

March 30, 2016



Dean Bennett
Director of Community and Economic Development
Town of Hampden
106 Western Avenue
Hampden, ME 04444

Re: Preliminary MRC/Fiberight Solid Waste Processing Facility Site Plan Review

Dear Dean:

We have completed a preliminary review of the Site Plan Application submitted for Municipal Review Committee, Inc. & Fiberight, LLC (Applicant) by CES, Inc. (Agent) dated March 3, 2016, for a proposed 144,000 square foot solid waste Processing Facility, 9,800 square foot Administration Building, and access road. This review is focused on applicability of the Town Ordinance requirements and completeness of the application with regard to these ordinances.

Our review of Town Ordinance applicability is intended to ensure that the Town permitting process is clear and can be completed in a timely manner, as this project involves elements spanning the requirements of multiple ordinances.

The overall project includes all of the elements necessary to provide access and utilities to the proposed MRC/Fiberight partnership solid waste processing facility. The project includes the creation of what appear to be three distinct parcels consisting of the following; an access road parcel, the solid waste processing facility parcel, and a 100-foot wide utility corridor parcel. The access road is intended to be conveyed to the Town upon completion and serve as access for the proposed solid waste processing facility and for future development of parcels through which the road passes. The affected parcels along the access road are not shown as being modified beyond the creation of a road right of way. The solid waste processing facility is located on a proposed new lot, created from portions of existing lots, located at the end of the proposed access road. There is also a proposed parcel, created from portions of existing lots, extending east beyond the end of the proposed access road toward Ammo Park that is intended as a utility corridor for sewer.

Of primary concern was the combination of the project elements, including the processing facility, access road, and 100-foot wide parcel, into one Zoning Ordinance Site Plan Application. We have identified several potential issues with this approach that we recommend the Applicant address, as follows:

1. The application site plans detail the creation of three new lots from multiple existing lots, an access road lot, the processing facility lot, and sewer extension lot. The Applicant's intent, based on discussions and development agreements in this Application, is to construct a road meeting Town Way standards for eventual conveyance to the Town. Sewer, water, and gas utility provisions are included along the length of the proposed access road, indicating an intent to further divide adjacent parcels. As the intent and layout of the proposed project reflect the intent to create a subdivision, and this term and regulation thereof are subject to State Statute, we recommend that the Applicant provide a legal opinion regarding the applicability of this project, or parts thereof, to Subdivision Ordinance versus the Zoning Ordinance. The Applicant should be aware of the implications regarding development classification for the affected lots along the access road. If this application does not meet the



legal definition of a subdivision, further development or parcel modifications of the properties along the access road will likely trigger Subdivision Ordinance requirements unless the statutory length of time passes after splitting the parcels.

2. Zoning Ordinance Article 3.3.4 requires 150 feet of road frontage for Industrial Zone lots. The Applicant does not explicitly state the amount of road frontage provided, but it appears to utilize frontage along the access road parcel bordering the facility, which is noted as a "Proposed Right of Way" on several plans. Although the intent of the Applicant, through discussion, has been to construct and transfer the road as a Town Way, the application does not make clear how the proposed access road meets the Zoning Ordinance definition of road or street per Article 7.2. As the Zoning Ordinance does not appear to address the creation of a Town Way, the access road may require approval in accordance with the Subdivision Ordinance to avoid creating a Non-conforming lot or lot(s). It is not clear if the Applicant can meet the Zoning Ordinance frontage requirement based on the submitted plans.
3. Zoning Ordinance Article 5.3.1.8 details the requirements that must be met prior to issuance of a building permit, including Town acceptance of roads providing frontage pursuant to the Town Ways Ordinance.
4. For the purposes of Town Zoning Ordinance compliance, further review of the portions of the project with potential to be subject to Subdivision Ordinance should be conducted and assigned to the appropriate application process based on ordinance applicability.

Zoning Ordinance

The project involves several parcels of land that span two zoning districts, the Interchange District and Industrial District. The solid waste processing facility is proposed within the Industrial District and will be subject to conformance with the Industrial District standards, except as allowed in Article 2.1 for parcels involving more than one zoning district. For the purposes of this portion of the review, we are considering the completeness of the application materials regarding the processing facility site located on the proposed parcel shown on Sheet C101 Overall Site Plan and in further detail on Sheet C103 Enlarged Site Plan and not the access road parcel, which is considered separately in this letter as a Town Ways Ordinance issue.

