

# MidAtlantic

## Engineering Partners

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December 19, 2022

Project #: 9SD-2101

State of Delaware, Executive Dept.  
Office of State Planning Coordination  
Haslet Armory  
122 Martin Luther King Jr. Blvd. South  
Dover, DE 19901

Attn: David L. Edgell, AICP

Re: 9<sup>th</sup> Street Development Company – 427 W. 7<sup>th</sup> Street  
City of New Castle, New Castle County, Delaware

Mr. Edgell,

In response to your letter dated October 24, 2022, we offer the following responses in bold, to the italicized comments.

### Code Requirements/Agency Permitting Requirements

#### Department of Transportation – Contact Stephen Bayer

*Because the site fronts of Seventh Street, which is part of the Delaware Bayshore Byway and the Harriet Tubman Underground Railroad Byway, it is subject to outdoor advertising regulations found in Delaware State Code Title 17, Chapter 1, Sections 190-194 and Title 17, Chapter 11, Sections 1101-1120. Accordingly, the applicant should expect the following requirements:*

- No new billboards, variable message boards, or electronic changing message sign anywhere on or off Seventh Street within 660 ft of the closest right-of-way edge.*  
**Response: No billboards, variable message boards, or electronic changing message signs are proposed on or off 7<sup>th</sup> Street as a part of this project.**
- No off-premises advertising on the property for others within 660 ft of the closest right-of-way edge of Seventh St, e.g. displaying on-site the bank/financial institution funding the project or the contractor building the project.*  
**Response: No off-premises advertising is anticipated.**
- The site access on Seventh Street (NCR 378) must be designed in accordance with DelDOT's Development Coordination Manual.*  
**Response: Site access on 7<sup>th</sup> Street will be designed in accordance with DelDOT's Development Coordination Manual.**
- Pursuant to Section 1.3 of the Manual, a Pre-Submittal Meeting is required before plans are submitted for review.*  
**Response: Noted.**

- Section 1.7 of the Manual addresses fees that are assessed for the review of development proposals. DelDOT anticipates collecting the Initial Stage Fee when the record plan is submitted for review and the Construction Stage Fee when construction plans are submitted for review.

**Response: Noted that a fee will be required for each stage.**

- Per Section 2.2.2.1 of the Manual, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour in any hour of the day. Using the 11<sup>th</sup> edition of the Institute of Transportation Engineer's Trip Generation Manual, DelDOT estimates that the subject development, consisting of 2,928 sq. ft. retail shopping center and 152 multifamily housing units assumed to be low-rise with 3 floors of residential housing, would generate 1,839 vehicle trip ends per day and estimates the weekday morning and evening peak hour trip ends at 104 and 147, respectively. Therefore, a TIS would normally be required.

**Response: The above analysis is inaccurate as it does not include the existing trip generation from the retail space currently operating on the site. Per the current Traffic Planning and Design analysis the anticipated trip generation is 1,372 vehicle trips per day. Morning and evening peak hour trips end at 87 and 137 respectively.**

- Section 2.2.2.2 of the Development Coordination Manual provides that for developments generating less than 2,000 vehicle trip ends per day and less than 200 vehicle trip ends per hour in any hour of the day, DelDOT may accept an Area Wide Study (AWS) Fee in lieu of the TIS if the local government does not require a TIS. The AWS Fee is calculated as \$10 per daily trip, or, in this case, \$18,390. AWS Fees are used to fund traffic studies, not to build improvements.

**Response: Per initial discussions between DelDOT and the developer's team, the developer has expressed interest in pursuing payment of the Area Wide Study Fee in lieu of doing a TIS. We are currently scheduled for a pre-application meeting in January.**

- The purpose of a TIS, per DelDOT regulations, is to determine the offsite improvements for which the developer should be responsible to build or contribute toward. DelDOT anticipates requiring the developer to improve Seventh St, within the limits of their frontage, to meet DelDOT's standards associated with its Functional Classification. Seventh Street is a Major Collector Road, for which the standard includes 12-foot lanes and 8-foot shoulders. Frontage, as defined in Section 1.8 of the Manual, includes the length of roadway perpendicular to lines created by the projection of the outside parcel corners to the roadway.

