

Engineer's Report

for

SHATKIN SCHOOL OF DENTISTRY/IMIT
2525 KENSINGTON AVE
TOWN OF AMHERST, NY

February 22, 2022

Prepared By:

tredo
ENGINEERS

CIVIL | STRUCTURAL | ENGINEERING

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Seal

For:

Stieglitz Snyder Architecture
Buffalo, NY

I. SUMMARY

This project includes a mixed-use redevelopment and internal expansion in an existing 1-story retail/warehouse facility to include a dental school on a 1.2± acre parcel located at Kensington Avenue, Bentham Pkwy. and Ridgewood Drive in the Town of Amherst, New York. The GB-zoned site is located adjacent to the north terminal end of Ridgewood Drive, to which the applicant is requesting abandonment, and proposed replacement with a paved parking lot in a land-lease. The subject parcel is currently fully developed with replacement utility services planned for the uprated occupancy.

Sanitary wastewater is currently conveyed by 4-inch gravity piping from the building to an 8-inch public sewer found in Ridgewood Drive. New interior plumbing and partial replacement of the existing 4inch PVC lateral is planned.

New water service for domestic and fire-protection use of the multi-tenant build-out shall replace the existing tap and connect to the 6-inch main found in Kensington Ave. A new 6-inch tap with 4-inch DIP tee reducing to 3-inch and running to the water meter room and 6-inch DIP fire protection runs together in the same trench. The Erie County Water Authority (ECWA) regulates the water main. Metering and backflow prevention for the private services are contained within the facility mechanical room with application made by others.

Currently, storm water runoff generated by the site flows overland towards and into the existing surrounding roadway drainage systems. Replacement receivers are proposed for redevelopment of Ridgewood Drive from a roadway to a perpendicular car-park. New storm piping shall connect to existing manholes. One manhole rim is proposed to be raised-up to new grade of the proposed parking lot.

This development will not result in an increase in impervious surfaces on this site and does not involve soil disturbance greater than one (1) acre, thus stormwater detention is not provided. The site is not located within a 100-year floodplain. The site is currently fully developed and does not contain wetland.

II. SANITARY SEWER SERVICE

The existing public 8-inch gravity sanitary sewer located on the west side of Ridgewood Drive will provide a sanitary sewer connection point. All public utilities within Ridgewood Drive shall remain operational and accessible for maintenance during and after reconstruction. One public sewer manhole rim is proposed to be raised-up to new grade of the proposed parking lot.

A replacement for the private 4-inch PVC (SDR35) sewer lateral will be installed to the proposed building sanitary sewer entry point at the north wall of the building from the existing tap per the building plumbing plans. The proposed facilities will generate a calculated 1120 gal/day (gpd) average of residential wastewater load* as per the following:

Day School: $(30 \text{ empl} \times 15 \text{ gpd}) + (52 \text{ students} \times 10 \text{ gpd}) \sim 970$
Existing retail/warehouse: $(10 \text{ empl} \times 15 \text{ gpd}) \sim 150$

*Reference "NYS Design Standards for Intermediate Sized Treatment Works, March 2014"

III. WATER SERVICE

A new 6-inch water line for domestic and fire-protection will be connected to the existing 6-inch public main located on the east side (near side) of Kensington Ave. The following data pertains to the public watermain and private demands:

- Subsurface investigations indicates a somewhat shallow, till overburden on weathered shale bedrock. The presence of bedrock measurement approx. 7-ft below grade is indicated.
- The static pressure of the existing 6-inch public main is reported by ECWA as ___ psi, and a residual (open hydrant) reading of ___ psi. (Note that a recent pressure test is not available and a new test cannot be made at this time and until spring thaw)
- New domestic demand is limited to the proposed uses as a day school and retail/warehouse facility. New fire-protection demand design shall be by the building fire-protection engineer which may include a booster pump as required.

Erie County Water Authority (ECWA) governs the proposed tap and backflow prevention. ECWA provides the tapping sleeve and valve and the 4-inch gate valve and 6-inch gate valve installed at the property line. Metering and backflow prevention is contained within the facility. Meter set is also provided by ECWA. A Backflow Prevention Application shall be provided under separate cover on behalf of the water customer.

IV. STORMWATER MANAGEMENT

I. Existing (Pre-Development) Conditions

The subject parcel is currently built-out with building and pavements. No on-site stormwater receivers were found. Ridgewood Drive contains curb inlets and storm piping conveyances owned and maintained by the Town of Amherst.

