



# CITY OF FORT LAUDERDALE STORMWATER MANAGEMENT IN MELROSE PARK NOVEMBER 2021

## Introduction

Due to extreme rain events and Tropical Storm Eta, the Melrose Park neighborhood experienced flooding conditions in October and November 2020. Since then, the neighborhood's entire stormwater management system has been thoroughly cleaned and the drainage ditch has been rehabilitated. The following information explains how the system works, how it is maintained, and how you can help assist flood protection efforts in your neighborhood.

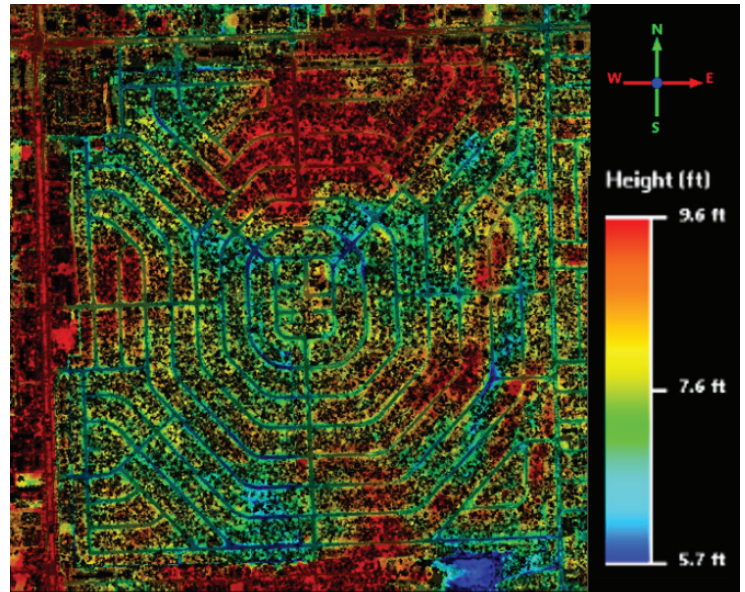
## Understanding Your Drainage System

The Melrose Park stormwater management system was designed and built by Broward County at the turn of the century. When Fort Lauderdale annexed the neighborhood from Broward County in 2002, the City took over maintenance and operation of the system.

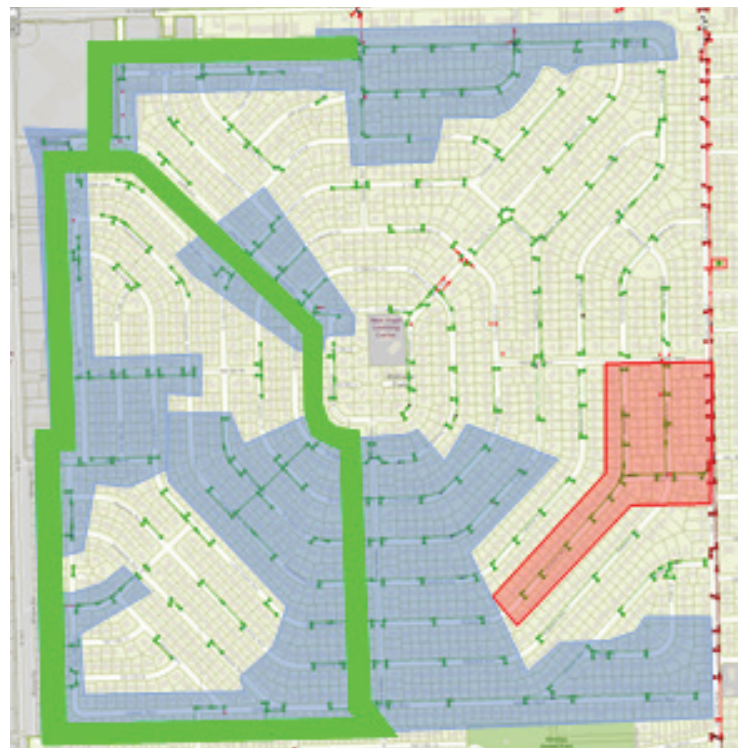
Melrose Park is generally shaped like a bowl, with most of the higher land elevations toward the edges and the lower elevations in the center (Figure 1). Drainage in this neighborhood is accomplished using a combination of drainage swales, storm drains, underground exfiltration trenches, storm pipes, culverts under roadways, and a 2.5-mile drainage ditch (Figure 2). The drainage ditch and exfiltration trenches were designed to hold water for percolation into the groundwater prior to discharge. The area shaded in blue drains toward the drainage ditch. After a typical rainstorm, this runoff flows to the drainage ditch where it will be absorbed into the ground. However, during more extreme rain events, stormwater in the drainage ditch discharges north through a storm pipe under Broward Boulevard. Stormwater from the area shaded red flows east to storm pipes on NW 31 Avenue. The largest part of Melrose Park drains to exfiltration trenches which hold stormwater underground while providing storage capacity to reduce ponding on the roadway.

## Drainage System Inspection and Maintenance

Table 1 provides the schedule of inspection and maintenance for the Melrose Park neighborhood. Since the stormwater management system was entirely cleaned earlier in 2021, every catch basin has been inspected twice and additional maintenance and repairs have been executed as necessary. As the new soils in the ditch settled and the grass became established, the ditch was mowed by the City's contractor in June and again in August-September 2021. Crews will soon perform regular maintenance on the culverts that connect segments of the ditch under the neighborhood's streets.



**Figure 1 - Land Elevations in Melrose Park.** Red areas are at a higher elevation compared to blue areas. Water will flow toward the lowest areas. As it rains, the drainage system intercepts the flow and either stores it underground, redirects it to the drainage ditch, or discharges it to pipes under NW 31 Ave.



