which itself looks like a large car battery) paid from her savings, she would need to follow another procedure.

The City also has unchecked authority under the FDD Ordinance to issue further orders to the homeowner to take further steps at the owner's sole expense to mitigate the home's "improper" inflows from FDD's, which are referred to as "illicit" by the City in the extensive publications about the FDDP made by the City over time, most recently since April 2013. The FDD Ordinance provides no rights of administrative appeal or other due process with respect to any order of the Director.

The City via its City Attorney's Office is publicly on record as stating that a specific purpose of the FDDP - an ordinance passed in 2001 - was to bring homes constructed prior to 1982 into compliance with a later-enacted plumbing code (requiring sump pumps in construction) effective January 1, 1982 and that such change was retroactive to earlier single family residential homes. Plaintiffs' houses were constructed and purchased before the FDD Ordinance. Plaintiffs' home are of 1960's and 1970's vintage, respectively.

Plaintiffs' Complaint herein alleges seven discrete causes of action (1) Violation of MCL 213.33 (improper taking); (2) Violation of Article X, Section II of Michigan Constitution (Takings Clause); (3) Fifth Amendment of US Constitution (Takings Clause); (4) Federal Civil Rights Act of 1871 (42 USC 1983); (5) Preliminary and Permanent Injunctive Relief; (6) Declaratory Judgment Relief and (7) Attorney fees.

Plaintiffs bring the motion at bar for issuance of temporary restraining order and preliminary injunction.

QUESTIONS PRESENTED

I. DO PLAINTIFFS HAVE A LIKELIHOOD OF SUCCESS ON THE MERITS OF THEIR CLAIMS THEREIN?

II. DOES HARM TO PLAINTIFFS IN THE ABSENCE OF A PRELIMINARY INJUNCTION OUTWEIGH THE HARM TO DEFENDANT IF A PRELIMINARY INJUNCTION IS GREATER?

III. DO PLAINTIFFS HAVE "IRREPARABLE INJURY"?

IV. DOES THE PERMANENT OR CONTINUOUS CHARACTER OF THE INTERFERENCE PLED WARRANT THE GRANTING OF AN INJUNCTION?

V. WILL THE PUBLIC INTEREST BE SERVED BY THE ISSUANCE OF A PRELIMINARY INJUNCTION?

BRIEF ANSWERS

I. YES, THE UNITED STATES SUPREME COURT'S DECISION IN *LORETTO v. TELEPROMOPTER CATV CORP.* AND CASE LAW IN MICHIGAN HAVE CLEARLY HELD SUCH GOVERNMENTAL INVASIONS TO BE TAKINGS IN VIOLATION OF THE U.S. CONSTITUTION.

II. THE REMEDY SOUGHT HEREIN IS TO PREVENT THE CITY OF ANN ARBOR FROM ENFORCING ITS FDD ORDINANCE. THERE IS NO PROOF THAT THE CITY WILL BE DAMAGED FROM ISSUANCE OF AN INJUNCTION BARRING FDD ORDINANCE ENFORCEMENT.

III. YES, IRREPARABLE INJURY, ALSO KNOWN AS INADEQUACY OF LEGAL REMEDIES, IS PRESENT HERE AS IS THE DANGER OF A MULTIPLICITY OF SUITS.

IV. YES, EQUITY WILL ENJOIN INTERFERENCE OF ENJOYMENT AND USE OF LAND WHERE THE INVASION IS OF A CONTINUOUS CHARACTER.

V. YES, THE PUBLIC INTEREST IS ADVANCED BY PREVENTING FUTURE CONSTITUTIONAL INJURY AND PREVENTING A MULTIPLICITY OF SUITS DUE TO ENFORCEMENT OF AN UNCONSTITUTIONAL ORDINANCE.

ARGUMENT

The purpose of a preliminary injunction is to preserve the Court's power to render a meaningful decision on the merits. *Stenberg v. Cheker Oil Co.*, 573 F.2d 921, 925 (6th Cir. 1978). Courts have referenced the maintenance of the status quo as the "last actual, peaceable, non-contested status preceding the pending controversy." *Compass v. McMath*, 185 Mich. App. 724 (1990); *Bratton v. DAIIE*, 120 Mich. App. 73 (1982). Injunctive relief is authorized under 42 USC 1983. *Henson v. City of St. Francis*, 322 F. Supp. 1034 (E.D. Wis. 1970).

The courts employ two tests to determine if a preliminary injunction is warranted; the four-factor test and the balance of hardships test.

The four-factor test, applied often by the Sixth Circuit, was delineated in *Mason County Med. Ass'n v. Knochel*, 563 F.2d , 256 (6th Cir. 1977), and the Michigan Supreme Court adopted essentially the same test in *Michigan State Employee Ass'n v. Dep't of Mental Health*, 421 Mich. 152 (1984). These courts look to four factors in considering whether a preliminary injunction is appropriate: (1) whether the plaintiff has shown a substantial likelihood of success on the merits; (2) whether the plaintiff has shown "irreparable injury"; (3) whether issuing a preliminary injunction will cause substantial harm to others (or whether harm to the plaintiff in the absence of a preliminary injunction outweighs the harm to defendant if a preliminary injunction is granted); and (4) whether the public interest will be served by issuing a preliminary injunction. *Mason County Med. Ass'n*, 421 Mich. at 157-158; see also *Southern Milk Sales Inc. v. Martin*, 924 F.2d 98 (6th Cir. 1991). These four factors merely guide the courts in their decision whether to grant a preliminary injunction; they are not a "rigid and comprehensive" test for determining whether a preliminary injunction is warranted. *Friendship Materials Inc. v. Michigan Brick Inc.*, 679 F.2d 100, 102 (6th Cir. 1982). Therefore, these four factors are to be balanced; the necessity

of plaintiff's showing of a likelihood on the merits decreases as the strength of the plaintiff's showing of irreparable harm in the absence of a preliminary injunction increases. *In re DeLorean Motor Car Co.*, 755 F.2d 1223, 1229 (6th Cir. 1985).

Federal courts use the balance of the hardships test to determine whether preliminary injunction relief is warranted. Under this test, the movant must show "sufficient, serious questions going to the merits to make them a fair ground for litigation and a balance of hardships tipping decidedly toward the party requesting preliminary relief" *Friendship Materials Inc. v. Michigan Brick Inc*, 679 F.2d 100, 103 (6th Cir. 1982). Pursuant to this test, the plaintiff may receive preliminary injunctive relief even though it does not show a substantial likelihood of success on the merits, *Id.* at 105. Because it is clear the four factors are to be balanced, the four-factor test may not differ essentially in its basic application.

POINT I

THERE IS A "SUBSTANTIAL LIKELIHOOD ON THE MERITS" THAT "TAKINGS" ARE OCCURRING DUE TO AN UNCONSTITUTIONAL ORDINANCE

Where a likelihood of success on the merits exists, an unconstitutional ordinance may be preliminarily enjoined. *See Fehribac v. City of Troy*, 341 F. Supp. 2d 727 (E.D. Mich. 2004) (court issued preliminary injunction against enforcement of political sign ordinance where likelihood of unconstitutionality existed).

The key federal authority herein is the ruling in *Loretto v. Teleprompter Manhattan CATV Corp*, 458 U.S. 419 (1982). *Loretto* held that a permanent physical occupation authorized by the government is a "taking" without regard to any public interest it may serve. *Loretto* involved facts where physical occupation of plaintiff's realty was limited to installation of a

single cable wire, several brackets and screws, and a metallic box on plaintiff's immediately below the roofline on the exterior of her apartment building. Installation was done under a New York law requiring a landlord to permit a cable company to install cable wires in apartment buildings.

Under *Loretto* stands for the proposition that, a physical occupation pursuant to an enforced consent that creates a burden that is only "more than trivial" gives rise to a *per se* Takings Clause violation. The total volume occupied by the installation that was rejected in *Loretto* was about one-eighth of one cubic foot. That is approximately the size of thirteen golf balls. Cable wires do not require operation and maintenance by the owner or the incurrence of expense it and do nothing to disturb the general peace of mind of the affected parties. The invasion here is larger, floods, uses electricity and has to be operated by occupants, young, old, and disabled alike, must also be maintained regularly by the occupants and causes FDDP "participants" significant ongoing expenses. The Plaintiffs herein have clearly established an unconstitutional taking.

Government interference with a property owner's rights may be so serious as to constitute a taking, thereby allowing the property owner to maintain an inverse condemnation action, *Difronzo v. Village of Port Sanilac*, 116 Mich. App. 148 (1988). In *Hart v. City of Detroit*, 416 Mich. 488 (1982) it was observed that physical occupations of private real estate are subject to a fifteen year statute of limitations because an inverse condemnation by physical occupation is most akin to adverse possession.

Plaintiffs had a "vested property right" to their homes' then-existing connections to the City's sanitary sewer lines prior to the 1982 amendments to the Michigan Building Code and could not be divested of those rights by the FDD Ordinance. See *City of Lansing v. Dawley*, 247

Mich. 394 (1929); *Expert Steel Treating Co. v. City of Clawson*, 368 Mich. 619 (1962); see also *Laisy v. City of Shaker Heights*, 33 Ohio Misc.2d 3 (Ct. Common Pleas, 1986) (trial court enjoined footing drain disconnection based on owner's vested property rights under a building permit issued before ordinance enacted).

The Michigan Supreme Court has long held that the right of exclusion or the right of complete possession and enjoyment is one of the essential elements of property in land. *Vanderlip v. Grand Rapids*, 73 Mich. 522, 533 (1889). In *Peterman v. Dep't of Natural Resources*, 446 Mich. 177 (1994), it was held:

[a]ny injury to the property of an individual which deprives the owner of the ordinary use thereof is equivalent to a taking, and entitles him to compensation. So a partial destruction or diminution of value of property by an act of government, which directly and not merely incidentally affects it, is to that extent an appropriation.

446 Mich. at 190 (citations omitted). A reduction in property value caused by government action is a strong indication of a "taking" *Id.* at 190 n.18.

Where property is actually invaded and permanently occupied by (or with authority from government) by a physical object, a taking occurs within the meaning of the constitutions. *Peterman* at 189 n.16. And, when there is an alleged physical invasion of realty arising from government action, a lawsuit is ripe for judicial review; see *Lingle v. Chevron USA Inc*, 544 U.S. 528, 537 (2005). In such cases, a taking occurs. *Ligon v. City of Detroit*, 276 Mich. App. 120, 132 (2007).

In *Ashley v. City of Detroit*, 35 Mich. 296 (1877) it was set forth:

... a municipal charter never gives and never could give authority to appropriate the freehold of a citizen without compensation, whether it be done through an actual taking of it for streets or buildings, or by flooding it so as to interfere with the owner's possession. His property right is appropriated in the one case as

much as in the other.

