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September 22, 2026

**LEOMINSTER BOARD OF HEALTH**
25 West Street
Leominster, MA 01453

RE: Request for Minor Modification to Site Assignment
WIN Waste Innovations of Northern New England, Inc.
(formerly United Material Management of Leominster)
200 Tanzio Road, Leominster, Massachusetts

Leominster Board of Health:

On behalf of WIN Waste Innovations of Northern New England, Inc., (WIN-NE, the Facility) Green Seal Environmental, LLC (GSE) respectfully requests a minor modification to the Leominster Board of Health's (BOH) December 19, 2019 Site Assignment, as subsequently amended (at a regular meeting for allowing baling of waste per Site Assignment Condition 4) for the Facility. This letter and attachment provide the necessary information for the Board to find that modification to the Project meets the siting criteria of 310 CMR 16.40 that are impacted by the proposed change. Additionally, the provided documentation provides sufficient information to show that the requested changes to the Site Assignment do not constitute a danger to health, safety, or the environment.

The proposed modification is an increase in tonnage from 1,000 tons per day to 1,500 tons per day (tpd) maximum with an annual maximum of 300,000 tons, which is the same 1,000 tons per day average as previously approved. The request is to modify Condition 1 of the Site Assignment Conditions Addendum from:

**Existing Language:**
"The Facility may only accept up to 1,000 tons per day and 300,000 tons per year of waste."

to:

**Proposed Language:**
***"The Facility may accept up to 1,500 tons per day maximum, and 300,000 tons per year of waste."***

The Project has completed the permitting phase under the Massachusetts Environmental Policy Act (MEPA) process which was required as the proposed tonnage increase triggered a review threshold per 310 CMR 11.07, for solid waste daily capacity. The MEPA permitting process included submittal of an Environmental Notification Form, Draft Environmental Impact Report (DEIR), and Final EIR (FEIR). The Certificate for the Final EIR was received on May 1, 2026. Copies of the ENF, DEIR, FEIR and their respective Certificates are to be included as Exhibits to the record. It should be noted that the MEPA permitting process evaluated impacts from increasing the daily tonnage to 1,500 as well as increasing the annual total to 450,000 tons. ***This site assignment modification is to only increase the maximum daily tonnage from 1,000 to 1,500, but to maintain the existing 300,000-ton annual total.***

No physical changes to the Facility will be required to accommodate the additional tonnage. The existing facility including the handling building envelope is adequately sized to accept and manage the material within the existing footprint.

## SITE SUITABILITY

Massachusetts Site Assignment Regulations at 310 CMR 16.00 presents criteria that determine if a site is suitable to manage solid waste. This applies to the siting of new facilities as well as modifications to existing site-assigned facilities. The ENF provided a draft site suitability report that assessed the suitability of the site in regards to the proposed tonnage increase. MassDEP has stated that the tonnage increase is a minor modification to site assignment and therefore an application to MassDEP for determination of Site Suitability is not required. However, for the record and the Board's benefit, GSE has included an updated site suitability criteria summary report consistent with 310 CMR 16.40 indicating how the Facility meets the regulatory criteria; is suitable; and does not constitute a danger to public health, safety or the environment. Attachment 1 contains this report.

As evidenced in the attached Site Suitability Criteria Summary Report, the Facility meets all regulatory siting criteria. However, in consideration of this modification and public comments received to date, GSE has identified the following criteria to be of typical public and City concern and has provided further discussion within the body of this document in addition to and based upon the supplemental studies included in the prior MEPA reports that will be included as exhibits to the Site Assignment record. These topics include the following:

1. Traffic
2. Noise
3. Odor

The following sections provide further discussion on these specific topics.

### 1. TRAFFIC

Two Traffic Impact Studies (TIS) were conducted for the proposed project by Bowman Consulting Group, Ltd. (Bowman) to assess traffic impacts related to the Project and proposed tonnage increase as part of the MEPA process. The initial April 2024 study presented in the ENF was updated in 2025 to include additional existing conditions assessment following public comments received during the ENF process. The April 2024 TIS was included in the ENF and the July 2025 TIS was included in the DEIR.

The Traffic Impact Studies were completed to effectively evaluate the potential traffic impacts associated with the proposed modification request. The studies included an assessment of existing conditions including an inventory of the roadway and intersection geometries and traffic control devices, collection of peak-period traffic volumes, a review of recent crash history, and video surveillance.

**Study Area and Roadway Network**

Three intersections were identified for detailed analysis in the April 2024 study which were determined based on a review of the surrounding roadway network serving the project site. The expected route for vehicles accessing the site is via Tanzio Road directly from Lancaster Street (Route 117).

- New Lancaster Road (Route 117) at Willard Street
- Lancaster Street (Route 117) at Tanzio Road

- Tanzio Road at existing Site Driveway (200 Tanzio Road)

The following intersection was identified for additional detailed analysis in response to public comments regarding overall traffic and distribution on Lancaster Street, which was included in the July 2025 update:

- Lancaster Street (Route 117) at Viscoloid Avenue

The study area intersections are identified in Figure 1 below:

**Figure 1- Study Area Intersections**



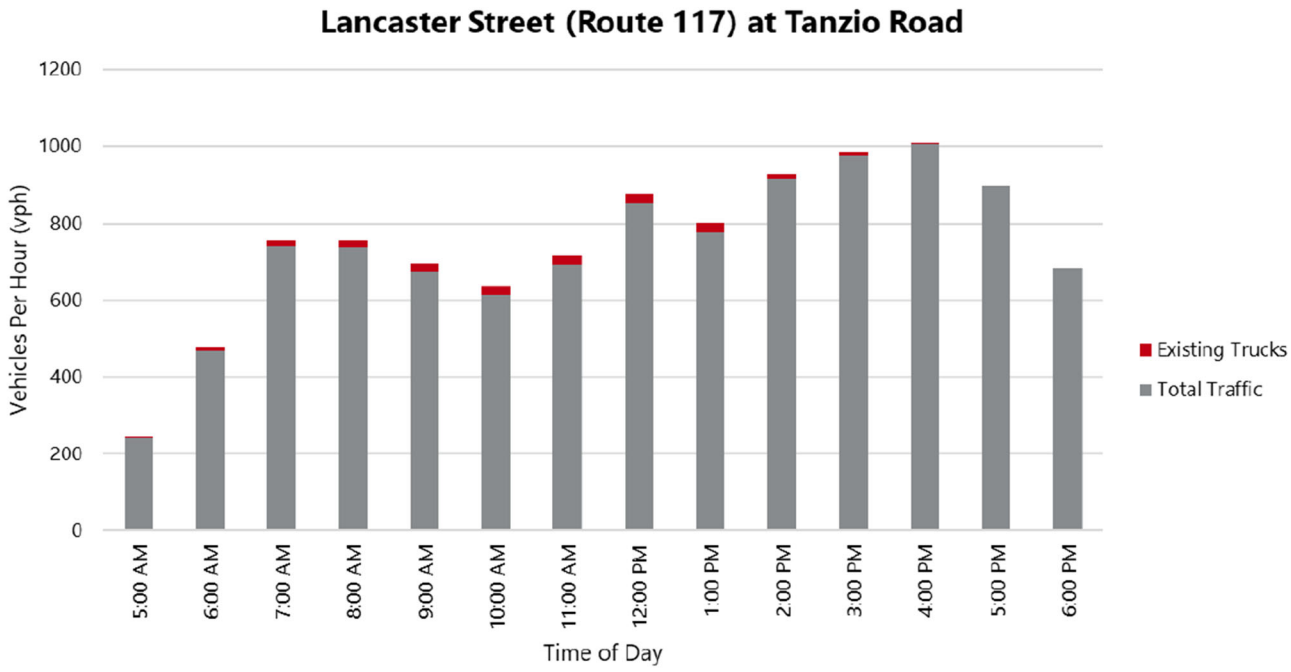

**Existing Traffic Volumes**

To assess peak hour traffic conditions, manual turning movement counts (TMCs) were conducted at the initial study area intersections in 2023 for the ENF. Counts were re-collected in March of 2025 to address public comments and presented in the TIS update dated July 2025. Counts were collected at the four intersections over a 14-hour period (5 AM to 7 PM) for a five-day period beginning Monday March 17, 2025 and ending Friday March 21, 2025. In addition to the counts, 24-hour automatic traffic recorder data was collected at the

site driveway for the same time period. This data identified the peak roadway traffic hours, the peak hours of operation at the facility, and the day the facility processed the most materials, in order to establish a worst-case scenario for evaluation. Based on a review of that traffic data, the weekday morning peak hour for the study area intersections occurs between 7:45 AM and 8:45 AM and the weekday afternoon peak hour occurs between 3:45 PM and 4:45 PM. The results of the turning movement counts are tabulated by 15-minute periods and were provided in the Traffic Impact Study included with the DEIR.

To assess distribution of trucks accessing the Facility from both the south and north of Tanzio Road along Lancaster Street in response to comments, the count data collected on Wednesday, March 19, 2025 also included classification data of the vehicles at the Tanzio Road/ Lancaster Street intersection. Vehicles were identified as passenger, packer trucks, roll-off trucks, and tractor trailers. This data identified the volume of vehicles that were related to the Facility in comparison to the overall general traffic on the adjacent roadway network. A total of 10,284 vehicles travelled along Lancaster St at Tanzio Road over the course of 14 hours on March 19th. ***Of that, 189 were Facility-related vehicles, equivalent to 1.8% of the total traffic***. Using the automatic traffic recorder data, it was further determined that of 112 waste handling vehicles identified traveling on Lancaster Road at Tanzio Road, 20 were not associated with this Facility. It should be noted that other commercial/industrial businesses operate along Tanzio Road and have truck traffic associated with it.

**Figure 2-Traffic Comparison and Distribution**




The traffic data collected also identified the truck distribution patterns of inbound and outbound trucks. All tractor trailers traveled to and from the Facility via I-190 to the south. Smaller packer and roll-off trucks arrived and departed the site from different directions, with 75% of the trucks traveling to/from the south (65% I-190 and 10% Willard Street) and 25% traveling to/from the north (15% Viscoloid Avenue and 10% Lancaster Street). Figures 3 and 4 below (6 and 7 in the 2025 TIS, respectively) show these distributions.

**Figure 3- Truck Distribution- Travel Directions- Packer/Roll-offs**

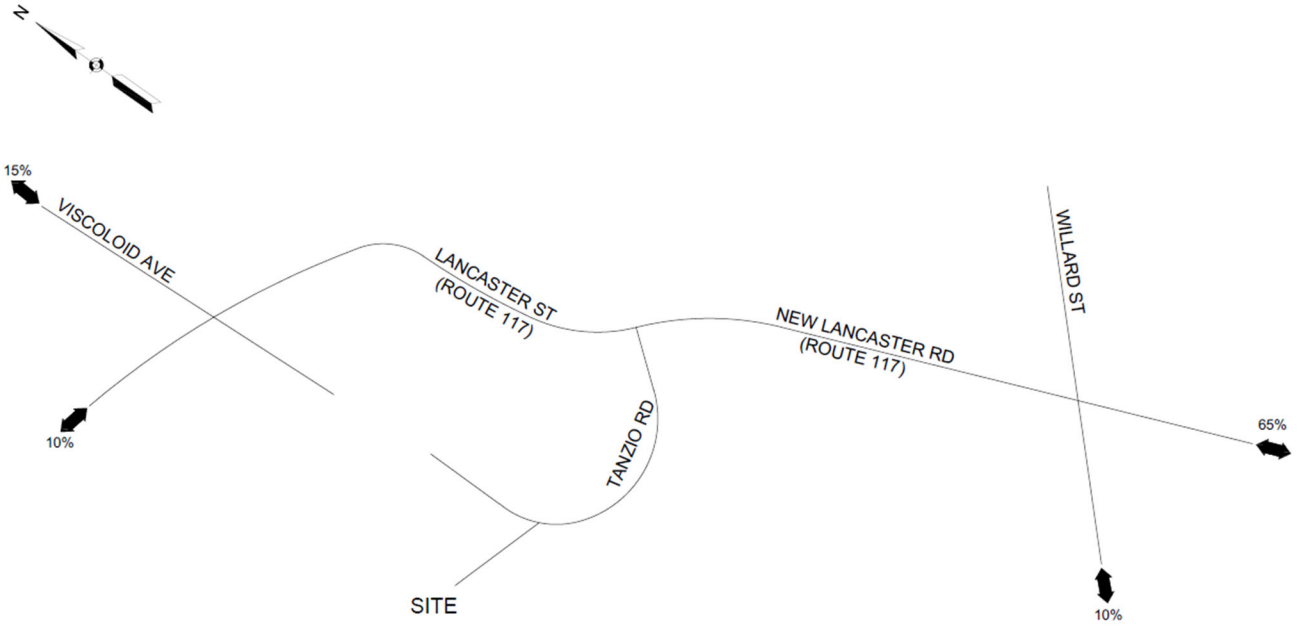
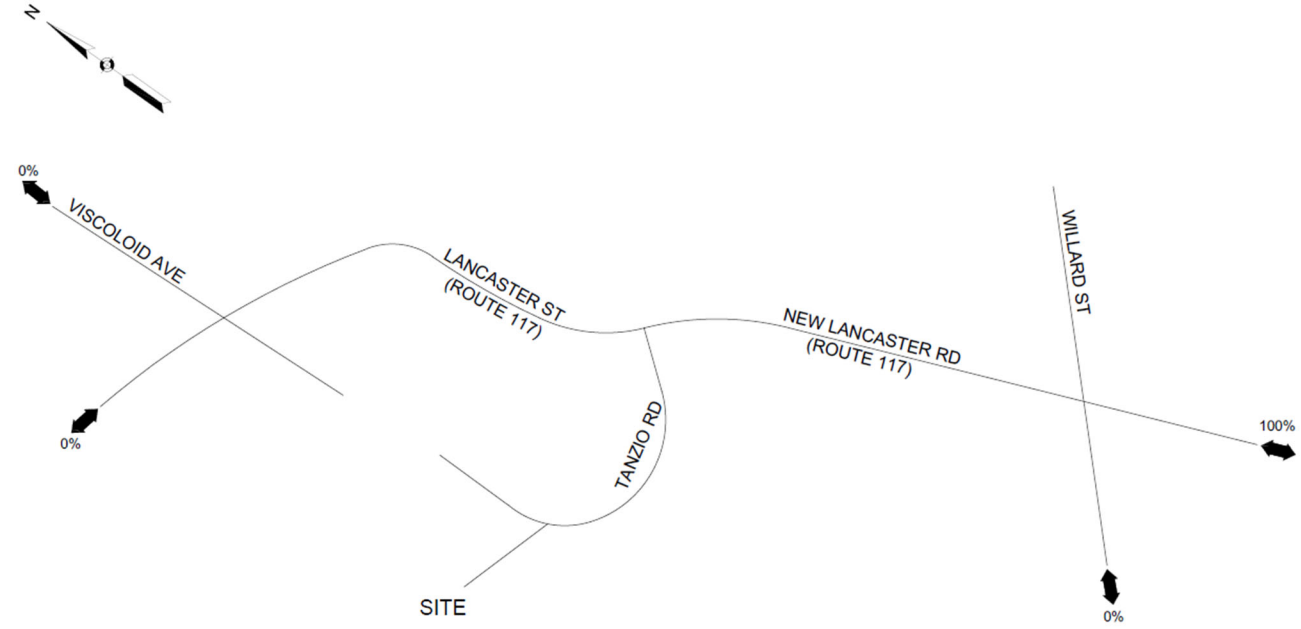



**Figure 4- Truck Distribution- Travel Directions- Tractor Trailers**




**Seasonal Variation**

Based on MassDOT's 2023 Weekday Seasonal Factors, March traffic volumes are approximately four percent higher than an average month on principal arterial roadways and approximately six percent higher than during an average month on minor arterials and local roadways. Therefore, to present a conservative analysis, the March volumes were not reduced to average month conditions. The MassDOT weekday seasonal factors are provided in the 2025 TIS included in the DEIR. The resulting 2025 Existing weekday morning and weekday

afternoon peak hour traffic volumes are presented in the traffic projection model provided in the 2025 TIS included in the DEIR and are presented in Figures 10 and 11, respectively below.

**Figure 5- 2025 Existing Traffic Volumes- Weekday Morning Peak Hour**

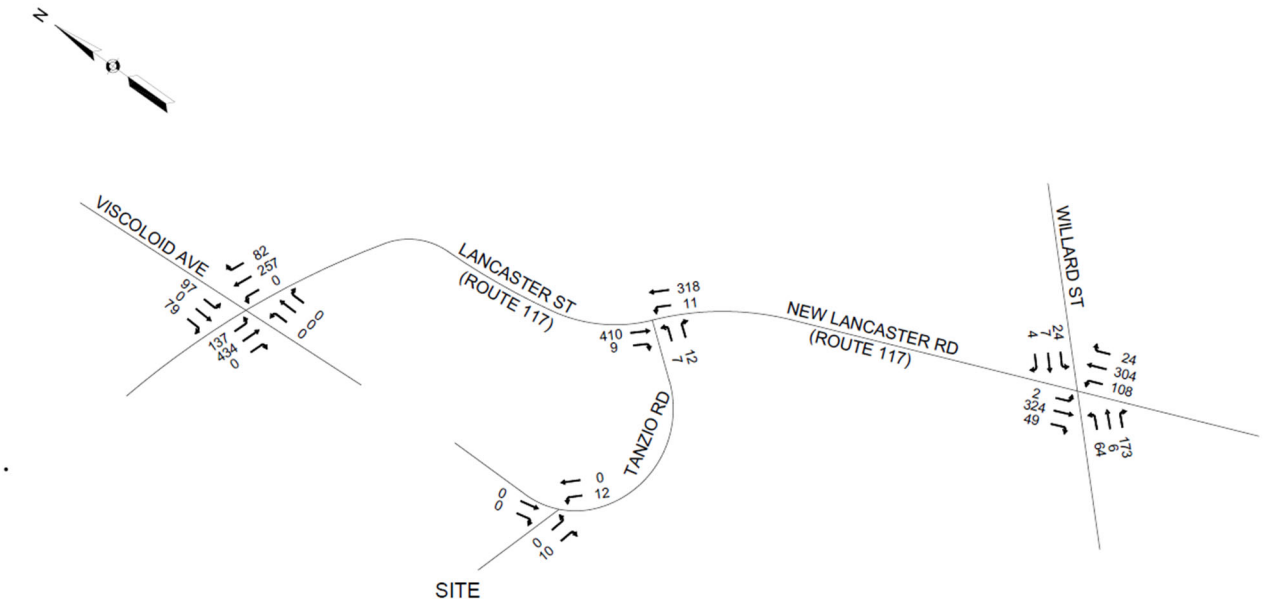
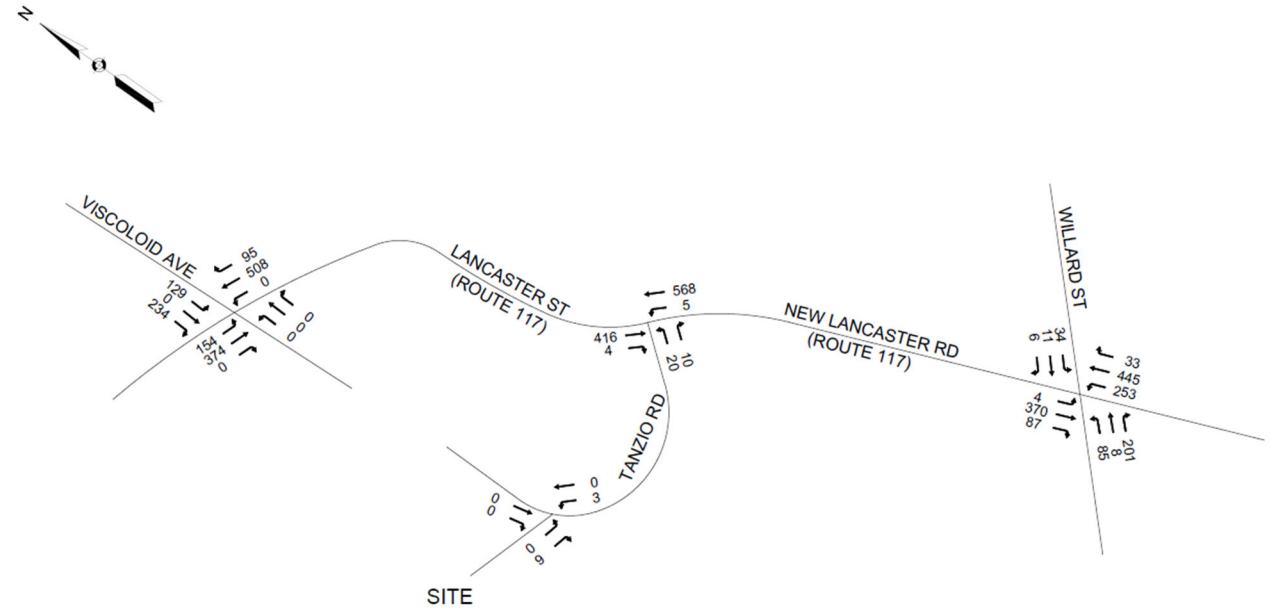



**Figure 6-2025 Existing Traffic Volumes- Weekday Afternoon Peak Hour**



***Crash Summary***

Crash history was obtained from the MassDOT Interactive Mapping Portal for Analysis and Crash Tracking (IMPACT) database for the most recent five-year period available, 2017 through 2021, in order to evaluate the existing safety conditions at the study area intersections. A summary of the crash data is provided in the Traffic Impact Study included in the DEIR.

The crash rates at the study intersections were calculated to determine whether the crash frequencies at the study area intersections were unusually high given the travel demand. The intersection crash rate is expressed in crashes per million entering vehicles (C/MEV). The crash rate for each intersection was then compared to the average rate for signalized and unsignalized intersections Statewide and within MassDOT District 3. For signalized intersections, the Statewide and MassDOT District 3 average crash rates are 0.78 and 0.89 C/MEV, respectively. For unsignalized intersections, the Statewide and MassDOT District 3 average crash rates are 0.57 and 0.61 C/MEV, respectively. Crash rates at the study-area intersections are as follows:

- The signalized intersection of Route 117 at Willard Street had a total of 20 reported crashes over the five-year period analyzed, resulting in a crash rate of 0.78 crashes per MEV, which is the same as the State Average and lower than the District 3 average for a signalized intersection.
- The unsignalized intersection of Route 117 at Tanzio Road had a total of one reported crash over the five-year period analyzed, resulting in a crash rate of 0.06 crashes per MEV, which is significantly lower than both the State and District averages for an unsignalized intersection.
- The signalized intersection of Lancaster Street (Route 117) at Viscoloid Avenue had a total of 15 reported crashes over the five-year period analyzed, resulting in a crash rate of 0.61 crashes per MEV, which is lower than both the State and District averages for a signalized intersection.
- No crashes were reported at the unsignalized intersection of Tanzio Road at Site Driveway during the five-year period analyzed.

In summary, none of the study-area intersections had crash rates above the statewide or MassDOT District average. Please refer to the TIS for additional information on crash data.

