



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF STATE PLANNING COORDINATION

August 23, 2017

**Response: October 9, 2017**

Mr. John Murray  
The Kercher Group, Inc.  
37385 Rehoboth Ave. Unit #11  
Rehoboth Beach, DE 19971

RE: PLUS review 2017-07-03; Lands of MDI Investment Group, LLC

Dear John,

Thank you for meeting with State agency planners on July 26, 2017 to discuss the Lands of MDI Investment Group, LLC project. According to the information received, you are seeking review of a rezoning of 6.86 acres from AR to MR in anticipation of a conditional use approval for 52 residential units along Shady Road in Sussex County.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. **The developers will also need to comply with any Federal, State, and local regulations regarding this property. We also note that as Sussex County have governing authority over this land the developers will need to comply with any and all regulations/restrictions set forth by the County.**

**Strategies for State Policies and Spending**

- This project is located in Investment Levels 1 according to the *Strategies for State Policies and Spending*. Investment Level 1 reflects areas that are already developed in an urban or suburban fashion, where infrastructure is existing or readily available, and where future redevelopment or infill projects are expected and encouraged by State policy.

## Code Requirements/Agency Permitting Requirements

### Department of Transportation – Contact Bill Brockenbrough 760-2109

- The site access on Shady Road (Sussex Road 276) must be designed and built in accordance with DelDOT's Development Coordination Manual (formerly the Standards and Regulations for Subdivision Streets and State Highway Access), which is available at <http://www.deldot.gov/Business/subdivisions/index.shtml?dc=changes>.  
**Site access on Shady Road will be designed and built according with DELDOT's Development Coordination Manual. Kercher has submitted plans to DELDOT for a Letter of No Objection (LONO) and have had a field meeting to discuss the entrance geometry.**
- Per Section 2.2.2.1 of the Development Coordination 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. DelDOT anticipates that the proposed development would generate 364 vehicle trip ends per day on weekdays (slightly more than the 306 trips on the PLUS application) and 35 vehicle trip ends per hour in the evening peak hour. Therefore a TIS is not warranted.  
**It is noted that a TIS is not warranted based on the proposed site ADT.**
- Per Section 2.3.2 of the Manual, DelDOT may require a Traffic Operational Analysis (TOA) for any project generating more than 200 vehicle trip ends per day for which a TIS is not required. DelDOT presently does not see a need for a TOA but this topic should be addressed at the Pre-Submittal Meeting discussed below.  
**It is noted that a TOA may be required, however, based on correspondence and the meeting with DELDOT on-site, a TOA has not been requested.**
- Pursuant to Section P.3 of the Manual, a Pre-Submittal Meeting is required before plans are submitted for review. The form needed to request the meeting and guidance on what will be covered there and how to prepare for it is located at [http://www.deldot.gov/Business/subdivisions/pdfs/Meeting\\_Request\\_Form.pdf?061217](http://www.deldot.gov/Business/subdivisions/pdfs/Meeting_Request_Form.pdf?061217). DelDOT anticipates having more detailed comments to offer at that time.  
**Kercher has submitted plans to DELDOT for a LONO and has had a field meeting regarding the project, therefore, a Pre-submittal meeting should be considered complete.**
- Section P.5 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.  
**Since the LONO process has already begun, the Initial Stage Fee has been paid.**

- Section 3.2.4.2 of the Manual addresses the placement of right-of-way monuments (markers) along the road on which a property fronts, in this case Shady Road. Monuments sufficient to re-establish the permanent rights-of-way after the dedication discussed below should be shown on the plan and provided in the field in accordance with this section.

**Prior to the plans being accepted by DELDOT, if required, right-of-way monuments will be shown on the plans to re-establish the permanent rights-of-way.**

- 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 on Shady Road. By this regulation, this dedication is to provide a minimum of 30 feet of right-of-way from the right-of-way centerline. The following right-of-way dedication note is required, "An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat."

**The dedication note has been depicted on the plans as required.**

- In accordance with Section 3.2.5.1.1 of the Manual, if this development is proposing a neighborhood sign/structure, then a permanent easement shall be established at the entrance. The easement shall be located outside of any existing and/or proposed right-of-way. It will also need to be verified that the sign/structure does not pose a sight distance and/or safety hazard.

**At this time, a sign location has not been established. Once it's placement is determined, an easement will be established. Its' location shall not pose a sight distance and/or safety hazard.**

- 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 on Shady Road. 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 established for the State of Delaware, as per this plat."

**The permanent easement has been depicted on the plans as required.**

- Referring to Section 3.4.2.1 of the Development Coordination 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.
- Depiction of all existing entrances within 300 feet of the proposed entrance.
- Notes identifying the type of off-site improvements, agreements (signal, letter) contributions and when the off-site improvements are warranted.

