

FLOODPLAIN DEVELOPMENT REPORT

for

F.W. Webb
South Youngs Road
Town of Amherst, Erie County, NY

Prepared for:

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Prepared by



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Background

The project site is located within Zone AE, which designates areas with a 1% Annual Chance of flooding with base flood elevations determined. The National Flood Hazard Layer GIS indicates that the base flood elevations along Ellicott Creek within the limits of the project site varies from 686 feet above mean sea level at the northwesterly limits of the project site to 689 feet above mean sea level at the culvert crossing below South Youngs Road at the southeasterly limits of the project site. The mapped floodplain encompasses approximately

The National Flood Hazard Layer GIS also delineates the regulated floodway of Ellicott Creek.

The regulated floodway encompasses approximately 4.9 acres of the 20-acre project site while the floodplain encompasses an additional 9.3 acres of the parcel (14.2 acres total).

Proposed Project

The proposed development is a 112,700 square-foot plumbing supply wholesale and retail supplier. The building includes office space, a fixture showroom, a self-serve retail store, and parts warehouse. Additional impervious areas include a 110-vehicle employee parking lot, a 10-vehicle docking bay area, and a 126,500 square-foot outdoor storage area. The project includes connections to water, wastewater, gas, electric, and communications utilities as well as an on-site stormwater management system. Access to the site will be via a single driveway entrance along South Youngs Road. The project will disturb approximately 13.1 acres of land.

The proposed building location is predominantly located outside the limits of the mapped 100-year floodplain. The southwesterly corner, approximately 2,530 square feet of the southwesterly corner of the building is located within the 100-year floodplain. The first floor elevation is proposed to be constructed at elevation 693.0 above mean sea level; based on the base flood elevation lines, construction the building at this elevation will place the first floor approximately four feet above the highest BFE identified along Ellicott Creek within the project limits.

Asphalt areas, including the loading dock on the south side of the building, portions of the outdoor storage area on the west side of the building, the entry driveway, and a portion of the parking lot are located within the limits of the floodplain. Based on the FEMA based flood elevations along Ellicott Creek and the proposed grading, all of these areas will be above the 100-year flood elevations. In order to construct these areas at the elevations shown on the proposed grading plan, fill will be imported to raise these areas. Earthwork calculations for the proposed grading within the mapped 100-year floodplain are summarized below (and shown on the attached graphic):

Cut Volume	572 CY
Fill Volume	<u>38,169 CY</u>
Net Volume (Fill)	37,597 CY

All of the proposed site improvements, including grading within grass/lawn areas, will be outside of the regulatory floodway.

The stormwater management system proposed for the project has been designed to fully function during the 100-year event. The bioretention filter at the southeasterly corner of the property has been designed to be constructed with a top of berm elevation of 689.0 above mean sea level. The max BFE within the limits of the bioretention filter is 689.. Constructing the berm to 689.0 will prevent offsite floodwaters from flowing into the bioretention filter. Additionally, the stormwater practice will have sufficient storage to collect runoff from the tributary project site during the 100-year storm without discharging. As flood waters recede below the BFE, the practice will discharge runoff in a controlled manner so as not to impact downstream areas. The attached HydroCAD stormwater modeling calculations show that during the 100-



year event, the project's tributary area will generate 1.607 acre-feet of runoff (70,001 ft³); the stormwater practice has the capacity to store 84,268 ft³ of water to the top of berm (elev 689.0).

The bioretention filter and detention basin along the westerly portion of the site have also been designed to provide complete storage of the runoff from the tributary project site during the 100-year storm. Along this portion of the site, the BFE is 687.0; therefore the system has been designed with a top of berm equal to 687.0. The tributary drainage area produces 2.697 acre-feet of runoff (117,481 ft³). The bioretention filter has the capacity to store 61,213 ft³ of water to the top of berm (elev 687.0) while the detention basin can store 72,472 ft³ to elev=687.0 for a total capacity of 133,685 ft³ (3.069 acre-feet).

National Flood Hazard Layer FIRMette

78°43'50"W 42°57'2"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)
Zone A, V, A99
- With BFE or Depth
Zone AE, AO, AH, VE, AR
- Regulatory Floodway