The facility does not meet the definition of a Permitted Use for the Industrial Zone, but appears to meet the criteria for Conditional Use, as it is a processing and treatment plant with a gross floor area greater than 5,000 square feet.

With regard to Article 4.1.6. Required Information on Plans, the Applicant has met the requirements with the following exceptions:

1. The Applicant has requested a waiver from including the location and type of trees 12-inch diameter and over.

With regard to Article 4.1.7. Performance Standards appears to have met the requirements with the following exceptions:

1. The Applicant has not provided submittal information regarding building design per Article 4.1.7.2 and 4.1.7.6 such as building elevation drawings, intended type of construction, or other information that allows review for compliance with this standard.
2. Please see the attached Memorandum from Maine Traffic Resources dated March 25, 2016 regarding a preliminary review of traffic of this application. There are a number of concerns with regard to meeting Article 4.1.7.3 and 4.1.7.4 standards.



3. The application addresses stormwater requirements in Article 4.1.7.9, although we have deferred review of stormwater modeling and treatment device design to the Maine DEP Solid Waste Processing Facility application. We request the Applicant provide evidence of meeting Maine DEP standards regarding these items.
4. Article 4.1.7.13, in addition to Article 4.2.3.4 and Article 4.4.1, applies to air emissions and odor standards. The Applicant has stated the use of operational and engineering controls to limit nuisance odors. The Applicant states that they are using an enclosed building, minimizing the time that access doors are open, minimizing the volume of solid waste on the tipping floor, and maintaining a negative air pressure via an air handling system. An odor control system has been proposed for odor reduction. In addition to the materials provided in the Site Plan Application, CES forwarded supplemental application materials from the MDEP Solid Waste Processing Facility Application. We have not reviewed the MDEP application materials in depth, although these materials may be necessary to address the following concerns regarding the Town Site Plan Application:
 - a. The Applicant has not demonstrated that the proposed controls are adequate to fully address odor emissions. We recommend requesting records of odor complaints from existing similar facilities, including identification of conditions that resulted in complaints and any corrective actions to address these conditions. Reference to comparable facilities with similar odor emissions sources and control technologies should be provided.
 - b. The Applicant has not presented a monitoring plan to ensure odor emissions are controlled or to demonstrate compliance with stated statute requirements. We recommend that the Applicant propose a monitoring plan with the goal of maintaining compliance with statute requirements and Zoning Ordinance standards.
 - c. The application has not addressed the odor concerns from queued vehicles (both full and empty), impacts along concentrated haul routes (refer to traffic review comments), and impacts of odor generation based on varying meteorological conditions. We recommend that the Applicant provide evidence of their ability to manage these impacts.
 - d. The Applicant has not presented a process for handling odor complaints. We recommend that the Applicant propose a systematic process for receiving and addressing odor complaints from the Town of Hampden employees and its residents that ensures continued compliance with Zoning Ordinance standards and does not place an undue burden on Town employees.
 - e. The Applicant has not addressed the potential for odor emissions from the gas flare or boiler system or control thereof.
 - f. The Appendix 6 narrative identifies an "Operations and Maintenance Plan" with regard to fugitive dust. In addition to dust control, we recommend that the Applicant demonstrate compliance with control of dust, trash, and other debris generated not only at the facility, but along concentrated haul routes and surrounding properties.

As a Conditional Use, the Applicant is subject to additional review subject to Article 4.2.3 Standards Governing Conditional Use Permits. The Application does not appear to meet these additional standards based on findings regarding items listed above and the following:



1. Article 4.2.3.1, regarding the requirement for compliance with all provisions of the Zoning Ordinance and operated and maintained in compliance with Article 4.4 Performance Standards.
2. Article 4.2.3.3 regarding effects on abutting property, particularly those located along the proposed haul routes and surrounding properties potentially affected by air emissions.
3. Article 4.2.3.4, particularly regarding odor emissions and their impact upon residential properties.
4. Article 4.2.3.5 regarding traffic concerns as noted previously and in the attached Maine Traffic Resources review.

The Planning Board may assign additional conditions to the Applicant per Article 4.2.4, such as operational controls, professional inspection and maintenance, type of construction and other conditions as necessary to ensure compliance with the Zoning Ordinance standards.

Other Ordinance Requirements

As stated previously, this application contains elements with applicability to several Town ordinances in addition to the Zoning Ordinance. Each item is discussed below in terms of applicability and review processes for the benefit of the Applicant. Depending on finding of applicability, these items may need to proceed on parallel paths to the Site Plan Application in order to meet the Applicant's proposed schedule.