II. Proposed (Post-Development) Conditions

The proposed development includes the construction of a new canopy entry structure and associated paved parking in a land-lease agreement to use Ridgewood Drive as a car-park. Storm water receivers are replaced, existing piping abandoned, with new piping connections made to existing manholes. Storm pipe sizing for conveyance of the 10-year storm event is included in Appendix A for new drainage in Ridgewood Drive.

V. PERMITS

The proposed construction of the building addition, abandonment of public rights-of-way, new parking areas and drainage must receive approval from the Town of Amherst. An application for backflow prevention for private service must be made to the Erie County Water Authority (ECWA).

APPENDIX A

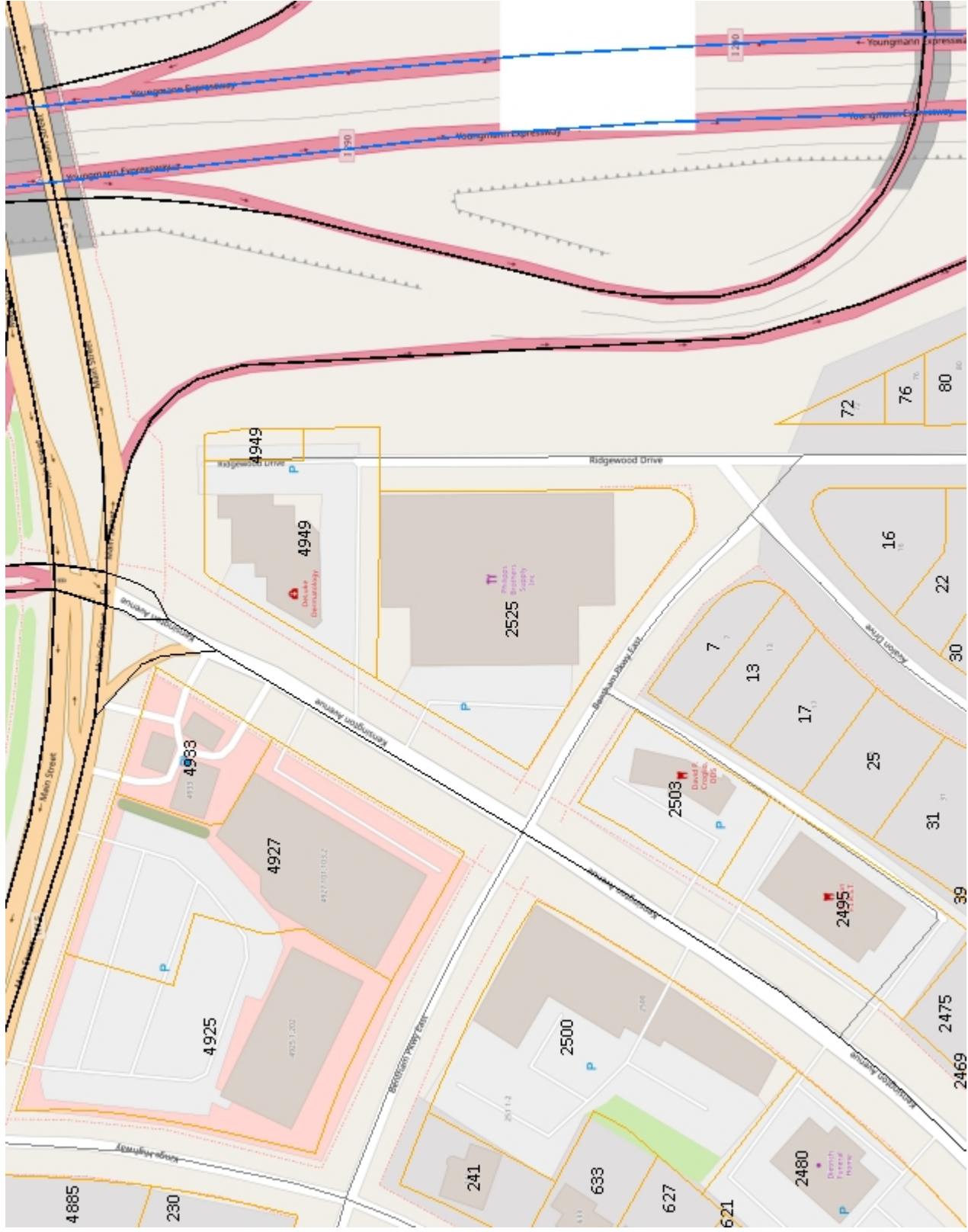


Erie County On-Line Mapping Application



Legend

- Parcels
- Streets and Highways**
- Interstate
- Primary State Road
- Secondary State Road
- County Road
- Local Road