35 Mich. at 296 (citation omitted); *see also Estate Dev. Co. v. Oakland County Rd. Comm'n*, 2011 Mich. App. LEXIS 587 (2011). Moreover, it is immaterial whether the government acts through contractors or other intermediaries so long as the government puts “the destructive force in motion.” *Id. at p. 5, supra*.

The City is proceeding unconstitutionally as it has created and implemented a government program based on takings of the plaintiffs’ private property for public use without prior due process and just compensation, and specifically by physical invasion and physical occupancy, which is a *per se* taking of private real estate that cannot be justified even on the basis of an “important public benefit.” *Loretto, supra*, at pp. 427-32. The City has not only imposed burdens on the owner’s right to exclude others from their private real property, but imposed burdensome duties of non-volunteer work and physical labor, without pay, for the maintenance and operation of FDDs, as well as mandatory assumption of expenses incidental to performing such mandatory work and physical labor.

Against this legal backdrop, there is a strong likelihood of success on the merits for Plaintiffs herein.

POINT II

THERE IS A CLEAR SHOWING OF HARM THAT PLAINTIFFS ARE SUSTAINING THAT OUTWEIGHS ANY INTEREST OF THE CITY IN ENFORCING THE FDD ORDINANCE

The Michigan Supreme Court set out the balancing of the hardships test in *Niedzialik v. Journeyman Barbers Hairdressers & Cosmetologists Int'l Union of America Local 552 AFL*, 331 Mich. 296, 301-302 (1951). While *Michigan State Employees Ass'n v. Dep't of Mental*

Health, 421 Mich. 152 (1984) did not expressly modify or overrule *Niedzalik*, it unambiguously adopted the four-factor test. *See Consumers Power v. Mich. Public Serv. Comm'n*, 415 Mich. 134, 152 (1982) ("The object of the preliminary injunction [is] to preserve the status quo by averting irreparable injury to either party").

In the case at bar the hardships that Plaintiffs are sustaining are borne out by their affidavits herein and are clearly substantial. Plaintiffs should be protected by a preliminary injunction barring the City from further implementation, administration and enforcement of the FDD Ordinance, as well as FDDP requirements in documents issued as part of the FDDP.

POINT III

PLAINTIFFS HAVE SHOWN IRREPARABLE INJURY HEREIN DUE TO THE ENFORCEMENT OF THE FDD ORDINANCE

"Irreparable injury," a concept which is also referred to by jurists as "inadequacy of legal remedies," has traditionally been the most material element in deciding whether to impose a preliminary injunction. Two interests are implicated in this analysis: (a) equity cannot intervene where an adequate remedy at law exists; and (2) if injury is irreparable, the Court will be unable to render an effective remedy after trial unless a preliminary injunction is entered. *Friendship Material Inc., supra*, at 104; *Paw Paw Wine Distributors Inc. v. Joseph E Seagram & Sons*, 603 F. Supp. 398, 401 (W.D. Mich. 1985).

The courts have fought to clearly and in uniform manner apply and analyze the notion of "irreparable injury". In *Merrill Lynch Pierce Fenner & Smith, Inc. v. EF Hutton & Co*, 403 F. Supp. 335, 343 (E.D. Mich. 1975), the court held that the movant needs to make a showing of "a non-compensable injury, for which there is no legal measure of damages or none that can be determined with a sufficient degree of certainty."

One treatise has indicated that the court's analysis of "irreparable injury" actually involves balancing the costs and risks to the defendant and to the judiciary in allowing equitable relief with the costs against the risks to plaintiff of having to accept the least remedy. Under this analysis "irreparable injury" is essentially a mere label for the court's conclusion based upon the other elements or factors. *See Laycock, The Death of the Irreparable Injury Rule*, 103 Harv. L. Rev. 687, 765 (1990).

The courts have found irreparable injury where defendant's conduct materially affects the plaintiff's use of realty, which has always been considered unique; see e.g. *Bormans Inc v. Great Scott Supermarkets Inc.*, 433 F. Supp. 343 (E.D. Mich. 1975); *Bales v. State Highway Commission*, 72 Mich. App. 50 (1976). In *Zurcher v. Herveant*, 238 Mich. App. 267, 307 (2000) the Court agreed that land is unique and subject to an equitable judicial ruling even though damage claims were being heard by a jury. *Id.* at 306 n.24. It is in the nature of inverse condemnation actions that the taking issues are addressed first, with injunctive relief necessary while the parties proceed to trial on the compensation issues.

The Plaintiffs' affidavits demonstrate the continuing nature of the physical occupation of their homes, the impermissible burden on their fundamental rights to be free from per se takings of their private real property; the continuing insult to their dignity as homeowners from the continued physical occupation of their real property. Most strikingly, the affidavits are evidence of the application of an objectionable and impermissible requirement that physical labor be provided by a small minority of the City's population for the supposed benefit of all others, without pay or the benefit of laws for the protection of laborers. Such a combination of physical occupation with mandated free labor cannot be remedied without preliminary injunctive relief against ongoing violations of human and real property rights on a large scale. There are also

continuing effects of anxiety, worry, and mental anguish. that result directly from plaintiffs' FDDs. The plaintiffs suffer not only the burden of labor, but the insult that the labor is demanded by government for free.

Finally, a preliminary injunction will also likely lessen the probability of a multiplicity of suits while the FDD Ordinance continues to be implemented and, as a result, give rise to additional legal actions by citizens required to have FDD's.

POINT IV

EQUITY WILL ENJOIN INTERFERENCE WITH ENJOYMENT AND USE OF LAND WHERE THE INVASION IS OF A CONTINUOUS CHARACTER

A person shall not be allowed to destroy the property of another by a series of threatened trespasses and leave him only the remedy of monetary damages at law. Equity is available to enjoin the threatened injury at any period in its perpetration, and thereby prevent a multiplicity of suits. *Stone v. Roscommon Lumber Co.*, 59 Mich. 24 (1886).

The court in *Schadewald v. Brule*, 225 Mich. App. 26 (1997), an unconstitutional takings case, held:

When an injury is irreparable, the interference is of a permanent or continuous character, or the remedy at law will not afford adequate relief, a bill for injunction is an appropriate remedy...

225 Mich. App. at 40 (Emphasis supplied); *see also Soergel v. Preston*, 141 Mich. App. 585 (1985) (injunction against sewer line construction).

The "continuous, permanent character" of the FDD's and the flood risk they represent is that the FDDP damages people through the violation of their obvious right to be free in their homes. This clearly exceeds the "more than trivial" burden identified in *Loretto*, by adding the undeniable and clearly understood burden of serving as a *de facto* servant of the City for as long

as the City requires sump pumps and related equipment to be installed, operated and maintained. Moreover, the forced installation of the sump, sump pump and related equipment degrades the Plaintiffs' property values and serves as an alternative and independent basis for a finding of "irreparable injury".

POINT V

THE PUBLIC INTEREST IS ADVANCED BY THE GRANT OF A PRELIMINARY INJUNCTION

The public interest is advanced by preliminary injunctive relief and would be hurt by the absence of such relief. The public interest is not advanced by the FDDP's mandate for non-volunteer physical labor or by the existence of such a requirement in our city and State and by the continued implementation of a program of blatant physical occupations of private property. It is a matter of public record that the City continues to promote the FDDP aggressively with a view toward completing further FDDs in the Target Areas. Given the likelihood of success by the plaintiffs, the public interest will be served by a preliminary injunction that avoids harm to persons and property from implementation of the FDDP and the completion of further FDDs. The City has proceeded recklessly since 2002 with the FDDP, without challenge and without regard to applicable state law or the state and federal constitutions. The City should be barred from further implementation of the FDDP and from enforcing the FDD Ordinance until this action is fully and finally litigated.

CONCLUSION

For the foregoing reasons, a preliminary injunction should issue against the Defendant, its agents representatives and employees and all others acting on its behalf or in its stead, enjoining and restraining further implementation and enforcement of the FDD Ordinance.

DATED: February 27, 2014

IRVIN A. MERMELSTEIN, ESQ.



2099 Ascot Street
Ann Arbor, Michigan 48103
734.717.0383
nrglaw@gmail.com

M. MICHAEL KOROI (P44470)
150 N. Main St.
Plymouth, MI 48170
734-459-4040
mmkoroi@sbcglobal.net

2:51.1. Program for footing drain disconnect from POTW.

(1) *Purpose:* The purpose of this Program is to significantly reduce improper stormwater inflows in the most cost-effective manner, in order to eliminate or reduce instances of surcharged sanitary sewers due to improper inflows, which are inimical to public health and welfare; reduce the chance of a sanitary sewer backup into occupied premises; and to maximize efficient operation of the District's wastewater treatment plants.

(2) *Definitions:* For purposes of Section 2:51.1 of the Ann Arbor City Code:

1. Improper stormwater inflow shall mean any direct connections (inflow) to the public sewer of sump pumps (including overflows), exterior floor drains, downspouts, foundation drains, and other direct sources of inflow (including but not limited to visible evidence of ground/surface water entering drains through doors or crack in floors and walls) as noted during field inspections by the Utility Department.

2. Participating owner(s) shall mean those persons that own property within a target area as may have been defined by the Director and who have notified the Director of their decision to participate in the program within 90 days of having been ordered by the Director to correct improper stormwater inflows from their property and meet the eligibility requirements of Section 2:51.1(4).

(3) *Scope of Program:* All improper stormwater inflow disconnection costs shall be at the owner's expense, except, in accordance with this funded program, the POTW may either reimburse the participating owner of a premises, or pay directly to the participating owner's contractor, for qualifying work up to a maximum of \$3,700.00 ("Funding Cap"), or as may be adjusted under 2:51.1(12), for corrective work to remove improper stormwater inflows for which the initial building construction permit was in existence prior to January 1, 1982 or prior to the date the premises became under City of Ann Arbor jurisdiction. This funding program is referred to in this Section as the "Reimbursement Program," regardless of whether payment is made as reimbursement to the participating property owner or as direct payment to the participating property owner's contractor.

(4) *Eligible Participants.* This program may be utilized only for: (a) Improper stormwater inflows for which the initial building construction permit was in existence prior to January 1, 1982 or, (b) for premises in areas which came into the jurisdiction of the City of Ann Arbor at a later date, improper stormwater inflows which were in existence prior to the date of such inclusion.

(5) In every instance where the Director is required to act or approve an action, the action or approval may be performed by a person designated, in writing, by the Director to act as his or her designee.

(6) *Target Areas; Orders.* The Director may implement and make available this Reimbursement Program throughout the City, or instead only in target areas within the City determined by the Director as having the highest priority for reduction of stormwater inflows based on surcharging problems. When the Director issues orders for removal of improper stormwater inflows in an area where the program is being implemented, the Director shall inform the owner of the availability of the Reimbursement Program. Participation in the Reimbursement Program shall be voluntary; owners declining to participate shall be required to proceed with removal of the improper inflow at the owner's expense.

