

Bryan Middle School Project Fact Sheet

Project Background

Following the widespread flooding that was experienced during the storm events of June and July 2010, and April 2013, Christopher B. Burke Engineering, Ltd. (CBBEL) was hired to develop a comprehensive flood plan for the City of Elmhurst (City). As part of the comprehensive flood plan, thirteen (13) flood-prone areas throughout the City were studied to determine proposed drainage improvements to alleviate the flooding in those areas.

The most cost-effective solution identified to reduce flooding is the creation of flood storage in open spaces within the City. Several open areas identified in the comprehensive flood plan involve property owned by the Elmhurst Community Unit School District 205, including the open space area adjacent to Bryan Middle School. The creation of flood storage at the Bryan Middle School site would benefit many homes in the southwest portion of the City.

Project Details

Creating flood storage in the open space area adjacent to Bryan Middle School would significantly reduce the risk of flooding in two of Southwest Elmhurst's flood-prone areas, specifically:

- Saylor Avenue and Jackson Street
- Spring Road and Harrison Street

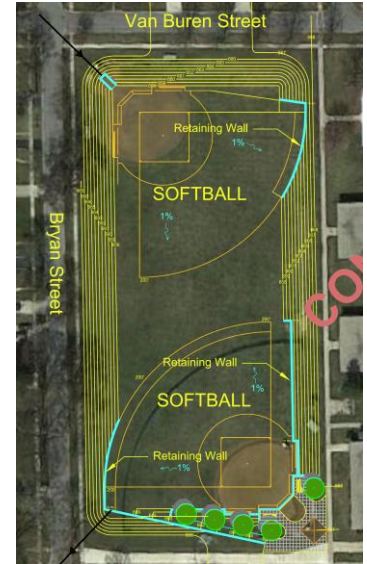
Key Benefits and Facts

This project would provide flood-reduction benefits to 121 homes in a 100-year design storm event. Approximately 17 acre-feet of flood storage can be provided at the Bryan Middle School site. The conceptual project cost is \$2.7 million and construction timeline is estimated at approximately one year.

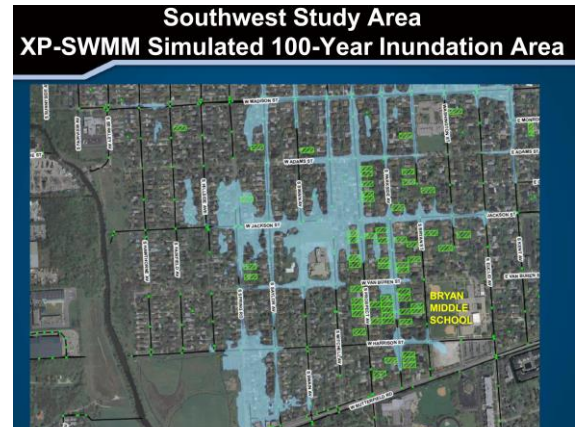
Project Description

The goal of this project is to provide a location to safely hold stormwater while maintaining the existing recreational uses of the school site. As seen in the picture at the top, conceptual facility improvement plans were developed with the intent of maintaining the existing softball fields. To maximize playability of the fields, stormwater would not be diverted into the site unless the capacity of the existing storm sewer system is exceeded. Less frequent, non-flood causing events would not impact the site, as stormwater would bypass the area.

During significant storm events, pipes would divert water away from flood-prone areas and convey it into the Bryan Middle School site. The facility would be designed to completely fill for the 100-year design storm event; stormwater would be held temporarily at the site and then drain by gravity to the existing storm sewer system. Period of inundation would be less than 24 hours. For storm events that exceed a 100-year frequency, an emergency overland flow route will be constructed that passes excess flows to the west. This maintains the current drainage patterns in this area and protects the homes located adjacent to the school.



Conceptual Solution



Inundation Area