**LONO process has begun, these items have been addressed on the Record Plan.**

- In accordance with Section 3.4 of the Manual, a record plan shall be prepared prior to issuing “Letter of No Objection”. The following information will be required for the “Letter of No Objection” review:

- Initial Stage Fee Calculation Form
- Initial Stage Review Fee
- Gate-Keeping Checklist – Site Plan
- Design Checklist - Record Plan
- Sight Distance Spreadsheet
- Owners and Engineers’ name and e-mail address
- Record Plan
- Conceptual Entrance Plan
- Submission of the Area-Wide Study Fee (If applicable)

**LONO process has begun, these items have been submitted as required.**

- Section 3.5 of the Development Coordination Manual provides DelDOT’s requirements with regard to connectivity. The requirements in Sections 3.5.1 through 3.5.3 shall be followed for all development projects having access to state roads or proposing DelDOT maintained public road for subdivisions. Private or municipal streets should follow the local land use agency’s requirements for connectivity.

**Any connectivity required has been discussed and addressed as required by the LONO.**

- As per the Delaware Strategies for State Policies and Spending, this development is primarily in Investment Level 1. Referring to Section 3.5.4.2.A of the Manual, developments in Level 1 and 2 Areas are required to install a sidewalk or Shared Use Path. If a physical impossibility exists, a fee in lieu of construction is required but we see no such impossibility in this instance. The sidewalk should connect to the existing sidewalk in front of Tax Parcel No, 3-34-6.00-511.01.

**Sidewalks are shown on the plans as required.**

- Referring to Section 3.5.5 of the Development Coordination Manual, existing and proposed transit stops and associated facilities as required by the Delaware Transit Corporation (DTC) or DelDOT shall be shown on the Record Plan.

**At this time, a transit stop has not been depicted on the plans. If it is determined that one is required, a location will be discussed during the DELDOT approval process.**

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

**It is not anticipated that stormwater facilities to be located adjacent to the State road, but if stormwater is determined to be necessary in that area, it will be a minimum of 20’ from the State right-of-way.**

- Referring to Section 4.3 of the Manual, an entrance plan shall be prepared prior to issuing entrance approval. The following information will be required for Entrance Plan review:
  - Construction Stage Fee Calculation Form
  - Construction Review Fee
  - Gate-Keeping Checklist – Entrance Plan
  - Design Checklist - Entrance Plan
  - Auxiliary Lane Spreadsheet
  - Entrance Plan
  - Pipe/Angle Spreadsheet (If applicable)
  - SWM Report and Calculations (If applicable)

**Formal Entrance Plans have not been submitted, if the project is approved by the County, entrance plans will be submitted with all the appropriate checklists, plans, and calculation sheets.**

- In accordance with Section 5.2.5.6 of the Development Coordination Manual, Turning Movement Diagrams shall be provided to verify vehicles can safely enter and exit the site entrance. As per Section 5.2.3 of the Manual, the entrance shall be designed for the largest vehicle using the entrance.  
**Turning Movement Diagrams shall be provided as required.**
- 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.  
**All utilities shall be shown on the plans and any utility to be relocated will be 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 entrance and how long those lanes should be. The entrance should be located accordingly. The worksheet can be found at <http://www.deldot.gov/Business/subdivisions/index.shtml>.

Of particular concern in this regard is the need for right turn lane into Seaview Lane, the proposed site entrance. The site is quite close to the intersection of Shady Road and Plantation Road (Sussex Road 275) and there is an existing entrance to an office building located between Plantation Road and the proposed location of Seaview Lane on Tax Parcel No. 3-34-6.00-511.01. It appears that the developer proposes to close the office building's entrance on Shady Road and to provide it with access through the subject development. That may be a workable solution but it will require the agreement of the owner of that parcel and the inclusion of their traffic in the traffic diagram for the subject development. Further, while the plan presented mentions the topsoiling, seeding and mulching where the entrance is to be removed, it does not address the existing sidewalk there. That sidewalk will need to be restored and tied into the frontage sidewalk mentioned above in the context of Section 3.5.4.2.A of the Manual.

