

Chapter Five

Public Facilities and Infrastructure



I. Introduction

A variety of public and private infrastructure facilities exist throughout the Northeast Area. The term, “infrastructure” refers to a natural systems and constructed systems of facilities that supports land uses, such as creeks, the Huron River, streets, non-motorized paths, sanitary sewer lines, water lines, storm water detention facilities, storm sewer systems and water treatment facilities. They include electrical sub-stations, utility storage yards, a City water tower, cellular towers, aboveground and underground utility lines and roadways.

II. Issues

A. Water Pressure

The Northeast Ann Arbor Water Pressure Improvement and North Campus Elevated Tank Modification Study recommended that the water tank on Plymouth Road be raised by 60 feet to increase water pressure for the low-pressure areas. Prior to raising the height of the tank in 2001, a new water main was installed under the Huron River to connect the Lower Town area to a different pressure district. The Plymouth Road water tower previously served Lowertown. This new water source prevents extremely high water pressures in the Lower Town area that would result from increasing the height of the Plymouth Road tank. Construction of the new Plymouth Road water tower was completed in 2002. Water pressure should not be an issue when new development projects are proposed.

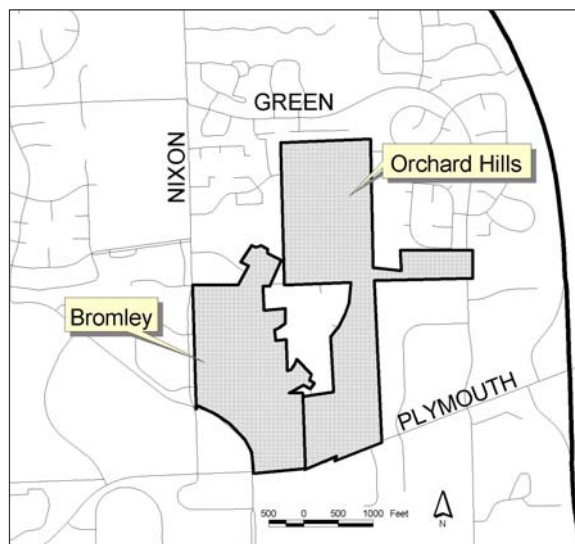
B. Sanitary Sewer Overflow

In 1999, the City formed the Sanitary Sewer Overflow Prevention Advisory Task Force to better understand the causes of basement flooding throughout the City during heavy rainstorms and to develop solutions to the problem. The Task Force hired a consultant to assist in data gathering and analysis. A study determined that during heavy rainstorms, excessive amounts of rainfall are directed into the sanitary sewer system. The major single source of this excessive flow is related to foundation/footing drains. The additional flows from foundation/footing drains overwhelm the sanitary system and results in sanitary sewer backups into basements. A cost effective and environmentally sound solution to address this problem was determined to be the

disconnection of home footing drains to the sanitary sewer system. The Michigan Department of Environmental Quality has required the disconnection of footing drains as the preferred method to solving the wet weather flow issues.

The Ann Arbor City Council approved the implementation of a comprehensive citywide footing drain disconnection (FDD) program. Five neighborhoods throughout the City were identified as study areas where homes have experienced repeated basement flooding problems, including two neighborhoods in the Northeast Area, Orchard Hills and Bromley.

Homes within these neighborhoods were some of the first in the City to have their footing drains disconnected from the sanitary sewer system and to have check valves installed. The FDD program is expected to continue throughout the City over the next 20 to 30 years.



Northeast Area Sanitary Sewer Overflow Study Areas

C. Extension of Utility Service

In the late 1990's, the Water Utilities Department contracted with McNamee, Porter and Seely to conduct a study on providing water and sanitary sewer services to Ann Arbor Township parcels that do not currently receive City of Ann Arbor utility service. The study made recommendations on how to extend utility service cost-effectively to these township parcels as they become annexed into the City. The study has not been adopted as a master plan document due to financial constraints. The Water Utilities Department will continue to work with individual property owners and developers to provide water and sanitary sewer service to properties that have been or are in the process of being annexed into the City of Ann Arbor.

D. Sanitary Sewer Capacity

As part of the review of the land use recommendations of the large sites north of Plymouth Road in Chapter 10, an evaluation of the city's sanitary sewer system was performed. This evaluation included the use of a computer based hydraulic model to assess the impact of future development on the existing sanitary sewer system. Based on the results of model, upgrades to the downstream sanitary sewer system will be required for a number of the sites depending on the particular proposed development project. The modeling did not include any flow mitigation effort in the sanitary basins evaluated.