Town Ways Ordinance

The access road, if not applicable to Subdivision Ordinance requirements, would be applicable to the Town Ways Ordinance. This ordinance details the process for acceptance of a privately constructed road as a Town Way, including:

1. Demonstration of design and construction in accordance with Article II – Standards and Requirements for an Industrial Way;
2. Provision for an improvement guarantee;
3. Town Attorney review and approval of conveyance documents, improvements, and any applicable easements;
4. Utility statements regarding acceptance of installed infrastructure;
5. At the discretion of the Town Council, acceptance of the road prior to installation of the surface pavement with an approved performance guarantee for completed paving; and
6. Town Council acceptance as Town Way.

In addition to the issues identified in the Maine Traffic Resources memo previously referenced, the application does not provide sufficient information to demonstrate compliance with Article II of the Town Ways Ordinance.

Sewer Ordinance

The proposed sewer collection system, unless also applicable to the Subdivision Ordinance, is subject to Sewer Ordinance requirements. These include, but are not limited to, the following:

1. Approval by the Town to construct sewer extension including review of engineering documents, design data, etc. as listed in Article 5.3. This includes demonstrating compliance



- with Article 5.3.1 regarding the use of sewer pump stations, limitations in force main length, and feasibility for gravity sewer;
2. Arrangement for Town inspection of the sewer installation and establishment of account for developer reimbursement of inspection expenses;
 3. Town approval of construction shop drawings prior to issuance of construction permit;
 4. Completion of testing per Article 5.4 regarding sewer extensions constructed by Private Developer prior to connection to Town sewer;
 5. Completion of Article 5.5 requirements for transfer of ownership; and
 6. Town Council acceptance of private sewer.

The application partially fulfills the Sewer Ordinance requirements for initial submittal documents, as the engineering plans for the gravity sewer and installation details are included. However, the sewer pump station, a large portion of the sewer force main, and determination of feasibility for any portion of gravity sewer for the "cross-country" route has not been provided. Without these components, a complete Sewer Ordinance review cannot be provided.

The Applicant is proposing a facility subject to the Industrial Pretreatment Program, administered by the City of Bangor Wastewater. The Applicant has not provided materials demonstrating the ability to comply with this program's requirements in this application. The process for or status of obtaining an Industrial User Permit is not described in the application.

The Applicant will be subject to a Special Charge for Industrial Organizations per Section 10.3 of the Sewer Ordinance. The applicant has not submitted information that allows the Town to develop this sewer use fee, including sewer pump station design, flow and pumping calculations, force main maintenance, establishment of Town right of way year-round utility access, and other appurtenant costs associated with conveying and treating waste from the Applicant's facility. The Applicant should be aware that the Town Council is considering amendments to the Sewer Ordinance that may affect the requirements applicable to this development.

If you should have any questions or require any additional information, please do not hesitate to contact us.

Sincerely,

WOODARD & CURRAN INC.

A handwritten signature in blue ink, appearing to read "Kyle Corbeil".

Kyle Corbeil, P.E.
Project Engineer

KMC/eah

PN: 213351.00 040

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April 7, 2016



Dean Bennett
Director of Community and Economic Development
Town of Hampden
106 Western Avenue
Hampden, ME 04444

Re: MRC/Fiberight Solid Waste Processing Facility Site Plan Review

Dear Dean:

We have completed a preliminary review of the Site Plan Application submitted for Municipal Review Committee, Inc. & Fiberight, LLC (Applicant) by CES, Inc. (Agent) dated March 3, 2016, for a proposed 144,000 square foot solid waste Processing Facility, 9,800 square foot Administration Building, and access road. This review is focused on conformance with Zoning Ordinance requirements as well as other applicable ordinances as referenced below.

Zoning Ordinance Review

As described in our Preliminary MRC/Fiberight Solid Waste Processing Facility Site Plan Review dated 3/30/2016, the Applicant project is classified as a Conditional Use within the Industrial Zone.

Several concerns were noted in the previous review letter, which is attached to this letter in lieu of repeating those concerns. The following is a review of specific standards that appear to be met as well as any other concerns raised during a detailed review of the submitted Site Plan Application.