**Auxiliary Lane Worksheet shall be completed and provided as required. It has been determined, through the LONO process, that the entrance for the medical facility at the intersection shall be eliminated. Access to the facility shall be from the new entrance established for this project. As such, the sidewalk shall continue and connect to the proposed sidewalk depicted on the plan.**

- 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. It can be found at <http://www.deldot.gov/Business/subdivisions/index.shtml>.  
**Sight Distance Triangles have been depicted on the Record Plan.**
- Because the proposed development would not have State-maintained streets, Section 6.4.3 of the Manual, which pertains to the inspection and acceptance of commercial entrances, applies. Construction inspection responsibilities shall be in accordance with Figure 6.4.3-a. Our preliminary reading of this figure is that the project requires Level I inspection and that a construction inspection agreement will not be needed.  
**It is noted that the streets are private and the State is only responsible for inspection of the entrance.**
- Section 7.7.2 of the Manual addresses the need to provide 20-foot wide drainage easements for all storm drainage systems, open or closed, that fall outside the existing right-of-way or the drainage/utility easement. In accordance with this section, metes and bounds and total areas need to be shown for any drainage easements. The easements should be shown and noted on the record plan.  
**Any drainage easements required in the State right-of-way shall be 20' and the metes and bounds shown on the Record Plan.**

**Department of Natural Resources and Environmental Control – Contact Michael Tholstrup 735-3352**

### **Executive Summary**

Expanded development of this parcel will result in increased impervious surface and new sources of greenhouse gas emissions. Opportunities exist to reduce the environmental impact on-site through appropriate use of pollution control strategies and consideration of the adjacent area of contamination. DNREC has outlined a number of best management practices to assist in protecting these resources and the overall health of the community. Waste reduction and resource conservation measures will also improve the long term sustainability and future needs of the community.

The State of Delaware is threatened by climate change and has a goal of reducing greenhouse gas emissions by 30 percent by 2030. Appropriate development that provides access to public

transportation, opportunities to walk and bike to shopping and recreation, and that employs energy efficient building standards are among key strategies to meet these goals. DNREC encourages the use of high performance building standards and consideration of alternative energy sources to promote clean sustainable energy and reduce greenhouse gas emissions. This could mean siting the buildings to take advantage of solar and geothermal systems, and/or including infrastructure for electric vehicle charging stations (funding assistance may be found at [www.de.gov/cleantransportation](http://www.de.gov/cleantransportation)). DNREC further recommends an abundant use of native vegetation and shade trees throughout the landscape, as well as pervious pavement and green infrastructure, where practicable, to absorb carbon dioxide, protect water quality and provide relief to residents on hot days.

The following pages provide information about applicable regulations and detailed recommendations associated with this project, from various DNREC Divisions. They would like to be a partner in creating appropriate development that protects and highlights the environment as a natural amenity of the landscape. The Department has resources and expertise that are available to help make this a reality, often at no expense to the landowner.

### **Water Quality/TMDLs**

- The project is located in the greater Delaware River and Bay drainage area, specifically within the Broadkill River watershed. In this watershed, the TMDL for the Broadkill River watershed calls for a 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 75 percent reduction in bacteria from baseline conditions. The State of Delaware has developed specific Total Maximum Daily Load (TMDL) pollutant reduction targets for nitrogen, phosphorus, and bacteria under Section 303(d) of the Clean Water Act. A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited waterbody” can assimilate and still meet State water quality standards (e.g., dissolved oxygen, nutrients, and bacteria; State of Delaware Surface Water Quality Standards, as amended July 11, 2004) to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting.

**Stormwater management shall be reviewed and approved by the Sussex Conservation District (SCD) according the DNREC's current regulations. Water Quality/TMDL's shall be reduced as required by these regulations.**

### **Water Supply**

- Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.  
**If necessary, a dewatering permit shall be obtained as required.**
- All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the

necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take four weeks to process, which allows the necessary time for technical review and advertising.

**If necessary, a dewatering permit shall be prepared and signed by a licensed well contractor as required.**

- Potential Contamination Sources exist in the area and any well permit applications will undergo a detailed review that may increase turnaround time and could require site specific conditions/recommendations. In this case, there is a Groundwater Management Zone, associated with Plantations, located within 1,000 feet of the proposed project. Should you have any questions concerning these comments, please contact Rick Rios, at (302) 739-9944.

**It is noted that a detailed review of the permit will be required if a dewatering permit is necessary.**

#### **Sediment and Erosion Control/Stormwater Management**

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a pre-application meeting to discuss the sediment and erosion control and stormwater management components of the plan. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through the Sussex Conservation District. Contact the Sussex Conservation District at (302) 856-7219 for details regarding submittal requirements and fees.

**It is noted, that a detail sediment and stormwater plan shall be required. Plans shall be submitted to the SCD for review and approval.**

#### **Air Quality**

- The applicant shall comply with all applicable Delaware air quality regulations. Please note that the following regulations in Table 1 – Potential Regulatory Requirements may apply to your project:

<b>Table 1: Potential Regulatory Requirements</b>	
<b>Regulation</b>	<b>Requirements</b>
<b>7 DE Admin. Code 1106</b> - Particulate Emissions from Construction and Materials Handling	<ul style="list-style-type: none"> <li>• Use dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads.</li> <li>• Use covers on trucks that transport material to and from site to prevent visible emissions.</li> </ul>



