



TOWN OF LEDYARD
Department of Land Use and Planning
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MEMORANDUM FOR THE RECORD

January 11, 2024 PZC Meeting

Property Address: 1761 and 1737 Route 12, Gales Ferry, CT
Application: #PZ23-11SUP – Special Permit Approval and #PZ23-12CAM
Applicant/Owner: Gales Ferry Intermodal
Lot Size: 165 acres
Lot Frontage: 3,700ft on Rte. 12
Zoning District: Industrial.
Public Water/Sewer: Public Water/On-site septic.
Wetlands/Watercourses: Occur on the site. Property is also adjacent to the Thames River.
Flood Hazard Zone: Yes. Zone AE (Elev. 12) and Zone X
CAM Zone: Yes.
Public Water Supply Watershed: No.
Proposed Public Improvements: Yes.

Legal: #PZ23-11SUP and PZ23-12CAM Submitted to Land Use Office on 10/05/23. Received by PZC on 10/12/23. Public Hearing opened 11/16/23 and was immediately continued to 12/14/23 (space constraints) and again to 12/21/23 and then to 1/11/24. Extension to keep PH open until 1/12/23 received 12/19/23.

EXISTING CONDITIONS:

The Property is the site of the former Dow Chemical manufacturing facility. Buildings associated with Dow Chemical were removed. Existing Industrial Use – American Styrenics still in operation. The existing pier has been improved and there is an active freight rail line that runs through the property. Environmental issues are present associated with former use. There is a former latex landfill area and another Area of Concern near proposed excavation area which is capped. Recent approval given for a 10,000sf and 6,000sf commercial/industrial building and associated site improvements for Motor vehicle, RV, Boat and Equipment Repair Facility and office on the northern end of the property. No construction has begun. There are several existing buildable areas on site where former buildings existed.

PROPOSAL: Phased removal and processing of material and aggregate to be transported off-site via truck and barge. Excavation area approximately 40 acres of the southern portion of the 165-acre parcel (Decatur Mountain). The property has inland wetlands as well as Allyn's Pond. One wetland referenced as the Z series wetland located to the east of the proposed grading activities will be eliminated. Wetlands referenced as the X and Y series may be impacted by the proposed activities due to the removal of a portion of the contributing watershed due to the proposed grading. Wetland mitigation was proposed and approved by the Town of Ledyard Inland Wetlands and Watercourses Commission. The excavation, if completed, would provide 26 acres of land suitable for development.

GROTON PUBLIC UTILITIES: Applicants notified Groton Utilities on 12/13/23 at Planners request. Initial comments received on 12/14/23. GU expressed some concerns and asked that additional time be given

to them to properly evaluate the project. WPCA has also requested that they be notified in the future for projects as they are technically the "water Utility" for the Town.

LEDGE LIGHT HEALTH DISTRICT: NO COMMENTS RECEIVED. Change of Use usually reviewed by LLHD.

DOT: Encroachment Permit Required

DEEP: Initial NDDDB review request provided. A more complete NDDDB Report was received 1/9/24. See comments and questions below.

DPW DIRECTOR/TOWN ENGINEER: Comments received from Steve Masalin 11/14/23.

BOND: A site erosion & sediment control bond estimate or estimate for the Stormwater management systems have not been submitted. Must be submitted for review & approval by the Town Engineer. Atty. Heller indicated during his presentation on 12/14/23 that a bond would be provided.

STAFF COMMENTS:

Initial comments were given directly to Attorney Heller and George Andrews for review. The responses to the comments were provided to the Land Use Office on 1/9/24. These comments contain some of the original comments plus additional questions and comments I have now that the applicant's presentation is finished and I have heard some of the concerns raised.

1. Notes Page:

- a. Note 1 under Erosion and Soil Control Plan and Note 2 under Site Notes state that the plan is for the "regrading operation for building pads for future industrial use." This is an Excavation Permit which is different than site preparation for a proposed building. There is no building being proposed. *NOTE: Excavation permits also require renewals every three (3) years. Applicant provided comment.*
- b. On Sheet C-1 the narrative speaks about sweeping the construction site weekly. Obviously, that cannot happen- and should not happen as it will just create dust. Not sure why it's even in there. This is not a construction site is an excavation site/rock quarry site.
- c. With respect to the stockpile areas shown on the plan in front of the AM STY building, there is no erosion control detailed for this area. It is a paved area so obviously silt fence will not work. I just don't see a lot of detail about prevention of soil runoff in the processing area and in the stockpile area shown on the plan.