Zoning Ordinance Standards for Industrial District (Article 3.2)

1. Submittal appears to meet the standards of this section for minimum lot area, setback requirements, and ground coverage. The site plan indicates a building height of 60 feet where the maximum allowable building height is specified to be 35, except where additional setback distances are provided.
2. The Site Plans Sheets C101 through C103 do not detail the lot frontage. As noted in our previous review, it is not clear that frontage along the access road will be available to claim as front on a Town Way and a minimum of 150 feet of frontage is not provided elsewhere with the proposed lot configuration. We recommend that the Applicant address this issue as detailed in our previous review.
3. The Street Yard setback line on Sheet C103 shows the required 50-foot street yard setback. The 75-foot street yard setback line for the processing facility building height of 60-feet (special regulation based on the Article 3.2.5.3 requirement) should also be shown. The Proposed Admin Building (building height of 20 feet) is within the 75-foot setback, but the remainder of the facility does not extend into this setback area.
4. We recommend that the Applicant provide tank heights on Sheet C103.
5. The proposed property line to the north of the facility shown on Sheet C103 uses the linetype for setback and the side yard setback line is shown at 100-feet from the property line. We



recommend that the Applicant correct the plan according to the linetypes shown on the legend and adjust the setback lines to 35 feet (standard minimum) and 60 feet (special regulation based on the Article 3.2.5.3 requirement). It does not appear that any structures are proposed beyond the side yard setback distance of 35 feet and the Scale House is the only structure within the 60-foot side yard setback.

Zoning Ordinance Site Plan Standards (Article 4.1)

1. The Application appears to have submitted items addressing each of the items in Article 4.1.6, with the exception of the "Location and type of existing and proposed fences, hedges, and trees of twelve (12") inch diameter and over at a point four and one (4.5') above ground level." The Applicant has requested a waiver from this requirement in the Application narrative.
2. We recommend that the Applicant revise Sheets C101 and C102 to label contour lines and modify the setback lines as stated previously in this letter regard Sheet C103.
3. A number of concerns were stated in the 3/30/2016 Preliminary Review letter regarding conformance with Article 4.1.7. In addition to those concerns, we have noted the following:
 - a. The Applicant has provided utility capacity letters from the Hampden Water District and the Bangor Wastewater Treatment Plant with conditional statements of capacity. The Applicant did not include the statement of capacity from the Town's Public Works regarding sewer capacity.
 - b. The Applicant has not provided statement from the electrical (Emera) or natural gas (Bangor Gas Company) utilities regarding capacity or conditions for this facility.

Zoning Ordinance Conditional Use and Performance Standards (Article 4.2 and 4.4)

No additional concerns regarding Conditional Use Standards were noted beyond those noted in the 3/30/2016 Preliminary Review letter.

Zoning Ordinance Parking Standards (Article 4.7)

1. The Applicant does not appear to meet the minimum off-street parking space requirement for "Industrial Use" in Article 4.7.1.1.10. Based on statements in Appendix 1 regarding 70 employees and the required $\frac{3}{4}$ space per employee, a total of 52 spaces should be provided. Sheet C103 states that proposed parking includes 47 spots.

Town Way Ordinance Review

The access road was reviewed based on the assumption that it would be conveyed to the Town as a Town Way with an Industrial classification.

1. The proposed road appears to meet the 100-foot right-of-way width requirement based on the property lines shown on the plans.
2. The proposed road appears to meet the requirements for grades and side slopes.
3. In addition to the comments provided by Maine Traffic Resources (MTR) in their Preliminary Traffic Review memo dated 3/25/2016, please see the following comments.



4. No street signage was detailed. We recommend that the Applicant provide details and locations on the plans in accordance with Manual on Uniform Traffic Control Devices (MUTCD) standards regarding street signage including, but not limited to, stop sign, "No Outlet" sign, street name signage, speed limit signage, and others as applicable. See MTR Review Memo dated 3/25/2016.
5. Sheet C103:
 - a. The proposed natural gas injection line is shown overlying the proposed water main. We recommend modifying the piping layout to maintain adequate distance between utilities.
 - b. Please clarify if a structure will be required where the proposed natural gas injection line meets the existing Bangor Gas Company pipeline.
6. Sheet C201:
 - a. Several curb cuts are shown with the apparent intent to direct stormwater off of the roadway. No erosion control methods are specified at these locations. We recommend that the Applicant detail a suitable means of dispersing stormwater at these locations to prevent erosion damage.
 - b. The curb cuts shown near Station 6+50 appear to be very close to existing grade and contour lines are not shown in this area. We recommend that the Applicant detail these areas further to ensure that roadway flooding does not occur.
 - c. The distance between roadway high points stormwater outlets, either curb cuts or Filterra units, appears to exceed 600 feet. We recommend that the Applicant present evidence that the proposed spacing does not result in an excess of flowing water impacting the travel lane or reduce the spacing between outlets.
7. Sheet C202:
 - a. The distance between roadway high points stormwater outlets, either curb cuts or Filterra units, appears to exceed 900 feet. We recommend that the Applicant present evidence that the proposed spacing does not result in an excess of flowing water impacting the travel lane or reduce the spacing between outlets.
8. Sheet C203:
 - a. The distance between roadway high points stormwater outlets, either curb cuts or Filterra units, appears to exceed 1,500 feet. We recommend that the Applicant present evidence that the proposed spacing does not result in an excess of flowing water impacting the travel lane or reduce the spacing between outlets.
 - b. The proposed sewer pump station appears to show a paved driveway. We recommend that the Applicant specify that the driveway match pavement and base gravel requirements for the roadway.