<b>7 DE Admin. Code 1113</b> – Open Burning	<ul style="list-style-type: none"> <li>• Prohibit open burns statewide during the Ozone Season from May 1-Sept. 30 each year.</li> <li>• Prohibit the burning of land clearing debris.</li> <li>• Prohibit the burning of trash or building materials/debris.</li> </ul>
<b>7 DE Admin. Code 1135</b> – Conformity of General Federal Actions to the State Implementation Plan	<ul style="list-style-type: none"> <li>• Require, for any “federal action,” a conformity determination for each pollutant where the total of direct and indirect emissions would equal or exceed any of the de minimus levels (See Section 3.2.1)</li> </ul>
<b>7 DE Admin. Code 1141</b> – Limiting Emissions of Volatile Organic Compounds from Consumer and Commercial Products	<ul style="list-style-type: none"> <li>• Use structural/ paint coatings that are low in Volatile Organic Compounds.</li> <li>• Use covers on paint containers when paint containers are not in use.</li> </ul>
<b>7 DE Admin. Code 1144</b> – Control of Stationary Generator Emissions	<ul style="list-style-type: none"> <li>• Ensure that emissions of nitrogen oxides (NO<sub>x</sub>), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), and carbon dioxide (CO<sub>2</sub>) from emergency generators meet the emissions limits established. (See section 3.2).</li> <li>• Maintain recordkeeping and reporting requirements.</li> </ul>
<b>7 DE Admin. Code 1145</b> – Excessive Idling of Heavy Duty Vehicles	<ul style="list-style-type: none"> <li>• Restrict idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.</li> </ul>

For a complete listing of all Delaware applicable regulations, please look at our website: <http://www.awm.delaware.gov/AQM/Pages/AirRegulations.aspx>.

### Hazardous Waste/Contaminated Sites

- The Southeastern-most border of this development project is adjacent to a contaminated property (Jackson Pit Site, [DE-0149](#)). DNREC Site Investigation and Restoration Section (SIRS) has reporting requirements outlined in the Delaware Regulations Governing Hazardous Substance Cleanup, such that if site media samples, e.g., soil, groundwater, soil gas, are collected (for whatever reason), and any analytes are found to exceed DNREC’s Reporting Levels, and intrusive activity will be performed on the Site, the property owner is required to report the data to SIRS for their determination as to whether or not the Site needs to be further investigated under our program. Please contact Lindsay Hall at (302) 395-2600 with any questions or concerns.

### Recycling

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**It is noted that the applicant shall require the contractor to adhere to all Air Quality requirements established by DNREC.**

- The Universal Recycling Law (*7 Del. C. §6053*) requires all waste service providers to provide recycling collection to their residential customers including providing a recycling cart. Some higher density communities have expressed concerns about storage of trash and recycling containers. Those involved with the planning of new development should give consideration to space for collection of recyclables. For more information or assistance related to recycling requirements, benefits, tools, and assistance, please call (302) 739-9403.

**The applicant shall adhere to these recycling requirements and concerns with container placement/storage.**

### **Tank Management**

- If a release of a Regulated Substance occurs at the proposed project site, compliance of *7 Del.C., Chapter 60; 7 Del.C., Chapter 74* and *DE Admin. Code 1351*, State of Delaware Regulations Governing Underground Storage Tank Systems (the UST Regulations) is required.

**The applicant shall adhere to the State requirements for underground storage and any release of a regulated substance occurrence on the project site.**

- No environmental impacts are anticipated; however, per the UST Regulations: Part E, § 1. Reporting Requirements: Any indication of a Release of a Regulated Substance that is discovered by any Person, including but not limited to environmental consultants, contractors, utility companies, financial institutions, real estate transfer companies, UST Owners or Operators, or Responsible Parties shall be reported within 24 hours to:
  - The Department's 24-hour Release Hot Line (800) 662-8802; and
  - The DNREC Tank Management Section (302) 395-2500.

**The applicant shall adhere to the State requirements for underground storage and any release of a regulated substance occurrence on the project site.**

- If any aboveground storage tanks (ASTs) less than 12,500 gallons are installed, they must be registered with the TMS. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the DNREC Tank Management Section.

**The applicant shall adhere to the State requirements for underground storage.**

- For more information, go to: <http://www.dnrec.delaware.gov/tanks/Pages/default.aspx> or contact Ross D. Elliott with further questions at (302) 395-2500, or [Ross.Elliott@state.de.us](mailto:Ross.Elliott@state.de.us)

**State Historic Preservation Office – Contact Terrence Burns 736-7404**

- This parcel has no known archaeological site or National Register property. However, there are three properties in our inventory for this area: a dwelling (S11549) near the parcel, at the corner of Plantations Road and Shady Road, which was evaluated in 2008 and found not eligible for listing in the National Register; a dwelling (S00968) south of Shady Road, which may have been demolished previously; and the Israel United Methodist Church and Cemetery (S08591), east of Plantations Road, north of MacKenzie Way, which has been found eligible for listing in the National Register. Efforts should be made to avoid any effects to the historic church and cemetery. There should also be sufficient landscaping between the development and the nearby dwellings (S11549, S00968) and Israel UM Church and Cemetery (S08591) to block adverse noise and visual effects. If this project or development proceeds, be aware of the Unmarked Human Burials and Human Skeletal Remains Law.