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile
Zone X

Future Conditions 1% Annual Chance Flood Hazard
Zone X

Area with Reduced Flood Risk due to Levee. See Notes.
Zone X

Area with Flood Risk due to Levee
Zone D

OTHER AREAS OF FLOOD HAZARD

NO SCREEN
Zone X

Area of Minimal Flood Hazard
Zone D

Effective LOMRS
Zone D

Area of Undetermined Flood Hazard
Zone D

OTHER AREAS

Channel, Culvert, or Storm Sewer

Levee, Dike, or Floodwall

GENERAL STRUCTURES

20.2
17.5
8

Cross Sections with 1% Annual Chance Water Surface Elevation

Coastal Transect

Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

OTHER FEATURES

Digital Data Available

No Digital Data Available

Unmapped

MAP PANELS

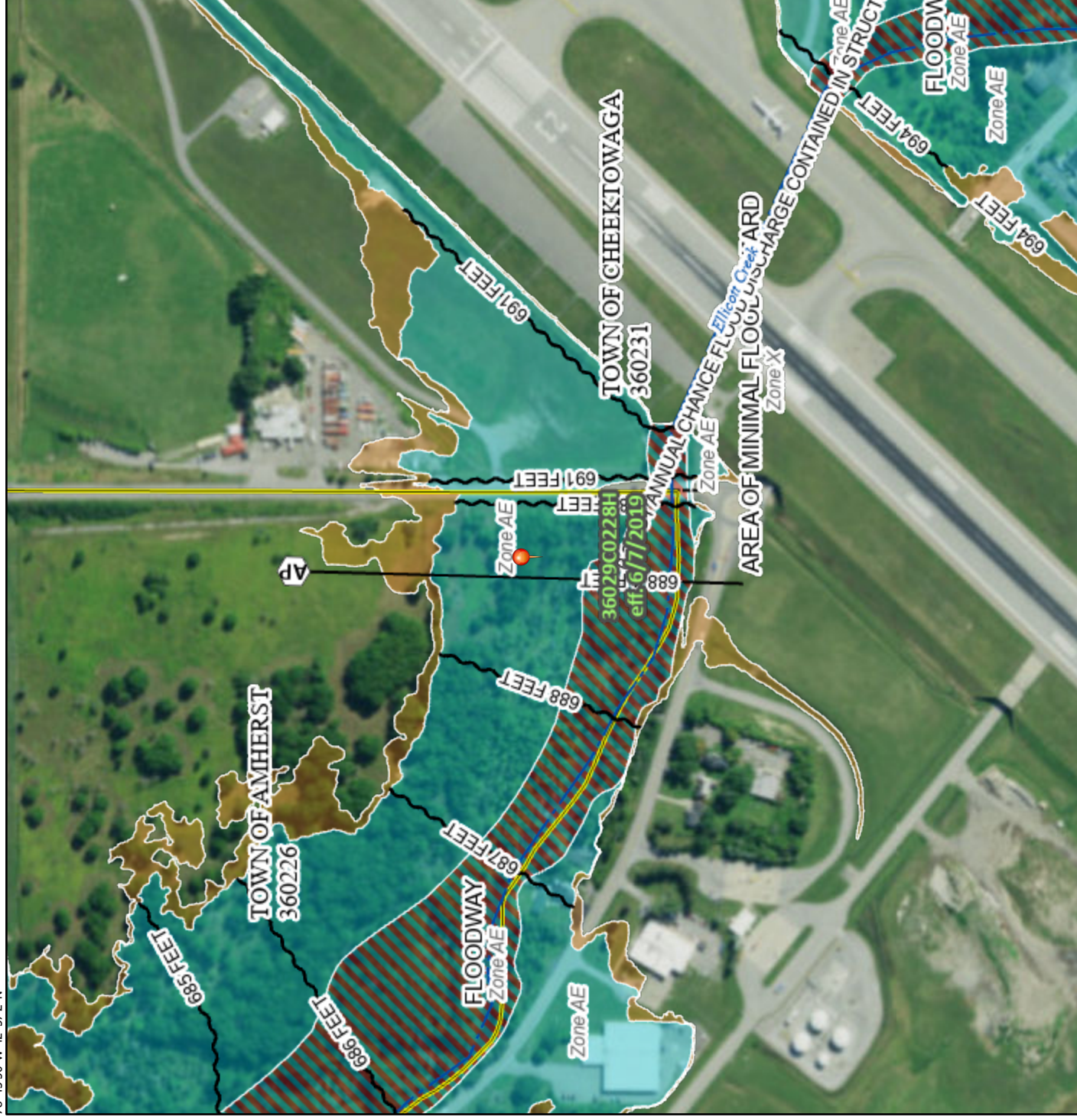


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/19/2024 at 2:22 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