**Response: The proposed site includes two sections of frontage. One portion is 130 LF and the other is 30 LF. There is an outparcel owned by other entities between the two frontages that restricts the ability to complete continuous site frontage improvements. The development will consider the information above through continued dialog with DelDOT.**

- Questions regarding the requirement to improve the site frontage should be directed to the New Castle County Review Coordinator, Mr. John Pietrobono.

**Response: Noted.**

- As necessary, in accordance with Section 3.2.5 and Figure 3.2.5-a of the Manual, DelDOT will require dedication of right-of-way along the site's frontage. By this regulation, this dedication is to provide a minimum of 40 ft of right-of-way from the physical centerline of Seventh St. The following right-of-way from the required, "An X-foot wide strip of right-of-way from the centerline is hereby dedicated in fee simple to the State of Delaware, acting by and through the Delaware Department of Transportation."

**Response: The required ROW and note requirements are noted.**

- *In accordance with Section 3.2.5.1.2 of the Manual, DelDOT will require the establishment of a 15-foot-wide permanent easement across the property frontage. The location of the easement shall be outside the limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The following note is required, “A 15-foot-wide permanent easement is hereby dedicated in fee simple to the State of Delaware, acting by and through the Delaware Department of Transportation.”*

**Response: The required easement is noted.**

- *Referring to Section 3.4.2.1 of the Manual, the following items, among other things, are required on the Record Plan:*

- *A Traffic Generation Diagram. See Figure 3.4.2-a for the required format and content.*

**Response: Noted.**

- *Depiction of all existing entrances within 300 ft of the proposed entrance on Seventh Street.*

**Response: Will comply.**

- *Notes identifying the type of off-site improvements, agreements (signal, letter) contributions and when the off-site improvements are warranted.*

**Response: Noted.**

- *Section 3.5.4.2 of the Manual addresses requirements for Shared Use Paths (SUP) and sidewalks. For projects in Level 1 and 2 Investment Areas, installation of paths or sidewalks along the frontage on State-maintained roads is required. DelDOT may require improvements to or rehabilitation of the existing sidewalks on Seventh St as part of the plan review process.*

**Response: Noted.**

- *In accordance with Section 3.8 of the Manual, storm water facilities, excluding filter strips and bioswales, shall be located at a minimum of 20 feet from the ultimate State right-of-way along Seventh St.*

**Response: Noted.**

- *In accordance with Section 5.2.9 of the Manual, the Auxiliary Lane Worksheet should be used to determine whether auxiliary lanes are warranted at the site entrances and how long those lanes should be.*

**Response: Noted.**

- *In accordance with Section 5.4 of the Manual, sight distance triangles are required and shall be established in accordance with American Association of State Highway and Transportation Officials (AASHTO) standards. A spreadsheet has been developed to assist with this task.*

**Response: Sight distance triangles will be added per section 5.4.**

- *In accordance with Section 5.14 of the Manual, all existing utilities must be shown on the plan and a utility relocation plan will be required for any utilities that need to be relocated.*

**Response: Noted.**

**DART First State – Contact Jared Kauffman**

- *In order to encourage the use of non-motorized travel, it is recommended to provide covered bicycle parking at the apartment buildings that do not require an additional cost beyond the base cost of renting an apartment unit. These could be placed in the ground floor parking area.*

**Response: It is anticipated that covered bicycle parking will be provided in future designs.**

**Department of Natural Resources and Environmental Control – Contact Clare Quinlan**

- *Disclaimer Clause: Staff from the Delaware Department of Natural Resources and Environmental Control (DNREC) reviewed the project submitted for PLUS review. The absence of comments regarding specific resources does not indicate that there are not additional constraints or environmental issues on site, nor does it indicate DNREC support of a project.*

**Response: No response required.**

**Concerns Identified Within the Development Footprints****Wetlands and Subaqueous Lands**

*Maps from the Statewide Wetlands Mapping Project indicate the potential presence of tidal and non-tidal wetlands on the site. The application indicates that wetlands have been delineated. The applicant indicated at the September 28<sup>th</sup>, 2022, PLUS meeting that a preliminary Jurisdiction Determination has been completed. Per the Jurisdictional Determination, there is no direct disturbance proposed to tidal wetlands, however, about 12,000 sq. ft. of disturbance is proposed to nontidal wetlands.*

