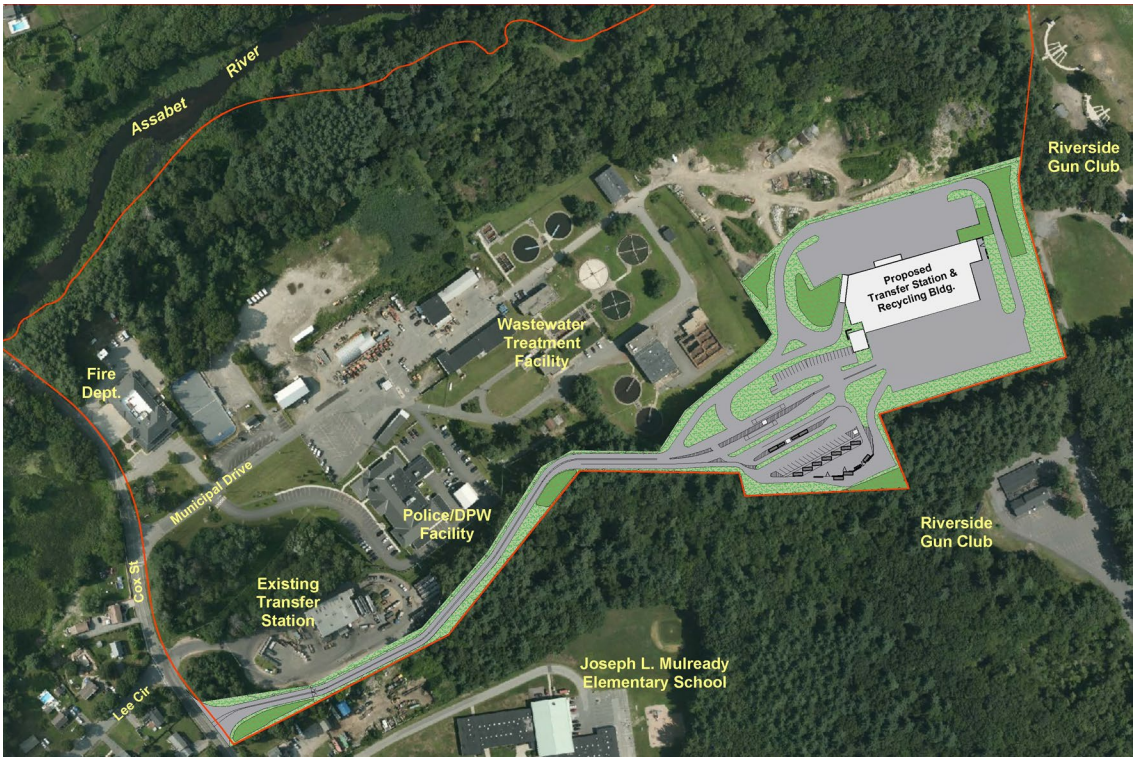
Final Environmental Impact Report
EEA # 16586

Hudson Solid Waste Transfer Station and Recycling Facility



Submitted to:
Executive Office of Energy and Environmental Affairs
MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Submitted by:
B-P Trucking, Inc.
65 Nickerson Road
Ashland, MA 01721

Prepared by:
Epsilon Associates, Inc.
3 Mill & Main Place, Suite 250
Maynard, MA 01754

In Association with:
Sanborn, Head & Associates, Inc.
Vanasse & Associates, Inc.

October 15, 2024

Epsilon ASSOCIATES INC.

Final Environmental Impact Report
EEA # 16586

Hudson Solid Waste Transfer Station and Recycling Facility

Submitted to:
Executive Office of Energy and Environmental Affairs
MEPA Office
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Prepared by:
Epsilon Associates, Inc.
3 Mill & Main Place, Suite 250
Maynard, Massachusetts 01754

Submitted by:
B-P Trucking, Inc.
65 Nickerson Road
Ashland, MA 01721

In Association with:
Sanborn, Head & Associates, Inc.
Vanasse & Associates, Inc.

October 15, 2024

Table of Contents

Table of Contents

Table of Contents (Continued)

List of Appendices

List of Figures

List of Tables

List of Tables (Continued)

Chapter 1

General Information and Project Description

1.0 GENERAL INFORMATION AND PROJECT DESCRIPTION

1.1 Introduction

With the construction of the Hudson Police Department / Public Works Facility in 2017, the Town of Hudson and B-P Trucking, Inc. (B-P) seek to relocate the existing transfer station operations towards the interior of the town-owned 72-acre parcel located at 300 Cox Street, Hudson. The new transfer station and recycling facility will be owned by B-P, located on land leased from the Town of Hudson, and have a permitted capacity of 850 tons per day (TPD). The existing facility, operated by B-P, is currently permitted to accept up to 350 TPD of solid waste (municipal solid waste and construction and demolition debris). Once operating, the Town of Hudson and B-P will terminate operation of the existing transfer station.

1.2 Project Description

1.2.1 Project Site

The Town of Hudson (or, the "Town") owns an approximately 72-acre parcel which currently includes an existing solid waste transfer station, as well as other municipal facilities such as the Hudson Fire Department, Hudson Wastewater Treatment Facility, and combined Hudson Police Department and Public Works Facility. The existing transfer station was constructed in 1988 and began operating in 1996. Since 1999, the transfer station has been operated by B-P Trucking of Ashland, Massachusetts (the "Proponent"). Prompted by the 2017 construction of the Hudson Police Department and Public Works Facility (Police/DPW Facility), the Town and B-P have been engaged in planning activities aimed at relocating the existing transfer station operations to the interior of the 72-acre parcel so that these operations are located more distant from the Town's other municipal facilities. For comparison, the existing transfer station building is located approximately 350 feet from Cox Street, whereas the proposed transfer station and recycling building will be located approximately 1,800 feet from Cox Street.