**Proposed Conditions**

**Daily Trip Generation**

Under existing permits which allows for 1,000 tpd to be accepted at the Facility, the site would generate a maximum of 214 one-way truck trips per day (107 entering, 107 exiting) transporting inbound materials to the site. As noted above, the majority of outbound materials are currently transported from the site by rail and do not generate additional trips on the roadway network (besides recyclables). If the rail was not in operation and assuming no backhauls, the existing facility would generate a maximum of 86 one-way truck trips per day (43 entering, 43 exiting) transporting outbound material off-site. These trips assume that 20% of the outbound material are recyclables and leave in 14-ton capacity trucks, and 80% is waste and leaves in 28-ton capacity trucks.

Under the proposed expansion to 1,500 tpd and based on the assumption that inbound material arrives at the site with an average load of 9.4 tons per truck, the Facility would generate a maximum of 320 one-way truck trips (160 entering, 160 exiting) transporting inbound material. In addition, assuming no rail service or backhauls that would be used as a means to reduce traffic-related impacts, the Facility would generate 130 one-way truck trips (65 entering, 65 exiting) transporting outbound material off-site. In total, the expanded Facility could generate a maximum of 450 daily one-way truck trips. Table 1 below (source: 2025 TIS, Table 2) summarizes the maximum daily truck trip generation and net change from existing conditions for the facility under existing and proposed conditions assuming no rail service and no use of backhauls.

**Table 1- Maximum Daily Trip Generation**

| | Existing Operations (1,000 tpd) | | | Expanded Operations (1,500 tpd) | | | Net Change | | |
|---|---|---|---|---|---|---|---|---|---|
| **Description** | **In** | **Out** | **Total** | **In** | **Out** | **Total** | **In** | **Out** | **Total** |
| Inbound Material | 107 | 107 | 214 | 160 | 160 | 320 | 53 | 53 | 106 |
| Outbound Material | 1 | 1 | 2 | 65 | 65 | 130 | 64 | 64 | 128 |
| **Total Trips** | **108** | **108** | **216** | **225** | **225** | **450** | **117** | **117** | **234** |

As shown in Table 1 above, the proposed Facility expansion could result in a net increase of up to 234 one-way truck trips per day on the study area roadway network considering no rail service, no use of backhauls, and projecting that 20% of outbound materials are recyclables and transported in smaller trucks at 14 tons capacity.

The TIS calculated an hourly distribution of new truck trips based upon current site data. These trips were used to calculate traffic volumes and impacts to the peak traffic hour in the morning and afternoon. Based upon these project volumes, a capacity analysis was conducted using the Synchro capacity analysis software at the study area intersections under the 2025 Existing, 2032 No Build, and 2032 Build scenarios for the two peak-hour traffic conditions. The analyses performed for this Project are based on capacity analysis methodologies and procedures contained in the Highway Capacity Manual, 6th Edition (HCM).

**Level-of-Service Criteria**

Average total vehicle delay is reported as level-of-service (LOS) on a scale of A to F. LOS A represents delays of 10 seconds or less, while LOS F represents delays in excess of 50 seconds for unsignalized intersections and greater than 80 seconds for signalized intersections. Based upon the capacity analysis there will be no change in LOS as a result of this Project, as projected as a worst-case scenario (e.g., no rail and no backhauls). One intersection (Tanzio Road eastbound approach to Rt 117) does project to change in LOS from B to C in the morning peak hour, but it appears to change independent of the Project based upon future normal growth. This is also the movement leaving Tanzio Road which is the service road to/from the industrial park and not Rt. 117.

**Rail Crossing**

During prior public meetings on the Project, concerns about the rail crossing controls and traffic backup at the railroad crossing on Litchfield Street were raised. As communicated, the Facility does not have control over the CSX-owned rail service or tracks, therefore cannot directly mitigate for any rail-transportation related concerns. However, the Facility has provided CSX contact information to the City to facilitate future communication regarding this crossing.

## 2. NOISE

A sound study dated July 2, 2024 prepared by Tech Environmental (Tech), was included in the ENF that analyzed sound level impacts associated with the proposed Project. A supplemental memo dated August 13, 2025 was prepared to address comments received on the ENF and additional mitigation measures, as described in the DEIR.

The Project is designed (in existing and proposed conditions) to avoid noise impacts to residences, and WIN-

NE has proposed mitigation measures to minimize sound levels at nearby residences to the extent practicable.

**Summary of Sound Study**

The sound study dated July 2, 2024 analyzed noise impacts associated with the operation of the Facility under proposed conditions. The analysis compared modeled noise levels to two ambient noise scenarios including normal daytime conditions and end-of-day conditions after normal tipping operations (weekdays 5 PM to 7 PM and Saturday 1 PM to 3 PM). Sound monitoring was conducted to establish ambient sound levels at the Facility which ranged from 41 to 55 dBA (normal daytime) and 39 to 44 dBA (end of day). [dBA: sound levels are measured and quantified using the logarithmic decibel (dB) scale. Frequencies are adjusted based on the A-weighting network because it most closely approximates how the human ear responds to sound at various frequencies.]

The sound analysis incorporated various sources of both indoor and outdoor noise associated with the operation of the Facility including handling and processing equipment, idling trucks, stationary processing equipment, mechanical equipment, and rail car moving equipment operating simultaneously and at maximum loading. These sounds were then inputted into an acoustic model to calculate projected sound levels at 22 residential receptors surrounding the Facility.

The modeling results were compared to the MassDEP's Noise Policy which indicated compliance with the Policy for both sound level increases and pure tone conditions.

The following controls, operational best management practices, and mitigation measures are in place to reduce sound impacts from the Facility operations:

1. Overall design of the building includes the positioning of the tipping and loadout bay doors facing north away from the nearest residential receptors to the southwest and east.
2. Limiting tipping hours to the current 6:30am-4:00pm timeframe which is within the allowed operational hours.
3. Handling and processing materials inside the building.
4. Limiting outside rail car mover activity to within permitted operational hours and not before 6am.
5. Require trucks with tailgates to remain inside the building until the tailgates are closed to reduce noise associated with tipping, unless trucks are otherwise equipped with seals or gaskets.
6. Limiting equipment operation outside the building prior to 6 AM (weekdays) and 7 AM (Saturday); and after 7 PM (weekdays) and 3 PM (Saturday).
7. Although the sound study assessed sound impacts from equipment at maximum operating levels to assess worst-case, the Facility will regularly operate equipment at normal and reduced speeds to minimize wear and tear and resultingly minimize sound levels.
8. Ventilation fans and motors are located inside the building to reduce sound impacts.
9. Use of rollup doors at tipping floor and rail loadout bay outside of peak operating hours to contain sound from within the building.
10. On-site storage of spare rollup door parts to minimize potential time a door is inoperable if damaged.
11. Provide regular communications with haulers/clients regarding truck routes, hours of operation, and consequences of arriving early or not following traffic routes.
12. Adhere to anti-idling laws.

As part of the MEPA process and resulting from public comment the Facility has conducted and/or implemented the following measures to address concerns and reduce noise in the vicinity of the Facility:

1. Identified truck(s) that were parking on Lancaster Road prior to facility opening and issued warning to company(ies) that if activity continues, they will not be allowed to use the facility.
2. Provided reminder to all facility customers of hours of operation and that no early arrivals or idling/queuing anywhere outside of Facility that is not otherwise designated as a truck stop is allowed.
3. Investigating feasibility of implementing sound dampening measures on ventilation fans and the resulting sound reduction rate of those measures. Alternatively, assessing feasibility of replacing current fans with low noise fans capable of achieving the same resulting exhaust flow rates.
4. One of three doors will remain closed at a minimum after 4pm (weekdays) to reduce sound during end-of-day operations.

**3. ODOR**

An Odor Study was conducted for the project by Tech Environmental, Inc. (Tech) dated July 10, 2024, which was included in the ENF. An update to the analysis was prepared based on the scope of work outlined in the ENF Certificate and included in the DEIR. The Odor Study, as updated, analyzed the potential odor impacts from the Facility at the property line and other nearby receptors off-property during different storage and operational scenarios. The study modeled odor escaping the building both through open doors and the existing ventilation system, rail car storage breathing losses. The study also took into consideration the use of the existing misting system, which at a minimum provides for a 50% reduction in odor. The air model was set up to consider local meteorological data, utilized actual odor sampling data from four municipal waste transfer stations, and calculated odor units (Dilutions/Threshold, D/T) in 15-minute averaging periods around the Facility and potential nearby receptors.

The updated modeling confirms that, with adherence to current overnight storage limits inside the building and BMPs, particularly waste covering and timely railcar rotation, odors from the Facility remain negligible and do not occur at a frequency or concentration that would constitute a nuisance condition.

When BMPs are followed, modeled railcar contributions remain below 1 D/T (Dilution-to-Threshold ratio), which is within the margin of error for odor detection modeling. The following Best Management Practices are utilized for controlling odors:

1. Follow first-in, first-out protocols for moving MSW through the Facility.
2. Utilize odor counteractants in the misting system.
3. Utilize overhead doors if an odorous load arrives at the Facility.
4. Handle all MSW including loadout activities inside the handling building.
5. Cover the MSW in railcars with a CSX-approved covering which can include either a lid, posi-shell, or other equivalent (ATMOS). The posi-shell and ATMOS products create a hard waterproof shell that entirely covers the waste within the rail car.
6. Limit storage of MSW in the building overnight and over weekends.
7. Good housekeeping.

Ideally, railcars are dispatched within 24 hours of being filled. Combined with first-in, first-out (FIFO) processing and limited indoor storage (limited to <600 tons overnight per the permit), MSW is rarely on-site for more than 24–48 hours, minimizing odor generation. If Best Management Practices are followed, odors can effectively be mitigated and controlled to prevent nuisance odor conditions from occurring.

The Facility, in response to public comments made as part of the MEPA process, has since modified the misting system components to increase the dosing of odor counteractant into the system, as well as upgrading the nozzles to increase overall coverage area(s) and atomization. The Facility acknowledges that there have been

odor complaints from one nearby location, and has been cooperative and responsive to help identify the odor source and mitigate it if was determined to be Facility related.

Currently the Facility strives to limit overnight MSW storage on the tipping floor to 150 tons on average which reduces potential odor loading overnight during worst-case scenarios. If MSW throughput and storage quantities increase in the future, additional mitigation measures can be implemented

## CONCLUSION

As presented herein and as also presented in the attached Site Suitability Criteria Summary Report, the proposed tonnage increase will not constitute a danger to public health, safety, or the environment.

GSE trusts that this request letter, attachments and the exhibits to constitute the Site Assignment Record provides adequate information for the Board to consider and approve the minor modification to the Site Assignment as requested.

Please do not hesitate to contact our office at 508-888-6034 if you have any questions or need additional information.

Sincerely,

**GREEN SEAL ENVIRONMENTAL, LLC**



Laura A. Bugay, P.E.
Executive Vice President

Attachments:
1-Site Suitability Criteria Summary Report
2-Draft Site Assignment Exhibit List

cc: Art Kreiger, Anderson Kreiger, Hearing Officer
Jeffrey Blake, KP Law, Town Counsel
Matt Hughes, WIN
Chris Karras, WIN
Tim Vaughan, WIN

ATTACHMENT 1

# SITE SUITABILITY CRITERIA SUMMARY REPORT

# Site Suitability Introduction

**Introduction**

Green Seal Environmental, LLC (GSE) has prepared the following document for the Leominster Board of Health (BOH) on behalf of WIN Waste Innovations of Northern New England, Inc [formally United Material Management of Leominster (UMML), LLC] (the "Applicant" or "WIN-NE").

This summary report provides the necessary information for BOH to find the Facility suitable to handle municipal solid waste (MSW) and construction and demolition debris (C&D), at a total of 1,500 tons per day (tpd) and 450,000 tons annually, an increase of 500 tons per day over 1,000 tpd currently permitted, pursuant to the siting criteria of 310 CMR 16.00 applicable to this Site. Please note that although all the studies conducted to date assess impacts based upon 1500 tons per day average equivalent to 450,000 tons per year total, the request for modification to site assignment is for:

- 1,500 tpd maximum (1,000 tpd average, and maintaining 300,000 tons per year maximum.

This suitability summary report follows the format of the MassDEP Site Suitability Application, BWP SW 38 which is what would be submitted to MassDEP to assess site suitability for a new facility or a major modification. As the requested tonnage increase is considered a minor modification per 310 CMR 16.22 (3), formal site suitability application and report by MassDEP is not required, and this summary report on suitability criteria is for the Boards benefit. Information contained herein includes supporting narratives, figures, and site plans for the Facility. References to supporting studies and reports are made to the Site Assignment record as presented in the Exhibit list.

*Continued on next page*

# Site Suitability Introduction , Continued

**How to Use this Document**

Although this document coincides with the format of the MassDEP's Site Suitability application requirements, a Site Suitability Application to the MassDEP is not necessary for a Minor Modification of an Existing Site Assignment Request. This document contains the following information:

- A narrative that provides required information relative to each individual suitability criteria;
- Figures/site plans for comparison to the Site Suitability Criteria such as Water Resources and Land Uses, Zoning, Existing Conditions, and Proposed Conditions.
- References to prior reports and studies contained in other documents that are part of the Site Assignment Record (refer to Exhibit List).

**Non-Applicability**

In the sections of the Site Suitability Application that do not pertain to the project, the statement ***"not applicable"*** will appear. However, some of these sections will contain a narrative and/or justification statement. Where a statement is determined to be necessary, the reader will be directed to the appropriate section within this document and any supporting attachments, site plans, or figures.

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# Section I. General Information

**Introduction**

The following sections are addenda to the General Information section contained within the Site Suitability application form and address the following topics:

- Site Location
- Project Description
- About the Applicant
- Fees
- Collection of Household Hazardous Waste
- Declaration of Waivers
- Massachusetts Environmental Policy Act (MEPA)
- Wetland Resources
- Maps Narrative

**Section I Table of Contents**

The following Section I-specific table of contents references page numbers of this document based upon Section I of the MassDEP Site Suitability application form.


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# Site Location and Project Description (A)

**Site Location**

WIN-NE currently operates a 1,000-tpd MSW and C&D handling and transfer station (the "Facility"). The Facility consists of a 32,400-square-foot solid waste transfer/waste handling building (including 1,260 sf of attached office space for a total footprint of 33,660 sf). The site also includes a rail yard, scale house and scales, parking areas, paved access ways, and associated appurtenances. Additionally, a series of catch basins, drainage manholes, and subsurface infiltration systems manage stormwater in compliance with the current Massachusetts Stormwater Standards.

The Facility is located at 200 Tanzio Road on 13.46 acres of land (Parcel 320-2). The site assigned area within these parcels is comprised of 11.33 acres. Please refer to Figure 5 that depicts the parcel and site assigned area.

The Facility is designed to accept MSW and C&D delivered by truck for subsequent sorting or transfer into rail cars and secondarily as conditions dictate, larger trucks for transport to various locations throughout the country for disposal and/or further recycling. The Facility is equipped with recycling equipment to sort Category 1 and 3 C&D to capture and separate the recyclable fraction so that it may be further recycled. Post-processed Category 2 C&D which is the residuals generated from the separation recycling process at the Facility or other MassDEP-approved Processing facilities is loaded onto rail cars for disposal. Solid waste handling activities occur within the enclosed building, which is adequately sized so that all unloading, handling, and loading onto rail cars and/or trucks occurs within the building interior. Please refer to Figure 6 for further detail.

WIN-NE intends to increase their permitted daily tonnage from 1,000 tpd (300,000 tons annually) to 1,500 tpd maximum (1,000 tpd average) of C&D and MSW while holding the current permitted maximum annualized capacity of 300,000 tons (the Project). As presently approved, the Facility operates six days per week, and can accept waste from 6 AM to 7 PM Monday through Friday, and from 7 AM to 3 PM on Saturdays.

This request is a change from what was assessed in the recent MEPA process which evaluated impacts from a tonnage increase to 1,500 tpd and annualized capacity of 450,000 tons. Based upon discussions with the City, this modification request includes a maximum daily inbound tonnage of 1,500 tpd but limits the annual total capacity to the existing 300,000 tons which allows daily flexibility for the Facility to utilize the full annual capacity.

*Continued on next page*

## Site Location and Project Description (A), *Continued*

**Type of Facility**

WIN-NE is a state-of-the-art MSW and C&D handling and transfer Facility with an integrated rail line. The waste handling is performed entirely within the existing 32,400-square-foot metal-framed handling building. The confines of the building include tipping and inspection areas, temporary waste storage areas, an elevated picking/sorting line, and outbound rail and truck loading area.

**Site Area**

The Facility is located on a 13.46-acre parcel of land of which 11.33 acres is currently site assigned. The Facility is bound to the east by Tanzio Road and the west by a rail line. A portion of the parcel to the north contains an electrical easement with transmission towers. Vacant industrial-zoned land is further north. Additional vacant land with a wooded wetland area surrounding a brook is located at the southern portion of the Site.

Residential dwellings exist greater than 500-feet away from the waste handling area to the southwest across the elevated rail line, and other residential dwellings are located over 800 feet to the east.

**Capacity**

The Applicant proposes increasing the permitted tonnage at this MSW and C&D handling and transfer Facility, and will have the following projected capacity:

a. The Facility will have a maximum daily capacity of 1,500 tpd, an increase of 500 tpd from the current permitted 1,000 tpd.
b. The Facility will continue to operate six (6) days per week, from Monday through Saturday.
c. The Facility will maintain the current permitted annual capacity of 300,000 tons per calendar year.
d. The Facility is expected to have a lifetime of approximately 30 years.

*Continued on next page*

## Site Location and Project Description (A), *Continued*

**Type of Waste**

The Facility will continue to handle, sort (as applicable), and transfer MSW and C&D materials as they do presently. As defined by MassDEP, MSW is any residential or commercial solid waste.

Construction and demolition (C&D) waste is waste building materials and rubble resulting from the construction, remodeling, repair or demolition of buildings, pavements, roads, or other structures. Construction and demolition waste includes but is not limited to, concrete, bricks, asphalt pavement, masonry, plaster, gypsum wallboard, metal, lumber, and wood.

No hazardous wastes will be accepted.

**Disposal in Leominster**

There are no active combustion facilities or landfills in Leominster as listed on the MassDEP Solid Waste Facilities Master List. The MassDEP Solid Waste Facilities Master List includes four inactive or closed landfills in Leominster. They are:

- Leominster Landfill - located 0.95 miles from the subject site
- Mechanic Street Landfill - located 0.8 miles from the subject site
- Margot Xarras/Lock Drive - located 1.37 miles from the subject site
- 89 Commercial Road, LLC - located 1.78 miles from the subject site

**Waste Flow**

The following describes how waste 'moves' throughout the site.

1. Vehicular ingress and egress is from/to Tanzio Road to the east of the subject property.
2. The ingress traffic pattern follows along a paved driveway that traverses centrally through the parcel from east to west to the inbound and outbound scales. This area provides for adequate vehicular queuing, two scales, and a bypass lane to ensure there is no queuing on Tanzio Road. The scale house is located at the outbound scale, with views of the inbound scale and equipped with remote communication to the inbound scale. Scale house personnel are able to monitor inbound and outbound traffic patterns. The Facility can utilize both scales for inbound and/or outbound operations if ever deemed necessary. To date, this has not been necessary.

*Continued on next page*

## Site Location and Project Description (A), *Continued*

**Waste Flow**
*(continued)*

3. From the inbound scale, delivering waste vehicles proceed westerly around the handling building to the paved tarmac area on the northeast side of the building. From this point, vehicles are directed by personnel to back into one of the three inbound off-loading doorways. A fourth doorway in the northwest corner is reserved for railcars and/or outbound live floor tractor trailers. A loadout bay and fifth door in the southwest corner was previously built for live floor tractor trailers only, but has since been closed to accommodate recycled product bins below the elevated sorting line. Please see Figures 5 and 6 which depict the exterior site layout and interior layout of the waste handling building, respectively, and Figure 7 which includes a Traffic Movement and Turning Radius Plan. It should be noted that there is adequate access and turning radii to provide access around the entire building. This paved access around the building can also be utilized for vehicle staging/queuing if it is ever necessary.
4. Once in the building, the inbound waste vehicles tip their loads and exit out of same inbound doorway in which they entered.
5. Exiting vehicles proceed from the waste handling building west around the building in a counterclockwise direction to the outbound scale and then proceed off-site.

Additionally, by having two scales on-site, logistics with respect to traffic patterns, staging, tare in, and tare out is well served, and creates efficient flow and functionality without having traffic patterns cross.

**Building Size, Elevations and Doorways**

The waste handling building has general envelope dimensions of 150 feet (east to west) by 230 feet (north to south). The building's footprint allows for at least two coupled railcars to be staged within waste handling building at one time. Figure 6 depicts the following:

1. Building dimensions.
2. Dimensions of the Temporary Waste Storage, Tipping and Waste Inspection Area, Outbound Loading Area, and Railcar Staging areas. These areas will be discussed in further detail within the Size of Facility section of this narrative.
3. The location and size of the existing doorways.

*Continued on next page*

## Site Location and Project Description (A), *Continued*

**Building Size, Elevations and Doorways** *(continued)*

4. Locations of the interior trench drain system.
5. Pushwall locations and heights.
6. Sorting line location and orientation.

The building is approximately 45 feet tall at the peak that runs in a north to south direction.

**Tipping Overview**

The Facility's operational protocols require personnel to inspect and oversee waste tipping activities. The following table outlines WIN-NE's procedure, as outlined in the Facility's approved O&M Plan.

| Step | Action |
|---|---|
| 1 | An incoming driver is prompted to back his/her vehicle up and onto the concrete tipping area. |
| 2 | Facility personnel will direct the driver to tip the waste in one of several designated areas. |
| 3 | The load is inspected by trained Facility personnel for unacceptable materials (e.g., visible waste ban materials). |
| 4 | Pending an acceptable inspection, the vehicle exits the waste handling area within the building and proceeds to the outbound scale. |

**Waste Consolidation**

The following table outlines WIN-NE's procedure for waste consolidation within the building.

| Step | Action |
|---|---|
| 1 | Pending an acceptable inspection and safe vehicle exit, the tipped waste materials may be pushed to a waste staging area located within the southwestern portion of the building. |
| 2 | The waste materials may also be pushed and/or consolidated in the waste tipping and inspection area and pushed for subsequent loadout in the outbound loading area located along the western interior of the building. |
| 3 | The materials will be managed by a front-end loader and/or excavator. |
| 4 | With respect to the handling of Category 1 (Recyclable C&D), this material will either processed on site with the use of the existing sorting line or be consolidated for off-site shipment to another MassDEP-approved C&D processor following the requirement of 310 CMR 19.017. |

Given the Facility's size and layout, proper vehicle movement throughout the building can be achieved.

*Continued on next page*

## Site Location and Project Description (A), *Continued*

**Railcar or Live Floor Loading Operations**

The following table outlines WIN-NE's procedure for railcar or truck loading within the building.

| Step | Action |
|---|---|
| 1 | A front-end loader and/or excavator moves waste materials from the temporary waste storage area and/or directly from the waste tipping and inspection area. |
| 2 | The materials will be directly loaded into a live floor truck and/or rail car located in the outbound loadout and railcar staging area respectively. |
| 3 | The rail cars and/or trucks are covered with an appropriate cover for subsequent staging and transport to the final disposal destination. |

**Impervious Surfaces**

Presently, the Site has approximately 160,760 sf of impervious surfaces which includes the handling building and attached offices, scale house, scales, and access driveway. No increase to impervious surfaces is proposed.

**Stormwater**

The stormwater management and treatment system complies with the Massachusetts Stormwater Standards as well as requirements set forth by the City of Leominster when constructed.