(7) *Scope of Work.* The Director shall determine for each participating premises the scope of work for reduction of improper stormwater inflows and sewer backup prevention, which may be paid for with Program funds, with the goal of achieving the most cost-efficient and timely reductions. If work paid for under this Program does not eliminate every improper stormwater inflow for a participating premises, the Director is not precluded from issuing supplemental orders under Chapter 28 of Title II concerning the participating premises. For each participating premises the maximum cost which may be paid with POTW funds to an owner or owner selected contractor shall be the Funding Cap set under 2:51.1(3) or as may be adjusted under 2:51.1(12). If additional work is required it shall be performed at owner expense.

(8) *Approved Contractors.* The Director may establish a list of private contractors or contractor teams (referred to as "contractor(s)" throughout this section) approved for performing work under this Program based on qualifications including experience, quality of work and insurance. Participating owners may propose additional contractors for inclusion in the approved list.

(9) *Contractor Selection.* Participating owners shall select an approved contractor in accordance with a process established by the Director. Participating Owners may either select a private contractor from the list or agree to perform the work by him or herself.

1. If the participating owner selects a contractor from the list of approved private contractors to perform the work, after Director review and approval of the contractor selection and contract price, the owner shall contract with the selected contractor for performance of the approved scope of work. The City of Ann Arbor shall not be a party to the contract. The owner's contract shall require the contractor to secure any building permits as may be necessary and shall specify that the owner's final payment to the contractor shall not be made until (i) the work is inspected and approved by the Director and approved by the owner, whose approval shall not be unreasonable withheld, (ii) a release of lien from all contractors or subcontractors performing work on the premises is obtained.

2. If the participating owner elects to perform the work his or herself, the scope of work, plans and specifications shall be approved in advance by the Director. The Director may establish rules authorizing reimbursement or partial

reimbursement for owner-performed work. No payment shall be made until the work is complete, inspected and approved by the Director. To be eligible for reimbursement, a request for payment must be accompanied by supporting receipts for materials, supplies and equipment.

(10) *Release.* As a condition to participation in the program the owner shall release the City of Ann Arbor, and their officers and employees from all liability relating to the work.

(11) *Payment.* After the work is inspected and approved by the Director and approved by the owner, the Director shall authorize payment for 100% of the cost of the approved work (subject to the funding cap set under 2:51.1(3) or as may be adjusted under 2:51.1(12)) from POTW funds approved for this purpose. Partial payments may not be made except that, at the sole discretion of the Director, a final payment may be made, less a reasonable retention for ensuring the completion of punch list items. Payment may be made to the owner, to the contractor, or jointly to the owner and contractor, in the Director's sole discretion.

(12) *Funding Cap Appeals.*

1. Notwithstanding any maximum reimbursement amount stated elsewhere within this section, the Director, upon a written request from a participating owner, may approve an amount 35% greater than the maximum where extraordinary construction or configuration circumstances require additional construction activity that cause extraordinary expense to achieve the program goals. Extraordinary construction or configuration circumstances do not include those situations where upgrades to the property that do or may increase the value of the property are required to accomplish the sanitary sewer disconnect. The written request from a participating homeowner must be received by the Director no later than 30 days after substantial completion of the construction of the approved scope of work.

2. Notwithstanding any maximum reimbursement amount stated elsewhere within this Section, the City Administrator, upon a written request from a participating owner may approve an increase of any amount, notwithstanding any maximum amount stated elsewhere with this Code, in the Funding Cap for a particular premises where extraordinary construction or configuration circumstances require additional construction activity that cause extraordinary expense to achieve the program goals and those expenses can not be accommodated within the 35% available under 2:51.1(12). The written request must be delivered to the City Administrator and must be received no later than 30 days after substantial completion of the construction of the approved scope of work.

3. Unless specific appeal procedures are otherwise provided in this code, participating owners aggrieved by a decision regarding a reimbursement amount may appeal that decision. Persons aggrieved by the decision of the Director shall file a written appeal to the City Administrator within 5 days of the decision. Persons aggrieved by the decision of the City Administrator shall file a written appeal of the City Administrator's decision to the City Council within 5 days of the decision.

(13) *Maintenance.* Participating owners shall be responsible for maintaining any improvements constructed under this Program.

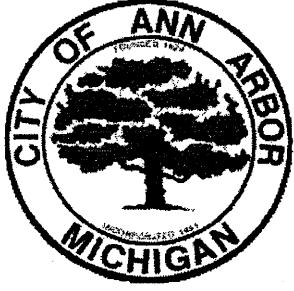
(14) *Director Rules.* Within the limitations set forth by this Section 2:51.1, the Director may establish such further criteria and rules as are required to implement this Program.

(15) *Surcharge; Disconnection; Enforcement.*

1. The Director or designee shall provide written notice by certified mail to the sewer user, property owner or other responsible person of any violation of Section 2:51.1 of this Code. This notice shall describe the nature of the violation, the corrective measures necessary to achieve compliance, the time period for compliance, the amount of the monthly surcharge until corrected and the appeal process.

2. For structures or property with actual or potential improper stormwater inflows, the sewer user, property owner or other responsible person shall be given 90 days to correct the illegal or improper activities or facilities contributing to the discharge, infiltration or inflow into the POTW. If corrective measures to eliminate the illegal or improper discharge, infiltration or inflow into the POTW are not completed and approved by the Utility Director or designee, within 90 days from the date of the notice provided in section 2:51.1(15)1, then the director shall impose upon the sewer user, property owner or other responsible person a monthly surcharge in the amount of one hundred dollars (\$100.00) per month until the required corrective measures are completed and approved. If the property owner or responsible party fails to pay the monthly surcharge when due and payable, then the city may terminate the water and sewer connections and service to the property and disconnect the customer from the system. Any unpaid charges shall be collected as provided under Chapter 29 of Title II.

(Ord. No. 32-01, § 1, 8-20-01; Ord. No. 37-02, § 1, 9-3-02)



Footing Drain Disconnection Program HOMEOWNER INFORMATION PACKET

**City of Ann Arbor
Public Services Area
www.a2fdd.com**

**PLAINTIFF'S
EXHIBIT**

2

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PROJECT BACKGROUND

Within the City of Ann Arbor, there are groups of homes that have experienced basement backup problems. Many of these have been the result of wastewater backing up from the sanitary sewers through basement floor drains, especially during periods of heavy rainfall. This wastewater presents a potential health risk and can cause damage to the structure and to belongings stored in the basement.

In addition, this excess groundwater places a strain on the sanitary sewer system and must be treated at the Waste Water Treatment Plant. Due to current and future regulations in the State of Michigan, it is critical the Utilities Department minimize the amount of unnecessary groundwater sent as wastewater to the Treatment Plant.

In 1999, the City formed the Sanitary Sewer Overflow Prevention Advisory Task Force to understand the causes of basement backup and develop solutions to the problem. The Task Force was comprised of homeowners, city staff and experts in related disciplines. In addition, the Task Force hired the engineering firm of CDM to assist in the data gathering and analysis. Throughout the project, the Task Force sought to provide the public with project information and solicit homeowner feedback to develop a recommendation that meets the diverse needs of the citizens.

TASK FORCE FINDINGS AND SOLUTIONS

The Task Force study determined that during heavy storms, rainwater from home footing drains overloads the sanitary sewer system and is the primary cause of basement backups. It was determined that even homes with no current basement backup problems were significant contributors to the basement backup problem for neighboring homes.

There are basically two ways to handle this problem: either reduce the amount of rainwater entering the sanitary sewer system, or provide more capacity in the system to store or carry these flows. Based on analysis and public feedback, the Task Force determined that reducing the amount of rainwater entering the system would be preferable to the public, environmentally responsible and most cost effective.

Therefore, the Task Force recommended that the Mayor and City Council implement a comprehensive citywide footing drain disconnection program within the City of Ann Arbor in order to reduce the amount of rainwater flowing into the sanitary sewer system.

The Task Force recommended a citywide program for a number of reasons.

- This basement backup problem is not confined to the five study areas.
- All buildings with connected footing drains contribute to the basement backup problem.
- Footing drain disconnection supports the City in a proactive approach to pending regulatory guidelines in the State of Michigan.
- Decreasing the amount of storm water flow that gets to the Water Treatment Plant reduces both the costs of treatment and the chances for potential overflows into the Huron River.



WHAT IS FOOTING DRAIN DISCONNECTION?

As shown on Figure 1, footing drains are small (4-inch diameter), perforated drainage pipes located near the foundation of your house. They are intended to keep rainwater that seeps through the ground from building up along the foundation or basement walls. In many homes, the downspouts, which carry rainwater from the gutters, discharge near the foundation walls. This water drains through the soils and into the footing drains. In most homes constructed before the 1980s, the footing drains are connected to the house sanitary connection (house lead) as shown in the figure above. This house lead carries the footing drain flow and wastewater from the house to the sanitary sewer system.

When it is not raining this is not normally a problem, but during a severe storm event too much rainwater can enter the sanitary sewer system. This excess flow can cause the mixture of rainwater and wastewater to backup in the house lead of some homes and cause basement backups.