Abandoned or unmarked family cemeteries are very common in the State of Delaware. They are usually in rural or open space areas, and sometimes near or within the boundary of an historic farm site. Even a marked cemetery can frequently have unmarked graves or burials outside of the known boundary line or limit. Disturbing unmarked graves or burials triggers the Delaware's Unmarked Human Burials and Human Skeletal Remains Law (Del. C. Title 7, Ch. 54), and such remains or discoveries can result in substantial delays while the procedures required under this law are carried out. If there is a discovery of any unmarked graves, burials or a cemetery, it is very costly to have them archaeologically excavated and the burials moved. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area, to the full extent, to see if there is any unmarked cemetery, graves, or burial sites. In the event of such a discovery, the Division of Historical & Cultural Affairs also recommends that the plans be re-drawn to leave the full extent of the cemeteries or any burials on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with the landowner association or development. If you would like to see more information, please review the following websites: [www.history.delaware.gov/preservation/umhr.shtml](http://www.history.delaware.gov/preservation/umhr.shtml) and [www.history.delaware.gov/preservation/cemeteries.shtml](http://www.history.delaware.gov/preservation/cemeteries.shtml).

Prior to any demolition or ground-disturbing activities, the developer should hire an archaeological consultant to examine the parcel for archaeological resources and plan to avoid those sites or areas. If there is federal involvement, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on any known or potential cultural or historic resources. Owners and developers who may plan to apply for an Army Corps of Engineers permit or for federal funding, such as HUD or USDA grants, should be aware of the National Historic Preservation Act of 1966 (as amended). Regulations promulgated for Section 106 of this Act stipulate that no ground-disturbing or demolition activities should take place before the Corps or other involved federal agency determines the area

of potential effect of the project undertaking. These stipulations are in place to allow for comment from the public, the Delaware State Historic Preservation Office, and the Advisory Council for Historic Preservation about the project's effects on historic properties. Furthermore, any preconstruction activities without adherence to these stipulations may jeopardize the issuance of any permit or funds. If you need further information or additional details pertaining to the Section 106 process and the Advisory Council's role, please review the Advisory Council's website at the following:

[www.achp.gov](http://www.achp.gov).

**The applicant is not adverse to having open dialogue with the State Historic Preservation Office to determine any archeological significance on the site. It is noted that due to the proximity to the existing grave site at the church, there may be unmarked graves within the property bounds. If encountered, the client shall take the required actions per the laws of the State of Delaware.**

#### **Delaware State Fire Marshall's Office – Contact John Rudd 739-4394**

At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

- **Fire Protection Water Requirements**

- Where a water distribution system is proposed for townhouse type dwellings it shall be capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 800 feet spacing on centers are required.
- The infrastructure for fire protection water shall be provided, including the size of water mains.
- For townhouse buildings, provide a section / detail and the UL design number of the 2-hour fire rated separation wall on the Site plan

**Fire protection shall meet and/or exceed requirements. A detail for the fire wall separation shall be shown on the plans as required.**

- **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.
- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- Any dead end road more than 300 feet 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. 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.

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

**The design plans shall adhere all accessibility requirements from the Office of the State Fire Marshal (OSFM). If the project is approved by the County, a site plan will be provided to OSFM.**

- **Gas Piping and System Information**

- Provide type of fuel proposed, and show locations of bulk containers on plan.  
**If gas is provided, the location and information shall be shown on the plans.**

- **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”
- Name of Water Supplier
- Proposed Use
- National Fire Protection Association (NFPA) Construction Type
- Townhouse 2-hr separation wall details shall be shown on site plans
- Maximum Height of Buildings (including number of stories)
- Provide Road Names, even for County Roads

**The design plans shall indicate all required information and notes as required by the OSFM.**

## **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 area 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 Bill Brockenbrough 760-2109**

- The applicant should expect a requirement that all PLUS and Technical Advisory Committee (TAC) comments be addressed prior to submitting plans for review.  
**It is noted that the PLUS comments are to be addressed prior to entrance plan submittal.**
- The applicant should expect a requirement that any substation and/or wastewater facilities will be required to have access from the internal subdivision streets with no direct access to Shady Road.