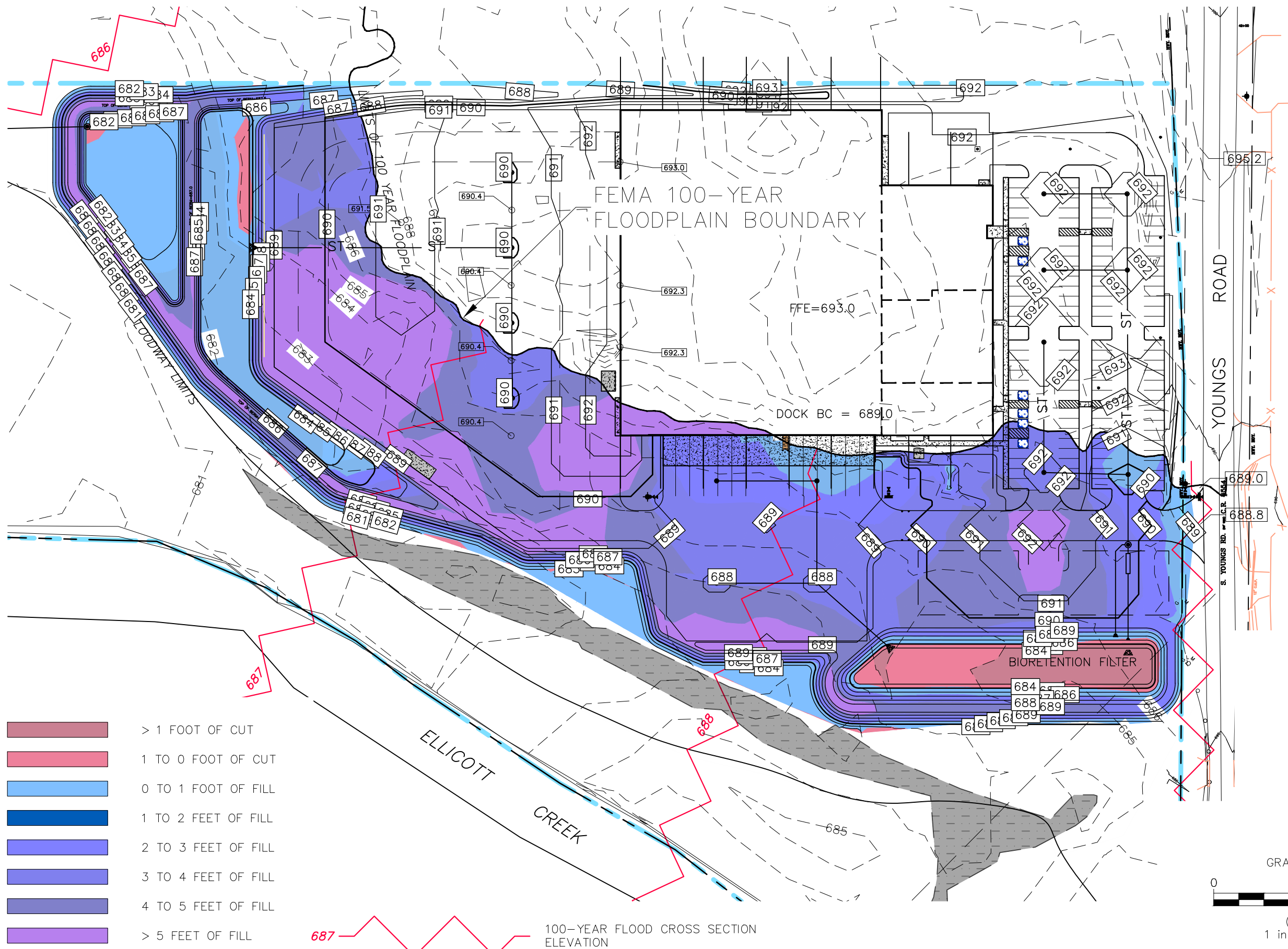
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



78°43'12"W 42°56'35"N

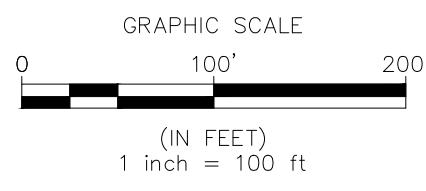


Basemap Imagery Source: USGS National Map 2023



- > 1 FOOT OF CUT
- 1 TO 0 FOOT OF CUT
- 0 TO 1 FOOT OF FILL
- 1 TO 2 FEET OF FILL
- 2 TO 3 FEET OF FILL
- 3 TO 4 FEET OF FILL
- 4 TO 5 FEET OF FILL
- > 5 FEET OF FILL

100-YEAR FLOOD CROSS SECTION ELEVATION



TOWN OF CHESEBOWAGA
INC. ON JUNE 2021

PROJECT TITLE:
**FW WEBB - AMHERST
SOUTH YOUNGS ROAD**
TOWN OF AMHERST
ERIE COUNTY, NEW YORK

PREPARED FOR:
GREENLEAF CONSTRUCTION
SUITE 105
98 ADAMS STREET
LEOMINSTER, MA 01453

SHEET TITLE:
**EARTHWORK WITHIN
FLOODPLAIN**

PREPARED BY:
**NAPIERALA
CONSULTING**
PROFESSIONAL ENGINEER, P.C.
SITE • DESIGN • ENGINEERING
110 FAYETTE STREET
MANLIUS, NEW YORK 13104
email: MNAPCON@NAPCON.COM
PH: (315) 682-5580 FAX: (315) 682-5544

PROJECT NO. **23-2176**

DATE **02/2024**

SCALE **1"=100'**