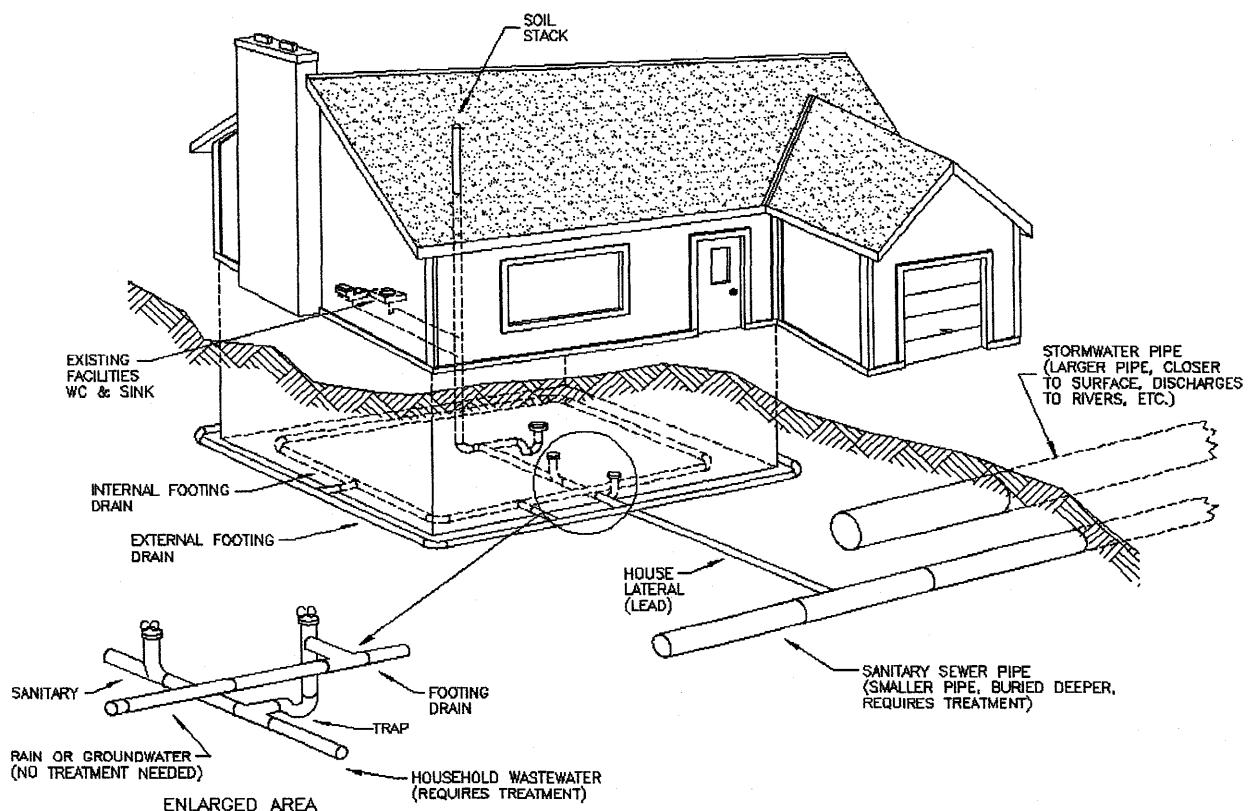


Figure 1 – Pre-construction Conditions

Footing drain disconnection is performed to remove the rainwater flows from the sanitary sewer system. This is done by disconnecting the footing drains from the house sanitary lead and installing a sump pump to move water from the footing drains into the storm water system. There may be some alternatives to sending the flow into the storm water system in some neighborhoods or homes. The creation of rain gardens or use of low areas in backyards are possibilities. A priority is placed on safe disposal of the storm water. For the vast majority of



homes the connection to the sanitary house lead is inside the basement, and the sump is installed in the basement as shown in Figure 2 below.

In homes that have experienced basement backups or are at risk for basement backup, the city can provide funding to install check valves to keep water from flowing back into the home from the sanitary sewer system.

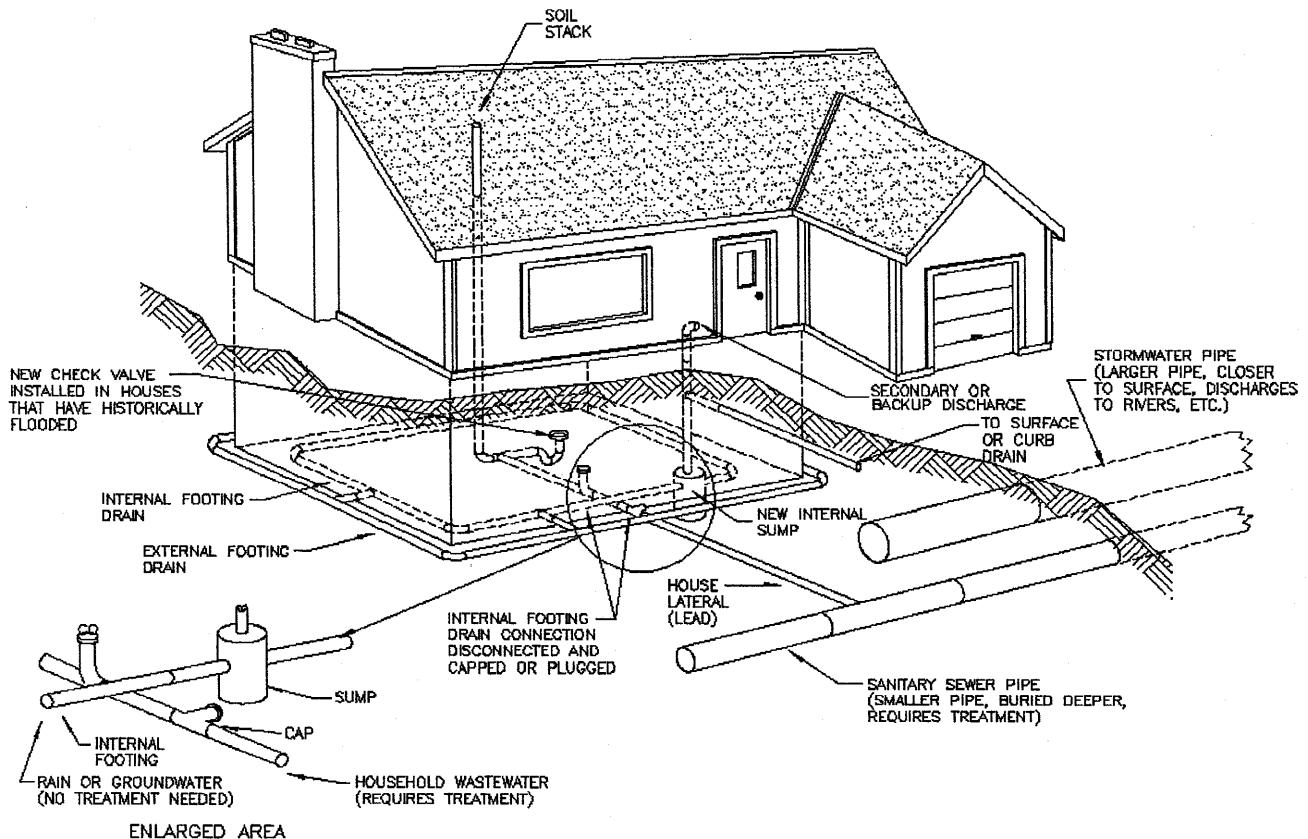


Figure 2 – Basement Sump Construction

WHY DISCONNECT FOOTING DRAINS?

The purpose of disconnecting footing drains is to keep rainwater out of the sanitary sewer system. During dry weather, the sanitary system has plenty of capacity to carry wastewater. In neighborhoods where footing drains are connected to the sanitary system, however, rainwater can overflow the sanitary system during heavy storms resulting in the rainwater/wastewater mix backing up into basements. Keeping rainwater out of the house 'lead' greatly reduces the amount of rainwater getting into the sanitary system, which protects downstream residents and reduces costs at the wastewater treatment plant. It also frees the house connection to carry wastewater to the sanitary system.

All homes built in the City of Ann Arbor since January of 1982 have disconnected downspouts and footing drains with sump pumps in the basements or with gravity discharge leads to a storm



water system. Surface discharge of downspouts allows more rainwater from roofs to be absorbed by the ground and reduces the amount of water being treated and released into the Huron River.

Footing drain disconnection has the following advantages:

- Protects homeowners who have had sanitary backups during severe storm events.
- Takes rainwater out of the sanitary system, reducing problems for downstream residents and eliminating treatment costs for the rainwater.
- Preserves natural features and protects watershed by minimizing undesirable discharges to the Huron River.
- Provides short-term and long-term protection for those at risk.
- Provides the lowest rate impact of all the possible solutions.

WHAT WILL HAPPEN AT MY HOME?

After you receive this homeowner information packet, you should contact the FDD Construction Manager (see page 8 for contact information) to arrange for the initial assessment at your home. This will be an excellent opportunity to ask specific questions about your home, and to learn more about the steps of the program. Next, you will choose from a list of pre-qualified contractors, obtain estimates and arrange a contract. (See page 8 for a list of the contractors) The actual construction work should take from 1 to 3 days of in-home construction. Construction photos are available on the project website www.a2fdd.com.

Curb drain installation work has most likely already been performed by a city hired contractor in the lawn extension area between the curb and sidewalk. The contractor installed a 6-inch diameter pipe with individual connections for each house that will collect the flows from sump pumps in individual homes and direct it to the storm sewer. Lastly the area that was disturbed was restored with new grass seeding and occasionally sidewalk or driveway aprons were replaced.

Initial Assessment will be conducted by the FDD Construction Manager with the homeowner and will include actions to:

- Determine if your footing drains are connected
- Identify possible locations for sump pump installation
- Assess site drainage options, including identification of any needed changes in downspout connections.
- Assess options for installation of sump discharge lead (piping) to an approved discharge location.

Inside work will be confined to the basement and will include:

- Removal of a section of the basement floor to access pipes and to install the sump.
- Disconnection of the footing drains from the house lead and routing of new discharge lines.
- Installation of a new electrical circuit.
- Installation of the sump and sump pump. The sump is typically 24 inches in diameter and 30 inches deep. The cover is sealed and level with the basement floor.



- Repairs to the work area (i.e., replacing concrete, tiles, etc.)
- For homes that have previously experienced basement backup or those deemed to be at-risk for basement backup, installation of check valves on all plumbing fixtures located in the basement or a single check valve to protect all facilities in the basement.
- Clean up of the work area.

Work in the yard includes:

- Installation of a small pipe to carry footing drain water from the sump pump to the previously installed curb drain or an approved alternative.
- Cleanup and restoration of any areas impacted by the installation.

WHAT WILL IT COST? HOW IS IT FUNDED?

The City will provide funding for the 'core' work. A typical household should cost \$4,100 to disconnect. Exceptional circumstances within a household may warrant payment beyond the \$4,100. Prior to signing a contract, a homeowner may request additional city support which will require competitive estimates from 2 different contractors. This request will be reviewed and may be approved by the City Project Manager and, if necessary, the City Administrator. Financing for this project comes from sewer use fees. Items funded include:

- Parts and labor for standard sump and pump installation
- Parts and labor for discharge pipes
- Parts and labor for electrical work
- Basic restoration of interior and exterior work areas including lawn reseeding and if necessary restoring the floor, ceiling surface or drywall patching.

The Homeowner will be responsible for the following costs where applicable:

- Additional features or restoration beyond what is required for basic installation and items classified as home improvements or exceed building code requirements (e.g. replacement of inadequate electrical service panel, construction of new enclosure for sump, etc.)
- Backup Sump Pump - In the event of a power failure, the primary sump pump will not function. This can result in groundwater collecting around the outside of your basement walls and floor where it can seep through cracks in the concrete or through the sump lid. The plumbing contractors can install, at the homeowner's expense, either battery or water-powered backup pumps that will operate during an electrical failure or if your primary pump fails. You need to assess your desire for this additional level of protection as only you can understand the impacts moisture would have on your belongings in your basement, and the frequency of power failures in your neighborhood. Based on our experience with power failures during storm events, homeowners are advised to strongly consider the need for a backup system. (See questions 20-23 in the Frequently Asked Questions section for additional information)
- Maintenance
- **Homeowner pays all costs plus a monthly surcharge if the work is not completed within 90 days after receiving the 90-day notice to disconnect (see required timing below)**



WHAT DO I NEED TO DO?

