



Environmental Conditions Report
Prepared For
Pillar of Fire
Block 516.01, Lot 1.01
Franklin Township
Somerset County, New Jersey

October 18, 2019

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Introduction

The applicant is proposing to expand the parking lot appurtenant to the Zarephath Christian Church on Lot 1.01 in Block 516.01. This expansion will provide an additional 224 parking spaces and will add an additional 1.46 acres of impervious coverage. Other improvements include luminaires to help illuminate the additional pavement area and a storm sewer system that will convey the runoff currently conveyed by a swale. The lot contains an area of 144.8045 acres and is located on the north side of the intersection between Weston Canal Road and School House Road. This report is intended to supplement the Site Plan prepared by Van Cleef Engineering Associates (VCEA) dated September 23, 2019.

Present Site Conditions and Proposed Changes

The project is located on Lot 1.01 in Block 516.01 as designated by the Franklin Township Tax Maps. The lot is partially developed and presently contains a set of athletic fields, a cemetery and 18 buildings of various sizes including a school. The remainder of the lot is characterized by upland forest, agricultural fields, lawn, palustrine deciduous forested wetlands, palustrine emergent wetlands and palustrine scrub/shrub-emergent wetlands. An LOI has been issued by the New Jersey Department of Environmental Protection with regard to the wetlands located on the property. In addition, there are multiple water bodies on the lot along with a flood hazard area and two large conservation areas dedicated to the Delaware and Raritan Canal Commission. The lot is situated within the Agricultural Zone per the Franklin Township Zoning Map. A tributary to the Millstone River is located in the southern portion of the lot. The lot is considerably large and features a varying topography consisting of both shallow and steep slopes. Soil tests conducted on the property indicate the presence of ground water. According to the Natural and Cultural Resources Inventory and Guide the geologic character of the site is the Passaic Formation. As of October 18, 2019, the NJ-GeoWeb Map Viewer indicates the presence of state endangered species on the lot. The project is located in the Piedmont Plains Landscape region.

The proposed expansion is located a considerable distance away from the aforementioned natural resources and regulated areas on the lot and will not have an adverse impact on them. There will likewise be no adverse impact on man-made or human resources. The proposed improvements will increase traffic in the area which will have a minimal increase in pollution from vehicles.

In addition to the slight increase in pollution from an increase in traffic there will also be a slight increase in light and sound pollution. The adverse impacts resulting from the proposed improvements are minimal and unavoidable and can be said for any project of this type. The only way to avoid these minimal adverse impacts would be no project or no action.

The project site is located within the Millstone River watershed of the Raritan River Drainage Basin. The proposed site has been designed to meet all NJ Stormwater Regulations for water quantity, quality, and recharge via the application of a pervious pavement system. The additional pavement will consist of five sections of porous pavement and one section of standard asphalt pavement. The stone beds beneath the porous pavement have been designed to infiltrate 100% of the runoff generated by the proposed pavement during a 100-year storm event. All the soils within the area of disturbance belong to Hydrologic Soil Group A and thus are highly conducive to infiltration. There is currently a detention basin to the east of the Zarephath Christian Church that receives runoff conveyed by a swale. Since this swale will be removed due to the proposed expansion of the parking lot, a storm sewer system has been designed in its stead to convey

this runoff and discharge it to the same basin. The application of a pervious pavement system will provide for 80% TSS removal per the NJBMP Manual. The storm drainage report has been prepared by VCEA and submitted with the full application to Franklin Township.

The National Resources Conservation Service (Web Soil Survey, available online at <http://websoilsurvey.nrcs.usda.gov/> accessed 9/23/19) indicates that the area of disturbance consists entirely of Dunellen Sandy Loam, 3 to 8 percent slopes (DunB) and Dunellen Sandy Loam, 8 to 15 percent slopes (DunC), which belong to Hydrologic Soil Group A.

According to the National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM), Panel 162 of 301 for Somerset County, New Jersey dated September 28, 2007 (see Appendix), the proposed expansion is located in Zone X area, which is considered minimal flooding (typically above the 500-year flood plain). The remainder of the property includes an area labeled Zone A which depicts the 100-year floodplain.

Summary

This project consists of the expansion of the parking lot appurtenant to the Zarephath Christian Church along with associated site improvements. The additional pavement will feature a pervious pavement system that will reduce peak flow rates compared to existing conditions and provide for 80% TSS removal. Furthermore, the infiltration supplied by this system will increase the annual ground water recharge relative to existing conditions. Due to the reduced quantity of runoff from the site and treated runoff from the vehicular traffic areas, the site will not negatively impact surrounding areas. The proposed expansion is located outside of the 100-year floodplain and away from any of the natural resources located on the site.