E. Annexation of Township Parcels

An agreement between the Charter Township of Ann Arbor and the City of Ann Arbor was signed in 1994 regarding the annexation of Ann Arbor Township parcels within the freeway ring that surrounds the City of Ann Arbor. This agreement articulates how Ann Arbor Township agrees to release township parcels to the City if utility connections (water and sanitary sewer) are requested by property owners. The agreement also indicates that the City generally will not initiate a petition to annex any land prior to December 31, 2007, and that the Township will not

oppose City initiated annexations after December 31, 2007, of Township parcels within the freeway. The agreement resulted from a desire to eliminate “township islands” within the city limits. The annexation of the township islands will create clear municipal boundaries for the provision of public services.

F. Fire Stations

One fire station is located in the Northeast Area. The station is located on the University of Michigan’s North Campus, south of Plymouth Road on Beal Avenue. The 2005-2010 City of Ann Arbor Capital Improvements Plan identifies a need to acquire land to construct a new fire station in the Northeast Area. This fire station is proposed to house one fire engine and three personnel on a full 24-hour basis to respond to emergencies in the Northeast Area. The primary purpose of this proposed station is to reduce response time to improve safety and reduce property damage. The station is identified as an urgent priority. Although no site has been selected, the desired location would be somewhere in the northeast portion of the Northeast Area. Ann Arbor Township has two fire stations located outside of the Northeast Area.

G. Northeast Branch Library

The Ann Arbor District Library operates a branch location in the Northeast Area. The branch library is currently located in the Plymouth Road Mall at the northeast corner of Nixon and Plymouth Roads. The facility is considered small and the Library is in the process of identifying another location for a larger facility.

H. Public Open Space

Public open space in the Northeast Area includes public parks and nature areas, University of Michigan recreational property, golf courses, Ann Arbor Township parkland, public school yards and other recreational facilities. Fifty-two City parks on approximately 902 acres exist in the Northeast Area. Leslie and Huron Hills golf courses are the largest parks in the Northeast Area (totaling 266 acres) and provide opportunities for golf, cross-country skiing and wildlife habitat. Recreational opportunities include playgrounds, two golf courses, ball fields, sledding hills, cross-country ski trails, picnic areas, nature areas, gardens, tennis courts, basketball courts, swimming pool, volleyball courts, canoe liveries, fishing piers and jogging paths. A wide variety of natural features exist in Northeast Area parks including dense woodlands, wetlands, creeks, river frontage, prairie, ponds and open fields. Other public recreational and open space properties in the Northeast Area include the Nichols Arboretum and Dow Field (University of Michigan; 119 acres), Mitchell Field (University of Michigan; 38 acres), Hubbard Woods (University of Michigan; approx. 25 acres), Thurston Nature Area (Ann Arbor Public Schools, 17 acres) and Braun Nature Area (Ann Arbor Township; 11 acres). The City of Ann Arbor continues to increase the amount of parkland in the Northeast Area through dedications from developers and acquisition.

I. Schools

Four public elementary schools exist in the Northeast Area including Logan, Thurston, Northside, and King. Clague and Tappan are the only public middle schools and Huron is the only public high school in the Northeast Area. Additionally, Greenhills School (6-12), Rudolf Steiner High School, and various small private schools are located in the Northeast Area.

J. Emergency Management

The “Office of Disaster Preparedness”, consists of a unified command team that responds to emergencies and disaster throughout the City, including those that occur in the Northeast Area. Chapter 15 of City Code identifies the Mayor as being responsible for the emergency management program. The Mayor delegates responsibility of the program to the Emergency Management Coordinator and three assistant emergency managers. The Mayor or Emergency Management Coordinator is responsible for activating the emergency operations center at a previously undisclosed location. The unified command team, which consist of the City Administrator, the City’s Emergency Manager, Chief of Police, Fire Chief, Public Services Director, and City Attorney, responds to the emergency activation and gathers at the operations center. This team and various city departments and county and state agencies will respond to emergencies such as toxic spills, severe weather activity, large accidents and terrorist activities. The organizational structure is based on the “incident command” approach to emergencies, which includes an operations team of first responders (typically, police and fire department personnel).

III. Public Infrastructure Goals, Objectives and Action Statements

The Public Infrastructure Goals, Objectives and Action Statements provide a framework to ensure the provision of high quality public services to people who live, work and visit the Northeast Area.

Goal A: To provide adequate, cost-effective and efficient public utility services, including water, sanitary sewer and storm water, to the Northeast Area to protect the health, safety and welfare of its residents.

Objective 1: Maintain and improve the current quality and quantity of public water and sanitary sewer service to all existing and future Northeast Area City residents, businesses, and sites expected to be annexed, while minimizing both the public costs and the potential impacts to natural systems.