2. Property Topographic Survey from 2010

- a. For this particular application abutting structures, water lines and wells should be identified. *Revised Plan shows some of the structures nearby. Houses on Anderson Road are not shown- nor are the condos. Only one well shown.*

3. Coastal Area Management portion of the narrative:

- a. The excavation activity and material processing will take place on "shorelands" but material is proposed to be transported across the site to the pier to be shipped off-site via barge. Stormwater basins will be connected with a pipe and manhole system that will discharge to the western wetlands. The Stormwater Management Report narrative states that sub catchment Areas 5 and 7 discharge off-site to the south and west respectively. So there is activity occurring on the river and elsewhere that could impact coastal resources. *Where will stormwater runoff go during Phase I where processing will occur in an area that does not have a Stormwater basin etc. – especially if water is being sprayed to control dust during processing and transport? The Engineered Control O&M*

Plan states that runoff from the capped area flows to the Thames River. The report speaks of a "measures to prevent storm run-on or run-off from damaging the engineered control (barriers, slope retention system, etc.)." Will the stone dust created by the rock crushing and processing that is mixed with the water to control dust impact this "engineered control" in any way?"

- b. Significant activity will occur on the capped area during phase 1, and equipment and trucks will be driving across this area frequently. This area is within the CAM area. The applicant has not addressed the possibility of damage to the capped area resulting in material leakage. Will the area be monitored for damage etc.? What is the procedure if the capped area is damaged? Revised Plans and comments from George Andrews address this somewhat. The plan is to add more pavement and a crane mat system and have someone certify that the Crane Mat System was designed properly and inspect the area annually.
4. The second NDDDB letter submitted on Jan. 9, 2024 only identifies three species of fish as the species of concern. What are the species in the wetland areas that are being disturbed? Certainly not fish. Please provide the material submitted with the NDDDB review request – particularly the site map used.
- a. Will water be used during the processing to control dust? If so, where is it coming from and where will it go? Will prolonged blasting impact the species of concern identified?
 - b. The DEEP recommended that the Applicant consult with a Fisheries Biologist. Was this done?
 - c. The report referred to a "project Description" that did not exist on the summary page. What description was provided to DEEP? Did it mention the prolonged blasting or the use of water to control dust that could potentially run-off into the wetlands or River?
 - d. Has a permit analyst been assigned?
5. **General Questions comments:**
- a. The materials list mentions chainsaws and logging trucks. What is being done to address the extremely noisy process of clearcutting trees? What is the typical noise level for logging activity?
 - b. Page C-11 of the revised plan received on 1/9/24 shows the location of the primary and secondary crushers and 2 screens. What about the Tertiary Crusher or Cone Crushers (and what is a cone crusher?). What are "stackers" and "Jaw Crushers?" Where is the water tank located and where does the water come from? Where are all the logging trucks, excavators, loaders, bull dozers, wheel loaders, off-road dump trucks and any of the other things on the equipment list being stored or parked when not in operation? How many of the listed vehicles/equipment are stored/parked on site?
 - c. What does the material processing involve exactly? There are a lot of vehicles and equipment mentioned. What are they used for? What kind of noise or emissions do they create?
 - d. The processed gravel piles are not contained in any way. The area showing the smaller pile is immediately adjacent to the 100ft wetlands buffer. What is being done to prevent stone-dust laden runoff into the buffer area and potentially the wetlands?

- e. Are vehicles and equipment fueled on site? **Response provided 1/9/24.** Vehicles will be fueled on site. No fueling area shown – no spill prevention plan provided.
- f. “The requirements of the current general permit include registration to obtain permit coverage, development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and monitoring of stormwater outfalls discharging from the industrial activity. The SWPPP contains requirements for industrial activities to describe and manage their operations and contains control measures to reduce or eliminate the potential for the discharge of stormwater runoff pollutants from an industrial activity.” Has this plan been developed? Would be useful information for the Commission to consider. Is there a current SWPPP for the property? Response provided indicates that this Plan will be developed “after” local approvals. Seems like at the very least a description of the typical control measures could be provided so that the Commission can make a determination that the wetlands and river will be protected.