Approvals Required

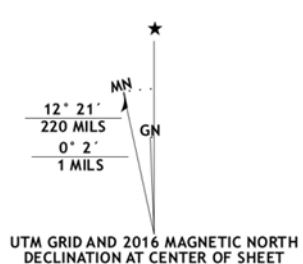
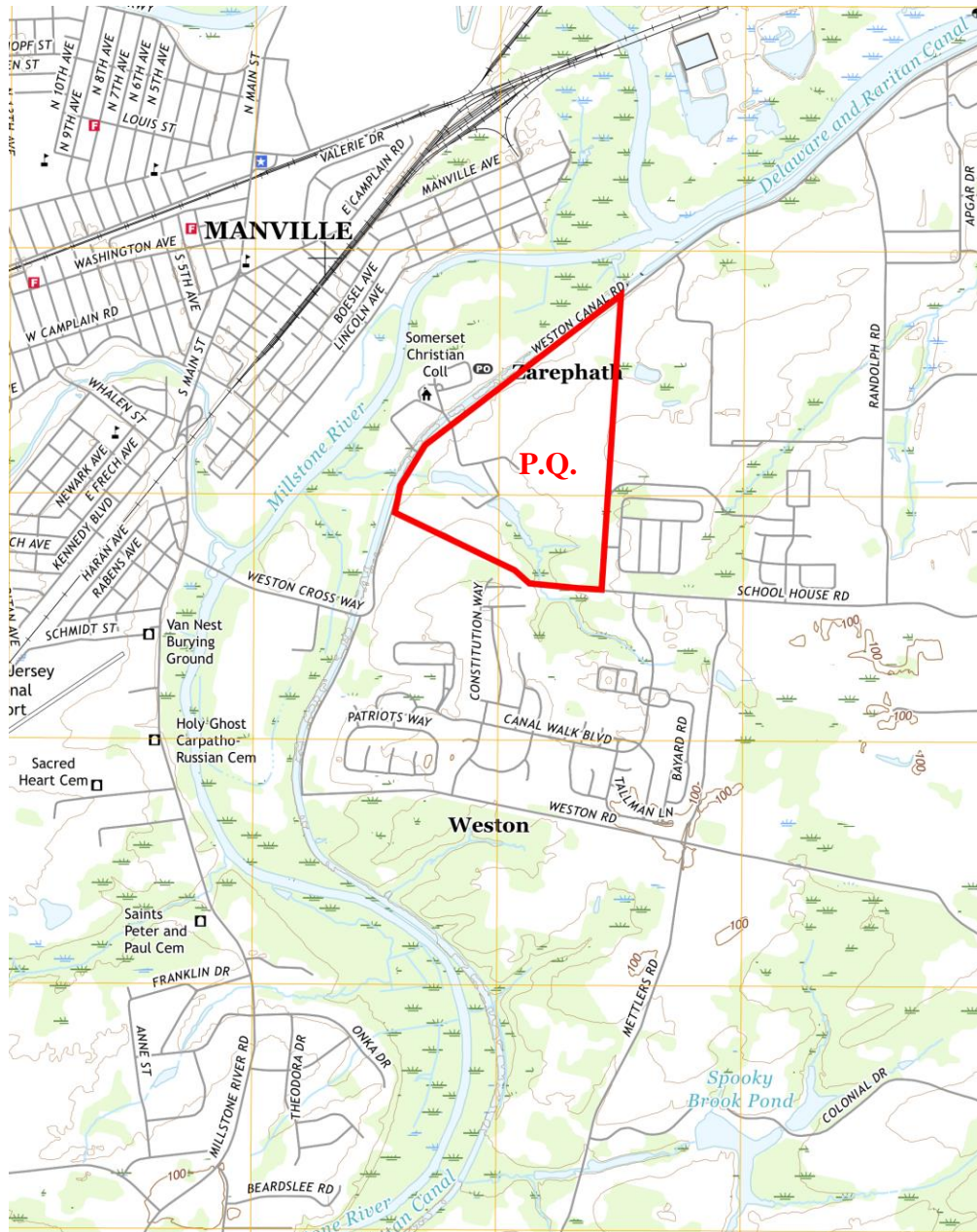
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|---|---|--|
| Franklin Township Planning Board | - | Site Plan Approval |
| Somerset-Union Soil Conservation District | - | Soil Erosion Sediment Control Plan Certification |
| Delaware & Raritan Canal Commission | - | Site Plan Certification of Approval |

