



**STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF STATE PLANNING COORDINATION**

October 22, 2014

Mr. Philip Conte, AIA, NCARB
Studio JAED
2500 Wrangler Hill Road, Fox Run Office Plaza
Suite 110
Bear, DE 19701

RE: PLUS review 2014-09-08, McIlvaine Early Childhood Center Addition

Dear Mr. Conte,

Thank you for meeting with State agency planners on September 24, 2014 to discuss the proposed plans for the McIlvaine Early Childhood Center Addition. According to the information received, you are seeking review of a site plan for proposed 5,800 sf addition to the McIlvaine Early Childhood Center in Magnolia.

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 the Town of Magnolia is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the Town.**

Strategies for State Policies and Spending

- This project is located in Investment Level 1 according to the *Strategies for State Policies and Spending*. This site is also located in the Town of Magnolia Growth Zone. 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

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are no known archaeological sites or National Register-listed property on this parcel. However, if there will be any development or construction project on this parcel, the

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developer should still be aware of the Unmarked Human Burials and Human Skeletal Remains Law, which is in Title 7, Chapter 54, of the Delaware Code.

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 (Delaware Code Title 7, Chapter 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 know more information pertaining to unmarked human remains or cemeteries, please check the following websites for additional information:

www.history.delaware.gov/preservation/umhr.shtml and
www.history.delaware.gov/preservation/cemeteries.shtml.

Prior to any demolition or ground-disturbing activities, the developer may want to hire an archaeological consultant to examine the parcel for any potential archaeological site (historic or pre-historic), historic cemetery or unmarked human remains.

- If there is any federal involvement with the project, 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 www.achp.gov.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Using standard trip generation rates per square foot, we estimate that the proposed classroom addition would increase the school's trip generation by about 89 vehicle trip ends per day, with 30 of those trips occurring in the morning peak hour. From the discussion at the PLUS meeting, DelDOT understands that there would be no change in the school's capacity, so those numbers may be high. Therefore, in accordance with the traffic volume warrants found in Section 2.3.1 of our Standards and Regulations for Subdivision Streets and State Highway Access, the proposed additions do not warrant a Traffic Impact Study (TIS) or a Traffic Operational Analysis (TOA).
- The site entrances must be designed in accordance with DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access. A copy of the Standards and Regulations is available at http://www.deldot.gov/information/pubs_forms/manuals/subdivisions/pdf/Subdivision_Manual_Revision_1_proposed_060110.pdf.
- Please be advised that DelDOT has advertised for comment a comprehensive revision of the Standards and Regulations. The comment period ran through June 30 and DelDOT could adopt this revision as soon as November 2014. Implementation guidance has not been developed but DelDOT recommends that the developer's engineer become familiar with the proposed changes and assess whether any of them could be relevant to this project. Information on the proposed revision is available in the Register of Regulations and at http://www.deldot.gov/information/pubs_forms/revisions_to_ASR/index.shtml.

Department of Natural Resources and Environmental Control – Contact Kein Coyle 739-9071

TMDLs

- The project is located in the greater Delaware River and Bay drainage area, specifically within the St. Jones River watershed. In this watershed, the State of Delaware has developed specific Total Maximum Daily Load (TMDL) pollutant reduction targets for nitrogen, phosphorus, and bacteria (under the auspices of 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. The TMDL for the St. Jones River watershed calls for a 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 90 percent reduction in bacteria from baseline conditions.

Water Supply

- The project information sheets state water will be provided to the project by the Town of Magnolia via a public water system. DNREC records indicate that the project is located within the public water service area granted to the Town of Magnolia under Certificate of Public Convenience and Necessity 91-CPCN-10.
- 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.
- 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 approximately four weeks to process, which allows the necessary time for technical review and advertising.

Sediment and Stormwater Program

- A Sediment and Stormwater Management Plan must be approved for this project prior to beginning construction. The DNREC Sediment and Stormwater Program will be the reviewing agency for this project.
- A Notice of Intent for Stormwater Discharges Associated with Construction Activity must be submitted prior to construction beginning on the site. The NOI fee of \$195 must be submitted as well.
- The owner representative and designer should complete the Stormwater Assessment Study and submit it to DNREC prior to scheduling a project application meeting as soon as possible prior to investing much time and effort into project layout and design. Runoff reduction goals must be met for the Resource Protection event (RPv). The existing facilities on site are underground infiltration facilities and they will need to be assessed for sizing and function to determine if they are acceptable to meet the RPv requirements.