The Facility's stormwater management system consists of deep-sump catch basins equipped with hoods that flow to oil-grit separators to treat the stormwater for Total Suspended Solids (TSS) and oils to meet state 44% pre-treatment standards. Stormwater is then directed to one of three infiltration systems on site.

**Wetland and Riverfront Resource Areas**

Riverfront Area and wetlands exist to the south of the site and at the very north of the site. As part of initial Facility construction in 2019, a small area of paving and limited re-grading occurred as approved by the City of Leominster Conservation Commission within the 200-foot Riverfront Area. No work occurred within the 100-foot wetland buffer zone or 100-foot inner riparian area, except for native plantings in accordance with the approved riverfront restoration plan. No additional impacts to Resource Areas will occur as part of the tonnage expansion, as no physical changes to the Facility property are proposed.

*Continued on next page*

## Site Location and Project Description (A), *Continued*

**Facility BMPs**

The Facility was developed using state-of-the-art Best Management Practices (BMPs) to minimize potential impacts to the Site and surrounding environment. The following BMPs are implemented at the Facility:

- All tipping, handling, and loading is performed within a fully-enclosed processing and handling building.
- The building floor is impervious concrete that will prevent any potential contamination of groundwater. Any liquids released from the waste will be collected in a floor drain system. The liquid collected in this system is routed through an oil/water separator and discharged to the sanitary sewer system pursuant to their existing discharge permit.
- Use of a fine atomized misting system within the Waste Handling Building effectively controls fugitive dust and odor in the building.
- Regular daily cleanup and sweeping occurs on the external paved surfaces.
- Enhanced stormwater controls that meet or exceed MassDEP Stormwater Standards.

# Applicant Identification (B)

**Applicant**

The Applicant is WIN Waste Innovations of Northern New England, Inc. (formerly United Material Management of Leominster, LLC), which has a current corporate address of 90 Arboretum Drive, Suite 300, Portsmouth, New Hampshire. The Site (13.46 combined acres with 11.33 acres site assigned) is presently owned by the following entity:

| Property Owner | Size | Description |
|---|---|---|
| WIN Waste Innovations of Northern New England, Inc | 3.84 Acres | Book 9351, Page 242<br>Parcel ID 310-1D |
| | 9.62 Acres | Book 9351 – Page 248<br>Parcel ID 320-2 |

These two properties were previously combined into the current 13.46-acre parcel which is listed in the City of Leominster Assessors records as Parcel 320-2. Please see Figure 5 that depicts the property lines and the Site Assignment limits and relationships to various setbacks relevant to 310 CMR 16.40.

# Fees, Household Hazardous Waste, Waivers (C-E)

**Fees**

As part of the site assignment process, the Leominster Board of Health will assess WIN-NE a Technical Fee. The Board of Health may use the fee for eligible costs of reviewing technical data, obtaining technical assistance, and conducting a public hearing. The maximum allowable technical fee that the Board of Health can assess is computed per 310 CMR 16.00 and is based on the type of Facility and the tons of waste accepted per day.

From 310 CMR 16.99 Appendix A, Table 2, the Maximum Technical Fee for Handling Facilities is based on the maximum daily volume of waste, measured in tons per day (tpd), that is proposed to be accepted at the Facility. WIN-NE is proposing to accept up to 1,500 tpd of municipal solid waste at the Facility, which is an increase of 500 tpd over the 1,000 tpd facility that is currently site assigned. The Maximum Technical Fee for the proposed Facility capacity increase is as follows:

- Maximum Fee = $3,000 + (500 tpd Increase x $20.00/tpd) = $13,000.00

The total of the Maximum Technical Fee ($13,000) is required be adjusted for inflation by a factor determined by the ratio of the Boston Consumer Price Index ("BCPI") for September of the year preceding the current year, divided by the BCPI for September 1988. Per information provided by the U.S. Department of Labor, Bureau of Labor Statistics, the BCPI for September 2025 was 349.27 and for September 1988 was 126.2.

Applying the adjustment factor results in the following Maximum Technical Fee for the proposed tonnage increase at the Facility = $13,000 x (349.27/126.2) = **$35,978.68**.

**Household Hazardous Waste**

The Applicant is not applying, pursuant to the Massachusetts Hazardous Waste Regulations (310 CMR 30.000, section 30.190), for approval to operate a Facility for the collection of Household Hazardous Waste.

*Continued on next page*

## Fees, Household Hazardous Waste, Waivers (C-E), Continued

| | |
|---|---|
| **Household Hazardous Waste**, Continued | The Facility does not accept Household Hazardous Waste however, some qualifying items may be found mixed in accepted C&D loads. If Household Hazardous Waste is found during inspections, the oil and/or hazardous material will be placed in a secured and approved container for subsequent removal and proper disposal. |
| **Waivers** | WIN-NE is not requesting any waivers per 310 CMR 16.18. |

# Priority Resources and Land Uses (F-H)

**MEPA**

According to 310 CMR 16.08(5)(d), the Applicant must provide evidence that the proposed project does or does not require review under the Massachusetts Environmental Policy Act (MEPA).

An Environmental Notification Form (ENF) was prepared and submitted to the MEPA office under file number EEA #15896, for the initial permitting of the Facility in 2018/2019. An ENF is required to be filed per 301 CMR 11.03 (9) for an Expansion in Capacity of greater than 150 tpd for an expansion of an existing facility with a valid Site Assignment, therefore another ENF was submitted for the tonnage increase in September 2024. An EIR (Draft and Final EIR) was also required for the Project pursuant to the recent changes in the MEPA regulations regarding Environmental Justice. Copies of these reports and their respective Secretaries Certificates are included in the Exhibits for the Site Assignment Record.

**Wetland Resources**

The wetland boundaries and 100-foot wetland buffer zones are shown on the attached Water Resources Plan (Figure 2) as well as the Existing and Proposed Conditions Plan (Figure 5). Wetlands surrounding Fall Brook extend over a small portion of the site across the northern site property boundary. A bordering vegetated wetland system approximately 3.85-acres in area, is located in the southern portion of the site. The 100-foot buffer area around the wetland within the site is mostly vegetated. No development is planned within the wetland resources area.

The existing building and surrounding pavement are located outside the 100-foot wetland buffer zone. No impacts to the wetlands or associated buffer zones will occur as no physical modifications to the Facility are proposed.

**Riverfront Area**

Fall Brook and an unnamed Brook run through the northern and southern portions of the site, respectively. Riverfront Areas are associated with the two brooks described above and are depicted on Figure 2 as well as on Figure 5. Developed portions of the site are generally located outside of the Riverfront Areas with the following exceptions: A limited amount of paved access road including a portion of the outbound scale on the south side of the Site is located within the 200-foot Riverfront Area of the unnamed Brook, but is outside of the 100-Inner riparian zone.

*Continued on next page*

## Priority Resources and Land Uses (F-H), *Continued*

| | |
|---|---|
| **Riverfront Area** *(continued)* | As part of the initial Facility development and construction, restoration of the undeveloped riverfront area occurred with native plantings. No additional impacts to the Riverfront Area will occur as no physical modifications to the Facility are proposed. |
| **100-Year Floodplain** | The 100-year flood boundaries as determined by the Federal Emergency Management Agency (FEMA) are shown on the attached Water Resources Plan (Figure 2). All of the developed portions of the site are above the 100-year floodplain elevation and have no impact on the floodplain as depicted on Figure 5. |
| **Proposed Impacts on Resource Areas** | No impacts to Resource Areas will occur as part of the tonnage expansion, as no physical changes to the Facility property are proposed. |

*Continued on next page*

## Priority Resources and Land Uses (F-H) *Continued*

**Maps**

The following section addresses plans and figures that GSE has prepared for the proposed project. Please refer to the Figures section.

**Groundwater Contour Map**

A groundwater contour map of the subject Site has not been developed and GSE opines that it is not warranted due to the large separation between groundwater and the existing floor elevation of the waste handling area due to the required filling at the Site previously to achieve appropriate rail spur grades. Test pits conducted prior to stormwater system design and permitting confirmed groundwater to be at a minimum of 11-feet below the elevation of the lowest handling building floor elevation, with groundwater flow generally to the southeast towards the unnamed brook to the south of the Site. Therefore, adequate separation to groundwater is achieved.

Figure 5 "Existing and Proposed Conditions - Interior" identifies the existing slab elevations which satisfies the requirements of 310 CMR 16.40(3) (d) (7).

**Locus Map**

The following table provides pertinent information relative to the "Locus Map." Please refer to the Locus Plan (Figure 1) and the Existing Conditions Plan (Figure 5) for site-referencing locus information.

| | |
|---|---|
| **Quad Name and Date** | Shirley (Massachusetts) - 2015 |
| **Latitude and Longitude** | Lat. 42.506178 N, Long. -71.743084 W |
| **UTM Coordinates** | 274625.96 E, 4709625.77 N (meters) |
| **Elevation above MSL** | Approximately 370 feet above Mean Sea Level |

*Continued on next page*

# Priority Resources and Land Uses (F-H) *Continued*

**Priority Resources**

The following table provides a brief narrative of the priority resource features found within ½-mile radius of the Site. Please refer to the Water Resources Plan (Figure 2), the Land Use Plan (Figure 3), Property Identification and Zoning Map (Figure 4), and the Existing and Proposed Conditions Plan - Exterior (Figure 5) of this application for more information on these features.

| Regional Details (1/2-mile radius) | Description |
|---|---|
| ***Wetlands*** | The Water Resources Plan (Figure 2) depicts wetlands as obtained from MassGIS within a ½-mile radius of the site. The Existing Conditions Plan (Figure 5) shows the wetland areas to the south and north of the Site and associated 100-foot wetlands buffer zone.<br><br>Wetland buffer zones extend over a small portion of the site across the northern boundary from wetlands surrounding Fall Brook and over a more significant portion of the southern end of the site from the wetlands categorized as wooded swamp with mixed trees. No development is located within the regulatory 100-foot buffer zone.<br><br>The Site is developed with some pavement and/or rail track within the 200-foot Riverfront Areas. The existing Facility is located outside of the 100-year flood plains of both the unnamed Brook to the south of the site and Fall Brook to the north of the site.<br><br>The stormwater management system is in conformance with MassDEP's Stormwater Management Policy for water quality, recharge, and control of sedimentation. |

*Continued on next page*

# Priority Resources and Land Uses (F-H) *Continued*

**Priority Resources**, (*continued)*

| Regional Details (1/2-mile radius) | Description<br><br>Please refer to the Water Resources Plan included as Figure 2. |
|---|---|
| ***Proposed Drinking Water Source Areas*** | The Site is not located within or adjacent to a proposed drinking water source area. The nearest mapped high-yield aquifer is located approximately 1-mile northwest of the site. No Water Management Permits or Applications for permits were listed for Leominster on MassDEPs website. Please note that all waste handling operations will take place indoors. |
| ***Zone A & B Areas*** | The Site is not located within or adjacent to a Zone A or B of a public drinking water supply area. The nearest Zone A and B of a public drinking water supply is at the Fall Brook Reservoir 1.9 miles southwest of the Site and the Morse Reservoir 2.2 miles northwest of the Site. This is well beyond the ½ mile radius from the Site and is not depicted on the Water Resources Plan. |
| ***Zone I*** | The Site is not located within or in close proximity to a Zone I of a public water supply. The nearest Public Water Supply Wells are located approximately 2 miles east of the Site. |
| ***IWPA or Zone II*** | The Site is not located within an IWPA or Zone II. The nearest Zone II is approximately 1.7 miles south of the existing facility. The nearest IWPA is approximately 1.8 miles northeast of the existing facility. |

*Continued on next page*

## Priority Resources and Land Uses (F-H) *Continued*

**Land Uses**

The following table provides a brief narrative of land uses within ½-mile of the Site. Please note that this information was obtained using digitized images and vectorized data from the Massachusetts Geographic Information Systems (MassGIS) and other publicly available information from the MassGIS website. Please refer to Figure 3, Land Use Plan.

| Regional Details (1/2-mile radius) | Description<br><br>Please refer to the Land Use Plan included as Figure 3. |
|---|---|
| ***Natural Heritage Endangered Species Program*** | According to MassGIS, there is Priority Habitat of Rare Species and an Estimated Habitat of Rare Wildlife located approximately 0.5 miles west of the subject Site. These areas are separated from the Site by the existing rail line, commercial/residential properties, and Route 12. The areas of Rare Species Habitat and Habitat of Rare Wildlife are depicted on Figure 3. |
| ***Wildlife Management Areas*** | GSE reviewed the Division of Fisheries and Wildlife website and MassWildlife Lands Viewer for information regarding Wildlife Management Areas. No Wildlife Management Areas are located within a ½ mile of the Site boundary. |
| ***ACECs*** | According to MassGIS, there is an Area of Critical Environmental Concern (ACEC) located approximately 0.4 miles east of the subject Site within the Johny Appleseed State Park. The area is separated from the Site by commercial/residential properties and Route 117. The ACEC is depicted on Figure 3. |
| ***Agricultural Lands (Adjacent & On-Site)*** | Areas of prime farmland, farmland of unique importance, and farmland of statewide importance as identified by soils classification on the MassGIS system are mapped at the site and are indicated on Figure 3. Farmland of state-wide importance was identified overlapping three areas within the Site.<br><br>Based on a soil investigation performed by APEX prior to the original siting of the Facility, the findings of the Detailed Soil Survey determined that all areas within the area to be Site Assigned previously designated as having soils classified by NRCS as Farmland of Statewide Importance were not present but instead consisted of other soil mapping units, 600 – Pits, gravel and 602 – Urban Land, that are not such farmland designations due to previous excavation and extraction of sand and gravel at the Site. Additionally, there is at least a 100-foot buffer between the Facility and those lands as evidenced by the results of a detailed soil survey and the actual use of land. The mapping on Figure 3 represents the limits based upon the soil survey and shows the areas confirmed not having soils classified as farmland. |

*Continued on next page*

# Priority Resources and Land Uses (F-H), *Continued*

**Land Uses**,
*(continued)*

| Regional Details (1/2-mile radius) | Description<br><br>Please refer to the Land Use Plan included as Figure 3. |
|---|---|
| ***State Forests*** | GSE reviewed the Department of Conservation and Recreation website for information regarding State forests. No State forests were identified within a ½ mile of the Site boundary. |
| ***Conservation and Park Lands*** | Saint Leo Cemetery is located north of the existing Facility across Route 117 (Lancaster Street) and is also separated from the Site by commercially developed properties. The Fuller Street Conservation Area is located northwest of the Site and is separated from the Site by the CSX Railroad and Litchfield Street. The Leominster Lassie League Field Complex is located approximately 0.48 miles west of the Site and is separated from the Site by the CSX railroad, Litchfield Street, Route 12, commercially developed properties, and residential dwellings. Eagles Field and the Old Deerfield Woods Estates Conservation Areas are separated from the Site by Route 12 (Central Street), commercially developed properties, and residential dwellings. The Johnny Appleseed State Park is located approximately 0.36 miles east of the Site and is separated from the Site by commercially developed properties, residential dwellings, and Route 117. |
| ***MDC Reservations*** | The MDC is now the Department of Conservation and Recreation (DCR). No DCR parks were identified within ½ mile of the existing Facility. |
| ***EOEA Restricted Land*** | GSE did not identify any lands with conservation, preservation, agricultural, or watershed protection restrictions approved by the secretary of EOEA within a ½ mile of the Site. |
| ***Privately Owned Public Access Conservation Land*** | GSE did not identify any privately-owned public access conservation lands in close proximity to the subject Site. Based on the existing location, the subject Site will not have adverse impacts on the physical environment of local conservation lands. |
| ***Residential Dwellings (500 Foot Radius)*** | No residential dwellings exist within 500 feet of the existing waste handling area of the project. The residential dwelling nearest the Facility is 522 feet southwesterly from the waste handling area (subject building). Please note, there is also significant topography in-between the Facility and the residential dwelling that provides a natural buffer. |

*Continued on next page*

# Priority Resources and Land Uses (F-H), *Continued*

**Land Uses**,
(*continued)*

| Regional Details (1/2-mile radius) | Description<br><br>Please refer to the Land Use Plan included as Figure 3. |
|---|---|
| ***Commercial Buildings (500 Foot Radius)*** | Six commercial buildings are located within 500 feet of the property line of the existing Site. The buildings are located on Lancaster Street, Litchfield Street, Calza Street, and Tanzio Road as shown on the Property Identification & Zoning Map, Figure 4. The commercial buildings within 500 feet of the Site are: |

| Facility/Business | Address |
|---|---|
| Monson Companies at Leominster Commerce Center | 463-477 Lancaster St, Leominster, MA |
| Massachusetts Electric Co. | 189 Litchfield St, Leominster, MA |
| CubeSmart Self Storage | 193 Litchfield St, Leominster, MA |
| Fraticelli Oil | 239 Litchfield St, Leominster, MA |
| Antique Auto Upkeep | 22 Calza St, Leominster, MA |
| (formerly) Tanzio Construction | 65 Tanzio Road, Leominster, MA |

| | |
|---|---|
| ***Health Care Facilities*** | GSE identified two health care facilities, Gateway Chiropractic & Occupational Health Center and TAK Medical Group within ½ mile of the site but both at greater than 500-feet away. |
| ***Prisons*** | GSE did not identify any prisons within ½ mile of the Site. |
| ***Schools*** | GSE did not identify any schools within ½ mile of the Site. |
| ***Daycare Facilities*** | GSE did not identify any daycares within ½ mile of the Site. |
| ***Senior & Youth Centers*** | GSE did not identify any senior or youth centers within ½ mile of the Site. |

*Continued on next page*

## Priority Resources and Land Uses (F-H), *Continued*

**On-Site Land Use**

The following table provides an overview of the Facility's on-site land use. This information can be found on the Existing and Proposed Condition Site Plan(s) – Exterior and Interior presented as Figures 5 and 6, respectively.

| Criteria | Description |
|---|---|
| ***Solid Waste Facilities*** | GSE did not identify any solid waste facilities within ½ mile of the Site. |
| ***On-Site Waste Handling Areas*** | The waste handling areas at the Site are confined to the limits of the existing building. |
| ***Areas of Waste Deposition*** | Waste will not be landfilled and/or incinerated on the Site. Inbound materials are tipped, handled, and loaded within the confines of the building. The waste materials are then transported off-site via rail or large trucks. |
| ***Existing Buildings*** | Presently, there is one 33,660 sf building of which 32,400 is dedicated to waste handling and 1,260 sf is offices and employee facilities. Multiple trailers are on site serving as the scale house and additional employee facilities. |
| ***Access Roads*** | There is one access road to the subject facility, Tanzio Road that provides ingress and egress from Route 117 (Lancaster Street) to the Site. Please refer to Figures 5 and 7 and the Traffic Report presented as Attachment 3 for further detail. |
| ***Traffic Flow*** | Traffic accesses the Site from Route 117 (Lancaster Street). From Route 117, traffic turns onto Tanzio Road, which leads to the Site. The traffic flow pattern is shown on Traffic Report (Attachment 3) and Traffic Movement and Turning Radius Plan (Figure 7). The Site has adequate room for safe and effective traffic flow and truck queueing on-site. |
| ***Zoning of Abutting Properties*** | The abutting properties, as defined in 310 CMR 16.02, to north of the site are zoned Multi-Use 1. The remaining abutting properties are zoned Industrial. Zoning designations are shown on the Property Identification and Zoning Map (Figure 4). |
| ***Site Zoning*** | The zoning of the Site is Industrial and transfer stations are an allowed use. As such, no local variances were or are required for the Facility. |

# Section II. Facility Specific Criteria (A-C)

**Introduction**

The following section addresses Facility-specific criteria [310 CMR 16.40(3)(d)] for Waste Handling and Processing Facilities. Please refer to the prior statements in this narrative in the Priority Resources and Land Uses description, Attachments, Figures, and Site Plans for additional information.

**Table of Contents – Section II**

This partial TOC follows the order of Section II of the MassDEP Site Suitability application form.


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| 7. Depth to groundwater | 28 |


**Landfills**

The existing Facility is a solid waste handling Facility that will not landfill/dispose waste on-site. Therefore, this section does not apply.

**Combustion Facilities**

The existing Facility is a solid waste handling Facility that will not burn or incinerate waste on-site. Therefore, this section does not apply.

*Continued on next page*

## Section II. Facility Specific Criteria (A-C) *Continued*

| | |
|---|---|
| **Zone I of a Public Water Supply** | The existing waste handling area is not located within a Zone I of a public water supply. MassDEP establishes Zone I areas as the area encompassed by a protective radius of 400 feet around a public water system well with a yield of 100,000 gallons per day or greater. The Site is not located within or in close proximity to Zone I of a public water supply. The nearest Public Water Supply Wells are located approximately 2 miles east of the Site. The proposed Project complies with the requirements of 310 CMR 16.40(3) (d) (1). |
| **IWPA and Zone II Areas** | The existing waste handling area is not within an Interim Wellhead Protection Areas or the Zone II of a public water supply well. The nearest Zone II is approximately 1.7 miles south of the existing facility. The nearest IWPA is approximately 1.8 miles northeast of the existing facility. The proposed Project complies with the requirements of 310 CMR 16.40(3) (d) (2). |
| **Zone A** | The existing waste handling area is not within the Zone A of a public water supply. As shown on the Water Resources Plan (Figure 2), no Public Surface Water Supplies are located within ½ mile of the Site. The proposed Project complies with the requirements of 310 CMR 16.40(3) (d) (3). |
| **Private Water Supplies** | Private well locations in the vicinity of the site were obtained from the Commonwealth of Massachusetts Energy & Environmental Affairs Data Portal. No private wells were identified within 500 feet of the existing waste handling area. As shown on Figure 2, the nearest private well is 970 feet from the existing waste handling area and 560 feet from the property line based upon prior research with the City of Leominster Health Department, and the master list kept by the City's Department of Public Works. The proposed Project complies with the requirements of 310 CMR 16.40(3) (d) (4). |

*Continued on next page*

## Section II. Facility Specific Criteria (A-C), *Continued*

**Occupied Facilities**

There are no existing occupied residential dwellings, prisons, health care facilities, elementary schools, middle schools or high schools, children's preschools, licensed day care centers, senior centers, or youth centers within 500 feet of the existing waste handling areas at the Facility. The locations of these sensitive receptors are presented within Figure 3.

The residential dwelling nearest the Facility located at 37 Calza Street is located 508 feet southwesterly from the existing waste handling area (handling building).

The proposed Project complies with the requirements of 310 CMR 16.40(3) (d) (5).

**Riverfront Area**

The waste handling area is not within a Riverfront Area as defined at 310 CMR 10.00. A "River" is defined at 310 CMR 10.58(2)1.a. as a perennial stream where "the issuing authority shall presume that a river or stream shown as perennial on the current U.S. Geologic Survey ("USGS") or more recent map provided by the MassDEP is perennial unless rebutted by evidence from a competent source asserting to the contrary or a finding by the issuing authority." The Riverfront Area is defined at 310 CMR 10.58(2)(a)3.a. as "the area of land between a river's mean annual high-water line measured horizontally outward from the river and a parallel line located 200 feet away." The waste handling area is not located within 200 feet of a river. A limited amount of existing railroad track located on the north side of the Site that connects the Facility to the CSX rail line is within the Riverfront Area of Fall Brook. A portion of the existing site access road and outbound scale are located within the Riverfront Area to the unnamed Brook on the east side of the Site. An Order of Conditions was granted by the Leominster Conservation Commission prior to construction approving work in the outer riparian zone which included a Riverfront Area restoration plan. Please refer to Figure 5 that depicts the existing conditions including the resource areas on site.