As a homeowner please review and complete the steps below to aid in a reliable and trouble free disconnection.

1. Become informed by reviewing the supplied materials in this packet and attending the scheduled neighborhood meeting.
2. Arrange an in-home assessment with a Construction Manager to determine the need for a disconnection, discuss your options for getting the work done and get all your questions answered. We ask that during the in-home assessment/pre-inspection, to please kindly put them away until after the assessment has been completed.
3. Review the list of pre-qualified contractors (page 8) and make an appointment with one or more to receive an estimate of costs for the work to be done in your home.
4. Review costs that are funded by the City and identify any additional options you may want or need to contract for at your personal expense.
5. Submit the necessary forms to secure funding pre-approval to the Construction Manager.
 - Form 1 –Reaffirms that you understand that the contractor you hire is responsible for the work done at your property not the city of Ann Arbor. This is required of every homeowner.
 - Form 2 – This is only needed if the estimated cost exceeds the limit of \$4,100. Two estimates will be needed from different contractors for funding pre-approval above the \$4,100.
When funding has been pre-approved the construction management staff will notify you by phone.
6. Ensure that the footing drain disconnection work gets completed properly:
 - Arrange a contract to get the work done with your selected contractor.
 - Discuss scheduling and basement preparation with the contractor.
 - Clear the work area so that the contractor can perform the work. (Contractor will provide specifics). If desired, add additional dust protection to exposed areas.
 - Monitor the work underway to ensure it meets your contract agreements. Consult the Construction Manager if help is needed. The contractor will arrange for city building inspections to occur during the work.
 - Review finished work with the contractor to ensure you understand maintenance and operations of your system.
7. Host a final walkthrough/post-inspection with the Construction Manager to ensure that all work has been completed according to code and according to your contract. If all work has been completed as contracted, the city will issue payment to the contractor for the pre-approved amount.
8. Provide written feedback on the contractor and the overall project to the City.

WHEN DO I NEED TO COMPLETE THIS WORK?

The City and the construction management team work actively with property owners to ensure that all requirements of this program are understood and that construction occurs in timely manner. This packet is the first outreach to homeowners. Within the next two months, any homeowners who have not initiated a contract to disconnect will receive a courtesy reminder. If no action is taken following that reminder, property owners will then receive a certified letter from the city. By city ordinance, property owners are mandated to complete the disconnection of their footing drains within 90 days of receiving a certified letter entitled "90-Day Notice" from the City. If the disconnection is not completed by the end of the 90-days the homeowners risk losing city funding for the work and possibly a surcharge on their sewer bill of \$100 per month for unmetered sewage entering the system. If adjustments need to be made to the mandated



timing for completion, please communicate directly with the Construction Manager to review the unique circumstances in your home.

CONTACT NAMES AND NUMBERS

Construction Management Staff:

- Construction Managers
 - Justin Woods..... [734.794.2780]
 - Karen Duff [734.794.2780]
- CDM Project Manager – Jay Zawacki..... [734.794.2780]

City of Ann Arbor Staff:

- Project Manager – Anne Warrow [734.794.6410 ext. 43639]
- Interim Public Services Director – Craig Hupy [734.794.6310]

PRE-QUALIFIED CONTRACTORS

Hutzel Plumbing

Contact: Nancy Cummins
2311 S. Industrial Highway
Ann Arbor, MI 48104
Phone: (734) 665-9111
Fax: (734) 665-9238

RDC Residential Services

Contact: Richard Connors
Plymouth, MI 48170-5823
Phone: (734) 564-2801
Fax: (734) 414-0729

Bidigare Contractors

Contact: John Bidigare
P.O. Box 700464
Plymouth, MI 48170
Phone: (248) 735-1113
Fax: (248) 735-1114

Perimeter

Contact: Steve Rojeck
8385 Jackson Road
Ann Arbor, MI 48103
Phone: (734) 424-9280
Fax: (734) 424-2037



FREQUENTLY ASKED QUESTIONS

Background Questions: Reasons for Back Ups, Alternative Solutions

1. Are there alternatives to managing the water other than Footing Drain Disconnection? Why was this option chosen?

The SSO Task Force studied the issue of basement backups in 2000 to 2001 and identified three viable alternatives to solving these problems; footing drain disconnection, installing larger sewer pipes and building storage basins. This work found that footing drain disconnection (FDD) addressed the root cause of the basement backups, which was stormwater entering the sewer system during rain events. On average, every home with a connected footing drain adds 3,500 to 10,500 gallons per year of clean water that must be conveyed to the Wastewater Treatment Plant and treated before release to the Huron River. FDD was cheaper overall and, very importantly, reduced the chance of exceeding the Wastewater Treatment Plant capacity. FDD also provides the greatest security of the solutions as its capability to work effectively is not limited to certain size rainstorms.

2. Can I avoid the need for footing drain disconnection if I take actions such as redirecting my downspouts, sloping soil away from the foundation or installing low flow fixtures?

While those are excellent approaches to reduce some causes of wet basements and to reduce the volume of water that goes to the Wastewater Treatment Plant, this will not prevent enough water from entering the sewer system inappropriately. Footing drains still collect much of the rainfall that enters the ground. To protect your own and your neighbors' basements, the large volume of water entering the sewer system from rain storms must not enter the sewer system and FDD is the practical means identified to do this.

3. Why do I need to have this done and not my neighbors?

All buildings that have connected footing drains are scheduled for FDD work over the coming years. The schedule was established on a priority basis to disconnect the homes identified as needing protection from future basement backups and to accommodate a cost efficient installation process within a neighborhood.

4. I get water in my basement now. Will this solve that problem or make it worse?

This work will only address basement water problems that are caused by heavy rain events resulting in basement backups through floor drains. It will not improve or worsen other causes of wet basements such as leaks through cracks in basement walls or floors due to poor site drainage and/or poor or blocked footing drainage pipes.

5. What is the role of development in this problem? These basement backups have happened since our neighborhood has grown.

In tracking the source of the heavy flows that entered the system during rain storms in the year 2000, a Task Force of engineering professionals and community members identified that footing drains contributed 70-90% of the total volume of flow in the sewer system making this source the major cause of basement backups.

The existing sanitary sewer system without footing drain flow is more than adequate to handle recent and future development as planned for in existing treatment plant designs. New developments do not have footing drains connected to the sanitary system and will not add wet weather flows to the collection system.



Installation Process: Costs, Homeowner Choices, Restoration

6. Do I have to use a particular contractor (low bidder)?

Homeowners choose which pre-qualified contractor they want to provide them a bid. Homeowners only need to arrange one bid if the work can be accomplished within the \$4,100 average estimate. If costs exceed \$4,100, two estimates are needed. The homeowner may select either of the contractors, but must pay the differential between the lowest bid and the higher bid if the more costly contractor is selected.

7. Can I use another contractor who is not pre-qualified?

No. The City of Ann Arbor has developed a process for pre-qualifying contractors so that it is clear that they understand the methods and materials needed for a complete installation. Using other contractors would be more expensive for Ann Arbor to manage and would reduce the ability to support quality construction. With several contractors already pre-qualified, there is adequate choice for homeowners to make a selection. Exceptions to using the pre-qualified contractors may be allowed but the homeowner may not receive full reimbursement for all costs not pre-approved for work using pre-qualified contractors. Homeowners are encouraged to seek information/guidelines for reimbursement from FDD project staff before beginning work eligible for FDD funding. Contractors willing to do this type of work are encouraged to contact the city to seek pre-qualification status.

8. Can I perform the disconnection work myself?

Yes. Homeowners can perform the work. In this case, the homeowner would need to apply for all of the necessary permits, would have to comply with the construction specifications and materials of construction, and would be reimbursed for materials only. This reimbursement would only be made after the Construction Manager had completed the final walkthrough/post-inspection of the work.

9. What will this cost me as a homeowner?

The City will cover the costs necessary to complete an installation of the sump and basic restoration. Homeowners may choose to pay for additional items to meet their desires for more security and enhanced restoration. Some homeowners choose to purchase a backup pump or do additional landscaping work.

10. What does basic restoration mean?

Basic restoration inside the home means returning the home to the level of finish it had previous to the work. Concrete is replaced and smoothed, tiles are replaced with a closest match of available tile and the work site is cleared and cleaned. Outside the home, holes are filled in and grass seed is sown.

11. How do I know the contractor is installing quality components?

All work done by the pre-qualified contractors is in compliance with a very specific set of specifications for both the components to be used and the process for disconnection.

12. What will happen to my yard?

Every effort is made to minimize the amount of excavation and disruption in the yard. The least amount of yard disruption would be a small hole near the foundation wall where the discharge line exits your home. For more difficult installations due to the topography, type of soil or location of the discharge line, a trench across the lawn may be needed.



13. How long does construction last? How dusty is it? How disruptive?

Construction lasts for 2-3 days. Contractors protect flooring and hang protective plastic to minimize the mess. There will be concrete removed and this can generate dust and is noisy. See homeowners' surveys for rating on contractor cleanliness and courtesy.

14. How will this affect the radon levels in my basement?

Everything that is installed in the basement will be sealed, protecting the home from any additional radon exposure. If you do chose to get a water powered back-up, the lid may not be fully sealed.

15. Will my floor drain still work?

Yes. Footing drain disconnection does not affect the functioning of the floor drains. If there is a floor drain that goes to your footing drains it must be abandoned by plumbing code.

Maintenance and Operations

16. Who owns/maintains the sump, pump and additional plumbing lines?

Once installed, the sump pump and lines are owned and maintained by the homeowner.

17. What happens when my sump pump doesn't work? What if the check valves (sewage backflow prevention devices) fail?

If your sump pump stops working, water from the footing drains will not be pumped out to your discharge lines and this water can collect in your basement. As with any primary appliance, it is critical that homeowners keep sump pumps in good repair. The design life of pumps is usually five years, but most sumps pumps will operate for 10 to 15 years before needing replacement. Check valves need to be tested and maintained regularly or they could fail to operate and allow a basement backup to occur.

18. Is there a warranty?

Yes, the work and the sump pump have warranties through your contractor.

The sump pump warranty is normally 1 year. Warranty for installation work will be outlined in your contract with the contractor.

19. Why is the City mandating a system that has potential to fail when I have never had a problem related to this before?

Any system like this does have the potential to fail, typically because of a loss of power or because the sump pump fails to operate. However, the alternative is that your home or the home of your neighbor could experience a basement backup when footing drain flows overwhelm the sewer system and the Wastewater Treatment Plant in times of heavy storms. Building code in Ann Arbor and in most other communities changed in 1982 to require that footing drains use sump pumps or similar systems to direct footing drain flows to the stormwater system or to an alternative onsite system like a rain garden or detention basin.