6. **Applicable Zoning Regulations**

- a. **8.16 Excavation Operations:** The use being applied for is “Excavation Major.” However, it is much more like a rock quarry than anything. This poses a little bit of a problem for compliance with some of the excavation regulations with respect to final slope of the bank (as differentiated from the gravel bank floor). The 3 to 1 slope required in 8.16 N(4) cannot realistically be met. These regulations are really meant for typical excavation operations (sand and gravel) not rock quarrying. The applicant is attempting to deal with the slope issue and bank stabilization by using benches. But even with these benches, the current site plan shows the slope of at least 75% in some places (175' horizontal to 230' vertical). To achieve a 3 to 1 slope (3' horizontal to 1' vertical) for each 25-foot horizontal bank, the vertical rise could only be about 16 feet. That is not the case with this application. This requirement is specific to the use being applied for. A variance would be needed to modify this requirement.
- b. **8.16 D** states that the work will “not be a source of dust pollution or siltation.” A (granite) rock quarrying/processing operation is inherently a source of dust and siltation ...silica dust in particular. This is a well-known fact there are many studies out there to confirm... and generally, the reason why large rock quarries are NOT in the middle of neighborhoods. They tend to be in more remote locations or in more industrial areas not near residential uses for a reason.
- c. What will the potential particulate matter (PM) generated be from all the activity and vehicles per year? There are ways to calculate the potential tons per year of PM generated from an excavation or quarrying operation that includes dust from rock crushing, screening, and conveying, truck loading and unloading, stock piles and also PMs in exhaust from diesel trucks that are used in excavation, rock crushing and logging operations. No information was provided by the applicant about the potential dust or PMs that might be generated, and the only information provided about dust control was predominantly verbal assurance that key areas would be sprayed down with water. This will not control all the dust and is something that is very hard to monitor or enforce.

There are other ways to control dust during the process, such as covered conveyors and shoots or some covering or shielding around rock crushing equipment, covers over trucks and other similar things.

The applicant needs to provide much more information about how much dust is likely to be generated and how they are going to control that so that the work will not be a source of dust, pollution, and or siltation "as well as how they plan to monitor this. The same information is needed to satisfy a similar criterion in 11.3.4.

d. **Section 9.2: Site Development Standards**

These are separate from the special permit criteria. They are not subjective. The Applicant must comply with them.

- **9.2C** does not restrict concerns to the "Zoning District" in which they are proposed to be situated as stated in Applicant's response to my initial comments. That is simply not true. The language is that the "uses shall be designed to minimize any injury or nuisance to nearby premises" which could certainly include parcels located in an abutting Zoning District.
- **9.2 C (1)** states that no dust shall be admitted into the air so as to endanger the public health, safety or general welfare. Many residents have expressed concerns about fugitive dust that contains silica, a known carcinogen. It is common knowledge that rock quarries are not dust free. Dust gets in the air during the crushing and processing and transportation as well as during blasting.

There are many cases recorded of residents near quarrying or excavation operations that end up with respiratory or other illnesses. This is not something to take lightly. The proposed operation is large and occurs within close proximity to many residents. The prevailing wind comes from the river across the site toward Rte. 12. If the applicant wishes to operate in this area, they simply must provide proof that they can prevent fugitive dust from leaving the site. They have not provided any such proof, and most literature about this type of operation does not indicate that the prevention of all dust is even possible. How can we ensure that health problems will not occur as a result of this potential 10-year operation?

- **9.2C (3)** pertains to noise. It states that no noise which is "unreasonable in volume, intermittence, frequency or shrillness shall be transmitted beyond the boundaries of the lot on which originates." With blasting and rock crushing and processing operations, this will also be difficult. No physical data was provided with respect to probable noise volume or how often blasting or rock crushing would occur etc. The Applicant must demonstrate that they will comply – a statement alone that they will comply with State Regulations is not sufficient. State noise regulations do not trump local regulations such as this one.
- **9.2 C (4)** is perhaps the most difficult one to comply with considering there is blasting proposed. This section states that there should be "no **vibration** transmitted beyond the boundaries of the lot on which it or originates." There is no exemption given for an excavation operation and the proposed use does not involve the construction or demolition of a building. The applicant has not provided information or actual data about the frequency or intensity of the blasts and what the resulting vibration would be. If the blast is felt by residents on abutting or nearby properties, this regulation would not be met. The Blasting Company must have information and data about the vibrations caused by blasting and what factors influence this or mitigate it – like

reducing the size of the charge etc. Information must be provided – beyond oral testimony that vibrations will not be transmitted beyond the boundaries of the site.