**It is noted that any substation and/or wastewater facilities have access to the internal roadway system and will not be granted access from the State road (Shady Road).**

- Section 3.2.4.1 of the Manual addresses the placement of right-of-way monuments (markers) along subdivision streets. DelDOT recommends that monuments be furnished and placed along the proposed streets in accordance with this section.  
**Prior to the plans being accepted by DELDOT, if required, right-of-way monuments will be shown on the plans to re-establish the permanent rights-of-way.**
- Section 3.5 of the Manual provides DelDOT's requirements for connectivity of State-maintained subdivision streets. Because the proposed streets would be privately maintained, County standards, not State standards, apply in this instance. However, DelDOT does offer two recommendations regarding interconnections:
  - The developer should contact the condominium association for the adjoining Eagle Point development to discuss the possibility of a bicycle and pedestrian path to link Pointer Drive in Eagle Point to the proposed Bay Boulevard. Given the proximity of the commercial development along Delaware Route 1, it appears likely that residents of the subject development would want to walk through Eagle Point to reach the commercial area and it may be better to designate and pave a path than to have people trespassing through their neighbors' yards.
  - The developer should provide for a future bicycle and pedestrian connection from Bay Boulevard to Tax Parcel No. 3-34-6.00-504.02. While this parcel is not presently proposed for development, residential development has been proposed there previously and likely will be again.  
**The applicant may contact these adjacent developments for bicycle/pedestrian connectivity.**
- Please be advised that as of August 1, 2015, all new plan submittals and re-submittals, including major, minor and commercial plans, shall now be uploaded via the PDCA (Planning Development Coordination Application) with any review fee paid online via credit card or electronic check. Guidance on how to do this is available on our website at [http://www.deldot.gov/Business/subdivisions/pdfs/upgrades/PDCA\\_User-Account-Requests\\_User-Login\\_Project.pdf](http://www.deldot.gov/Business/subdivisions/pdfs/upgrades/PDCA_User-Account-Requests_User-Login_Project.pdf) and [http://www.deldot.gov/Business/subdivisions/pdfs/upgrades/DelDOT\\_DevCoord\\_Revision\\_Payment\\_Submittal\\_Procedure.pdf?080415](http://www.deldot.gov/Business/subdivisions/pdfs/upgrades/DelDOT_DevCoord_Revision_Payment_Submittal_Procedure.pdf?080415).  
**It is noted that all plans are submitted through the PDCA and payment is online.**
- 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 date of August 31, 2016. The notes can be found at

<http://www.deldot.gov/Business/subdivisions/index.shtml>.

**Prior to submittal, Kercher shall verify that the Standard General Notes are updated as required.**

**Department of Natural Resources and Environmental Control – Contact Michael Tholstrup 735-3352**

**Additional information on contaminated sites**

- The Southeastern-most border of this development project is adjacent to a contaminated property. The contaminated property is known as the Jackson Pit Site ([DE-0149](#)). The extent of the large pit in which debris was historically dumped, has largely been delineated and appears to be confined to the Jackson Pit Site boundary. Groundwater use is also restricted on this site. The proposed MDI Investments project is not down-gradient of historical groundwater flow in the main pit area, however the developer should be aware of the concern and proximity. DNREC recommends the MDI property not install or utilize any groundwater wells. If the developer encounters any evidence of contamination or has any concerns, please contact Lindsay Hall (SIRS) at (302) 395-2600.

**It is noted that the adjacent parcel is a contaminated property. No wells are anticipated, however, if irrigation wells are proposed, DNREC shall be contacted for approval.**

**Additional information on TMDLs and water quality**

- TMDL compliance through the PCS: In response to concerns about the need for reducing nonpoint source nutrient (nitrogen and phosphorus) and bacterial pollutants to levels sufficient to meet the TMDL reduction requirements prescribed for waters of the greater Broadkill River watershed, a multifaceted and comprehensive process known as a pollution control strategy (PCS) was developed. Specifically, a PCS is a combination of best management practices and control technologies that reduce nutrient and bacterial pollutant runoff loading in waters of a given watershed to level(s) consistent with the TMDL reduction levels specified for that watershed. The PCS for the Broadkill River watershed consists of recommendations from the following three areas: agriculture, stormwater, and wastewater.

Additional information about Broadkill River PCS can be reviewed in the follow web link: <http://www.dnrec.delaware.gov/swc/wa/Pages/WatershedManagementPlans.aspx>

In further support of the PCS, the applicant is also strongly urged to reduce nutrient and bacterial pollutants through voluntary commitment to the implementation of the following recommended best management practices:

- Maintain as much of the existing open space as possible in this parcel. We further suggest additional native tree, shrub and/or native herbaceous vegetation plantings in available open space, wherever possible.

