



ENGINEER'S REPORT

Peak Motion
11190 Main Street
Town of Newstead, New York

May 1, 2026

Prepared For:
Elea Enterprises, LLC
11190 Main Street
Clarence, New York 14031

Prepared by:
Metzger Civil Engineering, PLLC
8245 Sheridan Drive
Williamsville, NY 14221
Phone: 633-2601
Fax: 633-2704
Email: meteng@roadrunner.com

Project M-2539



Michael J. Metzger, P.E.
License No. 066786

PROJECT DESCRIPTION:

The proposed project is located on a parcel of land comprising approximately 28.69 acres located at 11190 Main Street in the Town of Newstead. The current SBL number of the property is 60.03-1-21. A portion (1.10± acres) of the site was previously developed and houses the existing business, Peak Motion. Currently, the remainder of the parcel (27.96± acres) is undeveloped and is vegetated with grassland/pasture (appx. 1.0 acres) and forest (appx 26.96 acres). There are approximately 0.76 acres of impervious area currently on site, which will increase to ±2.57 acres as a result of the proposed construction activities

The proposed project consists of the construction of a 25,000 square foot metal building, whose intended use is to support the existing custom metalwork business. A small office space will be located in the northwest corner of the building. Additional improvements to the site include utility infrastructure for the proposed building including water, on-site wastewater treatment, and electric. Stormwater management facilities (catch basins, stormwater piping, and an infiltration basin with emergency stormwater detention volume) will be constructed to accommodate and treat stormwater runoff in accordance with the 2024 New York State Department of Environmental Conservation (NYSDEC) Stormwater Management Design Manual (SMDM).

FLOOD ZONE:

The site is currently mapped by the Federal Emergency Management Agency (FEMA) flood map 36029C0252H. The site is not located in a 100-year flood zone.

SOILS:

According to the USDA Soil Survey, the overall project site is comprised of 12 different soil types. However, the area within which construction and soil disturbances will be contained is comprised entirely of Wassaic series soils. A breakdown of soils in the project area on site is found in the table below. A USDA Soil Survey Map has been prepared and is included in Appendix G of the SWPPP report, which is a part of the project documents.

<u>Soil</u>	<u>Acres on Site</u>	<u>Percent of Disturbance Area</u>	<u>HSG</u>
Wassaic silt loam, 3 to 8% slopes (WaB)	3.98	90.4%	C
Wassaic-Rock outcrop complex (WcE)	0.23	5.2%	C
Wassaic silt loam, 0 to 3 percent slopes (WaA)	0.19	4.4%	C

WETLANDS:

There is expected to exist on site one (1) wetland area, as identified by the National Wetlands Inventory. The limits of said expected wetland are not delineated, however no construction activities are expected to be within 250 feet of the wetland's perimeter, as outlined by the National Wetlands Inventory.

WATER SUPPLY:

The fire suppression water needs for the proposed development shall be met by tapping the existing water main running along the north side of Main Street with a new 8" ductile iron pipe (DIP) service line, which will transition to polyvinyl chloride (PVC) 10 feet off the right-of-way. An 8" shutoff curb box and valve will be installed at the right-of-way. The 8" PVC will continue through a DCDA to prevent cross contamination with the public main in accordance with New York State Health Department standards, which will be located in a heated, well-lit utility room within the existing building along Main Street. It will then continue to the proposed metal building to the north where it will connect to serve the building.

The domestic water needs for the proposed building shall be met by tapping the existing service line within the southern building with a new 1" NSF/ANSI 61 PVC service line. The 1" PVC line will continue out of the southern building, ultimately connecting to the proposed building to the north. The connection will be made after the existing RPZ device in the southern building, eliminating any new backflow prevention needs for the domestic water service.

The DCDA has been designed and will be installed and tested in accordance with the Erie County Health Department and the NYS Department of Health standards. Construction, inspection and testing of the new water service will be in conformance with all applicable Town, ECHD, AWWA, New York State Health Department, and the "Ten State" standards.

SEPTIC SYSTEM:

The site does not have access to a municipal sanitary sewer system. Two open-bottom sand filter-style septic systems – one to serve the proposed metal building, and one to update the sanitary service of the existing southern building – will be designed at a later date and submitted to the Erie County Department of Health at a later date.

STORMWATER DRAINAGE SYSTEM:

The stormwater management system will consist of an infiltration basin with a pretreatment forebay. This practice will achieve the requirements of the New York State Department of Environmental Conservation's Stormwater Management Design Manual. The site will be graded to direct stormwater into catch basins, which will then convey stormwater to the infiltration basin's pretreatment area via underground pipe. Treated stormwater will spill over a stabilized weir into the infiltration basin once the ponding reaches a certain level. Stormwater will then be discharged through the bottom of the infiltration basin into the underlying fissured bedrock. The infiltration basin has been sized to act as a stormwater detention practice in the case of design storms, with the capacity to detain 100-year storm levels of runoff while allowing the stormwater to infiltrate. The infiltration basin will be equipped with an emergency spillway, which, in the case of runoff levels more severe than a 100-year design storm, will discharge treated stormwater north toward the approximately 21.5 acres of undisturbed vegetative buffer located on site.