**Requirements:**

- *Federal permits from the U.S. Army Corps of Engineers may be necessary if dredge or fill is proposed in non-tidal wetlands or streams. A delineation of waterways and wetlands may be required, to be completed by a qualified professional hired by the landowner. In certain cases, permits from the US Army Corps of Engineers may trigger additional certifications from DNREC (Coastal Zone Federal Consistency Certification and 401 Water Quality Certification). Work with the US Army Corps of Engineers to determine the appropriate permitting requirements if federal permits are required.*

**Response: Wetlands have been identified and a Preliminary JD was issued. We anticipate the need for a general permit to address wetland disturbance.**

- *If the site design changes, note that the state permits from the DNREC Wetlands and Subaqueous Lands Section may also be necessary if dredge or fill is proposed in tidal wetlands, streams, or State Subaqueous Lands.*

**Response: Noted.**

**Vegetated Buffer Zones**

*Site plans do not appear to show a vegetated buffer along tidal or non-tidal wetlands. Vegetated buffer zones placed adjacent to waterways and wetlands help improve water quality by reducing sediment and pollutants loads. They also provide valuable habitat and can help prevent encroachment of human activities into ecologically sensitive areas. Vegetated buffers are not equivalent to setbacks, as residential lots, walkways, and stormwater management facilities should not be contained within the vegetated buffer zone.*

**Requirements:**

- *The applicant must comply with minimum vegetated buffer widths as identified within county and municipal codes.*

**Response:** Based on the City of New Castle code there are no minimum buffer requirements applicable to this site and the County has no jurisdiction on development of this land. After negotiations with DNRED, the required 50' setback from the wetlands was removed per the Amended Final Plan of Remedial Action. The current site contains pavement and improvements within 5' of existing wetlands.

**Special Flood Hazard Area**

According to the newest Flood Insurance Rate Maps (FIRM), nearly all of this parcel is situated within a Special Flood Hazard Area, specifically within the mapped 100-year floodplain (1% annual chance of flooding). The Special Flood Hazard Area identified on the site lies within zone AE. In lands contained within the 100-year floodplain, the National Flood Insurance Program's floodplain management regulations must be enforced through the local floodplain ordinance, which can have higher standards. A portion of this site is also situated within the moderate risk floodplain, or 500-year floodplain (0.2% annual chance of flooding), identified as a shaded zone-X. Structures and features including retail space, the leasing office, maintenance and utility rooms, and parking areas are proposed at ground level within the floodplain.

**Requirements:**

- *The applicant must comply with the local floodplain ordinance and regulations applicable to development or construction within the 100-year floodplain. In determining the boundary of the floodplain, use the most recent FIRM maps available.*

**Response:** The most recent FIRM maps have been used to determine the boundary of the flood plain.

**Stormwater Management**

*This application proposes greater than 5000 sq. ft. of land disturbing activities, therefore, this project will be subject to Delaware's Sediment and Stormwater Regulations.*

**Requirements:**

- *A Sediment and Stormwater Plan must be developed, then approved by the appropriate plan review agency prior to any land disturbing activity taking place on the site. For this project, the plan review agency is the New Castle Conservation District.*

**Response:** A Sediment and Stormwater Plan will be developed as a part of the submission.

- *Additionally, to address federal requirements, construction activities that exceed 1.0 acre of land disturbance require Construction General Permit coverage through submittal of an electronic Notice of Intent for Stormwater Discharges Associated with Construction Activity. This form must be submitted electronically (<https://apps.dnrec.delaware.gov/enoi/>), select Construction Stormwater General Permit) to the DNREC Division of Watershed Stewardship along with the \$195 fee).*

**Response:** NOI will be provided.

- *Schedule a project application meeting with the appropriate plan review agency prior to moving forward with the stormwater and site design. As part of this process, you must submit a Stormwater Assessment Study.*

**Response:** A project application meeting will be scheduled prior to the completion of the stormwater design.

**Hydrologic Soils Group**

Hydrologic Soil Group A/D soils (very poorly drained) have been identified in the southwestern portion of the site. These soil types are typically not conducive to utilization infiltration stormwater Best Management Practices such as bioretention and infiltration basins, which must meet minimum infiltration requirements.

**Requirements:**

- Any stormwater Best Management Practices that propose the use of infiltration or natural recharge shall include a soils investigation.