- Employ green-technology storm water management and a rain gardens (in lieu of open-water management structures) as best management practices to mitigate or reduce nutrient and bacterial pollutant runoff.
- Use pervious paving materials instead of conventional paving materials (e.g., asphalt or concrete) to help reduce the amount of water and pollutant runoff draining to adjoining streams and wetlands.
- Assess nutrient and bacterial pollutant loading at the preliminary project design phase. To this end, the Watershed Assessment Section has developed a methodology known as the “Nutrient Load Assessment Protocol.” The protocol is a tool used to assess changes in nutrient loading resulting from the conversion of individual or combined land parcels to a changed land use; thus providing applicants and governmental entities with quantitative information about the project’s impact(s) on baseline water quality. We strongly encourage the applicant/developer use this protocol to design and implement the most effective best management practices. Please contact John Martin of the Division of Watershed Stewardship for more information on the protocol, at (302) 739-9939.  
**Stormwater management shall be reviewed and approved by the Sussex Conservation District (SCD) according the DNREC’s current regulations. Water Quality/TMDL’s shall be reduced as required by these regulations.**

**Additional information on air quality**

- New developments may emit, or cause to be emitted, additional air contaminants into Delaware’s air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:
  - Emissions that form ozone and fine particulate matter;
  - The emission of greenhouse gases which are associated with climate change, and
  - The emission of air toxics.
- Based on the information provided, the three air emissions components (i.e., area, electric power generation, and mobile sources) were quantified. Table 2 – Projected Air Quality Emissions represents the potential impact the Lands of MDI Investment Group, LLC may have on air quality.

<b>Table 2: Projected Air Quality Emissions for Lands of MDI Investment Group, LLC</b>					
Emissions Attributable to the Lands of MDI (Tons	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Sulfur Dioxide (SO <sub>2</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )	Carbon Dioxide (CO <sub>2</sub> )



per Year)					
Area source emissions	1.6	0.2	0.1	0.2	6.5
Power emissions	*	0.6	2.2	*	327.3
Mobile emissions	2.4	2.5	0.2	0.1	1,536.9
Total emissions	4.0	3.3	2.4	0.2	1,870.7

(\*) Indicates data is not available.

Note that emissions associated with the actual construction of the townhome community, including automobile and truck traffic from working in, or delivering products to the site, as well as site preparation, earth moving activities, road paving and other miscellaneous air emissions, are not reflected in the table above.

- Recommendations for this project:
  - Use only the minimum number of parking spaces needed for this facility in order to facilitate the push from vehicle-centric travel to other modes (walking, biking, transit, etc.)
  - Planting of native, low VOC emitting shade trees in parking areas to clean the air of localized pollutants and cut down on energy/cooling costs.
  - Inclusion of bike racks in common areas and expansion of the bicycle/pedestrian network through sidewalks and bike lanes which also promote alternative forms of transportation.
  - The use of reclaimed asphalt pavement (RAP) with an open-grade aggregate. Open-grade aggregates reduce heat island effects on paved surfaces. The use of RAP reduces landfill waste, is a sustainable pavement and more economically feasible than other pavement types. Sustainable pavements (or cool pavement choices with higher albedo) reflect 40% more sunlight than warm pavements which only reflect 10%.
  - Use of energy efficient products in construction to lessen the power source emissions of the project and costs.
  - Take advantage of compact building design to preserve open space. Open space protects animals and plants and conserves their habitat as well as moderates temperatures and combats air pollution.

- At least two parking spaces in common areas such as near the clubhouse, dedicated to alternative fueled vehicle (electric vehicle (EV), hybrid electric vehicle (HEV), low emission vehicle (LEV)) use and charging.
- Tree Buffer or Canopy: Some green streetscape elements that the Lands of MDI project could incorporate area tree buffer or expansion of the City of Lewes's tree canopy. According to the Delaware Forest Service, in 2014, the City of Lewes's tree canopy percentage was 34.2 percent. Native trees reduce emissions by trapping dust particles and replenishing oxygen. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs. All urban trees that are selected should be native to Delaware and preferably low VOC emitting trees. As a general reminder, the best trees to plant are those that have a large leaf surface area at maturity, contain leaf characteristics that are amenable to particle collection from particulate matter (PM) such as those that have hairy or sticky leaves and have high transpiration rates which result in relatively high temperature reduction.
- Energy Efficient Options: Constructing with only energy efficient products can help your housing units immensely, not only in terms of environmental sustainability but financially. Energy Star qualified products are up to 30 percent more energy efficient. Savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of energy efficiency translates into a percent reduction in pollution. Optimize Energy Performance by implementing on-site renewable energy while taking advantage of natural lighting and LED light fixtures. The Energy Star Program is an excellent way to save on energy costs and reduce air pollution as well as third-party certifications and building materials (i.e. LEED, GreenSeal, EcoLogo).