Action Statements:

- a) Construct, extend (to all Northeast Area properties currently without available services) and maintain sanitary sewer lines and water mains in accordance with the City’s utility master plans and the Capital Improvements Program.
- b) Encourage City Departments to include the public in decision-making processes when determining solutions to water, storm water and sanitary sewer concerns in the Northeast Area.
- c) Consider regional land use impacts prior to approving the extension of public utilities to areas outside of the US-23 and M-14 freeway.
- d) Encourage water conservation techniques through public education and incentives.
- e) Encourage footing drain disconnects and other techniques to help reduce sanitary sewer overflows.

Objective 2: Minimize the private and public costs of installing and maintaining public streets and utility lines.

Action Statements

- a) Encourage the clustering of residential units including multi-story buildings, where possible, to reduce the cost of installing and maintaining water lines, sanitary sewer lines, storm water management facilities, and roads.
- b) Encourage non-residential development to consider constructing multi-level buildings to minimize the length of public utility lines, imperviousness and related stormwater management costs.
- c) Develop standards for narrower streets and right-of-ways to minimize imperviousness, storm water runoff, and infrastructure costs.

Objective 3: Maintain a City storm drainage system that manages storm water runoff in a safe, sanitary and environmentally sound manner in the Northeast Area.

Action Statements:

- a) Continue to update City Code, Chapter 63 (Soil Erosion and Sedimentation Control) to remain consistent with the Rules of the Washtenaw County Drain Commissioner.
- b) Work with the Washtenaw County Drain Commissioner periodically to update standards and requirements and to incorporate such standards within the appropriate City ordinances.
- c) Encourage development projects to establish best management practices in their designs to reduce impervious surfaces and to retain on-site storm water runoff and other discharges to filter the water prior to entering the City's storm water system through site plan review, education and enforcement. Best management practices include the protection of high quality natural systems.
- d) Encourage those development projects that are not required to provide on-site detention facilities, to reduce impervious surfaces. Best management practices should be used to properly route surface runoff and other forms of water discharges, and to help filter pollutants from water prior to entering the City's storm water system.
- e) Annually develop and adopt a six-year Capital Improvements Program that adequately addresses the needs for sanitary sewer systems, water systems, storm water management systems, roads and non-motorized facilities.
- f) Construct, extend and maintain the storm water system in accordance with the City's utility master plans and the Capital Improvements Program.
- g) Support the inclusion of Miller's Creek into the County Drain system.
- h) Meet state mandated goals by managing stormwater to enhance and improve water quality.

Goal B: To encourage a system of private utilities, such as electricity, natural gas, telephone, fiber optic, cable television, cellular communication, and other similar utilities, to be installed in a manner that minimizes environmental and community impacts.

Objective 1: Locate such services with compatible land uses to limit disturbances to residents, businesses, and natural systems.

Action Statements:

- a) Regularly update the cellular tower regulations.
- b) Develop standards and incentives for the placement of all private utilities to be located underground.
- c) Encourage the installation of underground service lines, placed in public rights-of-way, to coincide with other public utility projects to limit environmental impacts and traffic disruption.

Goal C: To integrate public schools, parks and libraries with the surrounding community and to be sited and designed in a manner that is consistent with the land use goals of the Northeast Area Plan.

Objective 1: Locate public schools, parks and libraries in such a way as to encourage pedestrian and transit access and increase the vitality of a commercial or mixed-use center.

Action Statements:

- a) Provide copies of the Northeast Area Plan to the Ann Arbor Public Library Board.
- b) Forward the above goal and objective to the Ann Arbor Public School, Ann Arbor District Library and Ann Arbor Transportation Authority Boards.
- c) Ensure that these location and design issues are addressed at the site plan level.
- d) Encourage public entities in Ann Arbor to voluntarily participate in site plan review when proposing projects.
- e) Support state legislation that requires public entities to submit projects for site plan review and to be consistent with local standards.

Objective 2: Ensure that direct and multiple pedestrian and bicycle connections are provided to all public schools.

Action Statement:

- a) Continue participating in the Transportation Efficiency Act grant application process, and other grant opportunities to obtain financing to improve non-motorized access to public schools and other public facilities in the Northeast Area.

Objective 3: Ensure that new and existing City parks have convenient access to all residents of Ann Arbor.

Action Statement:

- a) When reviewing site plans with proposed parkland dedication, ensure that adequate pedestrian, bicycle, public transportation and vehicular access is provided to the park.
- b) Implement the Parks, Recreation and Open Space Plan recommendations related to providing access to City parks.