20. What is a backup sump pump and why would I need one?

A backup sump pump is a secondary pump that will operate if the primary sump pump fails due to a power outage or mechanical failure. Under normal conditions, the primary sump will start running when the water in the sump reaches a certain level. If a power failure occurs during a period of heavy rain, the water level will continue to rise past that level without the primary pump operating, and the water can build up in the footing drains and in the soil around the basement. Basement wetness can result from water pressure building up around the outside of the



basement walls, where it can seep through cracks in the concrete walls or floor. Water may also seep through the sump lid.

The decision to purchase a backup system is dependent upon each homeowner's individual needs. The factors that should be considered are the level of finish of the basement, the frequency of power outages, past wetness problems, and home elevation relative to surrounding areas. Power outages frequently occur during storm events and it is advisable to have a backup system installed if you are concerned about basement wetness.

21. What if I have a floor drain near the sump, wont the ground water seeping into the basement flow out through the floor drain near the sump?

Not necessarily. If the pump fails to pump out the ground water from your sump the water can build up in the footing drains and in the soil around the basement. Basement wetness can result from water pressure building up around the outside of the basement walls, where it can seep through cracks in the concrete walls or floor. The location that the water seeps through the basement walls or floor may not be near a floor drain and in that case the water may not drain out. Water may also seep through the sump lid into the basement and if there is a floor drain nearby the ground water may drain out through the floor drain without dispersing across the entire basement floor.

Please note that relying on draining the ground water out through the floor drain to the sanitary sewer system during a power outage or pump failure is counteractive to the goals of the footing drain disconnection program and it is not a reliable long term solution because it allows the water to enter the basement before it drains out, potentially causing damage.

22. What are the options for a backup system?

Backup sump pump systems are homeowner options and must be paid for by the homeowner. These backup systems exceed building code requirements and are considered a home improvement that is not fundable by City project dollars. The battery backup system is the most commonly chosen back up system by homeowners. For a short list of advantages and disadvantages of the different back-up sump pump systems please continue reading below. For further information regarding these back-up options please speak with a contractor or look up manufacturer information.

A battery back-up sump pump is an emergency backup pump that draws its power from an industry standard deep-cycle marine battery and pumps the water out of the sump during the loss of electricity or failure of the primary sump pump at half the capacity of the primary system. The pump is installed in the sump and the battery pack is on the floor nearby. Battery based systems are usually fully automatic and maintain a full charge while the power is on and switch over automatically when the power turns off (indicated by an alarm).

Advantages

- Low maintenance requirements other than replacing the battery and checking the distilled water level in battery.
- Low up front cost
- Easy to install
- Works if primary pump fails

Disadvantages

- Limited amount of energy in battery to power pump. Time varies by manufacturer of battery and backup pump, generally 7-24 hrs.
- Cost of battery replacement



A water powered back-up system is an emergency backup pump that uses the pressurized fresh water supply in the house to create suction that draws the water from the sump up through the discharge pipe to the outside of the house. It will require installing copper pipes from the nearest water supply pipe to the sump area. The pump starts automatically if the power turns off or if the primary pump fails.

Advantages

- Power provided by city water pressure. As long as there is water pressure in your house the backup pump will work.
- Works if primary pump fails

Disadvantages

- Uses about 2 gallons of pressurized fresh water to pump out 1 gallon of sump water. Water usage will show up on the water bill.
- More expensive installation cost than battery backup
- Every 3 years, a licensed certified plumber has to verify that sump water is not mixing with the pressurized potable water
- Additional water supply pipes around sump area
- Sump cover may not be radon sealed

A manual start portable gasoline generator could also be used to provide power to the primary pump. These can be found at hardware stores and can vary in price from a few hundred to several thousand dollars. It will require that an extension cord is run from generator outside the house to the sump pump. Before purchase you would also need to verify that the generator will meet your power needs including the sump pump.

Advantages

- May cost less than battery back-up pump
- Portable generator has multiple uses

Disadvantages

- Have to be home to start the generator
- May have to refuel generator often
- No second backup pump

An automatic standby generator can be used to power select circuits in the house such as the sump pump, furnace, refrigerator and other appliances during power outages. The generator would start automatically when the power goes off and can be installed to be powered by natural gas, propane or gasoline. Usually it has to be professionally installed.

Advantages

- Power selected circuits or entire house for longer periods of time
- Starts automatically

Disadvantages

- Installation and maintenance costs
- No second backup pump

23. If my sump pump fails to operate, isn't this as bad as having a basement backup?

No. If your sump pump fails, the water that comes out of your sump is clean water from the ground around your basement. Normally this would drain to the nearest floor drain. On the other hand, if there was a basement backup caused by a surcharged sanitary sewer system, there is the potential that much more flow would enter your basement. This water would contain sanitary sewage, which is a more significant problem to manage.



24. How will this effect local surface water issues? (We already have street/yard trouble)

The water that currently flows through the footing drains will be routed to the stormwater system or to an alternative discharge site like a rain garden for homes that can accommodate that within their yard. In very large storms when basement backups can take place, the stormwater drainage system is designed to pond these excess flows in the streets until the downstream drainage system can accommodate these flows. The FDD generated flows are a small portion of these flows and would normally result in less than an inch of additional standing water for short periods of time. A storm water system which holds back or delays a portion of the large volume of flow, caused by heavy rains, helps preserve the natural ecosystem of the Huron River.

25. I was told check valves were not allowed due to the potential to heave the basement floor. Is that true?

If footing drains are disconnected from the sanitary plumbing as part of a check valve installation, this problem will not occur. However, using check valves can result in heaving the basement floor IF installed when footing drains are still connected to the sewer system and if that sewer surcharges. The FDD program disconnects the footing drains from the sewer system and pumps the water out to discharge lines leading to the stormwater system to prevent this potential problem. The backflow prevention (check) valves that are installed on floor drains and other basement facilities as part of the FDD process are able to contain the pressure generated by the surcharged sewers in the basement plumbing.

26. How noisy is the pump? How often will it run?

The pump sounds much like a refrigerator motor. How often the pump runs depends on the amount of water being removed from your footing drains. In homes completed to date, this has been quite variable.

27. What happens if the discharge line freezes in the winter or is broken?

It is possible for the discharge lines to freeze as they are installed above the frost line. Normally, the water discharged from the sump pump is warm enough to flow without freezing to the storm drainage system. Additionally it is a cyclic flow which means it flows very fast while the pump is operating and hardly at all when not. This means that if the lines placed with the proper grade they should not contain water for an extended period of time therefore minimizing possible freezing. If it does freeze, there is an emergency air gap near the home that allows water to be pumped outside the house. Also, homeowner construction of fences and lawn watering systems could break the discharge line. In these cases, the emergency discharge would put the sump water next to the house until the homeowner can repair the line. The winter of 2002/2003 proved to be a good test for the potential of freezing discharge lines with several periods of extremely cold weather and a considerable frost depth. None of the 75+ installed discharge lines had any reported freezing problems.

28. How much will it cost to run my sump pump?

It has been estimated that the average property owner will pay less than a dollar a year for electricity to run the sump pump. Of course, some will be higher and some lower depending on the amount of water that is pumped.

29. If I have to replace the sump pump, what are the costs for doing this?

Sump pumps can be purchased from local home improvement and hardware stores for less than \$150. Often the property owner can install these units, but if not, estimates to replace the



sump pump can be obtained from local plumbers. A common rule of thumb is that installation costs are equal to the equipment being replaced.

Legal Requirements

30. May I choose not to participate in the program? What are the consequences of that?

Participation in this program is mandated by city ordinance. The FDD program offers homeowners the opportunity to have the City pay for installation if the work is completed within the schedule of the program. If the homeowner does not comply with the notices to arrange disconnection, a surcharge of \$100 per month will be charged to the homeowner for the additional costs associated with handling un-metered footing drains flows into the sewer system. Disconnection is still required and if done after the 90 day notice expires, the disconnection work would no longer be paid for by the city.

GLOSSARY OF TERMS

- *Check Valve* - pipe fitting or valve which allows flow in one direction only e.g., prevents flow from coming into the house but allows flow to leave the house when a backup condition does not exist
- *Computer Modeling* – Computer program used to simulate the behavior of the collection system.
- *Downspout* – This is the pipe that takes water from the roof gutters in most houses. This should discharge onto the lawn.
- *Flow Meters* – Used to measure flows in the sewer system.
- *Footing Drain* – A drainage pipe (or tile) that is installed around the foundation of most basements of houses. This drain makes sure that water in the ground does not make the basement damp. This is connected to the sanitary sewer, to a sump pump, or directly to the storm sewer.
- *House Leads* - sewer pipe connecting an individual house to the City sewer
- *Infiltration* – This is rainwater flow that enters the sanitary sewer system through underground cracks in sewers.
- *Infiltration Device* - underground chamber that handles flow discharged from the sump pump, this chamber allows water to infiltrate into ground rather than discharge to storm sewer (limited to sandy soils or other soils that drain well)
- *Inflow* – This is a direct connection from surface drainage into the sanitary sewer.
- *Manhole* – This is the access structure that allows field crews to inspect sewers.
- *Rain Gage* – Used to measure the amount of rain from storm events.
- *Sanitary Sewer* – Sewer pipe that conveys wastewater to the Ann Arbor Wastewater Treatment Plant.
- *Storm Sewer* – A different pipe that takes rainwater collected in catch basins located in the street and conveys these flows to a creek or river.
- *Sump Pump* - pumps footing drain flows from lowest drainage point (sump) to the City storm sewer
- *Surface Drainage* – Rainwater that flows down the street or yard to a storm drain or into a creek or river.
- *Wastewater* – The used water that flows down drains in your home.



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Footing Drain Disconnection **HOMEOWNER INFORMATION**



**City of Ann Arbor
Public Services Area**

Footing Drain Disconnection Program

www.a2fdd.com

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Background

Within the City of Ann Arbor, there are groups of homes that have experienced basement backup problems. Many of these have been the result of wastewater backing up from the sanitary sewers through basement floor drains, especially during periods of heavy rainfall. This wastewater presents a potential health risk and can cause damage to the structure and to belongings stored in the basement.

In addition, this excess rainwater/groundwater places a strain on the sanitary sewer system and must be treated at the Waste Water Treatment Plant. Due to current and future regulations in the State of Michigan, it is critical the Utilities Department minimize the amount of unnecessary rainwater/groundwater sent as wastewater to the Treatment Plant.

In 1999, the City formed the Sanitary Sewer Overflow Prevention Advisory Task Force to understand the causes of basement backup and develop solutions to the problem. The Task Force was comprised of homeowners, city staff and experts in related disciplines. In addition, the Task Force hired the engineering firm of CDM to assist in the data gathering and analysis.