7. Special Permit Criteria:

For a Use requiring a Special Permit, the Commission must determine whether that Use is suitable for the particular piece of land on which it is proposed. The use is permitted subject to standards set forth in the regulations and to conditions necessary to protect public health, safety, convenience and property values. In addition to the specific regulations/standards for Excavation Major, Site Development, Dimensional, Parking, Access etc., the Commission must determine whether the Application as submitted complies with the specific "Special Permit Criteria" found in Section 11.3.4. or whether conditions are necessary in order to conform to these criteria which pertain to health, safety, welfare and property values.

Special permits exist because not all permitted uses are appropriate on every parcel within the particular Zone it is situated. Just because the property is Zoned Industrial does not mean that any Industrial Use is appropriate. Each parcel has unique characteristics that may influence the types of uses that would be suitable. The Special Permit criteria are not "best understood as they apply to special permit uses in residential zones as stated in the Applicant's response to initial comments. If that were the case, there would only be uses permitted as of right in the Industrial Zones – and no need for Special Permit criteria.

The Commission must take into consideration the unique features of the site, the location, the proximity of residential uses, presence of natural or historic resources, and any other unique feature or reason why the proposed use – or aspects of the use - just may not work on this parcel but might elsewhere in town.

In considering an application for a Special Permit, the Commission shall evaluate the merits of the application with respect to all of the following criteria that the Commission may determine are relevant to the application. To the extent the Commission finds such criteria applicable, the applicant shall have the burden to prove:

- A. **that the application is materially in conformance with all applicable provisions of these Regulations, including, but not limited to, the Site Design Requirements in Chapter 9, and that the standards for approval of any accompanying Site Plan application have been met;** *Additional information needed to demonstrate conformance with provisions of 8.16 and 9.2.*
- B. **that transportation services would be adequate and that the uses would not cause traffic congestion or undue traffic generation that would have a deleterious effect on the welfare or the safety of the motoring public;** 100 trucks per day proposed. The Commission could consider a traffic study. What will the cumulative number be taking into consideration the other uses on the property, existing uses that already contribute traffic to the area, and any potential traffic associated with goods being brought in by barge and sent out in trucks(?). Residents in the area have certainly expressed concerns.
- C. **that the proposed uses and structures would be in harmony with the appropriate and orderly development of the Zoning District in which they are proposed to be situated, and that the use(s) would not be noxious, offensive, or detrimental to the area by reason of odors, fumes, dust, noise, vibrations, appearance, or other similar reasons;** *Not nearly enough information has been provided to demonstrate compliance with these criteria. This is the most important part of this application. The burden is on the applicant to provide enough information WITH*

their application to demonstrate that they will not exceed State Noise level maximums at the property boundaries, or that they will not create fugitive dust that would be considered potentially dangerous or a nuisance, or why they are so confident that the vibrations from multiple years of consistent blasting will not impact nearby wells or the public water lines (one of which is the regional water supply line that runs under the Thames River), etc. A statement stating that they will comply is simply not sufficient.

Where will all the equipment listed be used and where will it be in EACH phase – Phase 1 in particular – but the other phases too.

What noise (typical decibel) is created by this equipment or the vehicles? How much does it dissipate over distance? Is that impacted by weather or topography, the proximity to the river, etc. These things can be modeled. The same modeling can be done for dust. What is the prevailing wind direction? What measures beyond misting are being taken to monitor or prevent fugitive dust? How will it be reported so that the Town knows the site complies? What preventative measures will be in place – and how exactly do they work?

For example, if the drilling equipment is equipped with special technology to control dust, provide the PZC with the specs of this equipment. Show a video of the equipment in operation with the controls vs equipment being used without. The company who created the technology could certainly show that.... And the blasters are currently blasting at the Baldwin Hill property – so a video would be easy to create.

Provide the data to back up the statement (in comment response) that the proposed “continuous misting” will be effective to prevent the escape of fugitive dust.

- D. that no adverse effect would result to the property values or historic features of the immediate neighborhood;** Commission needs to determine if enough is being done to protect the neighborhood from possible nuisances and the historic resources identified.

It is my understanding that archeological studies are still ongoing?