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:

| Table 1: Potential Regulatory Requirements | |
|---|---|
| Regulation | Requirements |
| 7 DE Admin. Code 1106 - Particulate Emissions from Construction and Materials Handling | Use dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads. Use covers on trucks that transport material to and from site to prevent visible emissions. |
| 7 DE Admin. Code 1113 – Open Burning | Prohibit open burns statewide during the Ozone Season from May 1-Sept. 30 each year. Prohibit the burning of land clearing debris. Prohibit the burning of trash or building materials/debris. |
| 7 DE Admin. Code 1135 – Conformity of General Federal Actions to the State Implementation Plan | 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 minimum levels (See Section 3.2.1) |
| 7 DE Admin. Code 1141 – Limiting Emissions of Volatile Organic Compounds from Consumer and Commercial Products | Use structural/ paint coatings that are low in Volatile Organic Compounds. Use covers on paint containers when paint containers are not in use. |
| 7 DE Admin. Code 1144 – Control of Stationary Generator Emissions | Ensure that emissions of nitrogen oxides (NO _x), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO ₂), carbon monoxide (CO), and carbon dioxide (CO ₂) from emergency generators meet the emissions limits established. (See section 3.2). Maintain recordkeeping and reporting requirements. |
| 7 DE Admin. Code 1145 – Excessive Idling of Heavy Duty Vehicles | Restrict idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes. |

For a complete listing of all Delaware applicable regulations, please look at the website:

<http://www.awm.delaware.gov/AQM/Pages/AirRegulations.aspx>.

Hazardous Waste Sites

- If it is determined by the Department that there was a release of a hazardous substance on the property in question and the Department requires remediation pursuant to the Hazardous Substance Cleanup Act, the provisions of 7 Del.C., Chapter 91, Delaware Hazardous Substance Cleanup Act and the Delaware Regulations Governing Hazardous Substance Cleanup shall be followed.

Tank Management Section

- 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 following underground storage tank (UST) facility (without documented release) is located directly on the proposed project parcel:
 - Ralph J McIlvaine Elementary School: 1-000505
 - 2,000-gallon heating fuel UST removed 2008

- The following confirmed leaking underground storage tank (LUST) projects are located within a quarter mile from the proposed project area:
 - Magnolia Volunteer Fire Company, Facility: 1-000248, Project: K1408051 (Investigation)
 - Maria Bennett Property, Facility: 1-000789, Project: K1306057 (Inactive)

- 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 by calling 800-662-8802; and
The DNREC Tank Management Section by calling 302-395-2500.

Delaware State Fire Marshall's Office – Contact R.T. Leicht 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

- Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers such that buildings are always within 400 feet of a hydrant.
- Where a water distribution system is proposed for “educational” occupancies, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

Fire Protection Features

- All structures over 10,000 Sq. Ft. aggregate will require automatic sprinkler protection installed. Existing sprinkler systems shall be extended into building additions.
- Buildings greater than 10,000 sqft, 3-stories or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements
- Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
- Show Fire Lanes and Sign Detail as shown in DSFPR

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.
- 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.

Gas Piping and System Information

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

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 (including number of stories)
- Note indicating 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) if Building is to be sprinklered
- Provide Road Names, even for County Roads

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

- DelDOT recognizes that the District proposes to use the existing school entrances on East Walnut Street and preliminarily DelDOT anticipates continuing to operate acceptably as they are currently constructed. DelDOT recommends that the District's engineer contact the Review Coordinator for Kent County, Mr. Cliff Mumford, to discuss how to proceed with regard to plan submissions for this project. Mr. Mumford may be reached at (302) 760-2571.

Information on DelDOT process with regard to existing commercial (non-residential) sites generation fewer than 200 vehicle trips per day is available at

http://www.deldot.gov/information/business/subdivisions/Ex_Commercial_Project_Process_199_ADT_or_Less.pdf?061914.

- 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 May 21, 2014 for the Record/Site Plan and Construction Plan general notes and the Temporary Traffic Control general notes. The notes can be found at http://www.deldot.gov/information/business/subdivisions/DelDOT_Development_Coordination_Plan_Sheet_Notes.doc.
- As a point of information, in March 2012, DelDOT's Traffic Section completed a School Zone Compliance Review to assess the degree to which the signing and striping in each school zone in Kent County complies with the Manual on Uniform Traffic Control Devices. Their records show that all necessary signing improvements were complete as of May 2013.

The Review identified a need to relocate the SCHOOL pavement markings on Walnut Street but this was not done due to the nature of the surface pavement, which would have deteriorated under the removal of the old markings. If any repaving is done in association with the school entrances, the pavement markings should be changed.

The Review also suggested the need for a marked crosswalk across Walnut Street between the west entrance to the school and the parking lot for the Magnolia Volunteer Fire Company parking lot. Several parents were observed dropping students at the parking lot across the street from the school and the students would then cross the street. DelDOT does not require the installation, but this may be an appropriate time for the District to install it. If installed, the crosswalk would need to meet Americans with Disabilities Act standards.