Throughout the project, the Task Force sought to provide the public with project information and solicit homeowner feedback to develop a recommendation that meets the diverse needs of the citizens.



Task Force Findings and Solutions

The Task Force study determined that during heavy storms, rainwater from home footing drains overloads the sanitary sewer system and is the primary cause of basement backups.

It was determined that even homes with no current basement backup problems were significant contributors to the basement backup problem for neighboring homes.

There are basically two ways to handle this problem: either reduce the amount of rainwater entering the sanitary sewer system, or provide more capacity in the system to store or carry these flows. Based on analysis and public feedback, the Task Force determined that reducing the amount of rainwater entering the system would be preferable to the public, environmentally responsible and most cost effective.

Therefore, the Task Force recommended that the Mayor and City Council implement a comprehensive citywide footing drain disconnection program within the City of Ann Arbor in order to reduce the amount of rainwater flowing into the sanitary sewer system.

The Task Force recommended a citywide program for a number of reasons.

- This basement backup problem is not confined to the five study areas.
- All buildings with connected footing drains contribute to the basement backup problem.
- Footing drain disconnection supports the City in a proactive approach to pending regulatory guidelines in the State of Michigan.
- Decreasing the amount of stormwater flow that gets to the Water Treatment Plant reduces both the costs of treatment and the chances for potential overflows into the Huron River.



What is Footing Drain Disconnection?

As shown on Figure 1 below, footing drains are small, perforated drainage pipes located near the foundation of your house. They are intended to keep rainwater that seeps through the ground from building up along the foundation or basement walls. In many homes, the downspouts, which carry rainwater from the gutters, discharge near the foundation walls. This water drains through the soils and into the footing drains.

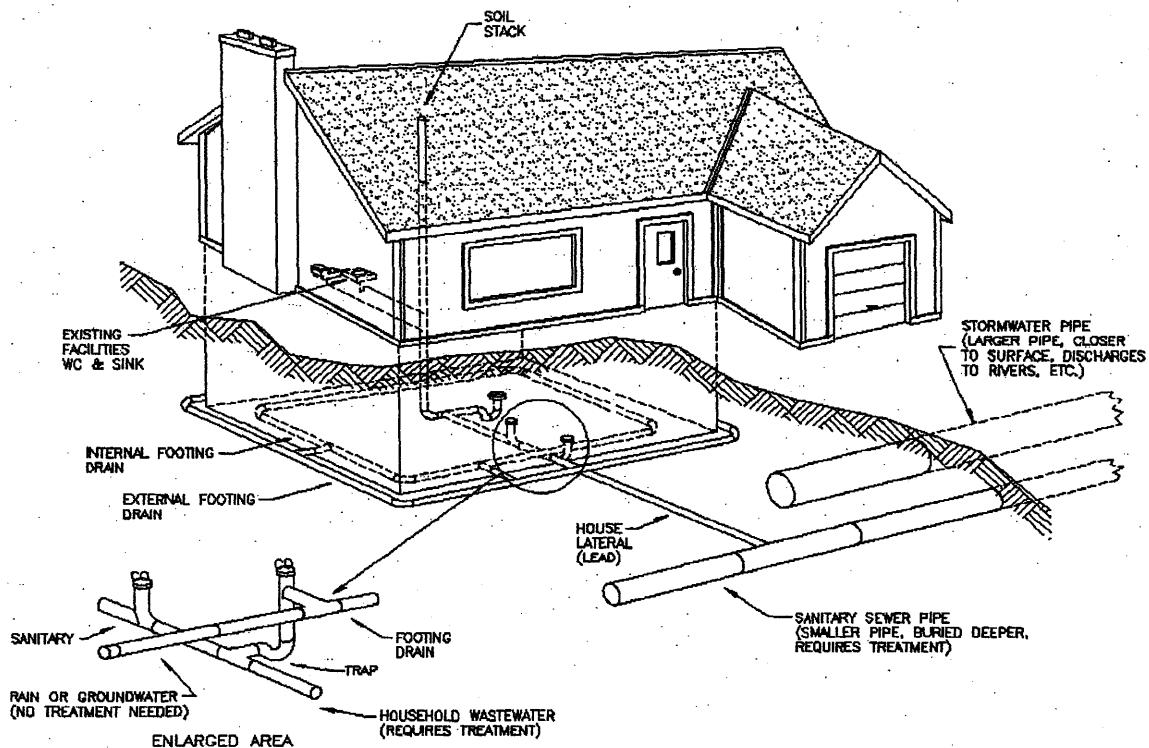


Figure 1 – Pre-construction Conditions

In most homes constructed before the 1980s, the footing drains are connected to the house sanitary connection (house lead) as shown in the figure above. This house lead carries the footing drain flow and wastewater from the house to the sanitary sewer system.

When it is not raining this is not normally a problem, but during a severe storm event too much rainwater can enter the sanitary sewer system. This excess flow can cause the mixture of rainwater and wastewater to backup in the house lead of some homes and cause basement backups.

Footing drain disconnection is performed to remove the rainwater flows from the sanitary sewer system. This is accomplished using the following steps:



1. Disconnect the footing drains from the house sanitary lead and install a sump pump to move water from the footing drains into the stormwater system. There may be some alternatives to sending the flow into the stormwater system in some neighborhoods or homes. The creation of rain gardens or use of low areas in backyards are possibilities. A priority is placed on safe disposal of the stormwater. If the connection to the sanitary house lead is inside the basement, the sump is installed in the basement as shown in Figure 2 below. If the connection is outside the home, a sump is installed outside as shown in Figure 3.

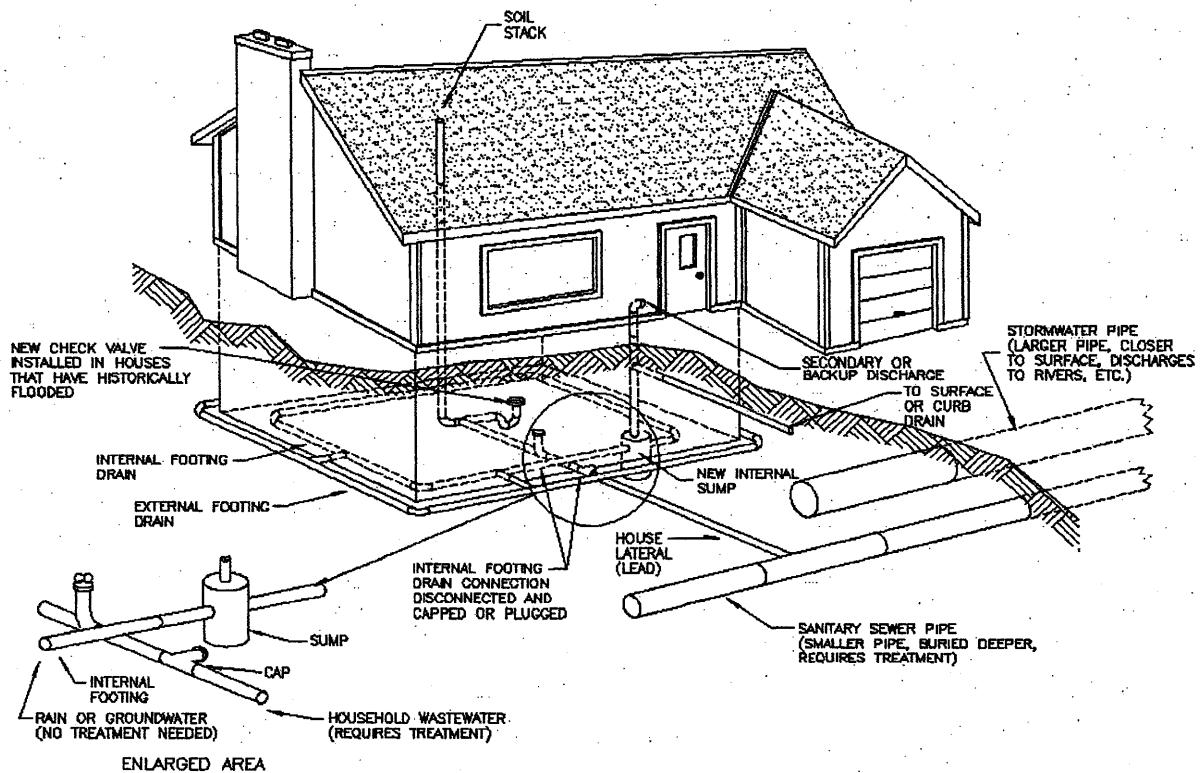


Figure 2 – Basement Sump Construction

2. In homes that have experienced basement backups or are at risk for basement backup, install check valves to keep water from flowing back into the home from the sanitary sewer system.



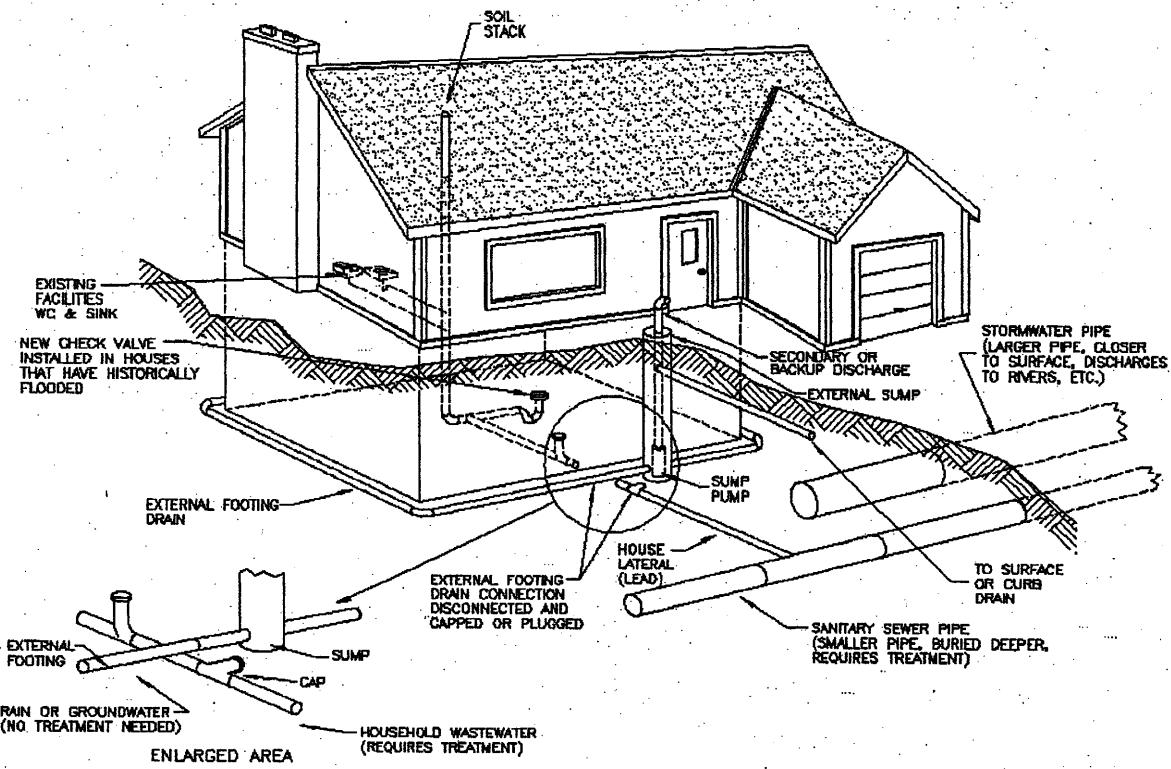


Figure 3 – Outside Sump Construction



Why Disconnect Footing Drains?