In accordance with Phase II of the New York State Department of Environmental Conservation's Stormwater General Permit, pretreatment and filtration of stormwater will be accomplished by the pretreatment forebay. Stormwater will be discharged from the infiltration basin via infiltration into the native fractured bedrock below.

The tributary areas were estimated for the infiltration basin as well as the catch basins that the

impervious surfaces drain to, and the flows to the applicable stormwater practices were calculated using the Rational Method. The stormwater piping that conveys stormwater runoffs from the impervious areas were sized using Manning's Equation and the calculations are included with this report in Appendix A. The 10-year rainfall intensities were used to estimate the tributary runoff.

The infiltration basin will receive and detain flows until the storm subsides and allows the water to infiltrate into the aquifer beneath. The basin has been designed, in accordance with the New York State Stormwater Management Design Manual, to detain the entirety of a 100-year storm as stormwater infiltrates the native bedrock (see appendix D of the SWPPP, WinTR-55 Output Hydrograph).

A complete set of stormwater calculations has been included in the project documents in Appendix D of the SWPPP report.

APPENDIX A

Stormwater Pipe Sizing Calculations

ENGINEER'S REPORT

Peak Motion
11190 Main Street
Town of Newstead, New York

Project M-1813

WATER FLOWING to DESIGN POINT	STRUCT. TYPE	LINE TYPE	OUTLET PIPE FROM DESIGN POINT (FT)	DRAINAGE AREA (ACRES)				SUBTOTAL CA	TIME OF CONC. (MIN)	TIME OF FLOW IN SECTION (MIN)	i (IN/HR)	TOTAL CA	TOTAL RUNOFF (CFS)	DESIGN POINT (RIM) INLET ELEV. (FT)	OUTLET PIPE FROM DESIGN POINT									
				PAVMT C=			INCRMNT								SUBTOTAL			CROWN ELEV.			DIA. (IN.)	SLOPE (%)	V (FPS)	CAPACITY (CFS)
				GUTTER C=	LAWN C=	0.30									UPPER END	LOWER END	FALL (FT.)							

CB4	Cat. Basin	HDPE	74	0.04	0.04	0.00	0.00	0.04	10.00	0.32	4.10	0.04	0.17	783.92	782.19	781.41	0.78	8	3.8	1.3
				0.01	0.01	0.00	0.00	0.00						781.52	780.74	0.78		3.8	1.3	
CB3	Cat. Basin	HDPE	74	0.04	0.08	0.00	0.00	0.08	10.32	0.32	4.01	0.09	0.34	783.92	781.41	780.63	0.78	8	3.8	1.3
				0.00	0.00	0.00	0.00	0.00						780.74	779.96	0.78		3.8	1.3	
CB2	Cat. Basin	HDPE	74	0.05	0.13	0.00	0.00	0.13	10.64	0.32	3.94	0.13	0.52	783.92	780.63	779.85	0.78	8	3.8	1.3
				0.00	0.00	0.00	0.00	0.00						779.96	779.18	0.78		3.85	1.3	
CB1	Cat. Basin	HDPE	150	0.03	0.16	0.00	0.00	0.15	10.96	0.66	3.88	0.16	0.61	783.90	779.85	778.34	1.51	8	3.8	1.3
				0.00	0.00	0.00	0.00	0.00						779.18	777.67	1.51		3.8	1.3	
CB5	Cat. Basin	HDPE	58	0.48	0.48	0.00	0.00	0.47	10.00	0.23	4.10	0.53	0.53	782.14	780.74	780.31	0.43	12	4.2	3.3
				0.20	0.20	0.00	0.00	0.06						779.74	779.31	0.43		4.2	3.3	
CB6	Cat. Basin	HDPE	74	0.00	0.48	0.00	0.00	0.47	10.23	0.25	4.06	0.53	2.15	784.10	780.31	779.57	0.74	12	4.9	3.9
				0.00	0.00	0.00	0.00	0.06						779.31	778.57	0.74		4.9	3.9	
CB7	Cat. Basin	HDPE	118	0.20	0.68	0.00	0.00	0.66	10.48	0.48	4.01	0.72	2.90	783.70	780.07	779.60	0.47	18	4.1	7.2
				0.00	0.00	0.00	0.00	0.06						778.57	778.10	0.47		4.1	7.2	
CB8	Cat. Basin	HDPE	120	0.23	0.91	0.00	0.00	0.89	10.96	0.49	3.95	0.95	3.76	783.70	779.60	779.12	0.48	18	4.1	7.2
				0.00	0.00	0.00	0.00	0.06						778.10	777.62	0.48		4.07	7.2	
CB9	Cat. Basin	HDPE	152	0.23	1.14	0.00	0.00	1.12	11.45	0.62	3.90	1.18	4.58	783.70	779.12	778.51	0.61	18	4.1	7.2
				0.00	0.00	0.00	0.00	0.06						777.62	777.01	0.61		4.1	7.2	