Department of Natural Resources and Environmental Control – Contact Kevin Coyle 739-9071

Additional information on TMDLs and water quality

- DNREC strongly encourages the applicant reduce nutrient and bacterial pollutants through voluntary implementation of the following recommended BMPs:
 - Wherever applicable, add native woody tree/shrub/herbaceous plantings

- Calculate post-construction surface imperviousness with all forms of created surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, and roads) included in the calculation.
- Use of pervious paving materials (instead of conventional asphalt and concrete) to mitigate the negative impacts from pollutant runoff.
- Use of rain gardens, and green-technology storm water management structures (in lieu of open-water management structures) as BMPs to reduce nutrient pollutant impacts. Please contact Lara Allison for further information on rain gardens at 739-9922.
- 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 (e.g., nitrogen and phosphorus) that result from the conversion of individual or combined land parcels to a different land use(s), while providing applicants with quantitative information about their project’s impact(s) on baseline water quality. DNREC strongly encourages the applicant/developer use this protocol to help them design and implement the most effective BMPs. Please contact Jen Walls at 302-739-9939 for more information on the protocol.

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.
- 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 TMS.

Additional information on hazardous waste sites

- DNREC strongly recommends that the land owner perform environmental due diligence of the property by performing a Phase I Environmental Site Assessment (including a title search to identify environmental covenants) in accordance to Section 9105(c) (2) of the Delaware Hazardous Substance Cleanup Act (HSCA). While this is not a requirement under HSCA, it is good business practice and failure to do so will prevent a person from being able to qualify for a potential affirmative defense under Section 9105(c) (2) of HSCA.
- Additional remediation may be required if the project property or site is re-zoned by the Town.
- Should a release or imminent threat of a release of hazardous substances be discovered during the course of development (e.g., contaminated water or soil), construction activities should be discontinued immediately and DNREC should be notified at the 24-hour emergency number (800-662-8802). Site Investigation Restoration Branch (SIRB) should also be contacted as soon as possible at 302-395-2600 for further instructions.

Additional information on air quality

- New facilities 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; two pollutants relative to which Delaware currently violates federal health-based air quality standards,
 - The emission of greenhouse gases which are associated with climate change, and
 - The emission of air toxics.

- Air emissions generated from new facilities include emissions from the following activities:
 - Area sources such as painting, maintenance equipment and the use of consumer products like roof coatings and roof primers.
 - The generation of electricity, and
 - All transportation activity.

- Based on the information provided, the three air emissions components (i.e., area, electric power generation, and mobile sources) for the project could not be quantified. Division of Air Quality (DAQ) was also unable to quantify the mobile emissions, as daily trip data was not provided in the application. Should this information be provided, DAQ will quantify the mobile emissions based on data taken from the ITE Trip Generation Manual, 8th Edition.

- Note that emissions associated with the actual construction of the additional educational space, 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 paragraph above.

- DNREC encourages sustainable growth practices that:
 - Control sprawl;
 - Preserve rural and forested areas;
 - Identify conflicting land use priorities;
 - Encourage growth on previously developed sites and denser communities while at the same time protect our diminishing land base;
 - Coordinate transportation, housing, environment, and climate protection plans with land use plans; and
 - Demonstrate that communities can achieve the qualities of privacy, community, and contact with nature without degrading the natural environment or generating unacceptable environmental costs in terms of congestion, use of natural resources, or pollution.

- Additional measures may be taken to substantially reduce the air emissions identified above. These measures include:
 - Constructing with only energy efficient products. Energy Star qualified products are up to 30% 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. The Energy Star Program is excellent way to save on energy costs and reduce air pollution.

- Offering geothermal and/or photo voltaic energy options. These systems can significantly reduce emissions from electrical generation and from the use of oil or gas heating equipment.
- Encouraging the use of safe multimodal transportation. This measure can significantly reduce mobile source emissions. For every vehicle trip that is replaced by the use of a sidewalk or mass transit, 7 pounds of VOC and 11.5 pounds of NO_x are reduced each year. There is an opportunity to connect the property to a transit network via a DART bus stop located within walking distance at the intersection of Main Street and Irish Hill Road. This stop is served by route 303, which links US 113 to the south and US 13 to the north.
- Using retrofitted diesel engines during construction. This includes equipment that is on-site as well as equipment used to transport materials to and from site.
- Using pre-painted/pre-coated flooring, cabinets, fencing, etc. These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
- Planting trees in vegetative buffer areas, particularly those between the site and adjacent residential areas. Trees 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.

This is a partial list, and there are additional things that can be done to reduce the impact of the development. The applicant should submit a plan to the DNREC DAQ which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the McIlvaine Early Childhood Center project.

Delaware State Fire Marshall's Office – Contact R.T. Leicht 739-4394

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

Department of Education-Contact Despina Wilson 735-4040

- The DOE will continue to work with the district, architect, site engineer, municipal government and various state agencies regarding the project. The DOE reserves the right to provide continued and on-going comments and input as the project develops.

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.

Sincerely,

A handwritten signature in cursive script that reads "Constance C. Holland". The signature is written in black ink and is positioned above the typed name and title.

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

CC: Town of Magnolia
Caesar Rodney School District