**Response: Noted.**

**Delaware Emergency Management Agency – Contact Phillip Cane****Proposed Project Parcel Flood Concern**

- This/These parcel(s) is/are located within an area of (Minimal Flood Concern of 1000 years or greater/0.2% Flood Concern for 500 years/1% Flood Concern for 100 years).

**Response: Noted**

**Parcel Status within County Evacuation Zone Location**

- The parcel is located within New Castle County in Evacuation Zone A.

**Response: Noted.**

- DEMA recommends and encourages the County Evacuation Zone Location to be made publicly available to businesses and patrons through signs, pamphlets, or other means.

**Response: Noted.**

**State Historic Preservation Office – Contact Carlton Hall**

- There are no known archeological sites or known National Register-listed or eligible properties on the parcel.

**Response: Noted.**

- The Delaware SHPO reviewed the parcel in January when this project came in our office as a HUD project

**Response: Noted.**

- Our office has no archaeological concerns from our review with low archaeological potential on the parcel.

**Response: Noted.**

**Delaware State Fire Marshall's Office – Contact Duane Fox**

This document is for informational purposes only and does not constitute any type of approval from the City of New Castle. This is a cursory review. Please contact the City of New Castle's Fire Marshal Office for formal submission requirements.

**Response: We have been in contact with the City of New Castle Fire Marshal's office and will continue to do so throughout the design process.**

**Fire Protection Water Requirements:**

- Water distribution system capable of delivering at least 1,500 gpm for 2-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers.

**Response: Noted.**

- *Where a water distribution system is proposed for business occupancy sites, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.*

**Response: Fire protection will be provided.**

#### ***Fire Protection Features***

- *All structures over 10,000 sq. ft. aggregate will require automatic sprinkler protection installed*  
**Response: Noted.**
- *Buildings greater than 10,000 sq. ft., 3-stories or more, over 35 ft. in height, or classified as High Hazard are required to meet fire lane marking requirements.*  
**Response: Noted.**
- *Show Fire Department Connection location (must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.*  
**Response: Noted.**
- *Show Fire Lanes and Sign Detail as shown in DSFPR.*  
**Response: Noted.**
- *Building shall comply with the Large Area Building requirements in DSFPR*  
**Response: Noted.**
- *Parking between the building and fire lane shall comply with DSFPR*  
**Response: Noted.**
- *Provide standpipes as required by the DSFPR*  
**Response: Noted.**

#### ***Accessibility***

- *All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the site must be constructed so fire department apparatus may negotiate it. If a “center island” is placed at an entrance road, it shall be arranged in such a manner that it will not adversely affect quick and unimpeded travel of fire apparatus into the site.*  
**Response: Noted.**
- *Any dead-end road more than 300 ft in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet.*  
**Response: Noted.**
- *The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.*  
**Response: Noted.**

- *The use of speed bumps or other methods of traffic speed reduction must be in accordance with Dept. of Transportation requirements.*

**Response: Noted.**

- *The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.*

**Response: Noted.**

#### ***Gas Piping and System Information***

- *Provide type of fuel proposed and show locations of bulk containers on plan.*

**Response: Noted.**

#### ***Required Notes:***

- *Provide a note on the final plans submitted for review to read “All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations.”*
- *Proposed Use*
- *Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units*
- *Square footage of each structure (Total of all Floors)*
- *National Fire Protection Association (NFPA) Construction Type*
- *Maximum Height of Buildings (include number of stories)*
- *Note indication if building is to be sprinklered*
- *Name of Water Provider*
- *Letter from Water Provider approving the system layout*
- *Provide Lock Box Note (as detailed in DSFPR)*
- *Provide Road Names, even for County Roads*

**Response: All required notes will be included.**

#### **Recommendations/Additional Information**

*This section includes a list of site-specific suggestions that are intended to enhance the project. These suggestions have been generated by the State Agencies based on their expertise and subject are knowledge. These suggestions do not represent State Code requirements. They are offered here in order to provide proactive ideas to help the applicant enhance the site design, and it is hoped (but in no way required) that the applicant will open a dialogue with the relevant agencies to discuss how these suggestions can benefit the project.*

#### **Department of Transportation – Contact Stephen Bayer**

- *The applicant should expect a requirement that any substation and/or wastewater facilities will be required to have access from an internal driveway with no direct access to Seventh St.*