The proposed Project complies with the requirements of 310 CMR 16.40(3) (d) (6).

*Continued on next page*

## Section II. Facility Specific Criteria (A-C), *Continued*

**Depth to Groundwater**

The Facility maintains at least a two-foot separation between the maximum high groundwater elevation and the waste handling area. Test pits conducted as part of the original design and permitting of the Facility revealed groundwater to be between elevation (el.) 360 at the north end of the handling building and el. 359 at the south end of the handling building. With the tipping floor elevation at el. 375, and the rail at el. 371; there is a minimum of 11 feet between the lowest floor elevation and the maximum groundwater elevation, which exceeds the minimum 2-foot separation including in consideration of the leachate collection trench drains. Groundwater elevation near the site entrance to the southeast was observed to be around el. 352 which is consistent with the elevation of the closest wetland system located to the south of the existing waste handling building that is between el. 350 and el. 354, more than 20-feet lower than existing topography at the existing waste handling building. Based upon observations, the inferred groundwater flow is to the south-southeast across the site.

Figure 6 “Existing and Proposed Conditions - Interior” identifies the existing slab elevations which satisfies the requirements of 310 CMR 16.40(3) (d) (7).

*Continued on next page*

# Section III. General Criteria (A-L)

**Introduction**

The following section addresses Section III of the Site Suitability Application Form- General Site Suitability Criteria for a Solid Waste Management Facility. Please refer to the prior statements in this narrative in the Priority Resources and Land Uses description, Attachments, Figures, and Site Plans for additional information.

**Table of Contents – Section III**

This partial TOC follows the order of Section III of the MassDEP Site Suitability application form.


| Topic | See Page |
|---|---|
| Agricultural Land | 30 |
| Traffic Impacts | 31-44 |
| Wildlife and Wildlife Habitat | 45-46 |
| Areas of Critical Environmental Concern | 47 |
| Protection of Open Space | 48-49 |
| Air Quality Impacts | 50-57 |
| Nuisance Conditions | 58-63 |
| Size of Facility | 64-71 |
| Areas Previously Used for Solid Waste Disposal | 72 |
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| Regional Participation | 75 |

# Agricultural Land (A)

**Agricultural Land(s)**

Areas of prime farmland, farmland of unique importance, and farmland of statewide importance as identified by soils classification on the MassGIS system are indicated on Figure 3. Farmland of state-wide importance was previously identified within three areas of the Site.

A soil investigation was previously performed by APEX to further evaluate the areas identified as farmland of state-wide importance prior to initial facility development. APEX completed a Detailed Soil Survey of the area(s) to be Site Assigned at the 200 Tanzio Road property. Based on the Detailed Soil Survey work performed, APEX developed the following conclusions:

- *"Soil mapping units that correspond to Agricultural Land of Prime, Unique, or of State or Local Importance do not occur within the Site Assignment limits as depicted in Figure 5.*
- *Areas of soil previously mapped by the NRCS as consisting of Hinckley loamy sand, 3 to 8 percent slopes (Map Unit 245B) and Windsor loamy sand 3 to 8 percent slopes (Map Unit 255B), both rated as a Farmland of Statewide Importance, were not encountered within the area requested by UMML [now WIN-NE] for Site Assignment by MassDEP and Leominster BOH. The natural soils within this area were destroyed by human activities related to the extraction of sand and gravel as a resource for offsite uses.*
- *The findings of the Detailed Soil Survey determined that all areas previously designated as having soils classified by NRCS as Farmland of Statewide Importance were not present but instead consisted of other soil mapping units, 600 – Pits, gravel and 602 – Urban Land, that are not such farmland designations."*

Based on APEX's conclusions, none of the area that is site-assigned is in farmland or is within 100-feet of mapped farmland, and as such, the site meets 310 CMR 16.40(4) (a).

*Continued on next page*

# Traffic Impacts (B)

**Traffic Impacts**

The traffic associated with the Facility expansion has been evaluated to demonstrate that the traffic impacts from Facility operations would not constitute a danger to the public health, safety, or the environment, taking into consideration the following factors:

1. traffic congestion;
2. pedestrian and vehicle safety;
3. road configurations;
4. alternate routes; and
5. vehicle emissions (Discussed in Air quality Section).

**Traffic Study Overview**

Bowman Consulting Group, Ltd (FKA: McMahon & Associates) completed a review of the existing traffic operations and potential traffic impacts associated with the proposed tonnage increase at the existing solid waste facility located at 200 Tanzio Road in Leominster, MA. The purpose of this Traffic Impact Study (TIS) was to evaluate existing and projected traffic operations and safety conditions in the vicinity of the site and identify any potential mitigating measures to offset potential project-related traffic impacts on the surrounding roadways, if determined to be necessary based on safety and/or operational conditions. In summary, this study has determined that the proposed project, when developed and operational, will allow for safe and efficient access to and from the Facility with minimal impacts.

Bowman conducted two Traffic Impact Studies (TIS) for the proposed project to assess traffic impacts related to the Project and proposed tonnage increase as part of the MEPA process. The initial April 2024 study presented in the ENF was updated in 2025 to include additional existing conditions assessment following public comments received during the ENF process. The April 2024 TIS was included in the ENF and the July 2025 TIS was included in the DEIR. The assessment documented in the 2025 TIS (the study) is based on a review of existing traffic volumes, crash data, and the anticipated traffic-generating characteristics of the tonnage expansion. The study examines existing and projected traffic operations (both without and with the Project) at key intersections in the vicinity of the Facility.

*Continued on next page*

# Traffic Impacts (B), Continued

**Traffic Study Overview**, Continued

**Capacity Analysis Summary**

The capacity analysis indicates that the proposed Project will not have an appreciable impact on the operations of the study area intersections or roadways. Under the 2030 Build condition which represents future traffic with the Project (using conservative, worst-case conditions of no rail service and no backhauling), no changes to LOS are anticipated compared to No-Build Conditions.

The report concluded that the Project would not have any appreciable impact on the operations of the signalized or unsignalized study area intersections or roadways and that no mitigation measures are necessary to accommodate the proposed Project.

Based on the analysis presented in this study, Bowman concludes that the projected traffic increases associated with both the background traffic growth and the project-related traffic generated by the proposed expansion of the Facility do not result in a significant impact to the operations of the surrounding roadway network, and the proposed tonnage expansion does not constitute a danger to the public health, safety, or the environment with consideration to traffic congestion, pedestrian and vehicular safety, and roadway configuration in conformance with 310 CMR 16.40(4)(b).

**Traffic Study-Existing Conditions**

To effectively evaluate the potential traffic impacts associated with the proposed development, an assessment of existing conditions including an inventory of the roadway and intersection geometries and traffic control devices, collection of peak-period traffic volumes, and a review of recent crash history was completed. A discussion of this information is presented below.

**Study Area and Roadway Network**

Three intersections were previously identified for detailed analysis in the April 2024 study which were determined based on a review of the surrounding roadway network serving the project site:

- New Lancaster Road (Route 117) at Willard Street
- Lancaster Street (Route 117) at Tanzio Road
- Tanzio Road at existing Site Driveway (200 Tanzio Road)

*Continued on next page*

## Traffic Impacts (B), Continued

**Traffic Study-Existing Conditions**, Continued

The following intersection was identified for additional detailed analysis in response to public comments regarding overall traffic and distribution on Lancaster Street.

- Lancaster Street (Route 117) at Viscoloid Avenue

Refer to Figure 1 in the 2025 TIS which shows these intersections.

The expected route for vehicles accessing the site is via Tanzio Road directly from Lancaster Street (Route 117).

Lancaster Street (Route 117) is classified as an urban principal arterial under MassDOT jurisdiction within the study area running in the east-west direction. Lancaster Street is primarily a two-way roadway providing one lane in each direction, abutted by commercial and residential properties. Lancaster Street typically provides 10- to 12-foot-wide travel lanes in both directions. No other pedestrian or bicycle facilities are provided along New Lancaster Road/Lancaster Street within the study area.

Willard Street is classified as a major collector west of Route 117 and a local roadway east of Route 117 under the City of Leominster jurisdiction. Willard Street generally runs in an east-west direction and provides access to Route 12 to the west and Route 117 to the east. Willard Street is primarily a two-lane, two-way roadway abutted by residential and commercial land uses. Willard Street typically provides travel lanes ranging from 11 to 16 feet in width in both directions.

Tanzio Road is classified as a local roadway under City of Leominster jurisdiction. Tanzio Road connects to Route 117 to the southeast. It runs in the north-south direction and provides one 12-foot wide travel lane in each direction with 5-foot-wide shoulders.

Viscoloid Avenue is classified as an urban minor arterial under the City of Leominster jurisdiction. Viscoloid Avenue generally runs in a north-south direction and provides access to Route 117 to the south. Viscoloid Avenue is a two-lane, two-way roadway abutted by residential and commercial land uses as well as the Frances Drake Elementary School. Viscoloid Avenue typically provides 11-foot-wide travel lanes and 5-foot-wide bicycle lanes in both directions. Sidewalks, measuring approximately 6-feet-wide, are provided on both sides of the roadway.

*Continued on next page*

# Traffic Impacts (B), Continued

**Traffic Study-Existing Conditions**, Continued

**Public Transportation**

The MART Bus Route #9 provides service along Willard Street. There is no public transportation routes along Lancaster Street (Route 117) or Tanzio Road.

**Pedestrian and Bicycle Facilities**

There are no pedestrian or bicycle facilities provided along Tanzio Road. A 5-foot-wide bituminous concrete sidewalk is provided along the west side of Route 117 south of the Willard Street intersection, and a wheelchair ramp with a detectable warning panel is provided at the southwest corner of the intersection. Approximately 6-foot-wide sidewalks and five-foot-wide dedicated bicycle lanes are provided along Viscoloid Avenue. Approximately 6-foot-wide sidewalks are provided along both sides of Route 117 in the vicinity of Viscoloid Avenue.

**Existing Traffic Volumes**

To assess peak hour traffic conditions, manual turning movement counts (TMCs) were conducted at the initial study area intersections in 2023 during the weekday morning and weekday afternoon periods. Counts were conducted on Wednesday, March 29, 2023, during the weekday morning (7:00 AM to 9:00 AM) and weekday afternoon (3:00 PM to 6:00 PM) peak. Based on a review of that traffic data, the weekday morning peak hour for the study area intersections occurs between 7:00 AM and 8:00 AM and the weekday afternoon peak hour occurs between 4:15 PM and 5:15 PM. The results of the turning movement counts are tabulated by 15-minute periods and were provided in Appendix A of the Traffic Impact Study included with the ENF.

To assess distribution of trucks accessing the Facility from both the south and north of Tanzio Road along Lancaster Street in response to comments, additional data was collected at the Study Area Intersections. To assess peak hour traffic conditions, turning movement counts (TMCs) were conducted at the study area intersections for a 14-hour period (5:00 AM to 7:00 PM) over a five-day period beginning Monday, March 17, 2025 and ending Friday, March 21, 2025. In addition to the TMCs, 24-hour automatic traffic recorder (ATR) data was collected at the Site Driveway for the same five-day period (Monday through Friday). Ticketing data collected at the existing site was also reviewed to determine the amount of material processed each day for the five-day period, consistent with the TMCs.

*Continued on next page*

## Traffic Impacts (B), Continued

**Traffic Study-Existing Conditions**, Continued

The ticketing data and the turning movement count data were reviewed to identify the weekday in which the existing facility processed the most materials and had the highest volume of general-purpose traffic. Based on a review of the data, the existing site processed the most material on Monday, March 17, 2025 and the study area roadways had the highest volume of general-purpose traffic on Wednesday, March 19, 2025.

To capture the peak operations of the facility while also analyzing a typical weekday (Tuesday, Wednesday, Thursday) consistent with MassDOT guidelines, the ticketing data for the facility on Monday, March 17, 2025 was used to evaluate the projected site operations, and the traffic volume data collected at the study area intersections on Wednesday, March 19, 2025 (also correlates to the highest recorded volumes which is conservative) was used as a basis for the traffic analysis.

**Turning Movement Count Data**

The TMC data collected at the study area intersections included classification data for trucks accessing the existing site. In addition to passenger vehicle data, this included classification data for packer trucks, roll-off trucks, and tractor trailers. The results of the Wednesday TMCs are tabulated by 15-minute periods and are provided in Appendix A. The four highest consecutive 15-minute intervals during each of these count periods constitute the peak hours that are the basis of the traffic analysis provided in this report. Based on a review of the peak period traffic data, the weekday morning peak hour of the study area was identified as 7:45 AM to 8:45 AM and the weekday afternoon peak hour was identified as 3:45 PM to 4:45 PM.

**Automatic Traffic Recorder Data**

ATR data was obtained at the Site Driveway. The ATR counts were collected over a full week from Monday, March 17, 2025 to Friday, March 21, 2025, consistent with the TMCs. The ATR data is provided in Appendix A of the 2025 TIS. The highest day of site generated traffic was used for the analysis to be conservative when calculating the trip generation for the site. The highest day of site generated traffic was Monday, March 17, 2025.

*Continued on next page*

# Traffic Impacts (B), Continued

**Traffic Study-Existing Conditions**, Continued

**Seasonal Variation**

Based on MassDOT's 2023 Weekday Seasonal Factors, March traffic volumes are approximately four percent higher than an average month on principal arterial roadways and approximately six percent higher than during an average month on minor arterials and local roadways. Therefore, to present a conservative analysis, the March volumes were not reduced to average month conditions. The MassDOT weekday seasonal factors are provided in Appendix B. The resulting 2025 Existing weekday morning and weekday afternoon peak hour traffic volumes are presented in the traffic projection model provided in Appendix C of the 2025 TIS are presented in Figures 2 and 3, respectively in the 2025 TIS.

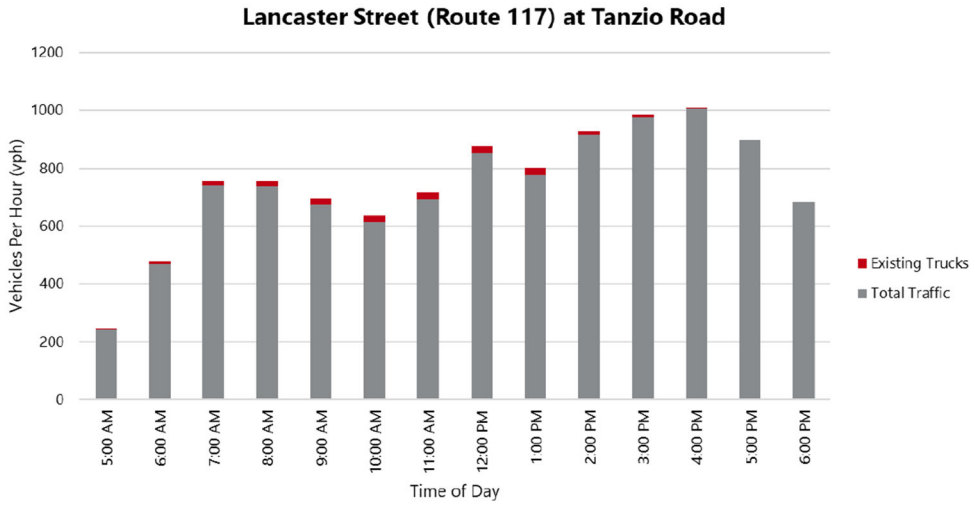
Traffic counts were conducted over a 14-hour period (5 AM to 7 PM) for 5 consecutive days (Monday to Friday) in March 2025. As indicated previously, Monday had the greatest amount of material delivered to the Facility, but Wednesday exhibited the highest volume of total vehicles on Lancaster Road that week. Figure A below shows the total vehicle volume for the entire 14-hour period on Wednesday, March 19, 2025. A total of 10,284 vehicles travelled along Lancaster St at Tanzio Road over the course of 14 hours. Of that, 189 were Facility-related vehicles, equivalent to 1.8% of the total traffic. Using the automatic traffic recorder data, it was further determined that of 112 waste handling vehicles identified traveling on Lancaster Road at Tanzio Road, 20 were not associated with this Facility. It should be noted that other commercial/industrial businesses operate along Tanzio Road and have truck traffic associated with it. See Figure A below (next page):

*Continued on next page*

# Traffic Impacts (B), Continued

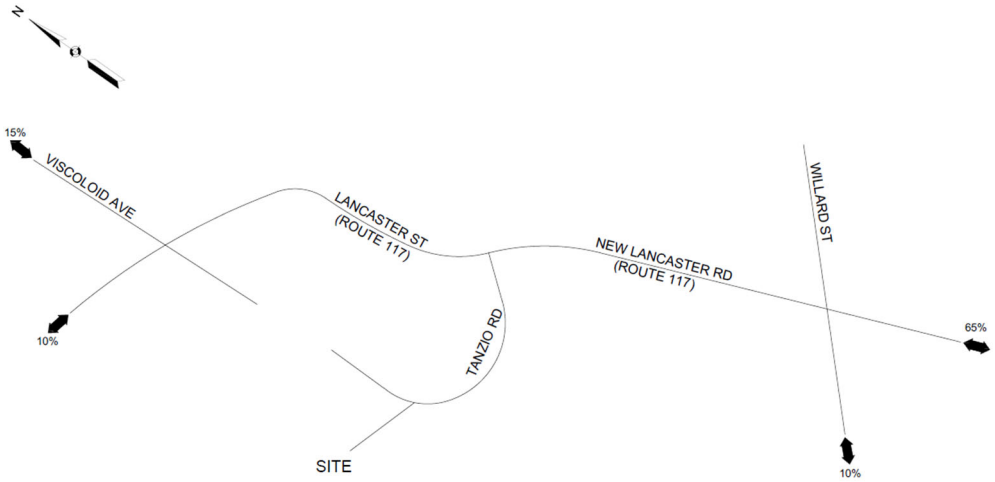
**Traffic Study- Existing Conditions,** Continued

**Figure A - Hourly Traffic Volume Comparison**




The traffic data collected also identified the truck distribution patterns of inbound and outbound trucks. All tractor trailers traveled to and from the Facility via I-190 to the south. Smaller packer and roll-off trucks arrived and departed the site from different directions, with 75% of the trucks traveling to/from the south (65% I-190 and 10% Willard Street) and 25% traveling to/from the north (15% Viscoloid Avenue and 10% Lancaster Street). Figures B and C below (source: Figures 6 and 7, 2025 TIS) shows these distributions.

**Figure B - Truck Distribution- Travel Directions- Packer/Roll-offs**

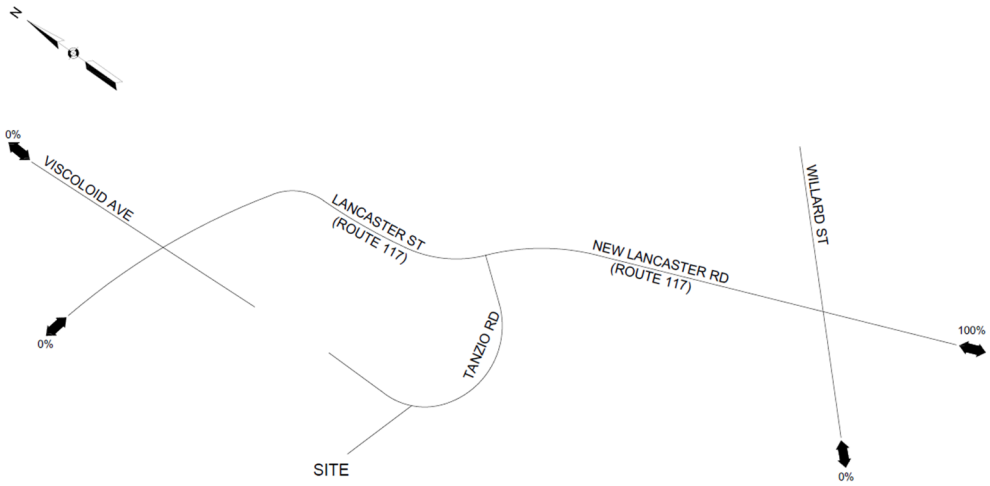



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# Traffic Impacts (B), Continued

**Traffic Study- Existing Conditions**, Continued

**Figure C - Truck Distribution- Travel Directions- Tractor Trailers**




**Crash Summary**

Crash history was obtained from the MassDOT Interactive Mapping Portal for Analysis and Crash Tracking (IMPACT) database for the most recent five-year period available, 2017 through 2021, in order to evaluate the existing safety conditions at the study area intersections. A summary of the crash data is provided in Appendix C of the 2025 Traffic Impact Study.

The crash rates at the study intersections were calculated to determine whether the crash frequencies at the study area intersections were unusually high given the travel demand. The intersection crash rate is expressed in crashes per million entering vehicles (C/MEV). The crash rate for each intersection was then compared to the average rate for signalized and unsignalized intersections Statewide and within MassDOT District 3. For signalized intersections, the Statewide and MassDOT District 3 average crash rates are 0.78 and 0.89 C/MEV, respectively. For unsignalized intersections, the Statewide and MassDOT District 3 average crash rates are 0.57 and 0.61 C/MEV, respectively.

The signalized intersection of Lancaster Street (Route 117) at Viscoloid Avenue had a total of 15 reported crashes over the five-year period analyzed, resulting in a crash rate of 0.61 crashes per MEV, which is lower than both the State and District averages for a signalized intersection.

*Continued on next page*

## Traffic Impacts (B), Continued

**Traffic Study-Existing Conditions**, Continued

The signalized intersection of Route 117 at Willard Street had a total of 20 reported crashes over the five-year period analyzed, resulting in a crash rate of 0.78 crashes per MEV, which is the same as the State Average and lower than the District 3 average for a signalized intersection.

The unsignalized intersection of Route 117 at Tanzio Road had a total of one reported crash over the five-year period analyzed, resulting in a crash rate of 0.06 crashes per MEV, which is significantly lower than both the State and District averages for an unsignalized intersection.

No crashes were reported at the unsignalized intersection of Tanzio Road as the Site Driveway during the 5-year period analyzed.

**Sight Distance**

Sight distances were also reviewed as part of the TIS for the intersections of Tanzio and the Facility driveways as well as at Tanzio Road and Lancaster Street (Rt. 117). The sight distances at these intersections were reviewed in accordance with the American Association of State Highway and Transportation Officials (AASHTO) policies, and were determined to either meet or exceed requirements.

**Traffic Study-Future Conditions**

To determine future traffic demands on the study area roadways and intersections, the 2025 Existing traffic volumes were projected to the future-year 2032, in accordance with MassDOT guidelines. Traffic volumes on the study area roadways in 2032 are considered to include existing traffic, as well as new traffic resulting from general growth in the study area and from other planned development projects, independent of the Project. The potential background traffic growth, unrelated to the Project, was considered in the development of the 2032 No Build (without Project) peak hour traffic volumes. The estimated traffic increases associated with the Project were then added to the 2032 No Build volumes to reflect the 2032 Build (with Project) traffic conditions. A more detailed description of the development of the 2032 No Build and 2032 Build traffic volume networks is presented below.

*Continued on next page*

## Traffic Impacts (B), Continued

**Traffic Study-Future Conditions**, Continued

Background traffic growth accounts for changes in traffic volumes associated with general changes in population and other developments that are not known at this time. To be consistent with regional growth rates as provided by the Montachusett Regional Planning Commission (MRPC), a compounded background growth rate of 2.0 percent per year was used for this project to grow the 2025 volumes to future year 2032.