There were numerous concerns raised by abutting property owners about the impact to their property values – particularly the residents in the house closest to the operation. The applicant's response to my initial comment about this was that the excavation site would not be visible from abutting or nearby residences – though seemingly discounted legally existing residential uses in the Industrial Zone as though they did not need the same “protection” somehow. I would also not characterize residences that are less than a mile away as “remote” nor is distance from the operation the only factor to consider when talking about property values. Property values may be impacted simply because of their proximity to a quarry operation and the potential nuisances that can accompany such an operation (even if only perceived!).

The presentation by the blasting company was informative, but there was no discussion about the length or intensity of the operations in the sensitive areas shown in their presentation as compared to the current proposal or that being done at the Baldwin Hill facility. Is the same type of explosive or blasting technique being used throughout the proposed excavation site? What size charge is proposed here vs one of the sensitive sites shown in the presentation? Is the same equipment being used? What are some of the factors that determine what size shot is used and when etc. Can a video be provided? What is the emission of dust before and after misting?

E. that the character of the immediate neighborhood would be preserved in terms of scale, density, intensity of use, existing historic/natural assets/features and architectural design;

The use of the site will certainly intensify from historic and current industrial use. The project certainly will not preserve the existing natural assets such as some of the existing wetlands, animal habitats and the wooded mountain itself that existed long before any use was established on the site. The removal of the mountain will absolutely change the character of the immediate neighborhood. This criterion does not exempt new Industrial uses in industrial zones from compliance simply because there are or have been other industrial uses in operation.

F. In accordance with CGS §22a-19, that the proposed uses would not cause any unreasonable pollution, impairment or destruction of the air, water and other natural resources of the state; *More information is needed about the activities occurring to make a determination of compliance.*

The escape of fugitive dust containing silica dust is a real concern that has not been adequately addressed.

The water being used to mist everything continuously has to go somewhere. Where does it come from – how much will be used? And where does it end up – as it may be contaminated. Stagnant waters are breeding grounds for mosquitos as well.

What will the potential impact be to existing AM STY structures and tanks on site, and other utility infrastructure (i.e. power and water lines)? How will you “tailor” your blasting protocol and materials handling operations so as to not disturb the integrity of the structures? What specifically do you propose?

Should require that the results of the pre-blast survey – including test results from all the wells on abutting properties (baseline drinking water quality and yield capacity) be provided prior to the start of the operations, though that information would be valuable now as well.

The DEEP Blasting Guidance IS still relevant with respect to the discussion about the impact on wells from the blasting itself, the potential for structural damage to neighboring properties due to air blasts and vibrations, and/or noise and dust control. The document goes beyond discussion of ARD.

G. that all proposed uses and structures would be consistent with future development as identified and envisioned in these Regulations and the Ledyard Plan of Conservation and Development.

After re-reading the 2020 POCD, there is little mention of the DOW Site and/or increasing “Industrial” development there. The Future Land Use Plan actually points to the CIP District in Gales Ferry for industrial Development focus – not the Dow property.

The only real mention of the DOW Chemical Site in the POCD is in conjunction with exploring the possibility of utilizing their industrial sewer treatment plant to support residential use in Gales Ferry. No mention of redevelopment of the DOW site.

"In addition, investigate the future status of Dow Chemical plant infrastructure and in particular their industrial sewer treatment plant. There could be an opportunity to reconfigure the treatment plant to handle residential sewer (Gales Ferry) instead of abandoning and demolition of the facility. The Town should explore this opportunity with Dow."

(p24)

On pg. 2 – "The Plan Shall.... Show the commission's recommendation for the most desirable use of land within the municipality for residential, recreational, commercial, industrial and other purposes and for the most desirable density of population..." This is done on the Future Land Use Plan/Map. The DOW site is shown as Industrial land – but the only Focus area for Industrial Development is in the CIP area.



Map 3 Proposed Land Use

In Summary, I feel that the application is deficient for the following reasons:

- **The scale and intensity of the project is not appropriate in the location proposed due to its proximity to residential uses, schools and sensitive natural resources;**
- **It is not consistent with the POCD;**
- **The application as submitted does not conform to all applicable Zoning Regulations found in Sections 9.2 and 8.16; and**
- **Not enough information/relevant supporting data has been provided by the applicant, as is their burden, to allow the Commission to determine compliance with the Special Permit Criteria in Section 11.3.4.**

Respectfully submitted,

Juliet Hodge