The purpose of disconnecting footing drains is to keep rainwater out of the sanitary sewer system. During dry weather, the sanitary system has plenty of capacity to carry wastewater. In neighborhoods where footing drains are connected to the sanitary system, however, rainwater can overfill the sanitary system during heavy storms resulting in the rainwater/wastewater mix backing up into basements. Keeping rainwater out of the house 'lead' greatly reduces the amount of rainwater getting into the sanitary system, which protects downstream residents and reduces costs at the wastewater treatment plant. It also frees the house connection to carry wastewater to the sanitary system.

All homes built in the City of Ann Arbor since January of 1982 have disconnected downspouts and footing drains with sump pumps in the basements or with gravity discharge leads to a stormwater system. Surface discharge of downspouts allows more rainwater from roofs to be absorbed by the ground and reduces the amount of water being treated and released into the Huron River.

Footing drain disconnection has the following advantages:

- Protects homeowners who have had sanitary backups during severe storm events.
- Takes rainwater out of the sanitary system, reducing problems for downstream residents and eliminating treatment costs for the rainwater.
- Preserves natural features and protects watershed by minimizing undesirable discharges to the Huron River.
- Provides short-term and long-term protection for those at risk.
- Provides the lowest rate impact of all the possible solutions.



What Will Happen at My Home?

After you receive this homeowner information packet, you should contact the FDD Construction Manager (see page 13 for contact information) to arrange for the initial assessment at your home. This will be an excellent opportunity to ask specific questions about your home, and to learn more about the steps of the program. Next, you will choose from a list of pre-qualified contractors, obtain estimates and arrange a contract. (See page 12 for a list of the contractors) The actual construction work should take from 1 to 3 days of in-home construction. More details on the different parts of the work are included below:

Initial Assessment will be conducted by the Construction Manager with the homeowner and will include actions to:

- Determine if your footing drains are connected
- Identify possible locations for sump pump installation
- Assess site drainage options, including identification of any needed changes in downspout connections.
- Assess options for installation of sump discharge lead (piping) to an approved discharge location

Curb drain installation work will be performed in the area between the curb and sidewalk and will include:

- Staging of equipment and pipe material, commonly in the area between the curb and sidewalk and in the parking lanes in your neighborhood.
- Marking of underground utilities (gas, electric, etc) with paint and flags in the work zones.
- Excavations of these utilities to precisely determine their depth.
- Installation of the curb drain using directional drilling equipment to minimize disruption of the lawn extension area.
- Connection of the curb drain to the catch basins and installation of house tees and cleanouts.
- Cleanup and restoration of the damaged grass and concrete areas.



Inside work will be confined to the basement and will include:

- Removal of a section of the basement floor to access pipes and install the sump
- Disconnection of the footing drains from the house lead and routing of new discharge lines.
- Installation of a new electrical circuit.
- Installation of the sump pump
- Repairs to the work area (i.e., replacing concrete, tiles, etc.)
- For homes that have previously experienced basement backup or those deemed to be at-risk for basement backup, installation of check valves on all plumbing fixtures located in the basement or a single check valve to protect all facilities in the basement.
- Clean up of the work area.

Work in the yard includes:

- Installation of a small pipe to carry footing drain water from the sump pump to a rainwater collection system or an approved alternative.
- Cleanup and restoration of any grassed areas impacted by the installation.



What Will It Cost?

The City will pay for the 'core' work up to \$3,700 for a typical household *, ultimately financing this through sewer use fees. **The City** will pay for:

- Parts and labor for standard sump installation
- Parts and labor for discharge pipes
- Basic restoration of interior and exterior work areas.

The Homeowner will be responsible for the following costs where applicable:

- Additional features or restoration beyond what is required for basic installation and items classified as home improvements or that exceed building code requirements (i.e. replacement of inadequate electrical service panel, construction of new enclosure for sump, etc.)
- **Backup Sump Pump** - In the event of a power failure, the primary sump pump will not function. This can result in groundwater collecting around the outside of your basement walls where it can seep though cracks in the concrete or through the sump lid. The plumbing contractors can install (at your expense) either battery-powered or water-powered backup sump pumps that will operate during an electrical failure or if your primary sump pump fails. You need to assess your desire for this additional level of protection as only you can understand the impacts of moisture would have on your belongings in your basement, and the frequency of power failures in your neighborhood. Based on our experience with power failures during storm events, homeowners are advised to strongly consider the need for a backup system. (See question 21 in the Frequently Asked Questions pamphlet for additional information)
- Long-term maintenance
- **HOMEOWNER PAYS ALL COSTS PLUS MONTHLY SURCHARGE if the work is not completed within 90 days after receiving a notice to disconnect.**
This notice will be a certified letter sent by the City to your home.

* Exceptional circumstances within a household may warrant payment beyond the \$3,700 (the typical funding threshold). Prior to signing a contract, a homeowner may request additional city support. This request will be reviewed and may be approved by the City Project Manager and, if necessary, the City Administrator.



Next Steps Summary

Please review and complete the steps below to aid in a reliable and trouble free disconnection.

1. Review this packet of information carefully.
2. Attend the scheduled information meeting for your neighborhood.
3. Arrange an in-home assessment with the Construction Manager to determine the need for a disconnection, review possible pump and discharge locations, and identify any special needs of your home.
4. Review the list of pre-qualified contractors (page 12) and make an appointment with one or more to receive an estimate of costs for the work to be done in your home.
5. Review costs that are reimbursable by the City and identify any additional options you may want or need to contract for at your personal expense.
6. Upon receiving approval of a funding amount from the Construction Manager arrange a contract with your selected contractor.
7. Review the schedule for work being done in your home with the Construction Manager to confirm your ability to meet the 90-day disconnection criteria.
8. Clear basement work area (Contractor will provide specifics). If desired, add additional dust protection to exposed areas.
9. Monitor the work underway to ensure it meets your contract agreements. Consult the Construction Manager, City Project Manager or City Ombudsperson, if help is needed.
10. Review finished work with the contractor to ensure you understand maintenance and operations of your system.
11. Construction Manager visits the home to review finished work with the property owner.
12. Complete the contractor feedback form for the City.

Remember: You have 90 days from receipt of the certified letter to complete the footing drain disconnection or lose all funding assistance and pay a \$100 per month surcharge for un-metered flow to the sanitary sewer system. If you feel you will be unable to complete the work within 90 days, please contact the Footing Drain Disconnect (FDD) Project Manager (734 994 6087) to seek assistance.



FOOTING DRAIN DISCONNECTION PRE QUALIFIED CONTRACTOR LIST

PERIMETER

Contact: Steve Rojeck
8385 Jackson Road
Ann Arbor, MI 48103
Phone: (734) 424-9280
Fax: (734) 424-2037

RDC RESIDENTIAL SERVICES, INC.

Contact: Richard Connors
10552 Homestead Lane
Plymouth, MI 48170-5823
Phone (734) 564-2801
Fax (734) 414-0729

HUTZEL PLUMBING

Contact: Nancy Cummins
2311 S. Industrial Highway
Ann Arbor, MI 48104
Phone (734) 665-9111
Fax (734) 665-9238

LANDSCAPE CONSTRUCTION

Contact: John Janowski
7412 N. Territorial
Plymouth, MI 48170
Phone (734) 451-0751
Fax (734) 451-0751

BIDIGARE CONTRACTORS

Contact: John Bidigare
P.O. Box 700464
Plymouth, MI 48170
Phone (248) 735-1113
Fax (248) 735-1114



Contact Names and Numbers

City of Ann Arbor Staff:

- **Project Manager** – Anne Warrow.....[734.994.6081]
- **Ombudsperson** – Pete Perala[734.994.9938]
- **Public Services Director** – Sue McCormick.....[734.994.2897]

Construction Management Staff:

- **Construction Manager** – Oskar Nordstrom.....Phone [734.213.5444]
- **Construction Manager** – Justin Woods.....Phone [734.213.5444]
- **CDM Project Manager** – Jay Zawacki[734.213.5444]

FDD Citizen's Advisory Committee Representatives:

- **Orchard Hills** – William Collins
- **Dartmoor** – George Johnston
- **Glen Leven** – Robert White
- **Bromley** – Vacant
- **At-Large** – Sonja Manchek, Delores Mortimer
- **Huron River Watershed Council** – Elizabeth Riggs



Glossary of Terms

- **Check Valve** - pipe fitting or valve which allows flow in one direction only e.g., prevents flow from coming into the house but allows flow to leave the house when a backup condition does not exist
- **Computer Modeling** – Computer program used to simulate the behavior of the collection system.
- **Downspout** – This is the pipe that takes water from the roof gutters in most houses. This should discharge onto the lawn.
- **Flow Meters** – Used to measure flows in the sewer system.
- **Footing Drain** – A drainage pipe (or tile) that is installed around the foundation of most basements of houses. This drain makes sure that water in the ground does not make the basement damp. This is connected to the sanitary sewer, to a sump pump, or directly to the storm sewer.
- **House Leads** - sewer pipe connecting an individual house to the City sewer
- **Infiltration** – This is rainwater flow that enters the sanitary sewer system through underground cracks in sewers.
- **Infiltration Device** - underground chamber that handles flow discharged from the sump pump, this chamber allows water to infiltrate into ground rather than discharge to storm sewer (limited to sandy soils or other soils that drain well)
- **Inflow** – This is a direct connection from surface drainage into the sanitary sewer.
- **Manhole** – This is the access structure that allows field crews to inspect sewers.
- **Rain Gage** – Used to measure the amount of rain from storm events.
- **Sanitary Sewer** – Sewer pipe that conveys wastewater to the Ann Arbor Wastewater Treatment Plant.
- **Storm Sewer** – A different pipe that takes rainwater collected in catch basins located in the street and conveys these flows to a creek or river.
- **Sump Pump** - pumps footing drain flows from lowest drainage point (sump) to the City storm sewer
- **Surface Drainage** – Rainwater that flows down the street or yard to a storm drain or into a creek or river.
- **Wastewater** – The used water that flows down drains in your home.