The City of Leominster Planning Department was contacted to inquire about additional developments in the area. Based on these discussions, there are no additional projects that would be anticipated to impact future traffic volumes on the study area roadways.

**2032 No Build Traffic Volumes**

The 2025 Existing peak hour traffic volumes were grown increased by 2.0 percent per year, compounded annually, over the seven-year study horizon to establish the 2032 No Build volumes. The resulting 2032 No Build weekday morning and weekday afternoon peak hour traffic volumes are documented in the traffic projection model presented in Appendix C of the 2025 TIS and illustrated in Figures 4 and 5 of the 2025 TIS, respectively.

**Trip Generation**

The Facility's permitted hours of operation per it's permits are 6:00 AM to 7:00 PM, Monday through Friday and 7:00 AM to 3:00 PM on Saturdays, although the Facility has posted delivery hours (for third-party clients) from 6:30 AM to 3:30 PM, Monday through Friday and 7:00 to 11:30 on Saturdays. As part of the proposed facility expansion, the site would accept a maximum of 1,500 tpd of solid waste (MSW and C&D) per day. The number of employees at the facility are not anticipated to be impacted as a result of the proposed expansion. Employee-related vehicles are estimated to remain around 24 per day (48 trips), as previously indicated. To estimate the trip generation for the additional trucks associated with the expansion, the proponent provided truck ticketing data collected at the existing facility for Monday, March 17, 2025, consistent with the highest day of site-generated traffic. The ticketing data includes total tons per day of inbound and outbound material processed, and total number of trucks transporting each type of material. The truck ticketing data for March 17, 2025 is provided in Appendix E of the 2025 TIS.

*Continued on next page*

## Traffic Impacts (B), Continued

**Traffic Study-Future Conditions**, Continued

The Facility is served by rail, with a majority of outbound materials from the existing Facility being transported from the site via rail, with the exception of recyclables. The use of rail for outbound materials is expected to continue under the proposed conditions, however, to present a conservative analysis, the trip generation and level-of-service analysis presented in this study assume all outbound materials associated with the proposed expansion would be transported from the site by truck.

In addition, when outbound materials are transported by truck, it is standard industry practice to use backhauls, where a truck delivering inbound materials reloads and removes material from the site rather than departing empty. To present a conservative analysis coupled with the conservative variable presented above, the estimated trip generation does not include the use of backhauls; (i.e., all trucks transporting inbound materials were assumed to leave the site empty, and all trucks transporting outbound material were assumed to arrive at the site empty.)

Based on assessment of truck ticketing data provided by the facility, inbound material is currently transported to the site at an average rate of 9.4 tons per load via packer trucks and roll-off trucks. The ticketing data for Monday, March 17, 2025 indicates that there was one tractor trailer carrying approximately 14 tons of outbound materials (recyclables), which is reflective of the current use of rail to process outbound materials. A typical tractor trailer has an estimated capacity of 28 tons. To be conservative, the trip generation estimates associated with the proposed expansion do not account for the use of rail to transport outbound materials. The consolidated outbound materials associated with the expansion were considered to be transported by tractor trailer at 14 tons/truck for the purposes of the analysis.

**Daily Trip Generation**

Under existing permits which allows for 1,000 tpd to be accepted at the Facility, the site would generate a maximum of 214 one-way truck trips per day (107 entering, 107 exiting) transporting inbound materials to the site. As noted above, the majority of outbound materials are currently transported from the site by rail and do not generate additional trips on the roadway network (besides recyclables).

*Continued on next page*

## Traffic Impacts (B), Continued

**Traffic Study-Future Conditions**, Continued

If the rail was not in operation and assuming no backhauls, the existing facility would generate a maximum of 86 one-way truck trips per day (43 entering, 43 exiting) transporting outbound material off-site. These trips assume that 20% of the outbound material are recyclables and leave in 14-ton capacity trucks, and 80% is waste and leaves in 28-ton capacity trucks.

Under the proposed expansion to 1,500 tpd and based on the assumption that inbound material arrives at the site with an average load of 9.4 tons per truck, the Facility would generate a maximum of 320 one-way truck trips (160 entering, 160 exiting) transporting inbound material.

In addition, assuming no rail service or backhauls that would be used as a means to reduce traffic-related impacts, the Facility would generate 130 one-way truck trips (65 entering, 65 exiting) transporting outbound material off-site. In total, the expanded Facility could generate a maximum of 450 daily one-way truck trips. Table 1 below (source: 2025 TIS, Table 2) summarizes the maximum daily truck trip generation and net change from existing conditions for the facility under existing and proposed conditions assuming no rail service and no use of backhauls.

**Table 1- Maximum Daily Trip Generation**

| | Existing Operations (1,000 tpd) | | | Expanded Operations (1,500 tpd) | | | Net Change | | |
|---|---|---|---|---|---|---|---|---|---|
| **Description** | **In** | **Out** | **Total** | **In** | **Out** | **Total** | **In** | **Out** | **Total** |
| Inbound Material | 107 | 107 | 214 | 160 | 160 | 320 | 53 | 53 | 106 |
| Outbound Material | 1 | 1 | 2 | 65 | 65 | 130 | 64 | 64 | 128 |
| **Total Trips** | **108** | **108** | **216** | **225** | **225** | **450** | **117** | **117** | **234** |

As shown in Table 1 above, the proposed Facility expansion could result in a net increase of up to 234 one-way truck trips per day on the study area roadway network considering no rail service, no use of backhauls, and projecting that 20% of outbound materials are recyclables and transported in smaller trucks at 14 tons capacity.

*Continued on next page*

# Traffic Impacts (B), Continued

**Traffic Study-Future Conditions**, Continued

**2032 Build Traffic Volumes**

To determine future traffic demands on the study area roadways and intersections, the 2025 Existing traffic volumes were projected to the future-year 2032, in accordance with MassDOT guidelines. Traffic volumes on the study area roadways in 2032 are considered to include existing traffic, as well as new traffic resulting from general growth in the study area and from other planned development projects, independent of the Project. The potential background traffic growth, unrelated to the Project, was considered in the development of the 2032 No Build (without Project) peak hour traffic volumes. The estimated traffic increases associated with the Project were then added to the 2032 No Build volumes to reflect the 2032 Build (with Project) traffic conditions. A more detailed description of the development of the 2032 No Build and 2032 Build traffic volume networks is presented below.

Background traffic growth accounts for changes in traffic volumes associated with general changes in population, vehicle use, and other expected land developments that are not known at this time. To be consistent with regional growth rates as provided by the Montachusett Regional Planning Commission (MRPC), a compounded background growth rate of 2.0 percent per year was used for this project to grow the 2025 volumes to future year 2032.

The City of Leominster Planning Department was contacted to inquire about additional developments in the area. Based on these discussions, there are no additional projects that would be anticipated to impact future traffic volumes on the study area roadways.

**2032 No Build Traffic Volumes**

The 2025 Existing peak hour traffic volumes were grown increased by 2.0 percent per year, compounded annually, over the seven-year study horizon to establish the 2032 No Build volumes. The resulting 2032 No Build weekday morning and weekday afternoon peak hour traffic volumes are documented in the traffic projection model presented in the 2025 TIS.

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# Traffic Impacts (B), Continued

**Traffic Study-Future Conditions**, Continued

**Capacity Analysis Results**

Intersection capacity analysis was conducted using the Synchro capacity analysis software for the study area intersections to evaluate the 2025 Existing, 2032 No Build, and 2032 Build traffic conditions during the weekday morning and weekday afternoon peak hours. The analysis as presented in the TIS indicated that the project will not impact or change the peak hour Level of Service at the study area intersections in comparison to normal traffic growth.

**Summary**

Based upon the findings and results presented int the 2025 TIS, the Project is projected to have a minimal impact on overall traffic conditions in the study area, and that the tonnage increase will not constitute a danger to public health, safety, or the environment in consideration to traffic congestion, pedestrian and vehicular safety, and roadway configuration in conformance with 310 CMR16.40(4)(b).

# Wildlife and Wildlife Habitat (C)

**Introduction**

This section addresses the Natural Heritage and Endangered Species Program (NHESP) administered by the Massachusetts Division of Fisheries & Wildlife (MassWildlife).

**Habitat and Endangered Species**

According to MassGIS, there is Priority Habitat of Rare Species and an Estimated Habitat of Rare Wildlife located approximately 0.5 miles west of the subject Site. These areas are separated from the Site by commercial/residential properties and Route 12. The areas of Rare Species Habitat and Habitat of Rare Wildlife are noted on Figure 3. The proposed increase in tonnage at the Facility will not have an adverse impact on Endangered, Threatened, or Special Concern species listed by the NHESP.

Additionally, MassWildlife was previously contacted with respect to the subject Site prior to construction. MassWildlife provided a letter dated July 16, 2018 stating that "…at this time the site is not mapped as Priority or Estimated Habitat. The NHESP database does not contain any state-listed species records in the immediate vicinity of this site." A recent request to MassWildlife to confirm any changes to habitat mapping has occurred resulted in another response received via email August 8, 2023 confirming no habitat is located on site and is not subject to further review. A copy of this NHESP correspondence is included in Attachment 4.

The proposed Project complies with the requirements of 310 CMR 16.40(4) (c) (1).

**Ecologically Significant Communities**

The siting of the expanded Facility will not have an adverse impact on an Ecologically Significant Natural Community. There are no areas identified by the Natural Heritage and Endangered Species Program as ecoregions within ½ mile of the Site.

The proposed Project complies with the requirements of 310 CMR 16.40(4) (c) (2).

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## Wildlife and Wildlife Habitat (C), Continued

**Wildlife Management Area**

The siting of the expanded Facility will not have an adverse impact on the wildlife habitat of any state Wildlife Management Area. GSE reviewed MassGIS and the Division of Fisheries and Wildlife website and the MassWildlife online Lands viewer for information regarding Wildlife Management Areas. No Wildlife Management Areas are located with ½ mile of the Site.

The proposed Project complies with the requirements of 310 CMR 16.40(4)(c)(3).

# Areas of Critical Environmental Concern (D)

**Introduction**

This section addresses Areas of Critical Environmental Concern (ACEC) administered by the Executive Office of Environmental Affairs.

**ACEC On-Site**

Based on GSE's review of the MassGIS ACEC data layer, the Site is not within an ACEC.

The proposed Project complies with the requirements of 310 CMR 16.40(4) (d) (1).

**ACEC Adjacent**

Based on GSE's review of the MassGIS ACEC data layer, no ACECs are located adjacent to the existing Site.

The proposed Project complies with the requirements of 310 CMR 16.40(4) (d) (2).

# Protection of Open Space (E)

**Introduction**

This section addresses land areas that are considered parks and recreation lands under local, regional, and state regulatory agency jurisdiction.

**State Forests**

GSE reviewed the Department of Conservation and Recreation website for information regarding State forests. According to the Department of Conservation and Recreation website there are no State owned or operated forests within ½ mile of the Site.

Therefore, the siting of the Facility will not have an adverse impact on the physical environment of, or on the use and enjoyment of State forests in conformance with the requirements of 310 CMR 16.40(4)(e)(1).

**State or Municipal Conservation and Park Lands**

GSE reviewed MassGIS and the Executive Office of Energy and Environmental Affairs websites for information regarding State parklands. The Johnny Appleseed State Park is located approximately 0.36 miles east of the site and is separated from the site by Route 117, commercially developed properties, and residential dwellings.

Saint Leo Cemetery is identified as a historical/cultural open space and located north of the existing Facility across Route 117 (Lancaster Street) and is also separated from the Site by commercially developed properties. The Fuller Street Conservation Area is located northwest of the Site and is separated from the Site by the CSX Railroad and Litchfield Street. The Leominster Lassie League Field Complex is located approximately 0.48 miles west of the Site and is separated from the Site by commercially developed properties and residential dwellings. Eagles Field and the Old Deerfield Woods Estates Conservation Areas are separated from the site by Route 12 (Central Street), commercially developed properties, and residential dwellings.

Based on separation, the siting of the Facility will not have an adverse impact on the physical environment of, or on the use and enjoyment of, state or municipal parklands or conservation land, or other open space held for natural resource purposes in accordance with Article 97 of the Massachusetts Constitution in conformance with the requirements of 310 CMR 16.40(4) (e) (2).

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## Protection of Open Space (E), *Continued*

**MDC Reservations**

The MDC is now part of the Massachusetts Department of Conservation and Recreation (DCR). GSE reviewed the DCR website for information regarding reservations in the area of the existing Facility and none were located within ½ mile of the Facility.

Therefore, the siting of the Facility will not have an adverse impact on the physical environment of, or on the use and enjoyment of DCR (MDC) reservations in conformance with the requirements of 310 CMR 16.40(4)(e)(3).

**EOEA Restricted Lands**

GSE reviewed MassGIS and the Executive Office of Energy and Environmental Affairs website for any lands with conservation, preservation, agricultural, or watershed protection restrictions approved by the secretary of EOEA within ½ mile of the Site. GSE did not identify any lands with conservation, preservation, agricultural, or watershed protection restrictions approved by the Secretary of EOEA within ½ mile of the Site.

Therefore, the siting of the Facility will not have an adverse impact on the physical environment of, or on the use and enjoyment of, on EOEA restricted lands in conformance with the requirements of 310 CMR 16.40(4)(e)(4).

**Privately Owned Public Conservation Land**

GSE reviewed MassGIS and the Executive Office of Energy and Environmental Affairs website for any privately owned public access conservation lands in close proximity to the subject Site. GSE did not identify any privately owned public access conservation lands in close proximity to the subject Site. Therefore, the siting of the Facility will not have an adverse impact on the physical environment of, or on the use and enjoyment of, local conservation lands in conformance with the requirements of 310 CMR 16.40(4)(e)(5).

# Air Quality Impacts (F)

**Introduction**

The following section addresses the potential air quality impacts regarding anticipated emissions from potential truck and mobile, diesel-powered equipment emissions and rail yard activity at the Site.

According to 310 CMR 16.40(4)(f), Potential Air Quality Impacts, no site shall be determined to be suitable or be assigned as a Solid Waste Management Facility where the anticipated emissions from the Facility would not meet required State and Federal air quality standards or criteria or would otherwise constitute a danger to the public health, safety, or the environment, taking into consideration:

1. The concentration and dispersion of emissions
2. The number and proximity of sensitive receptors; and
3. The attainment status of the area.

**Regulation**

GSE reviewed Massachusetts Air Pollution Control Regulations (310 CMR 7.00) and the criteria set forth in the MEPA regulations. After a review of the regulations, it was determined that the Facility is exempt from Section 7.02 of the Air Pollution Control Regulations (U Plan Approval, Limited Plan Application and U Comprehensive Plan Approvals).

**Regulation Intent**

As stated within section 7.01(1) of the Air Pollution Control Regulations: *"No person owning, leasing, or controlling the operation of any air contamination source shall willfully, negligently, or through failure to provide necessary equipment or to take necessary precautions, permit any emission from said air contamination source or sources of such quantities of air contaminants which will cause, by themselves or in conjunction with other air contaminants, a condition of air pollution."*

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## Air Quality Impacts (F), *Continued*

**On-Site Fuel Use**

According to MassDEP's Air Pollution Group in Boston, Massachusetts, the Air Pollution Group regulates only stationary sources of pollution. Mobile sources (self-propelled equipment) are regulated under the Federal Clean Air Act.

Non-mobile equipment on-site is regulated under 310 CMR 7.00, section 7.02. Please note that **no stationary fuel burning equipment will be utilized** for handling activities and no equipment has a BTU input capacity over 3,000,000 BTU per hour nor does the total amount of stationary source equipment have a BTU input capacity which exceeds 10,000,000 BTUs per hour. Stationary equipment on site will be powered by electric motors. Therefore, 310 CMR 7.02 does not apply.

**Emissions from Mobile Equipment**

On average, two front-end loaders and two excavators operate inside the building. In addition, the Facility has a skid steer, lift, rail car mover, and a sweeper for facilitating on-site logistics and operations and maintenance. This equipment is rated either EPA Tier III or Tier IV compliant.

**Dust and Diesel Particulate Emissions**

Tech Environmental analyzed air quality to determine whether the proposed Project would meet the local ambient air quality emission limits and/or trigger any state or federal air permitting requirements. This analysis is presented in the Air Quality Study included as Attachment 7.

As with all non-combustion solid waste facilities, the only criteria pollutant of concern is particulate emissions. The Facility operations were assessed for particulate emissions, specifically both $PM_{10}$ and $PM_{2.5}$ to determine compliance with regulatory respirable limits.

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## Air Quality Impacts (F), *Continued*

**Dust and Diesel Particulate Emissions**, Continued

All potential sources of particulate emissions were examined from truck emissions and movements, to waste sorting and handing, including the on-site construction demolition and debris (C&D) processing line, as well as non-road equipment used solely on-site to move and handle waste. The analysis used conservative assumptions including that the maximum throughput of 1,500 tpd occurred every day over five years for the dispersion modelling to calculate the worst-case 24-hour and annual particulate emissions. In addition, the C&D processing line was assumed to operate at a maximum daily rate of 50 tons per hour. While the line itself could physically operate at a higher rate, it is simply ineffective to run it above 40 tons per hour regularly and 50 tons per hour peak. At higher throughput, the Applicant has noted that the material sorting rate drops as material passes through too quickly, defeating the purpose of the sorting process. Even at maximum reasonable throughput and maximum theoretical daily throughputs, Table 2 below demonstrates that the expected particulate emissions for the Project are well below both federal and state air permitting thresholds of 1 ton/year.

**Table 2- Summary of Facility-Wide Air Emissions (tons per year)**

| Emissions Source | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|
| Truck Loading/Unloading Fugitives | 0.064 | 0.008 |
| C&D Processing Fugitives | 0.50 | 0.075 |
| Non-Road Equipment Exhaust | 0.032 | 0.031 |
| Idling Truck Exhaust | 0.071 | 0.065 |
| **Total** | **0.66** | **0.18** |

As expected with so little emission potential, the air emissions will remain below the current National Ambient Air Quality Standards (NAAQS, as adopted by Massachusetts) as shown in Table 3 below. Additional modelling information is available in the Air Quality Studies included in the ENF and DEIR Attachments.

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# Air Quality Impacts (F), Continued

**Dust and Diesel Particulate Emissions**, Continued

**Table 3- Compliance with Air Quality Standards for the WIN-NE Facility**

| Pollutant | Averaging Period | Maximum Predicted Impact- UMML ($ug/m^3$) | Year | Background Concentration ($ug/m^3$) | Total Impact ($ug/m^3$) | NAAQS ($ug/m^3$) |
|---|---|---|---|---|---|---|
| $PM_{2.5}$ | 24-Hour | 1.9 | 2020-2022 | 16.7 | 18.6 | 35 |
| | Annual | 0.4 | | 8.2 | 8.6 | 12 |
| $PM_{10}$ | 24-Hour | 11.0 | 2020-2022 | 45.0 | 56.0 | 150 |

Based upon the air emission estimating and air dispersion modelling, the Facility will not cause a condition of air pollution from particulate emissions and would not exceed either federal or state air permitting thresholds.

On February 7, 2024, EPA promulgated a lower $PM_{2.5}$ annual NAAQS of 9 $\mu g/m^3$. It is expected that the new standard will be incorporated by Massachusetts at some point in the future. These regulations cannot be formally changed until the state holds the proper public meetings and submits an updated State Implementation Plan (SIP) to EPA for approval. However, it should be noted that the Facility can also comply with the lower EPA standard of 9 $\mu g/m^3$ as well.

**Emission Reductions through Rail Use**

The Massachusetts 2030 Solid Waste Master Plan reports:

- Landfill capacity for municipal solid waste and construction and demolition debris (C&D) is projected to decline to virtually zero by the end of the next decade.
- Massachusetts has extensive waste transfer capacity; however, most waste transfer facilities do not increase overall waste management and disposal capacity because they are not able to deliver waste beyond Massachusetts and our neighboring states, where disposal capacity is also limited. Rail-served facilities provide both transfer/consolidation and direct transport to end-disposal facilities.

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## Air Quality Impacts (F), Continued

**Emission Reductions through Rail Use**, Continued

- By incorporating rail and large trucks, there will be overall reduction in $CO_2$ emissions annually. It is documented by CSX that moving freight (waste) by rail is approximately 4 times more fuel efficient than moving freight on the highway. Trains can move a ton of freight over 470 miles on a single gallon of fuel whereas a truck can move a ton of freight approximately 134 miles per gallon of fuel.

- Consolidating waste and incorporating rail efficiencies can result in significant reductions to $CO_2$ emissions, which follows the goals and initiatives of the Massachusetts Environmental Policy Act (MEPA), M.G.L. c. 30, ss. 61-621 and within 301 CMR 11.00.

**General Emissions Mitigation Measures**

Airborne particulate emissions associated with the acceptance of C&D and/or MSW can occur. However, Massachusetts existing waste transfer infrastructure has had a long history on how to successfully reduce and control the potential for particulate emissions. Nuisance dust mitigation measures, at a minimum, will include the following:

| Control | Function |
|---|---|
| Pavement | Minimize potential for dust emissions associated with access ways and parking areas. |
| Sweeping | Minimize potential for dust emissions associated with access ways and parking areas by wet sweeping or vacuum sweeping on a regular basis. |
| Building | Minimize potential for dust emissions by handling the material in a controlled environment. |
| Atomized Misting system | Controls dust within building. |

**Operational Facilities**

All of the above-referenced controls are included and detailed in the Facility's "Operations and Maintenance Plan" as required per 310 CMR 19.200.

Emission studies at existing processing and handling facilities within the Commonwealth (e.g., $PM_{10}$ and $PM_{2.5}$) have shown that the above-referenced environmental controls adequately control nuisance emissions and that additional controls are not needed.

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## Air Quality Impacts (F), *Continued*

**Odor Emissions**

WIN-NE does not anticipate that nuisance odor conditions will occur off-site. WIN-NE incorporates policies, controls, and procedures to ensure that nuisance odor conditions do not exist and has operated since 2020 with very few confirmed odor complaints. Facility Best Management Practices related to Odor Control includes:

- Following a "first-in, first-out" policy for MSW or any odorous waste
- Using an atomized misting system
- Introducing odor counteractants into misting system as necessary
- Using overhead doors to contain odorous materials or deliveries
- Removing MSW from the floor and minimizing overnight stockpiles

Recent upgrades to the misting system included upgrading the dosimeter and nozzles to improve system function.

In order to assess potential odor for the tonnage expansion Project, Tech Environmental assessed potential odor at the Facility which is presented in the Odor Studies included in the ENF and DEIR.

Odor potential at this Facility is predominately from Municipal Solid Waste (MSW) and not Construction and Demolition (C&D) Debris. And although the Facility is presently primarily focused on handling C&D, it is currently permitted to accept the maximum permitted capacity of either waste stream or a combination of the two for flexibility. Operating permits cap storage of MSW overnight to 600 tons.

The worst-case odor potential will occur when the daily inbound waste stream is predominately MSW. The maximum odor potential is directly proportional to both the temperature and age of the waste. The odor potential in the winter is typically much lower than the summer since the biological activity is slowed with decreased temperature. Therefore, to demonstrate that the maximum odor potential would not result in nuisance conditions, the Odor Study evaluated an all-MSW acceptance scenario. Data collected from a New York City transfer station in August where substantial amounts of MSW were stored in the transfer station overnight, and over long weekends were used to be conservative.