**Response: Noted.**

- *The applicant should expect a requirement that all PLUS and Technical Advisory Committee (TAC) comments be addressed prior to submitting plans for review.*

**Response: Noted.**

- *Please be advised that the Standard General Notes have been updated and posted to the DELDOT website. Please begin using the new versions and look for the revision dates of March 21, 2019 and March 16, 2022.*

**Response: Noted.**

**Department of Natural Resources and Environmental Control – Contact Clare Quinlan**

***Wetlands and Subaqueous Lands***

- *Do not disturb wetland areas. Wetlands, both tidal and non-tidal, are a critical part of our natural environment. They reduce the impacts of flooding, absorb pollutants, and improve water quality. Wetlands provide habitat for animals and plants, and many contain a wide diversity of life, supporting plants and animals that are found nowhere else.*

**Response: The current design anticipates filling approximately 12,000 SF of non-tidal wetlands which is acceptable based on Nationwide Permit program which allows for the loss of up to ½ acre of non-tidal wetlands.**

***Vegetated Buffer Zones***

- *Incorporate a 100-foot vegetated buffer zone from the edge of wetlands and all waterways to protect water quality and to provide an additional margin of safety for flooding.*

**Response: Based on the City of New Castle code there are no minimum buffer requirements applicable to this site and the County has no jurisdiction on development of this land. The current site contains pavement and improvements within 5' of existing wetlands.**

- *Vegetated buffer zones should be left undisturbed during construction and should be identified outside of the Limit of Disturbance on the engineering plans. In some instances, stormwater outfalls, conveyances, and emergency spillways may cross through these zones, and will require temporary disturbance during construction.*

**Response: The existing site currently consists of pavement within 5' of existing wetlands.**

- *Maintain vegetated buffer zones as either grasslands/meadows or forest. Buffer zones should be planted exclusively with native trees and plants. Native plants are well-suited to our climate and require limited maintenance. They also provide an increasingly important role in the survival of native birds and beneficial insects whose habitat is shrinking due to development and climate change.*

**Response: There are limited natural features on the site. A significant majority of the uplands within the site is occupied by existing improvements including pavement and buildings.**

- *Grass cutting for vegetated buffer zones if maintained as meadow should not occur between April 1<sup>st</sup> to July 31<sup>st</sup> to reduce impacts to nesting birds and other wildlife species that utilize meadows and grasslands for breeding habitat.*

**Response: Noted.**

### **Sea Levels Rise**

*Most of the site is vulnerable to permanent inundation from sea level rise. By 2050, mean sea levels are projected to rise by 0.7-1.9 feet; by end of century sea levels are projected to increase by 1.7 – 5.0 ft. Roadways and buildings are proposed on land subjected to inundation by sea level rise between 1 and 5 feet. In addition to permanent inundation, as mean sea levels rise, the frequency and severity of tidal flooding events is expected to increase.*

- In areas within 5 feet of mean sea level, avoid construction of permanent structures and infrastructure. All infrastructure and structures on the site should incorporate the effects of sea level rise through the expected lifespan of the structures. This may include increasing freeboard of structures, ensuring that critical infrastructure is elevated to withstand future sea level rise, construction of flood control measures, and incorporating green infrastructure for flood control.*

**Response: The proposed FFE is set at 12 feet which is 2.0-3.0 feet above the current flood elevation. The proposed building will be at or above the 2050 projected sea rise elevation. There is no residential space proposed on the first floor and the design will consider construction of flood control measures. It is infeasible to raise the proposed buildings to be out of the projected maximum sea level rise until the surrounding area is raised. The site would have constrained access if the floor elevations were raised above the maximum end of century sea level elevation.**

### **Special Flood Hazard Area**

*Locate all structures outside of the floodplain. If this is not possible, the developer should consider designing structures to a higher standard to avoid potential future flood damage and loss.*

**Response: Noted.**

### **Key Wildlife Habitat**

*The mixed broadleaf freshwater tidal marsh on this property is mapped as a Key Wildlife Habitat in the Delaware Wildlife Action Plan because it is part of a large wetland complex that can support an array of plant and animal species across the landscape.*

- Key Wildlife Habitat should be conserved to the maximum extent practicable and negative impacts should be minimized.*

**Response: This is already a developed site and most of the proposed improvements will be on land that has already been disturbed.**