Providing shade for parking areas can also be of added benefit to this facility. Some approaches may include architectural devices, vegetation, or solar panels. Providing shade for parking areas helps to reduce heat island impacts, and, by extension, helps to minimize the potential for localized ground-level ozone formation. For more about energy efficient options, please see: <https://www.energystar.gov/> or <https://www.epa.gov/greeningepa/energy-efficiency-epa>.

Economic benefits include:

- Reduced operating costs
  - Enhanced asset value and profits
  - Enhanced occupant comfort and health
  - Improved air, thermal, and acoustic environments
- Multi-modal travel: A component of improving existing air quality levels is to maximize multi-modal travel through bike lanes, sidewalks and convenient access to transit opportunities. DNREC encourages the developer to incorporate sidewalks, crosswalks and bike racks, and to add sharrows or bike lanes where needed to facilitate multi-modal

travel opportunities. Sharrows and striping are the easiest and most cost effective option. Multi-modal travel can significantly reduce mobile source emissions. For every vehicle trip that is replaced by the use of a sidewalk or bike path, 7 pounds of VOC and 11.5 pounds of NOx are reduced each year.

The developer is encouraged to work with DART to expand transit service to this growing area. For more information on DART Bus Routes in your area, please visit: [www.dartfirststate.com](http://www.dartfirststate.com).

Also, for more information on the impacts of multimodal access on air quality please see the EPA's website at: <https://www3.epa.gov/otaq/>

- Clean Fuel Measures: Reduce localized air pollution by supporting the use of clean diesel powered vehicles and electric charging infrastructure. It would be ideal to include electric vehicle (EV) or hybrid vehicle (HV) parking and at least one charging station in common parking areas. Also, adding charging ports inside the garages of the townhomes for those with battery electric vehicles could be marketed as a unique selling feature.

For a site map of local alternative fueling sites, please visit the Alternative Fuels Data Center website: <http://www.afdc.energy.gov/locator/stations/>.

- Native Landscaping: The developer is encouraged to beautify the site with landscaping that would not only make the high school expansion more attractive but also help to clean the air of any pollutants that could be emitted or transported by sources around the development area such as pollutants from mobile sources, construction or neighboring activities. This would reduce air quality impacts on local residents while also incorporating a context-sensitive design that blends well with the surrounding and existing land uses.
- Should the developer have any more questions or concerns, the DNREC Division of Air Quality (DAQ) point of contact is Lauren DeVore, and she may be reached at (302) 739-9437 or [lauren.devore@state.de.us](mailto:lauren.devore@state.de.us). The applicant is encouraged to contact DAQ to discuss the emission mitigation measures that will be incorporated into the Lands of MDI Investment Group, LLC project. We look forward to working together with you on this project to achieve our shared air quality goals!

**The development design shall attempt to minimize air quality impacts. The design shall adhere to any and all requirements from the State.**

#### **Additional information on recycling and reducing water use**

- Materials and resources utilized for new development should be considered, including regionally available recycled content (i.e. carpet, concrete, countertops, furniture, siding, etc.), rapidly renewable material and certified woods.
- Construction Waste Management should include policies which promote efficient material use and recycling of project debris).
- Employ systems and appliances that increase water efficiency and reduce water use.

- Low-flow and high-efficiency items
- Waterless urinals
- graywater recycling systems
- Rainwater catchment

**The development design shall attempt to maximize recycling and reducing water use, however, the design shall adhere to any and all requirements from the State.**

**Additional information on tank management**

- When contamination is encountered, PVC pipe materials should be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas.

**The applicant shall adhere to the State requirements for underground storage and any release of a regulated substance occurrence on the project site.**

**Delaware State Fire Marshall's Office – Contact John Rudd 739-4394**

Although not a requirement of the State Fire Prevention Regulations, the Office of the State Fire Marshal encourages home builders to consider the benefits of home sprinkler protection in dwellings. The Office of the State Fire Marshal also reminds home builders that they are obligated to comply with requirements of Subchapter III of Chapter 36 of Title 6 of the Delaware Code which can be found at the following website:

<http://delcode.delaware.gov/title6/c036/sc03/index.shtml>

**The applicant shall adhere to the OSFM regulations regarding fire protection.**

- Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: [www.statefiremarshal.delaware.gov](http://www.statefiremarshal.delaware.gov), technical services link, plan review, applications or brochures.

**A meeting with the OSFM may be beneficial to discuss the layout, location of hydrants and other items to be reviewed and approved.**

In addition to the comments above our office has received a letter from Brandy Nauman, Sussex County Housing Coordinator & Fair Housing Compliance Officer. A copy of that letter is enclosed with this letter.

**Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.**

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

PLUS review 2017-07-03

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Sincerely,

Constance C. Holland, AICP  
Director, Office of State Planning Coordination

CC: Sussex County

Enclosure