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## Air Quality Impacts (F), Continued

**Odor Emissions**, Continued

So long as the Facility follows their current protocols of first-in-first-out MSW waste handling procedure and appropriately manages the stockpiles throughout the day and each day, the Facility can continue to store up to 600 tons of MSW on the floor at the end of each day and not create a potential nuisance condition.

Currently, the Facility prefers to leave less than 150 tons of MSW on the floor for good housekeeping reasons and for ease of operation within the handling building. Given that the Facility is a transfer station, the goal is to quickly and efficiently move materials through the Facility such that there is space to handle the consistent flow of materials and maintain functionality of the Facility.

Tech assessed two different scenarios of MSW storage (150 tons and 600 tons) based upon assumptions surrounding current operations and permit limitations and concluded that neither scenario would create off-site nuisance conditions.

There is a potential that MSW odor vapor can be released directly or attach to the dust particulates generated from C&D handling, so the Facility is committed to the Best Management Practice (BMP) of using an atomized misting system within the waste storage and processing areas. In the two scenarios examined, a 50% reduction in odor and particulate matter was assumed for water misting. This typical misting reduction is considered conservative.

If the Facility were to switch to an all-MSW scenario or plan to store close to 600 tons per day on the floor in the future on a regular basis, the study performed suggested that some additional odor control measures could and should be considered. If the Facility continues to focus on C&D transfer, there is little reason to consider anything additional to the current BMPs.

Tech concluded that the results of the odor modelling analyses show that the WIN-NE Facility will not cause an adverse impact to health, safety, or the environment with respect to odors at nearby residential receptors. Although the study does not warrant it, it was Tech's recommendation that the Facility proactively install odor control in the future if the Facility changes its current operating focus from C&D processing to handling MSW and plans to regularly store the current limit of 600 tons of MSW on the floor overnight.

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## Air Quality Impacts (F), Continued

| | |
|---|---|
| **Attainment Status** | According to the EPA's AirData Air Quality Monitor mapping [https://epa.maps.arcgis.com/apps/webappviewer/index.html], the site is within an attainment status area. |

# Nuisance Conditions (G)

**Introduction**

The following section addresses nuisance conditions identified at 310 CMR 16.40(4) (g).

**Noise**

Noise on site is currently minimized by conducting all tipping, handling, and loading of waste materials within an enclosed building. Additionally, the building layout was previously designed to face the tipping doors and "activity areas" to the north away from the nearest residential receptors, thereby using the building itself to provide a noise barrier.

Tech prepared a sound study to determine if the increase in tonnage at the Facility will cause a nuisance sound condition. The potential increase in sound was assessed including the increased traffic expected from the added tonnage. Ambient sound levels were recorded over 7 days as per ANSI standards and MassDEP's typical requirements at the site to establish existing sound levels in the vicinity of the Facility. The hours of operation were considered, and two ambient scenarios were developed to coincide with two operating conditions. The first scenario was the typical daytime condition. In the typical daytime condition, all sound sources were conservatively assumed to be operating simultaneously with reasonable usage factors. A second ambient condition titled "End of Day" was considered for the hours of 5 PM to 7 PM weekdays and 1 PM to 3 PM Saturdays (after active tipping hours) where less equipment would be operated as the Facility winds down and cleans up for the next day. Both of these scenarios are described in more detail within Tech's Sound Study.

A three-dimensional noise model was used predict the sound of the Facility operating, conservatively with the overhead tipping and loadout doors open during the daytime, and with only one tipping door closed during the "End of Day" scenario. The model predicted sound increases at the closest receptors on Malburn Street, Meadow Pond Drive, Abbey Road, Litchfield Street, Calza Street, and Ruth Street.

Results of the model indicated that predicted sound levels at the identified receptors would not increase more than 10 dBA above the ambient sound level or create a "pure tone" condition, as required by the MassDEP Noise Policy.

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## Nuisance Conditions (G), *Continued*

**Noise**, Continued

The Sound Study demonstrated that the Facility with the proposed increase in throughput, pursuant to 310 CMR 16.40(4)(g), will not cause a nuisance sound condition which would constitute a danger to the public health, safety, or the environment. This assessment shows that the impacts from all sounds due to the Project demonstrates compliance with the MassDEP Noise Policy and the Leominster Noise Ordinance, and therefore will not cause a condition of noise pollution.

No additional recommendations such as acoustical controls, earthen berms, or other sound attenuation measures are recommended at this time. The proposed Project complies with the requirements of 310 CMR 16.40(4) (g) (1). See Attachment 6 for a copy of the Sound Study.

**Litter**

All waste handling activities will occur within the confines of the existing building. This building will provide for significant protection from the elements, thus significantly reducing the potential for windblown litter nuisance conditions.

All commercial vehicles that will transport materials either to or from the Facility will be required to be covered in order to prevent incidental littering. The Facility has protocols in place to ban drivers that violate this requirement.

The Facility also implements a daily inspection and sweeping program as a part of the Operations & Maintenance Program to control windblown litter on site and along Tanzio Road, if observed.

For these reasons, the establishment or operation of the Facility not result in a nuisance condition that would constitute a danger to the public health, safety, or the environment taking into account litter pursuant to 310 CMR 16.40(4)(g)(2).

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## Nuisance Conditions (G), Continued

**Vectors**

Vermin will be discouraged by confining the waste handling operations to the inside of the existing building. Additionally, MSW is handled in such a way as to avoid the attraction of rodents and insects by rapidly moving the material from the tipping floor to the rail cars or trucks. For these reasons, coupled with the mitigation measures presented in the next section, the establishment or operation of the Facility will not result in nuisance conditions that would constitute a danger to public health, safety, or the environment taking into consideration vermin such as rodents and insects pursuant to 310 CMR 16.40(4)(g)(3).

**Vector Mitigation**

WIN-NE will implement mitigation measures to ensure that vectors do not pose a nuisance condition. The following measures are incorporated into WIN-NE's Operation and Maintenance Plan and further describe and illustrate the processes and procedures for the control of nuisance conditions. Proposed measures include, but are not limited to the following:

- Contracting with a vector control management firm.
- Installing rodent traps within and around the interior and exterior of the building.
- Minimizing door openings within the existing building.
- Conducting all waste handling activities indoors.
- Maintaining equipment on-site that will remove the materials from the tipping floor for subsequent handling.
- Covering the containers and trailers prior to leaving the waste handling building.
- Sweeping the paved areas and the interior of the building (as needed) at regular intervals.
- Instituting a daily inspection program for vectors following the Facility's Operations and Maintenance Plan.

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## Nuisance Conditions (G), Continued

**Odors**

WIN-NE incorporates policies and procedures to ensure that nuisance odor conditions do not develop. The Facility has received some odor complaints from one nearby location and have been cooperative and responsive to help identify the odor source and mitigate if determined to be Facility related. The Facility has upgraded the dosimeter and nozzles in the handling building to improve the misting system's effectiveness for odor control. WIN-NE does not anticipate that nuisance odor conditions will occur on and/or off-site based upon these policies and procedures, and historical operations. As discussed in the Air Quality section, Tech concluded that the results of the odor modelling analyses show that the WIN-NE Facility will not cause an adverse impact to health, safety, or the environment with respect to odors at nearby residential receptors.

**Odor Mitigation**

Proposed policies and procedure with respect to nuisance odor conditions include the following measures:

- Confining all waste handling to within the building only
- Having the ability to entirely enclose/secure the Facility
- Instituting a first in/first out procedure
- Covering full railcars and transfer trailers
- Using a fine water mist and odor agents to reduce odor-adhering particulate matter from escaping the building
- Limit storage of MSW in the building overnight and over weekends
- Add additional control if necessary
- Good housekeeping

For these reasons, the establishment or operation of the Facility will not result in nuisance conditions that would constitute a danger to public health, safety, or the environmental taking into consideration odors pursuant to 310 CMR 16.40(4)(g)(4).

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## Nuisance Conditions (G), Continued

**Bird Hazards to Air Traffic**

The closest airport identified is the Fitchburg Municipal Airport located approximately 2.95 miles (north) from the Site. Based on the distance to the nearest airport and the design considerations noted below, birds will not be a hazard to air traffic.

- The Facility will not be a landfill, and thus is not subject to the regulations discussed in the FAA Advisory Circular #150/5200-34(2000) regarding the construction or establishment of municipal solid waste landfills near airports.
- The Site is outside of the 3,000-foot buffer established by M.G.L. Chapter 90, Section 35B for building height restrictions within proximity of airports.
- Vectors such as gulls will not be attracted to the Site given the completely enclosed operation.
- No waste handling, loading, or unloading, will be allowed outside of the building.
- A vector control service will be contracted.

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## Nuisance Conditions (G), *Continued*

**Bird Hazards to Air Traffic - Mitigation**

Even though bird hazards are not a significant concern at the subject Facility, WIN-NE will still implement mitigation measures to ensure that bird hazards do not pose a threat. The following measures are incorporated into WIN-NE's Operation and Maintenance Plan and further describe and illustrate the process and procedures for the control of nuisance conditions. These measures include, but are not limited to the following:

- Minimizing door openings within the existing building;
- Closing the doors when the Facility is not operating;
- Conducting all waste handling activities indoors;
- Maintaining equipment on-site that will remove the materials from the tipping floor for subsequent handling and off-site shipment;
- Covering the containers and trailers prior to leaving the handling building;
- Sweeping the paved areas and the interior of the building (as needed) at regular intervals; and,
- Instituting a daily inspection program for vectors following the Operations and Maintenance Plan.

Based on the location of the airports from the Site and the existing controls at the Site, the establishment or operation of the Facility would not result in nuisance conditions that would constitute a danger to the public health, safety, or the environment taking into consideration bird hazards to air traffic in compliance with the requirements of 310 CMR 16.40(4) (g) (5).

**Other Nuisance Conditions**

Other nuisance conditions are not likely to exist during the operation of the Facility. No nuisance conditions have occurred since the commencement of operations at the Facility.

The proposed Project complies with the requirements of 310 CMR 16.40(4) (g) (6).

# Size of the Facility (H)

**Introduction**

The following section discusses the characteristics and logistics of the existing Facility and details how the Facility is designed to adequately handle up to 1,500 TPD of MSW and C&D material and meet the Size of Facility criterion at 310 CMR 16.40(4)(h). This section includes information regarding the following:

- Size of the Facility
- Access Roads (Material Ingress & Egress)
- Vehicle Queuing Areas
- Tipping, Waste Consolidation, and Loading Operations
- Comparison with Existing Facilities
- Waste Tipping Capacity Factors
- Setbacks of Waste Handling Areas from property boundaries

**Size of Facility**

The size of the Site is sufficient to properly operate and maintain the Facility. The existing Facility consists of an approximately 32,400-square foot handling building as well as a rail yard, two scales, scale house, employee facilities and office space, associated driveway and parking areas, underground utilities, site grading, paving, and stormwater controls. The Facility is located on 13.46 acres of land of which 11.33 acres is Site Assigned. Please refer to Figure 5 that depicts the parcel and site assigned within this parcel.

The existing Facility is designed to accept C&D and MSW delivered by truck for handling and transfer primarily onto rail cars and secondarily, as conditions dictate, larger trucks for transport to various off-site locations. The Facility is equipped with a sorting line to process C&D for recycling and to meet Massachusetts-required Minimum Performance Standards. The handling building (solid waste handling area) has been sized so that all unloading, handling, and loading onto rail cars and/or trucks will occur within the building interior.

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## Size of the Facility (H), *Continued*

**Access Roads – Material Ingress and Egress**

The following describes the waste flow on-site.

1. Vehicular ingress and egress is from/to Tanzio Road to the east of the subject property.
2. The ingress traffic pattern follows along the paved driveway that runs counterclockwise around the Site from the east to the inbound scale, north to the tarmac area and tipping doors, and then west to the outbound scale. The paved areas provide for adequate queuing, two scales, and by-pass lanes to ensure there is no queuing on Tanzio Road. The scale house is located at the outbound scale but is equipped with communication equipment to and with sightlines to the inbound scale. Scale house personnel are able to monitor inbound and outbound traffic patterns. The Facility can utilize both scales for inbound and/or outbound operations, if ever necessary.
3. From the inbound scale, delivering waste vehicles proceed north-westerly around the handling building to the paved tarmac area on the northeast side of the handling building. The vehicle backs into one of the four inbound off-loading doorways, as directed by staff. A fifth doorway in the northwest corner is reserved for railcars or outbound live floor tractor trailers. A sixth door in the southwest corner was originally constructed for outbound live floor tractor trailers only, but has been since closed off to accommodate sorting bins for the C&D sorting station. Please see Figures 5 and 6, which depict the exterior Facility layout and interior building layout, respectively, and Figure 7 which includes a Traffic Movement and Turning Radius Plan. It should be noted that there are adequate access/turning radii to provide access around the entire building.
4. Once in the handling building, the inbound waste vehicles will tip their loads and exit out of the tipping door in which they entered located along the northeastern side of the waste handling building.
5. Exiting vehicles would proceed from the handling building to the west in a counterclockwise direction to the outbound scale and scale house.

Additionally, by having two scales, the Facility can easily handle the additional vehicles associated with the tonnage increase. The outbound scale can always be used for inbound trucks using the bypass lane if necessary to maintain the efficient flow of vehicles throughout the Site.

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## Size of the Facility (H), *Continued*

**Vehicle Queueing**

The Site provides a significant amount of space for vehicle queuing (whether inbound or outbound) as there are staging areas located post-inbound scale all the way around the entire transfer building. As previously noted, both scales can weigh inbound vehicles simultaneously so that there is no queueing on Tanzio Road. All inbound scale traffic will take precedent over outbound scale traffic.

**Building Size, Elevations, and Doorways**

The existing waste handling building has general envelope dimensions of 150 feet (east to west) by 230 feet (north to south). The building's footprint allows for two coupled railcars to be in the handling building at one time. See Figures 5 and 6 which depicts the following:

1. Existing building dimensions.
2. Dimensions of the four (4) discrete areas (Temporary Waste Storage, Tipping and Waste Inspection Area, Outbound Loading Area, and Railcar Staging area). These areas will be discussed in further detail within the Size of Facility Section of this narrative.
3. The location and approximate size of the existing doorways.
4. Locations of the interior trench drain system.
5. Pushwall locations and wall heights.
6. The location and orientation of the C&D sorting line.

The existing building height is approximately 45 feet at the peak and runs in a north-south direction.

*Continued on next page*

## Size of the Facility (H), *Continued*

**Staging & Handling Areas**

As described above, the building has four discrete areas for staging and handling waste. Please refer to Figure 6 for the Interior Layout Plan. The following table describes these areas.

| Location | Usable Area (sf) | Description |
|---|---|---|
| Tipping and Waste Inspection Area | 4,500 | This 4,500-square foot area has ample room to allow for inbound vehicles to tip waste materials. Additionally, there is room for waste inspections and loader articulation to push waste to the outbound loading area or temporary waste storage areas. Also, if deemed necessary, a roll-off container can be situated within this area to provide for temporary storage of separated waste ban items. |
| Temporary Waste Storage | (6,600 + 4,700) 11,300 total | There are two temporary waste storage areas within the building. Based on general calculations and pushwall heights, the central area can store approximately 4,400 cubic yards and the second area near the feed hopper to the sorting station can store approximately 3,600 cubic yards. |
| Outbound Loading Area | 4,500 | The outbound loading area will stage a loader and/or an excavator that will load outbound railcars or live floor trailers. After the waste is tipped and inspected, it can be pushed to this area for immediate loadout or pushed to the temporary waste storage area. |
| Railcar Staging Area | 3,731 | The railcar staging area can either service railcars or live floor trailers. Given the length of the building (230 feet), it has the ability to house two flatbed or three gondola railcars or two live floor tractor trailers within this area with the doors closed. |
| Sorting Station | 3,600 | The elevated sorting station is used for processing Category 1 & 3 C&D and separating recyclables. Collection bins are located below the sorting station for collection of recyclables. |

*Note: The usable areas are slightly different than the entire building envelope as pushwalls and other features were removed from the calculations.*

*Continued on next page*

## Size of the Facility (H), *Continued*

| | |
|---|---|
| **Tipping Overview** | The Facility's operations protocols require personnel to inspect and oversee waste tipping activities. The following table outlines WIN-NE's procedures. |

| Step | Action |
|---|---|
| 1 | An incoming driver is prompted to back their vehicle up and onto the concrete tipping area. |
| 2 | Facility personnel will direct the driver to tip the waste in one of several designated areas. |
| 3 | The load is inspected by trained Facility personnel for unacceptable materials (e.g., visible waste ban materials). |
| 4 | Pending an acceptable inspection, the vehicle exits the waste handling area within the building and heads towards the outbound scale. |

**Waste Consolidation**

The following table outlines WIN-NE's procedure for waste consolidation within the waste handling building.

| Step | Action |
|---|---|
| 1 | Pending an acceptable inspection and safe vehicle exit, the tipped waste materials may be pushed to the waste staging area located within the southern and northeastern portions of the building. |
| 2 | The waste materials may also be pushed and/or consolidated in the waste tipping and inspection area and pushed for subsequent loadout in the outbound loading area located along the western interior of the building. |
| 3 | The materials will be managed by a front-end loader and/or excavator. |

Given the space, proper vehicle movement throughout the building can be achieved.

*Continued on next page*

## Size of the Facility (H), *Continued*

**Railcar or Live Floor Loading Operations**

The following table outlines WIN-NE's procedure for railcar or truck loading within the building.

| Step | Action |
|---|---|
| 1 | A front-end loader and/or excavator will transport waste materials from the temporary waste storage area and/or directly from the waste tipping and inspection area. |
| 2 | The materials will be directly loaded into a live floor trailer and/or rail car located in the outbound loadout and railcar staging area. |
| 3 | The rail cars and/or trailers will be covered with an appropriate cover for subsequent staging and transport to the final disposal destination. |
| *Note: Any Category 1 C&D will be staged separately and either processed on site or shipped to a MassDEP-approved processor that is compliant with the waste ban regulations (310 CMR 19.017)* | |

**Comparison with Existing Facilities**

The existing 32,400-square foot waste handling building has easily handled the existing permitted 1,000 tpd of waste. This building provides greater operational area than the existing 1,600 tpd, 23,600-square foot Braintree transfer station; and similar area to the 1,200 TPD, 33,300-square foot Casella Holyoke processing and transfer station with respect to building size. Additionally, it appears this Facility will exceed the aforementioned facilities with respect to queueing areas and overall size of the site, etc.

*Continued on next page*

## Size of the Facility (H), *Continued*

**Waste Tipping Capacity Factors**

The table presented below has been prepared to outline the doorway capacities as it relates to tonnage based on various delivery scenarios.

| WIN-NE Three Door Peak Factor Calculations | | | |
|---|---|---|---|
| | **All 8-Ton Packer/Roll-off Vehicles** | **50% Packers/Roll-off & 50% Live Floor Trailers by Weight** | **100% Live Floor Trailers by Weight** |
| Average Tons Per Vehicle | 8 | 12 | 28 |
| Inbound Trucks Per Day Based on Weight Assumptions | 188 | 121 | 54 |
| Tons Received Per Day at Facility | 1500 | 1500 | 1500 |
| Operational Hours Per Day for Tipping Waste | 13 | 13 | 13 |
| Hourly Tonnage if Averaged Over 13 Operational Hours | 116 | 116 | 116 |
| Number of Doorways Used | 3 | 3 | 3 |
| Time to Tip per Vehicle (Minutes Averaged) | 10.0 | 11.1 | 15 |
| Trucks Per Hour Per Doorway | 6 | 5 | 4 |
| Tons Per Hour Per Doorway | 48 | 60 | 112 |
| Tons Per Hour - 3 Doorways | 144 | 180 | 336 |
| Peak Capacity Factor 3 Doorways Utilized | 1.25 | 1.56 | 2.91 |

*Notes:*

1. *Packers/Roll-off weights averaged and assume to carry 8-tons per vehicle.*
2. *Live floor trailers assumed to carry 28 tons per vehicle.*
3. *Tipping time for packers/roll-off is 10 minutes (generally tipping is less than 5 minutes).*
4. *Tipping time for live floor trailers is 15 minutes.*
5. *Columns 2 and 3 assume that tonnage average is by weight. For example, if deliveries are 50% packers/roll-offs and 50% live floor trailers, then each vehicle type delivers 500 TPD.*
6. *Column 3 has assumed 100% live floor trailers.*
7. *Figures have been rounded up when necessary.*

*Continued on next page*

## Size of the Facility (H), Continued

**Waste Handling Setbacks**

The table below presents various setbacks from the waste handling area which is the handling building.

| Setback | Distance |
|---|---|
| Handling Building to closest property line | 120 feet to closest western property line |
| Handling Building to closest occupied residential dwelling | 508 feet to property located to the west-southwest |
| Handling Building to closest Riverfront Area | 20 feet |

*Note: Please refer to Figure 5 that depicts various setbacks to features such as Riverfront Area. Additionally, refer to the Priority Resource and Land Use sections of this narrative and Figures 2 and 3 that depict setbacks from other various features that are located off-site. Based on the regulations set forth in 310 CMR 16.40, all of the required minimum setbacks are met.*

**Conclusion**

Based on the size of the Site, the design of the existing handling building, associated paved surfaces, the available space for queuing of trucks, and the analysis of the interior operations, the size of the Site is sufficient to properly operate and maintain the proposed expanded Facility.

The proposed Project complies with the requirements of 310 CMR 16.40(4)(h).

# Areas Previously Used for Solid Waste Disposal (I)

| | |
|---|---|
| **Introduction** | The following section discusses areas previously used for solid waste disposal and demonstrates compliance with 310 CMR 16.40(4) (i). |
| **Abutting Properties** | Based on GSE's research, no former solid waste landfill disposal activities were identified on abutting properties. |
| **Site** | No portion of the Site has been previously used for solid waste disposal as listed on the MassDEP Solid Waste Facilities Master List. |
| **Conclusion** | 1. No prior solid waste Facility operated on any area adjacent to the Facility.<br>2. GSE is unaware of any solid waste activities or contamination that would adversely impact or threaten to adversely impact the Site.<br>The proposed Project complies with the requirements of 310 CMR 16.40(4) (i). |

# Existing Disposal Facilities (J)

**Introduction**

The following section discusses existing disposal facilities in the vicinity of the Site and demonstrates that the Facility is entitled to a preference pursuant to 310 CMR 16.40(4) (j).

**Active Disposal Facilities**

MassDEP and the local Board of Health shall give preferential consideration to sites located in municipalities in which no existing landfill or solid waste combustion facilities are located, a preference that will be applied only to new facilities that will not be for the exclusive use of the municipality in which the Site is located. The Facility meets these requirements and is entitled to a preference.

First, there are no active combustion facilities or landfills in Leominster as listed on the MassDEP Solid Waste Facilities Master List. The MassDEP Solid Waste Facilities Master List includes four inactive or closed landfills in Leominster. They are:

- Leominster Landfill (inactive) - located 0.95 miles from the subject site
- Mechanic Street Landfill (closed) - located 0.8 miles from the subject site
- Margot Xarras/Lock Drive (inactive) - located 1.37 miles from the subject site
- 89 Commercial Road, LLC (closed) - located 1.78 miles from the subject site

Second, the Facility will not be for the exclusive use of the City, thus the Facility should be given preferential consideration.