**Figure 2 - The Melrose Park Stormwater Management System.** Small dark green squares and lines represent storm drains, pipes, and exfiltration trenches. The neon green area is the drainage ditch. Blue areas drain to the ditch and ultimately to the north under Broward Blvd. Stormwater in the red area flows east into a storm pipe under NW 31 Ave. In the remaining areas, runoff flows to exfiltration trenches for percolation into the groundwater.

# Protecting Your Home

In South Florida, extreme rain events, especially those associated with tropical disturbances, are common. Figure 3 shows the current flood zones in Melrose Park. Please assist community efforts to protect your neighborhood by:

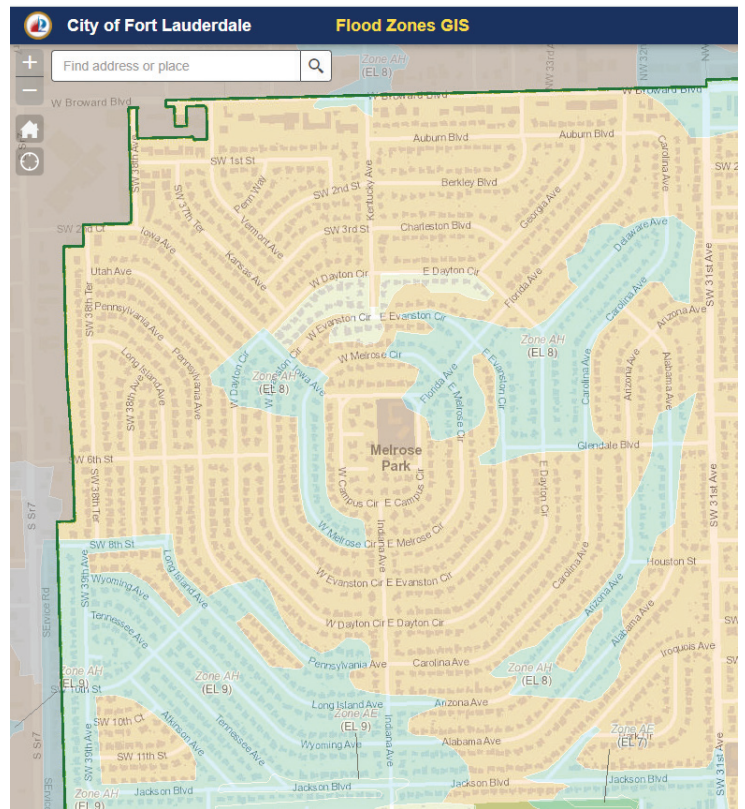
- Learning about your flood hazard;
- Insuring your property for your flood hazard;
- Protecting your property from the hazard; and
- Protecting natural floodplain functions by allowing water to flow without barriers that impact others.

Whether you live in a flood zone (green shaded area) or not, flood insurance is the best protection for homeowners to mitigate flooding impacts. Further information on flood insurance is available at [www.floodsmart.gov](http://www.floodsmart.gov).

# Helping the City Help You

As noted earlier, this system is designed to hold water. Seeing water in storm drains in areas with exfiltration trenches is expected. However, if stormwater is ponding in roadways for over 48 hours after a storm or roads become impassable, please call the City's 24/7 Customer Service Center at 954-828-8000.

While the City regularly picks up litter in the drainage ditch, illegal dumping of large items is an increasing problem which has the potential to impact drainage. Please report debris piles or any other unusual activities in the drainage ditch to 954-828-8000.



**Figure 3 - Melrose Park FEMA Flood Zones.** Flood zones are designated by the Federal Emergency Management Agency (FEMA). The areas in orange (Zone-X) are considered outside of the floodplain. The green areas (Zone-AH and AE) are considered flood zones at moderate-high risk of flooding, where federally-backed mortgage holders are required to carry flood insurance. Look up your zone at [gis.fortlauderdale.gov/FemaFloodZones](http://gis.fortlauderdale.gov/FemaFloodZones).

Stormwater Asset Type (quantity)	Inspection Frequency	Last Inspection	Last Maintenance	Next Scheduled Service(s)
Storm drains (563)	Twice annually	Aug. 2021	All storm drains cleaned Dec. 2020-Mar. 2021	Maintenance based on inspection results
Exfiltration trenches (3.8 miles)	Based on service request	Site specific	Pump-out completed Dec. 2020	Based on service request
Stormwater pipes (7.24 miles)	Based on service request	Site specific	Pump-out completed Dec. 2020-Mar. 2021	Based on service request
Culverts (19)	Twice annually	Aug. 2021	All culverts cleaned Jan.-Mar. 2021	Nov.-Dec. 2021
Drainage ditch – Litter removal (2.5 miles)	Monthly	Aug. 2021	Oct. 2021 (activity takes 1-2 days to complete)	Late Nov. 2021
Drainage ditch – Mowing (2.5 miles)	Monthly and quarterly	Sept. 2021	Aug. 31-Sept. 15, 2021 (activity takes 60-70 hours and can require several weeks to complete)	Nov. 2021, Feb. 2022, May 2022, July 2022 & Sept. 2022
Drainage ditch – Trimming (2.5 miles)	At least twice annually	Sept. 2021	2020 - Prior to ditch rehabilitation (activity takes 60-70 hours and can require several weeks to complete)	Nov.-Dec. 2021 & May 2022
Drainage ditch Debris removal (2.5 miles)	Monthly and based on service request	Sept. 2021	Conducted as needed in coordination with Community Enhancement and Compliance	Based on service request