APPENDIX A – LOCATION MAP

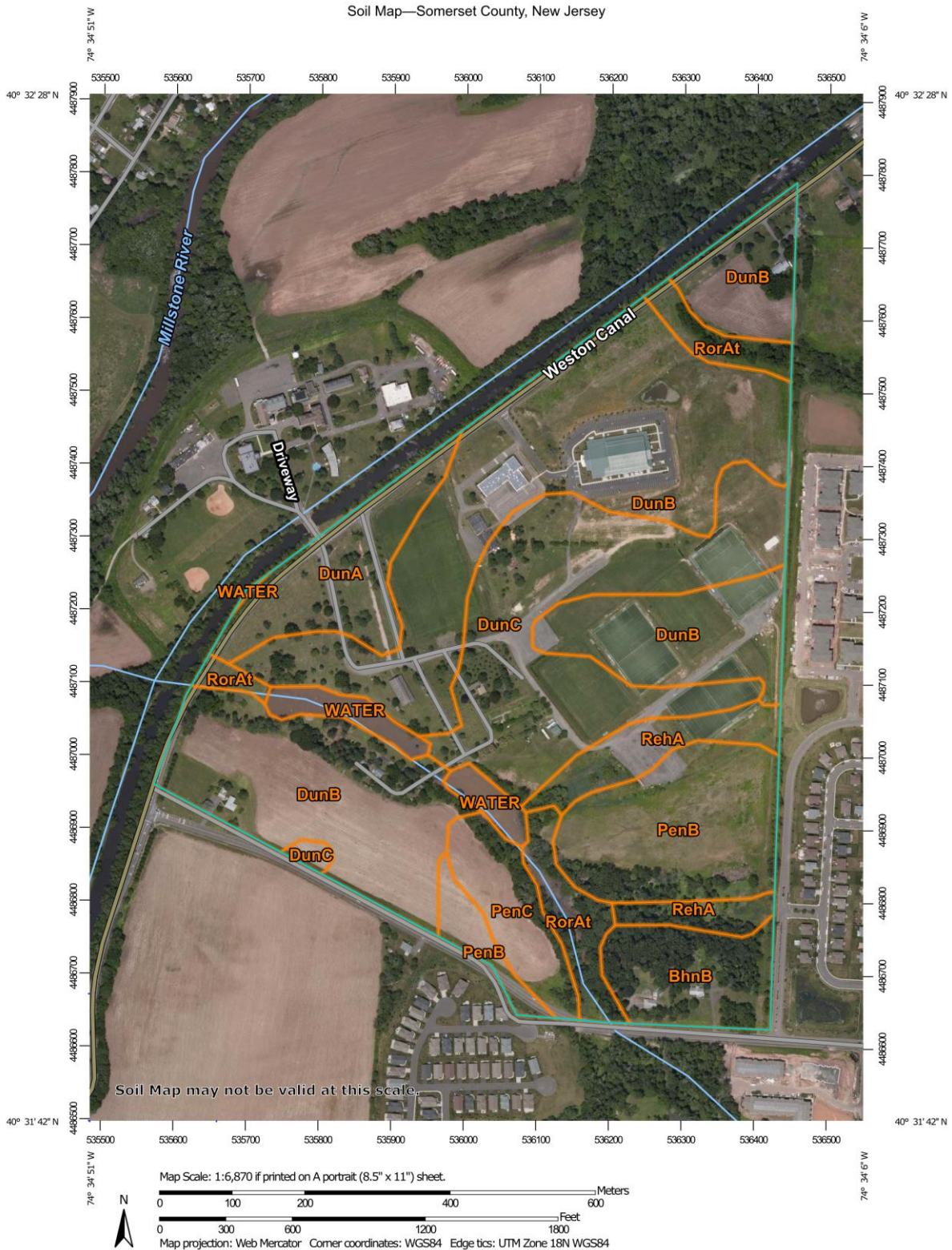
USGS Map

Block 516.01, Lot 1.01

Franklin Township, Somerset County



APPENDIX B – SOIL SURVEY MAP
 Block 516.01, Lot 1.01
 Franklin Township, Somerset County



APPENDIX C – AERIAL PHOTOGRAPH

Block 516.01, Lot 1.01

Franklin Township, Somerset County