It is presently unknown how much MSW or C&D is generated within the City of Leominster, however given the population (approximately 46,000 residents) and the proposed increase to the Facility's capacity, the Facility can contribute to the City's and its region's ability to provide to both the private and public sectors an economically competitive and efficient means to manage their C&D and MSW. This rail-served Facility will allow the region to access disposal outlets that are generally not viable (economical) through traditional trucking.

# Other Sources of Contamination or Pollution (K)

**Introduction**

The Facility includes environmental controls for stormwater, contact water, dust, odors, vectors, bird hazards, and noise. The Facility will not pose a threat to public health, safety, or the environment taking into consideration the impacts of existing sources of pollution or contamination pursuant to 310 CMR 16.40(4)(k).

**Consideration of Other Sources of Contamination or Pollution**

The Facility creates an overall reduction in $CO_2$ emissions annually. Currently, the Facility ships both MSW and Category 2 C&D residuals by rail, which depending on the quantity of MSW shipped by rail, accounts for 50% to 95% of the current outbound waste stream. It is documented by CSX that moving freight (waste) by rail is approximately 4 times more fuel efficient than moving freight on the highway. Trains can move a ton of freight over 470 miles on a single gallon of fuel whereas a truck can move a ton of freight only approximately 134 miles per gallon of fuel.

Consolidating waste and incorporating rail efficiencies can result in significant reductions to $CO_2$ emissions, which follows the goals and initiatives of the Massachusetts Environmental Policy Act (MEPA), M.G.L. c. 30, ss. 61-621 and within 301 CMR 11.00.

The proposed Project complies with the requirements of 310 CMR 16.40(4)(k).

# Regional Participation (L)

**Regional Participation & Need**

MassDEP and the Board of Health shall give preferential consideration to sites located in municipalities not already participating in a regional disposal Facility pursuant to 310 CMR 16.40(4) (l).

When this Facility was originally permitted, the City was considered a preferred municipality under M.G.L. c. 111, § 150A½ (15) and (16) as Leominster did not have an existing solid waste disposal Facility and was not part of a regional waste disposal district. Since the existing Facility is not "new" and is considered an expansion of an existing facility, it is GSE's opinion that preferential consideration is not necessary pursuant to 310 CMR 16.40(4) (l).

The proposed increase in the Facility's maximum daily capacity and annual capacity will support regional need within the surrounding area(s). By having a Facility in close proximity to major roadway networks coupled with access to rail, the Facility is designed around regional participation.

The proposed Project complies with the requirements of 310 CMR 16.40(4) (l).

*Continued on next page*

# Section IV. Integrated Solid Waste Management

**Introduction**

Section IV is applicable to Landfills and Combustion facilities only.

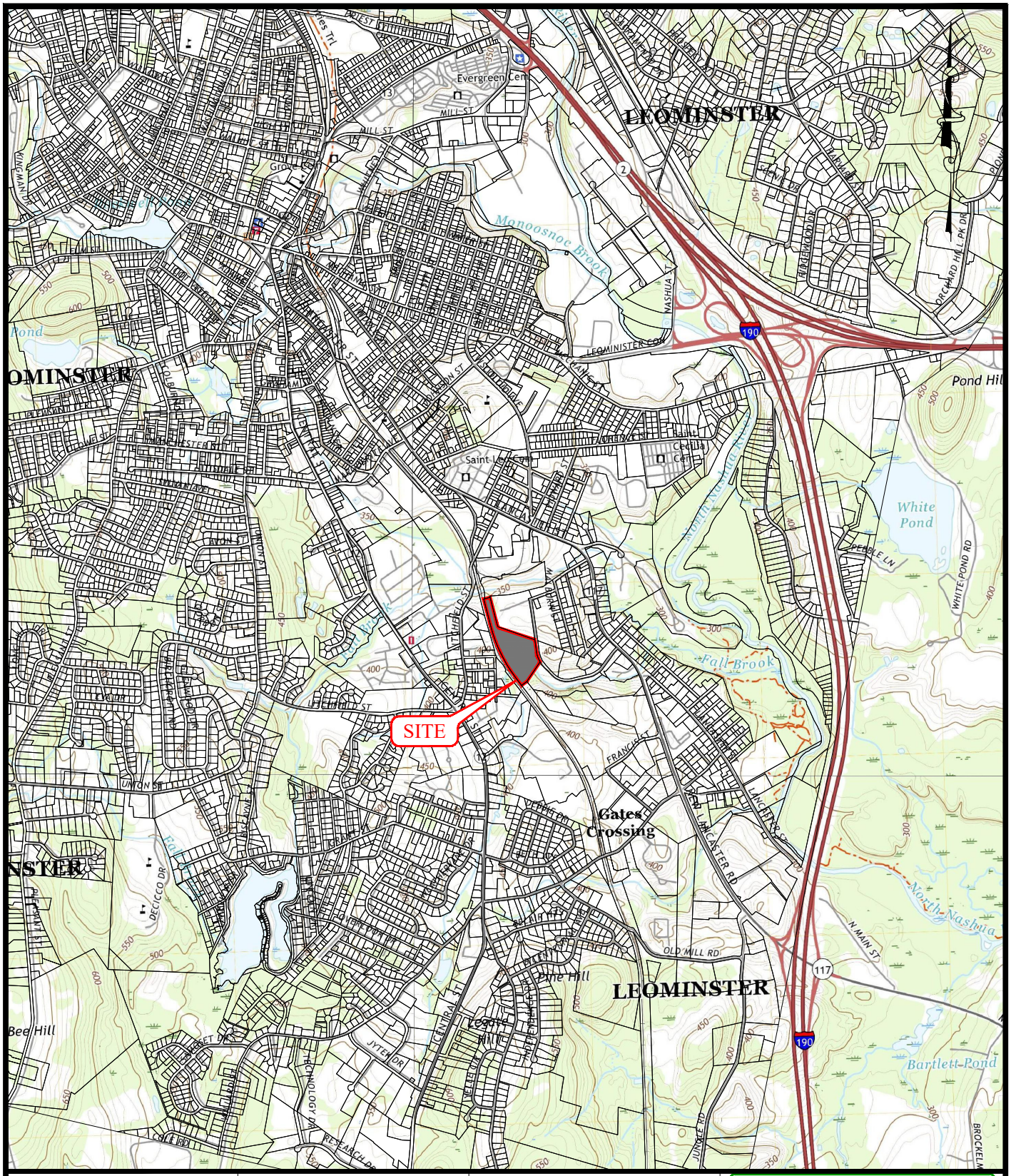
# Section V. Waivers

| | |
|---|---|
| **Waiver** | The Facility is not requesting any waivers under 310 CMR 16.40. |

FIGURES

FIGURE 1

USGS TOPOGRAPHIC LOCUS MAP




NOTE: USGS TOPOGRAPHIC MAP WAS PROVIDED BY THE OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MassMapper), COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS

| REVISIONS | |
|---|---|
| NO./ DATE | COMMENT |
| | |
| | |

DRAWING TITLE:

SITE LOCUS MAP

| CAD TECH: | CHECKED BY: L. BUGAY |
|---|---|
| ENGINEER: L.BUGAY | DATE: 7-28-26 |

PREPARED FOR:

WIN WASTE INNOVATIONS OF NORTHERN NEW ENGLAND, INC.

Green Seal Environmental, LLC
114 State Road, Building B
Sagamore Beach, MA 02562
Tel: (508) 888-6034
Fax: (508) 888-1506
www.gseenv.com

LOCUS:

200 TANZIO ROAD
LEOMINSTER, MA 01453

SCALE:

1" = 2,500'

SHEET:

FIGURE 1

FIGURE 2

WATER RESOURCES PLAN

0.5 MILE RADIUS FROM PROPERTY BOUNDARY

LANCASTER STREET (RTE 117)

WELL ID: 258974
511 LANCASTER STREET

500 FOOT RADIUS FROM PROPERTY BOUNDARY

RESERVOIR BROOK

FALL BROOK

100-FOOT WASTE HANDLING AREA SETBACK

CSX CORPORATION RAILROAD

TANZIO ROAD

SOLID WASTE HANDLING FACILITY

WELL ID: 261137
8 REED STREET

WELL ID: 272701
CRISCI STREET
(STREET # NOT PROVIDED)

FALL BROOK

LITCHFIELD STREET

SITE

WELL ID: 272723
TANZIO ROAD
(STREET # NOT PROVIDED)

MEDIUM YIELD AQUIFER (TYP)

BROOK (UNNAMED)

NHESP CERTIFIED VERNAL POOL

WELL ID: 137336
30 HUDSON STREET

200' OUTER RIPARIAN ZONE TO RIVERFRONT AREA (TYP)

100' WETLAND BUFFER ZONE (TYP)

LITCHFIELD STREET

100 YEAR FLOOD LIMIT (TYP)

WETLAND (TYP)

WELL ID: 258693
823 LANCASTER STREET

CENTRAL STREET (RTE 12)

## LEGEND

- DEP WETLANDS
- 100' BUFFER ZONE
- MEDIUM YIELD AQUIFER
- NHESP CERTIFIED VERNAL POOL
- PRIVATE WELL
- SITE SETBACK
- SITE PROPERTY LINES
- ABUTTER PROPERTY LINE
- FEMA 100 YEAR FLOOD LIMIT
- 200' OUTER RIPARIAN ZONE TO RIVERFRONT AREA
- STREAM

## LEGEND OF FEATURES NOT FOUND

THE FOLLOWING FEATURES WERE SEARCHED FOR AND NOT FOUND WITHIN THE AREA DEPICTED ON THE PLAN:

- ZONE A
- ZONE B
- ZONE I
- ZONE II
- IWPA
- PROPOSED DRINKING WATER SOURCE AREAS
- HIGH YIELD AQUIFER
- MUNICIPAL SUPPLY WELL
- PUBLIC WATER SUPPLY WELL
- POTENTIAL VERNAL POOL

NOTES:

1. THE INFORMATION SHOWN ON THIS PLAN WAS OBTAINED FROM MASSMAPPER.
2. WELL RECORDS WERE RESEARCHED AT MASS GOV EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS DATA PORTAL AND CITY OF LEOMINSTER HEALTH DEPARTMENT. PROPOSED DRINKING WATER SOURCE AREAS RESEARCHED ON MASSDEP WATER MANAGEMENTACT PERMITS AND DECISIONS WEBSITE


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www.gsenv.com



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Dimensions are as indicated.

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It is the responsibility of the user to confirm discrepancies with the Engineer prior to use.


REVISIONS

| NO. | DATE | COMMENT |
|---|---|---|
| | | |

PURPOSE:

BOH - MINOR MODIFICATION OF AN EXISTING SITE ASSIGNMENT

200 TANZIO ROAD
LEOMINSTER, MA 01453

PREPARED FOR:

WIN WASTE INNOVATIONS OF NORTHERN NEW ENGLAND, INC

DRAWING TITLE:

WATER RESOURCES PLAN

| CAD TECH: | CHECKED BY: |
|---|---|
| N. DAVIS | L. BUGAY |
| ENGINEER: | DATE: |
| L. BUGAY | 7-28-26 |
| | SCALE: 1" = 200' |
| | SHEET: FIGURE 2 |

S:\SOLID WASTE DEPARTMENT\CLIENTS\UNITED WASTE MANAGEMENT LEOMINSTER\ACTIVE\DRAWINGS\DRAWINGS PURPOSE 2025-2026\SITE SUITABILITY\CAD\LEOMINSTER FIGURES.DWG

FIGURE 3

LAND USE PLAN

ST LEO'S CEMETERY

0.5 MILE RADIUS FROM PROPERTY BOUNDARY

NHESP ESTIMATED HABITATS OF RARE WILDLIFE

NHESP PRIORITY HABITATS OF RARE SPECIES

LANCASTER STREET (RTE 117)

SOLE PROPRIETOR SOCIAL WORKER

FARMLAND OF UNIQUE IMPORTANCE (TYP)

FULLER STREET CONSERVATION AREA

PRIME FARMLAND (TYP)

500 FOOT RADIUS FROM PROPERTY BOUNDARY

RESERVOIR BROOK

LEOMINSTER LASSIE LEAGUE FIELD COMPLEX

LINCOLN WOODS

FARMLAND OF STATEWIDE IMPORTANCE (TYP)

AREA OF CRITICAL ENVIRONMENTAL CONCERN (TYP)

SOLID WASTE HANDLING FACILITY

CSX CORPORATION RAILROAD

TANZIO ROAD

LITCHFIELD STREET

JOHNNY APPLESEED STATE PARK

100 FOOT WASTE HANDLING AREA SETBACK

SITE INDUSTRIAL DISTRICT

EAGLES FIELD

LITCHFIELD STREET

CENTRAL STREET (RTE 12)

OLD DEERFIELD WOODS ESTATES CONSERVATION AREA

TAK CENTER FOR MENTAL HEALTH-MEDICAL OFFICE

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## LEGEND

- FARMLAND OF UNIQUE IMPORTANCE
- FARMLAND OF STATEWIDE IMPORTANCE
- PRIME FARMLAND
- AREA NO LONGER FARMLAND
- CONSERVATION LAND
- CONSERVATION AND RECREATION AREA
- HISTORICAL/CULTURAL AREA
- AREAS OF CRITICAL ENVIRONMENTAL CONCERN
- NHESP ESTIMATED HABITATS OF RARE WILDLIFE
- NHESP PRIORITY HABITATS OF RARE SPECIES
- SITE SETBACK
- WASTE HANDLING AREA SETBACK
- SITE PROPERTY LINES
- ABUTTER PROPERTY LINE
- HEALTHCARE

## LEGEND OF FEATURES NOT FOUND

THE FOLLOWING FEATURES WERE SEARCHED FOR AND NOT FOUND WITHIN THE AREA DEPICTED ON THE PLAN:

- STATE FORESTS
- OTHER SOLID WASTE FACILITIES
- WILDLIFE MANAGEMENT AREAS
- MDC RESERVATIONS

NOTES:

1. THE INFORMATION SHOWN ON THIS PLAN WAS OBTAINED FROM MASSGIS.
2. NO PRISONS, CHILDREN'S PRE-SCHOOLS, ELEMENTARY SCHOOLS, MIDDLE SCHOOLS, HIGH SCHOOLS, DAYCARES, SENIOR CENTERS OR YOUTH CENTERS WERE FOUND WITHIN A ONE-HALF MILE RADIUS OF THE SITE.
3. SEE FIGURE 4 FOR ZONING AND OVERLAY MAP.
4. NO OTHER SOLID WASTE FACILITIES WERE FOUND WITHIN ONE-HALF MILE OF THE SITE.

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REVISIONS

| NO. | DATE | COMMENT |
|---|---|---|
| | | |

PURPOSE:

BOH - MINOR MODIFICATION OF AN EXISTING SITE ASSIGNMENT

LOCUS:

200 TANZIO ROAD
LEOMINSTER, MA 01453

PREPARED FOR:

WIN WASTE INNOVATIONS OF NORTHERN NEW ENGLAND, INC.

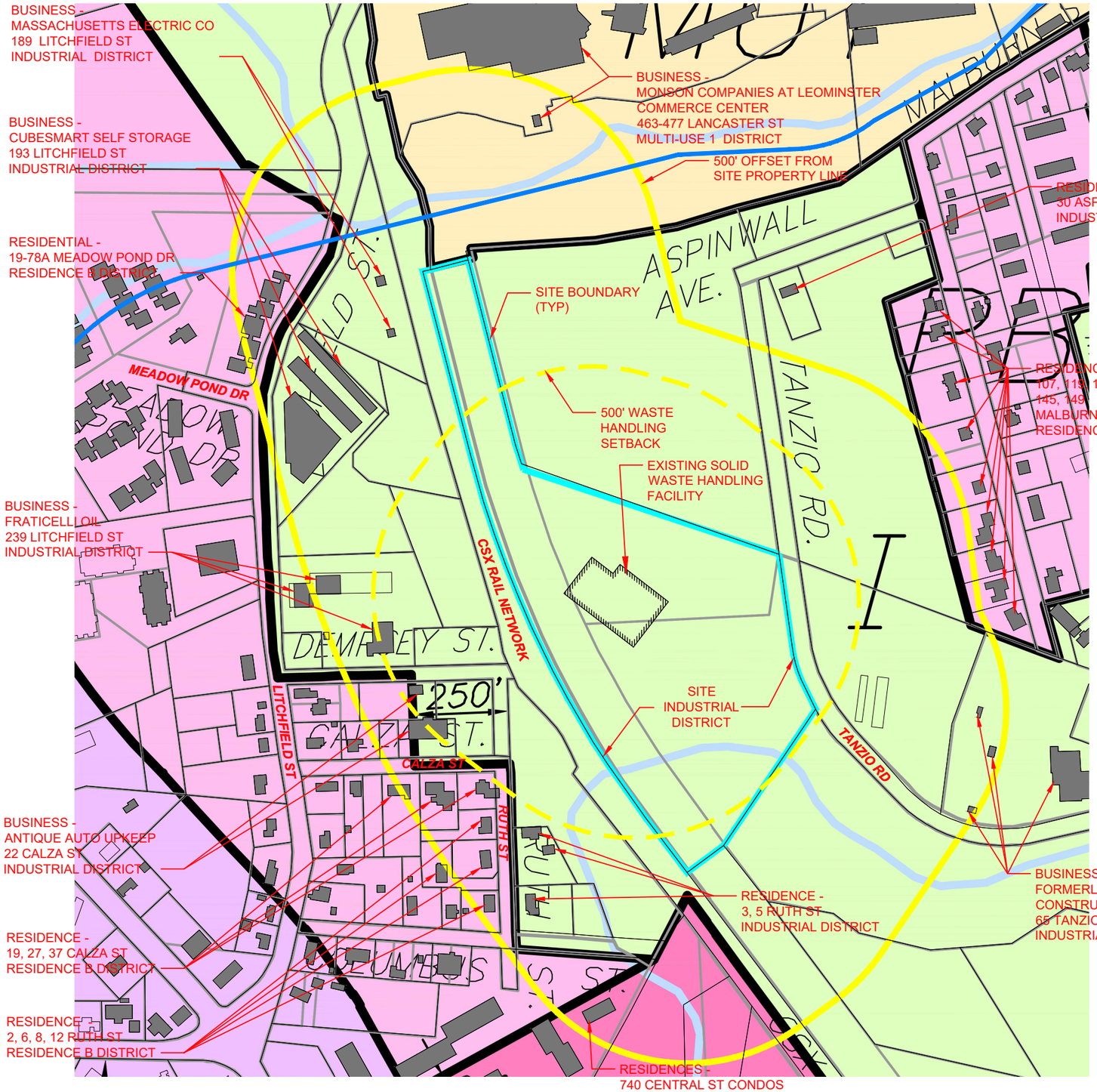
DRAWING TITLE:

LAND USE PLAN

| CAD TECH: | CHECKED BY: |
|---|---|
| N. DAVIS | L. BUGAY |
| ENGINEER: | DATE: |
| L. BUGAY | 7-28-26 |
| | SCALE: 1" = 200' |
| | SHEET: FIGURE 3 |

FIGURE 4

PROPERTY IDENTIFICATION AND ZONING MAP




LEOMINSTER MASSACHUSETTS · CITY 1915 ·

**January 14, 2013**

## *Sheet 1 of 2:*

## *Water Supply Protection and Underlying Districts*

*LEGEND*

- WSP — WATER SUPPLY PROTECTION DISTRICT

*UNDERLYING DISTRICTS:*

- RR — RURAL RESIDENCE AND AGRICULTURE
- RA — RESIDENCE A
- RB — RESIDENCE B
- RC — RESIDENCE C
- BA — BUSINESS A
- BB — BUSINESS B
- C — COMMERCIAL
- I — INDUSTRIAL
- MU1 — MULTI-USE 1
- MU2 — MULTI-USE 2
- V — VILLAGE
- AREA OF CITY DEPICTED ON SHEET 2
- INTERSTATE HIGHWAY
- STATE NUMBERED ROUTE
- PUBLIC OR PRIVATE STREET OR WAY
- HIGHWAY OR STREET TRAVEL LANE
- PARCEL PROPERTY LINE
- WATER BODY
- WATER COURSE
- EXISTING STRUCTURE
- SITE PROPERTY LINES

NOTE:

THE INFORMATION SHOWN ON THIS PLAN WAS OBTAINED FROM THE CITY OF LEOMINSTER AND MASSMAPPER.