0 0.04 0.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere
 THIS MAP IS NOT TO BE USED FOR NAVIGATION

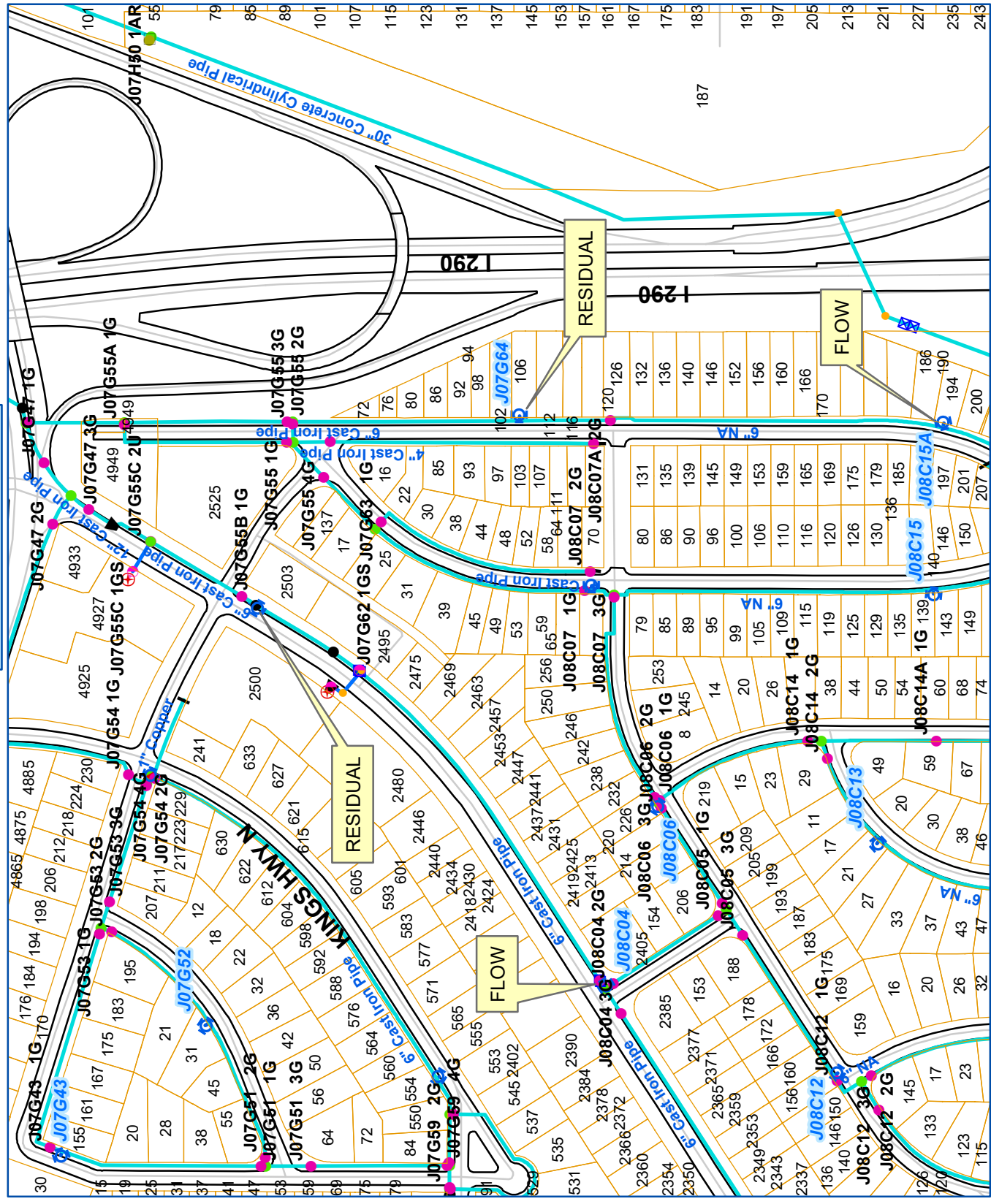
ERIE COUNTY
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF GIS

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

1: 2,257

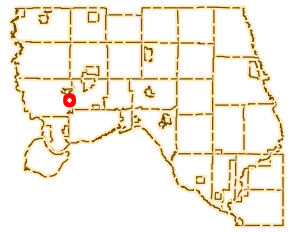


2525 KENSINGTON



1 inch = 300 feet

Legend:



APPENDIX B

APPENDIX C