- In the interest of water quality and wildlife habitat, we recommend maintaining an upland buffer at least 100 feet along rivers, streams, and wetlands. This recommendation is based on peer reviewed research that suggest that buffer values increase noticeably with widths of 100 feet or more.*

**Response: Based on the City of New Castle code there are no minimum buffer requirements applicable to this site and the County has no jurisdiction on development of this land. The current site contains pavement and improvements within 5' of existing wetlands.**

### **Stormwater Management**

- Where the site and soil conditions allow, integrate runoff reduction techniques including infiltration basins, bioretention (rain gardens), filter strips, and pavers to encourage on-site stormwater infiltration and reduce runoff.*

**Response: Noted.**

- *For improved stormwater management, preserve existing trees, wetlands, and passive open space.*

**Response:** There is no stormwater infrastructure currently on-site providing water quality/quantity control of existing pavement or buildings on the site currently. This design will capture and provide water quality measures for the proposed conditions thereby improving water discharge from the site.

### ***Drainage***

- *All existing drainage ditches on the property should be evaluated for function and cleaned, if needed, prior to the construction of the project.*

**Response:** Noted.

- *Environmental permits or exemptions may be required by the County Conservation District (Standard Plan), the DNREC Sediment and Stormwater Program (eNOI/NOT), Army Corp of Engineers, and/or DNREC Wetlands and Subaqueous Lands Section prior to clearing and/or excavating ditch channels.*

**Response:** Noted.

- *All precautions should be taken to ensure the project does not hinder any off-site drainage upstream of the project or create any off-site drainage problems downstream by the release of on-site storm water.*

**Response:** Noted.

### ***Mosquitoes***

*The project is expected to be impacted by mosquitoes due to its location near large expanses of wetlands. Mosquito control issues are increasing as developments infringe on wetlands areas, often leading to increased demand for mosquito control services beyond what DNREC has the resources to provide.*

- *If necessary, arrange for a long-term mosquito control services through a private company licensed in this area of specialty. In some cases, the DNREC Mosquito Control Section may be able to provide these services free of charge.*

**Response:** Noted.

### ***Additional Sustainable Practices***

- *Install electric vehicle (EV) charging stations for your residents. Increasingly, residents will expect EV charging. Installation costs can vary significantly depending on the parking and electricity distribution at a given location, so it is often easier and cheaper to plan for the installation at construction, rather than doing costly retrofits later. The DNREC Division of Climate, Coastal and Energy offers rebates of up to 90% of the cost of the charging station for commercial, multi-unit dwelling and other public properties. These programs address climate change goals of reducing greenhouse gas emissions and improving overall air quality.*

**Response:** The owner is considering providing electric vehicle charging stations.

- *Use renewable energy infrastructure such as solar or geothermal to reduce energy costs and further reduce pollution created from offsite generation. Grant funds and incentives are available for Delmarva Power customers through the DNREC Green Energy Fund, which includes several funding types through the state's major electric utilities.*

**Response:** The use of renewable energy infrastructure is anticipated for the proposed design.

- *Include space for recycling dumpsters within the preliminary site design stage. These can be placed adjacent to trash dumpsters.*

**Response: Recycling dumpsters will be included within the preliminary site design stage.**

- *Incorporate non-motorized connectivity and install bicycle racks where feasible to help facilitate non-vehicular travel modes.*

**Response: Bicycle parking is anticipated to be provided within the proposed design.**

- *Use efficient Energy Star rated products and materials in construction and redevelopment. Energy efficient appliances use less energy over time. This saves consumers and businesses money, while also helping to reduce pollution from power generation.*

**Response: Energy Star rated appliances and HVAC equipment are anticipated for the proposed design.**

- *Use structural paint coatings that are low in Volatile Organic Compounds to help protect air quality. Air pollution from new construction is generated through the use of maintenance equipment, paints, and consumer products like roof coatings and primers.*

**Response: It is anticipated that low VOC paint and coatings will be used wherever possible.**

- *Use recycled materials, such as reclaimed asphalt pavement, to reduce heat island effects on paved surfaces, prevent landfill waste, and lower material costs.*

**Response: It is anticipated that existing asphalt pavement will be reclaimed and re-used during construction. It is anticipated that existing parking lot base materials will also be reused wherever possible.**