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Sagamore Beach, MA 02562
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REVISIONS

| NO. | DATE | COMMENTS |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

PROJECT:

MODIFICATION OF AND EXISTING SITE ASSIGNMENT

LOCUS:

200 TANZIO ROAD
LEOMINSTER, MA 01453

PREPARED FOR:

WIN WASTE INNOVATIONS OF NORTHERN NEW ENGLAND

DRAWING TITLE:

ZONING & OVERLAY MAP

ENGINEER: L. BUGAY

CAD TECH: N. DAVIS

CHECKED BY: L. BUGAY

SCALE: Not to Scale

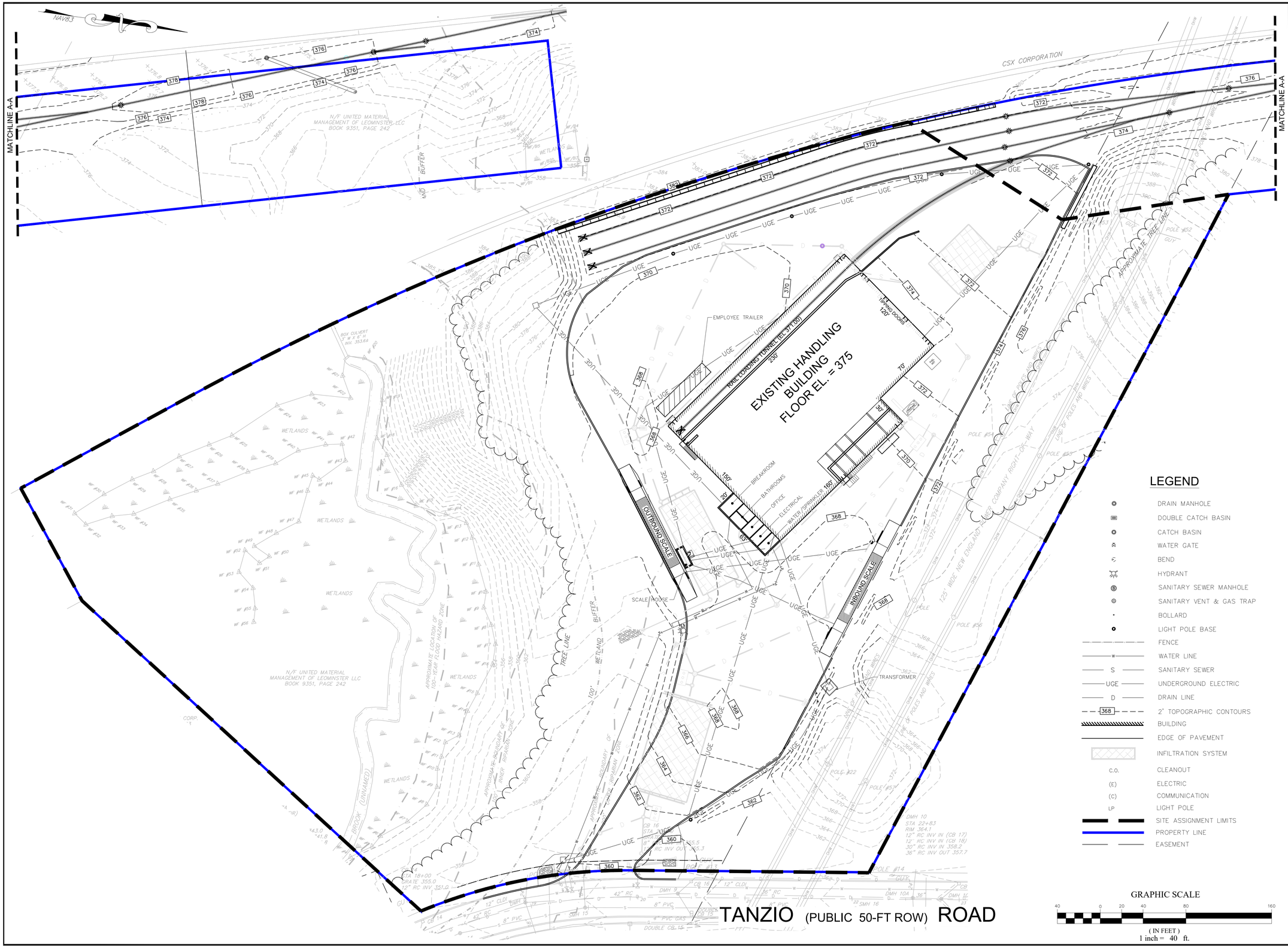
DATE: 7-27-26

SHEET: FIGURE 4

S:\SOLID WASTE DEPARTMENT\LEOMINSTER\WIN WASTE INNOVATIONS\MODIFICATION OF EXISTING SITE ASSIGNMENT\DWG\ZONING & OVERLAY MAP - MODIFICATION OF EXISTING SITE ASSIGNMENT.DWG

FIGURE 5

EXISTING AND PROPOSED CONDITIONS PLAN (EXTERIOR)



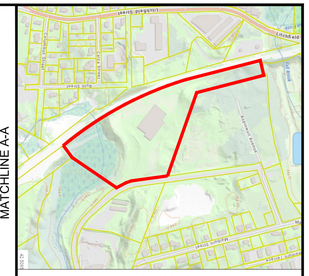

## LEGEND

- DRAIN MANHOLE
- DOUBLE CATCH BASIN
- CATCH BASIN
- WATER GATE
- BEND
- HYDRANT
- SANITARY SEWER MANHOLE
- SANITARY VENT & GAS TRAP
- BOLLARD
- LIGHT POLE BASE
- FENCE
- W — WATER LINE
- S — SANITARY SEWER
- UGE — UNDERGROUND ELECTRIC
- D — DRAIN LINE
- 368 — 2' TOPOGRAPHIC CONTOURS
- BUILDING
- EDGE OF PAVEMENT
- INFILTRATION SYSTEM
- C.O. — CLEANOUT
- (E) — ELECTRIC
- (C) — COMMUNICATION
- LP — LIGHT POLE
- SITE ASSIGNMENT LIMITS
- PROPERTY LINE
- EASEMENT

GRAPHIC SCALE

40 0 20 40 80 160

( IN FEET )
1 inch = 40 ft.



LOCUS MAP
N.T.S.

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REVISIONS

| NO. | DATE | COMMENT |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

PURPOSE:

MODIFICATION OF AN EXISTING SITE ASSIGNMENT

LOCUS:

200 TANZIO ROAD
LEOMINSTER, MA 01453

PREPARED FOR:

WIN WASTE INNOVATIONS OF NORTHERN NEW ENGLAND, INC.

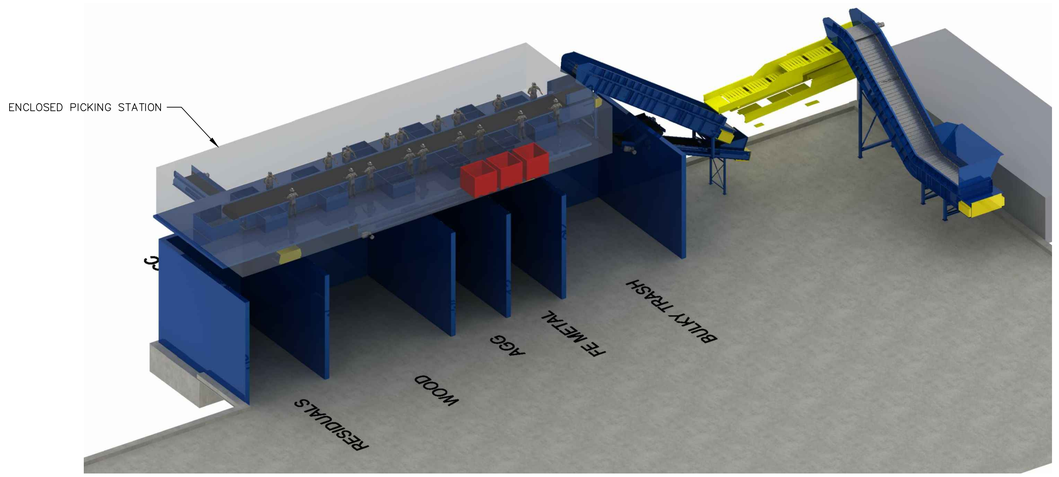
DRAWING TITLE:

EXISTING AND PROPOSED CONDITIONS PLAN - EXTERIOR

| CAD TECH: | CHECKED BY: |
|---|---|
| N. DAVIS | L. BUGAY |
| ENGINEER: | DATE: |
| L. BUGAY | 7/27/2026 |
| | SCALE: 1"=40' |
| | SHEET: FIGURE 5 |

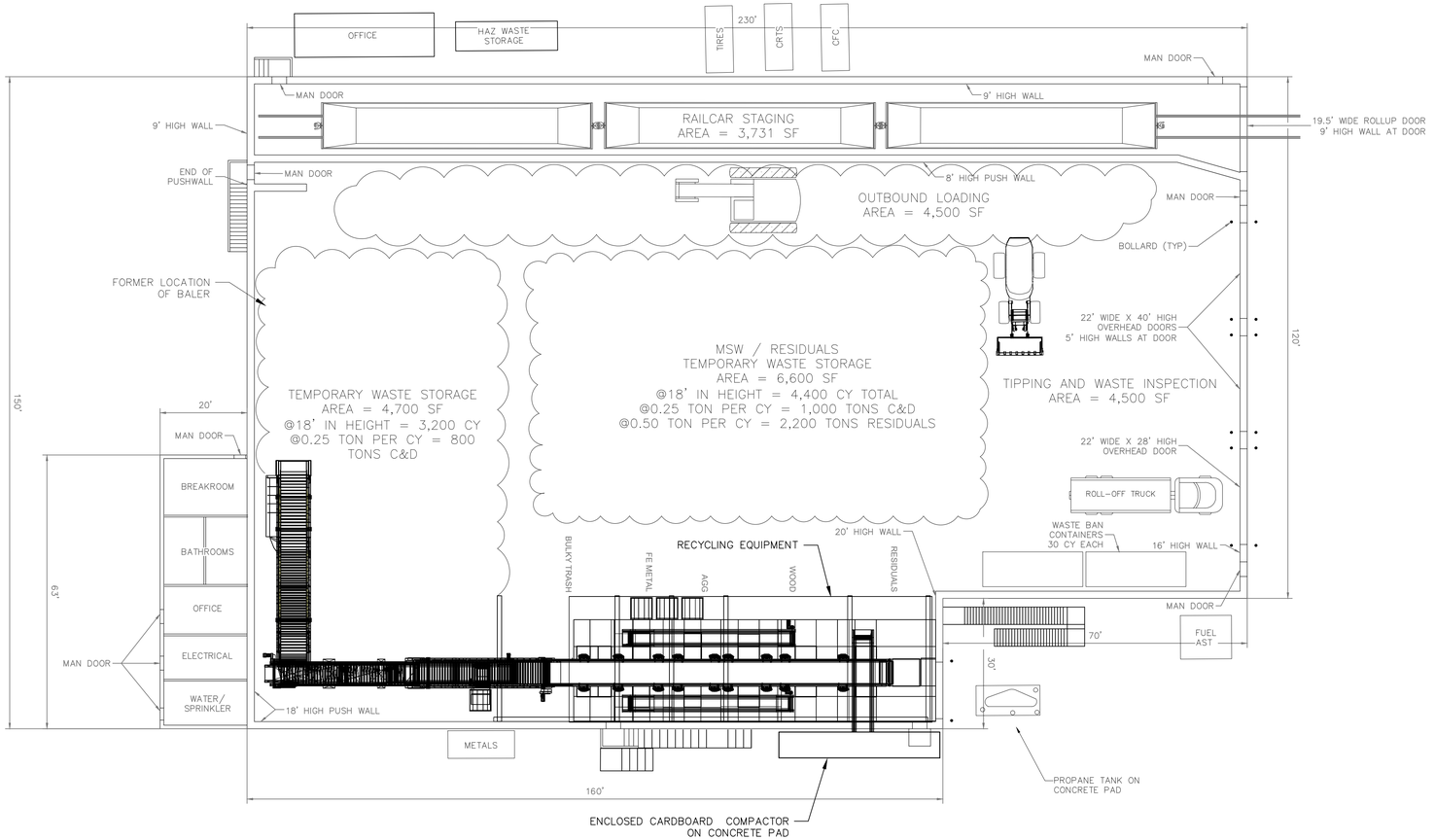
FIGURE 6

EXISTING AND PROPOSED CONDITIONS PLAN (INTERIOR)




GENERAL ARRANGEMENT FOR RECYCLING EQUIPMENT

NOT TO SCALE




INTERIOR LAYOUT

SCALE:1/16" = 1'-0"

NOTE: LOCATION OF WASTE BAN CONTAINERS AND/OR RECYCLING CONTAINERS MAY VARY




LOCUS MAP
N.T.S.

Green Seal Environmental, LLC
114 State Road, Building B
Sagamore Beach, MA 02562
Tel: (508) 888-6034
Fax: (508) 888-1506
www.gseenv.com

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Dimensions are as indicated.

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It is the responsibility of the user to confirm discrepancies with the Engineer prior to use.

REVISIONS

| NO. | DATE | COMMENT |
|---|---|---|
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| | | |

PURPOSE:

MODIFICATION OF AN EXISTING SITE ASSIGNMENT

LOCUS:

200 TANZIO ROAD
LEOMINSTER, MA 01453

PREPARED FOR:

WIN WASTE INNOVATIONS OF NORTHERN NEW ENGLAND, INC.

DRAWING TITLE:

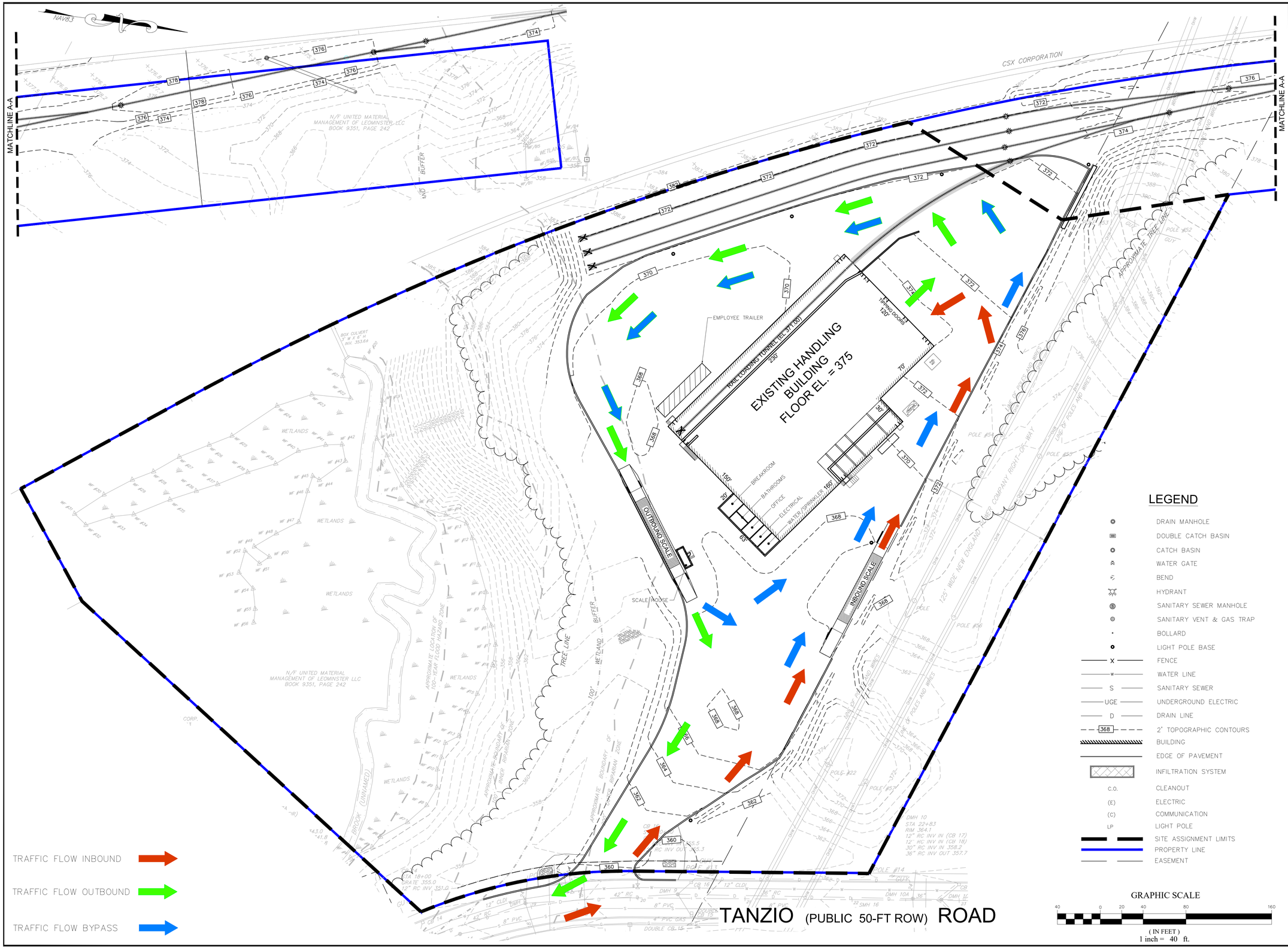
EXISTING AND PROPOSED CONDITIONS PLAN - INTERIOR

| CAD TECH: | CHECKED BY: |
|---|---|
| N. DAVIS | L. BUGAY |
| ENGINEER: | DATE: |
| L. BUGAY | 727/2026 |
| | SCALE: AS NOTED |
| | SHEET: FIGURE 6 |

S:\Solid Waste Department\Clients\United Waste Management (Leominster)\Active\Permitting\Tonnage Increase 2023-2025\Site Suitability\CAD\Figure 6.dwg

FIGURE 7

TRAFFIC PATTERN PLAN




TRAFFIC FLOW INBOUND

TRAFFIC FLOW OUTBOUND

TRAFFIC FLOW BYPASS

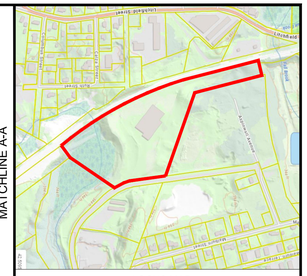
## LEGEND

- DRAIN MANHOLE
- DOUBLE CATCH BASIN
- CATCH BASIN
- WATER GATE
- BEND
- HYDRANT
- SANITARY SEWER MANHOLE
- SANITARY VENT & GAS TRAP
- BOLLARD
- LIGHT POLE BASE
- FENCE
- WATER LINE
- SANITARY SEWER
- UNDERGROUND ELECTRIC
- DRAIN LINE
- 2' TOPOGRAPHIC CONTOURS
- BUILDING
- EDGE OF PAVEMENT
- INFILTRATION SYSTEM
- C.O. CLEANOUT
- (E) ELECTRIC
- (C) COMMUNICATION
- LP LIGHT POLE
- SITE ASSIGNMENT LIMITS
- PROPERTY LINE
- EASEMENT

GRAPHIC SCALE

40 0 20 40 80 160

( IN FEET )
1 inch = 40 ft.



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|---|---|---|
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| | | |

PURPOSE:

MODIFICATION OF AN EXISTING SITE ASSIGNMENT

LOCUS:

200 TANZIO ROAD
LEOMINSTER, MA 01453

PREPARED FOR:

WIN WASTE INNOVATIONS OF NORTHERN NEW ENGLAND

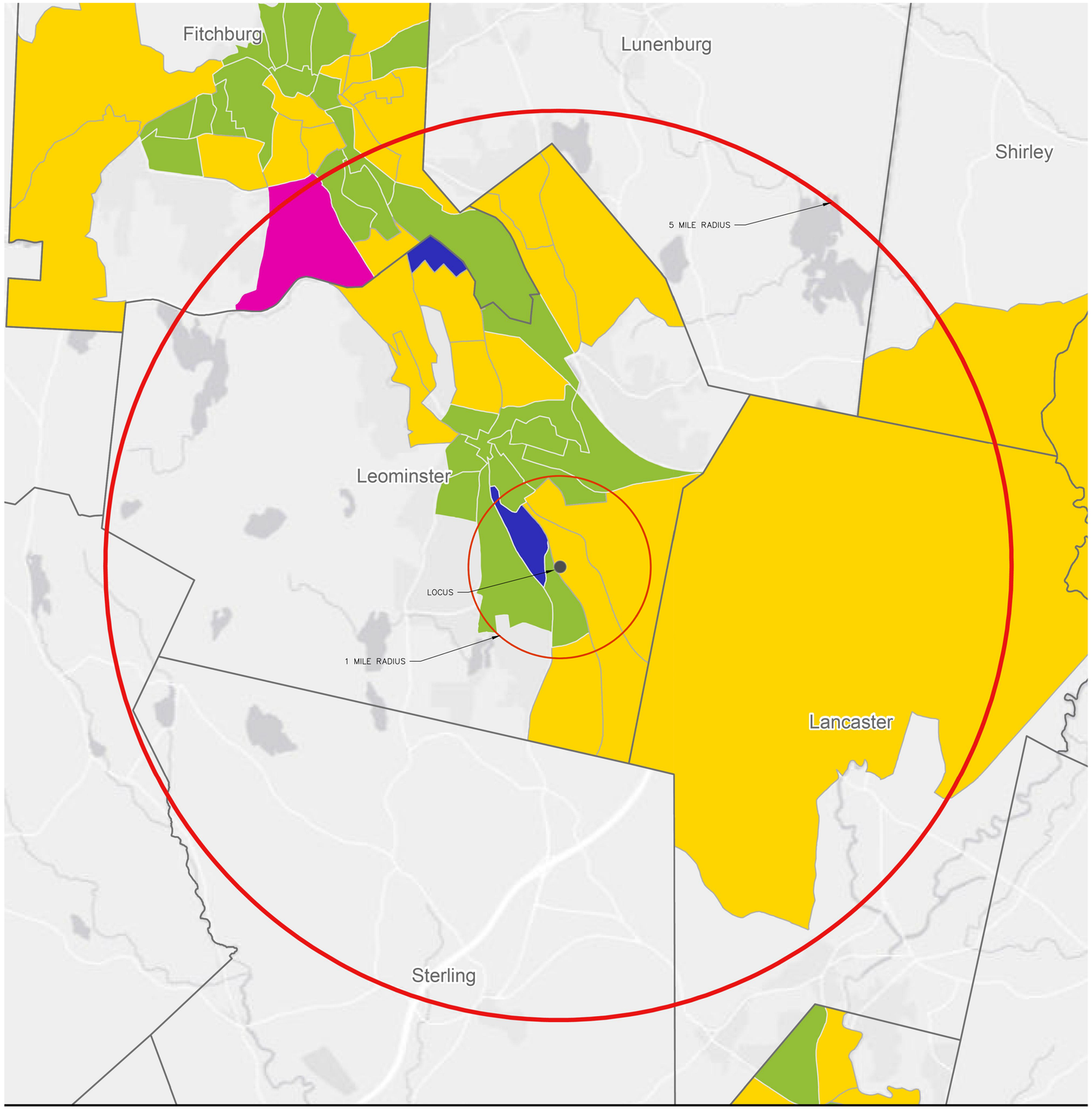
DRAWING TITLE:

TRAFFIC PATTERN PLAN

| CAD TECH: | CHECKED BY: |
|---|---|
| N. DAVIS | L. BUGAY |
| ENGINEER: | DATE: |
| L. BUGAY | 7/27/2026 |
| | SCALE: 1"=40' |
| | SHEET: FIGURE 7 |

FIGURE 8

ENVIRONMENTAL JUSTICE POPULATIONS PLAN




Minority: the block group minority population is >= 40%, or the block group minority population is >= 25% and the median household income of the municipality the block group is in is < 150% of the Massachusetts median household income

Income: at least 25% of households have a median household income 65% or less than the state median household income

Language isolation: 25% or more of households do not include anyone older than 14 who speaks English very well

Minority and Income

Minority and English isolation

Income and English isolation

Minority, Income and English isolation

NOTES:
1. THESE DATA WERE OBTAINED FROM https://www.mass.gov/info-details/massgis-data-2020-environmental-justice-populations
2. PER GUIDELINES, PROJECT IS SUBJECT TO THE 1-MILE DESIGNATED GEOGRAPHIC AREA (DGA) FOR ENVIRONMENTAL JUSTICE RELATED PROTOCOLS.




LOCUS MAP
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PURPOSE:

MODIFICATION OF AN EXISTING SITE ASSIGNMENT

LOCUS:

200 TANZIO ROAD
LEOMINSTER, MA 01453

PREPARED FOR:

WIN WASTE INNOVATIONS OF NORTHERN NEW ENGLAND, INC.

DRAWING TITLE:

ENVIRONMENTAL JUSTICE POPULATIONS

| CAD TECH: | CHECKED BY: |
|---|---|
| N. DAVIS | L. BUGAY |
| ENGINEER: | DATE: |
| L. BUGAY | 7-27-2026 |
| | SCALE: 1"=3000' |
| | SHEET: FIGURE 8 |

ATTACHMENT 2

DRAFT SITE ASSIGNMENT EXHIBIT LIST

**Minor Modification to Site Assignment**
**WIN Waste Innovations of Northern New England, Inc.**
**(formerly United Material Management of Leominster)**
**200 Tanzio Road, Leominster, Massachusetts**

**EXHIBIT LIST**

1. Minor Modification Request, September 21, 2026
2. Site Assignment- December 19, 2019
3. MEPA- ENF and Certificate December 9, 2024
4. MEPA- DEIR and Certificate November 7, 2025
5. MEPA- FEIR and Certificate May 1, 2026
6. Bowman- Traffic Impact Study- July 2025
7. Tech Environmental – Sound Study- July 2, 2024
8. Tech Environmental- Sound Study for DEIR Update Memo- August 13, 2025
9. Tech Environmental- Odor Study July 10, 2024
10. Tech Environmental- Odor Study Update Memo- July 29, 2025
11. Verdantas Air Emissions Modeling Odor Study, December 12, 2025
12. Verdantas Limited Noise Assessment, December 2025
13. Vanasse & Associates Transportation Impact Analysis, December 31, 2025
14. Hearing Notice (English and Spanish)
15. Proof of Advertising (Sentinel and Vocero)
16. Presentation(s) - TBD

DRAFT