9. Sheet C204:

- a. The location of the existing Bangor Gas Company natural gas pipe and proposed gas injection pipe shown on Sheet C102 is not shown on the C204 plan and profile.

10. Sheet C502:

a. Comments regarding "Typical Crowned Roadway Cross Section":

- i. Pavement and gravel specifications layers are not detailed. Recommend referencing applicable detail or adding callouts for all materials shown in the cross section.
 - ii. No material specification for loam or depth of loam is shown. We recommend a minimum of 4 inches and including a material specification for loam.
 - iii. Subgrade and fill materials are not specified. We recommend adding specifications for fill material and compaction requirements in addition to the Aggregate Base and Aggregate Subbase gravel shown.
 - iv. Detail shows "box cut" type of gravel installation. We recommend extension of Aggregate Base and Subbase layers to the full width of the cross section, not just below the pavement and curb.
 - v. Review of the cross section against the plan sheets C201 through C204 shows that gravel layers will be below existing grade for significant portions of the road length. No subbase drainage via ditch construction or underdrain is included in the design. The Applicant should present evidence that the proposed design will be resistant to frost heave and thawing damage for the anticipated traffic loads. Load limitation during thawing conditions will not be an option with this road due to the nature of the proposed facility, so resistant to freeze-thaw damage is critical.
 - vi. The "Typical Trench Detail – HDPE Water Main" appears to reference the wrong pipe material as ductile iron pipe is specified on the plans. We recommend correcting this detail to reflect ductile iron pipe.
 - vii. The "Typical Box Culvert Detail" appears to show the culvert footings placed on native subgrade material. We recommend that the Applicant clarify if this is suitable installation method or if installation of support gravel or stone is required.
- b. The "Typical Roadway Buildup Detail" specifies a total of 4 inches of pavement and 24 inches of gravel base. Per our comment regarding freeze-thaw protection, we recommend that the Applicant present evidence that the proposed design will be resistant to frost heave and thawing damage for the anticipate traffic loading.
- c. No pavement marking details were provided to show centerline and shoulder marking dimensions. We recommend that the Applicant provide details for lane markings. See MTR Review Memo dated 3/25/2016.



Sewer Ordinance

A partial review of Sewer Ordinance conformance has been completed, but as noted in the 3/30/2016 Preliminary Review letter, we are not able to perform a complete review due to the omission of several elements. Our comments regarding the submitted sewer design for the access road are as follows:

1. Sheet C502:
 - a. Per Article 5.3.4, we recommend modifying the "Typical Sewer Trench Detail" to add a geotextile layer between the crushed stone bedding material and backfill material.
2. The Applicant did not provide a detail for force main piping. We cannot comment on the adequacy of the force main piping design except that the "Typical Sewer Trench Detail" is not adequate for force main installation conditions.
3. The Applicant did not provide sewer manhole details for review. We cannot comment on the adequacy of the sewer structure design.
4. The Applicant did not provide pipe insulation details. It appears that insulation will be necessary in the vicinity of Station 0+00 due to a pipe depth of less than 5 feet.
5. The Applicant did not provide details regarding the sewer pump station. We cannot comment on the adequacy of the design, including force main sizing, design flow, or wet well size.

If you should have any questions or require any additional information, please do not hesitate to contact us.

Sincerely,

WOODARD & CURRAN-INC.

A handwritten signature in blue ink, appearing to read "Kyle Corbeil".

Kyle Corbeil, P.E.
Project Engineer

KMC
213351.00 040

Attachments