#### **Delaware Emergency Management Agency – Contact Phillip Cane**

##### ***Population***

- *The county has a population density of 1,321.50 per sq. mile based on the US 2020 Census report, an increase from 2010 at 1,241.00 persons per sq. mile.*

**Response: Noted.**

- *The specific census blocks the project is located on has a total population of 290, though, with development, this will undoubtedly change.*

**Response: Noted.**

- *The adjacent blocks aggregate brings the area to a total population of 877.*

**Response: Noted.**

##### ***FEMA National Risk Index***

- *The FEMA National Risk Index is an online mapping application that identifies communities most at risk of 18 natural hazards: Avalanche, Coastal Flooding, Cold Wave, Drought, Earthquake, Hal, Heat Wave, Hurricane, Ice Storm, Landslide, Lightning, Riverine Flooding, Strong Wind, Tornado, Tsunami, Volcanic Activity, Wildfire and Winter Weather. The FEMA National Risk Index is calculated by multiplying the Expected Annual Loss times the Social Vulnerability and dividing that by the Community Resilience.*

**Response: Noted.**

- According to FEMA's National Risk Index, the parcel is considered **very low** for overall natural hazard risks.

**Response: Noted.**

- Community Resilience is a consequence reduction risk component and a community risk factor that represents the ability of a community to prepare for anticipated natural hazards, adapt to changing conditions, and withstand/recover rapidly from disruptions. Social Vulnerability is a consequence-enhancing risk factor that represents the susceptibility of social groups to the adverse impacts of natural hazards.

**Response: Noted.**

- Its community resilience is rated as **relatively high**. In contrast, its social vulnerability is rated as **relatively moderate**.

**Response: Noted.**

#### **Potential Parcel Solar Panel Capabilities**

- Regarding energy use and consumption, the parcel utilizes utility gas as the predominant fuel for heating purposes.

**Response: Noted.**

- However, for electricity generation via solar panels, the parcels have an average photovoltaic power potential of 1452 kWh/kWp. As such, should solar panels be utilized, we recommend an optimum told of the photovoltaic modules at approximately 35 degrees, which could provide a potential of 1757 kWh/m2.

**Response: Noted.**

#### **Renewable Energy Commitment**

- DEMA strongly encourages the use of renewable energies and high-efficiency appliances and utilities.

**Response: The project team is committed to exploring and utilizing renewable energy options where possible.**

- Regarding utilities, DEMA suggests incorporating 90% series furnaces/HVAC systems: the closer to 99%, the better, as well as A/C units of 20 Seer or greater. DEMA recommends using tankless water heaters, and battery backup systems for sump pumps to reduce potential water damage from power failure.

**Response: Noted.**

- Lastly, DEMA encourages the integration of modern and emerging technologies, such as the potential for electric vehicles in garages/parking lots, green roofs where applicable and allowable, and the like.

**Response: The project team is committed to integrating modern and emerging technologies where possible.**

**Delaware State Housing Authority – Contact Karen Horton**

- *DSHA supports the site plan for a mixed-use development consisting of 152 multi-family units and retail space on 4 acres at 427 W. 7<sup>th</sup> St. in the City of New Castle. While market-rate, multi-family rental units offer a more affordable option to the many county residents experiencing housing insecurity.*

**Response: Noted.**

- *Due to the proposal's intensity, we recommend a site layout and design measures that are human-scaled and pedestrian-oriented to seamlessly connect the site with the adjacent historic downtown. This can be accomplished by incorporating attractive streetscapes, visually appealing façade treatments, and significant landscaping measures and hardscapes.*

**Response: Noted.**

**Delaware State Fire Marshall's Office – Contact Duane Fox**

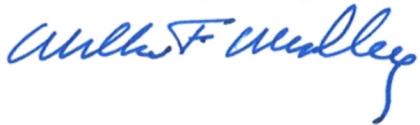
- *Preliminary meetings are encouraged prior to formal submittal. Please contact the City of New Castle's Fire Marshal Office to schedule.*

**Response: We will continue to coordinate and work with the City of New Castle's fire Marshall through the design process.**

Should you have any questions, please don't hesitate to contact me at (609) 910-4450 or via email [wwendling@midatlanticeng.com](mailto:wwendling@midatlanticeng.com).

Best Regards,

**MidAtlantic Engineering Partners, LLC.**



William Wendling, P.E.