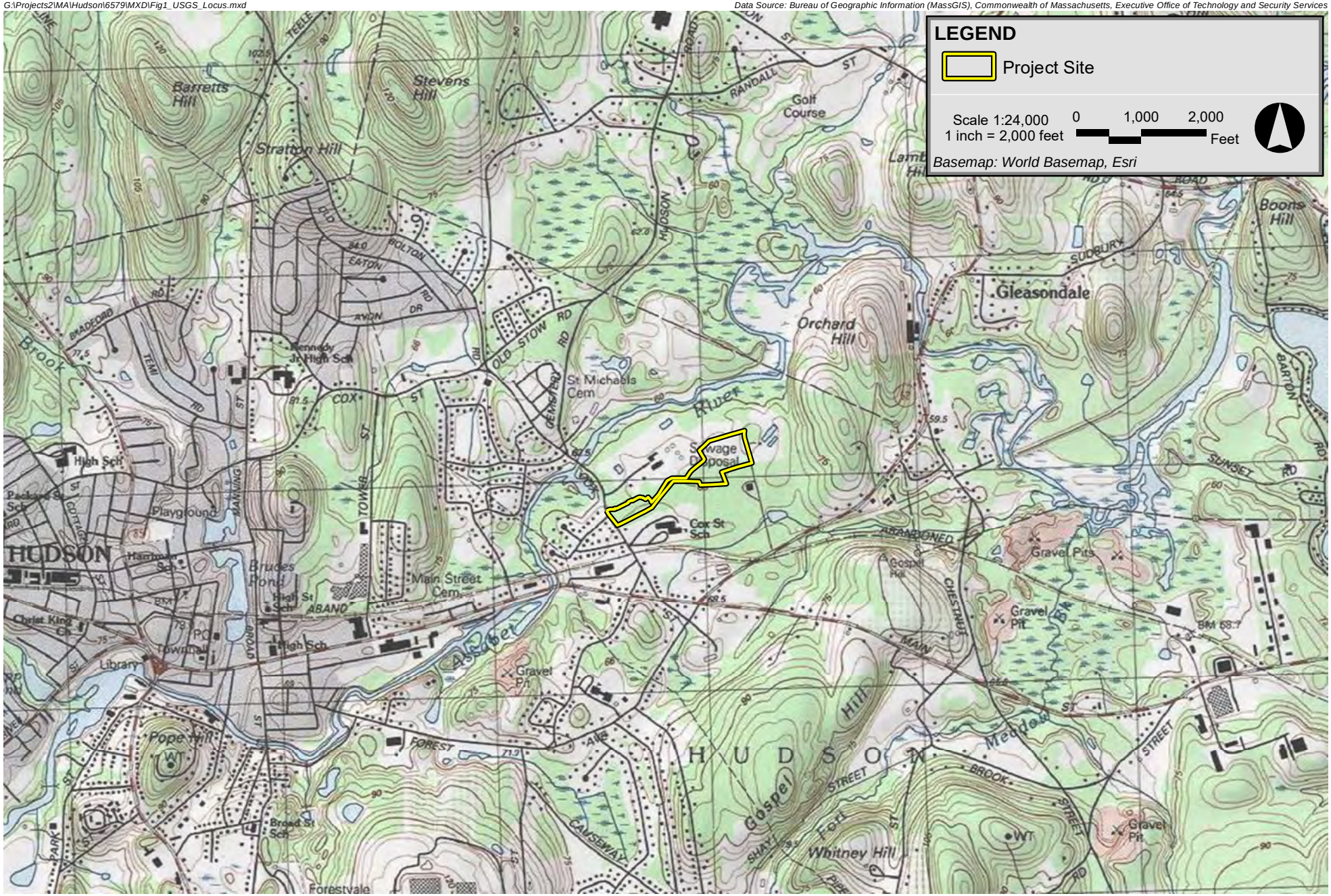
The approximately 675,180 square foot (15.5 acre) area that encompasses the existing transfer station and the proposed location for the new transfer station and recycling facility will be referred to herein as the "Project Site." See Figures 1-1 and 1-2 for the USGS and aerial locus maps of the Project Site.

1.2.2 Project Description

The existing transfer station is permitted to accept up to 350 TPD of solid waste. The Proponent proposes to construct a new, approximately 53,000 square foot (sf) transfer station permitted to accept up to 850 TPD of solid waste (the "Project"); an increase of 500 TPD to the existing facility's permitted capacity. The solid waste material accepted at the proposed facility will be the same as currently accepted and consist of municipal solid waste (MSW) and construction and demolition (C&D) debris. The proposed facility will provide sufficient space to transfer MSW and C&D into

G:\Projects2\MA\Hudson\6579\MXD\Fig1_USGS_Locus.mxd

Data Source: Bureau of Geographic Information (MassGIS), Commonwealth of Massachusetts, Executive Office of Technology and Security Services



Hudson Waste Transfer Station Hudson, Massachusetts

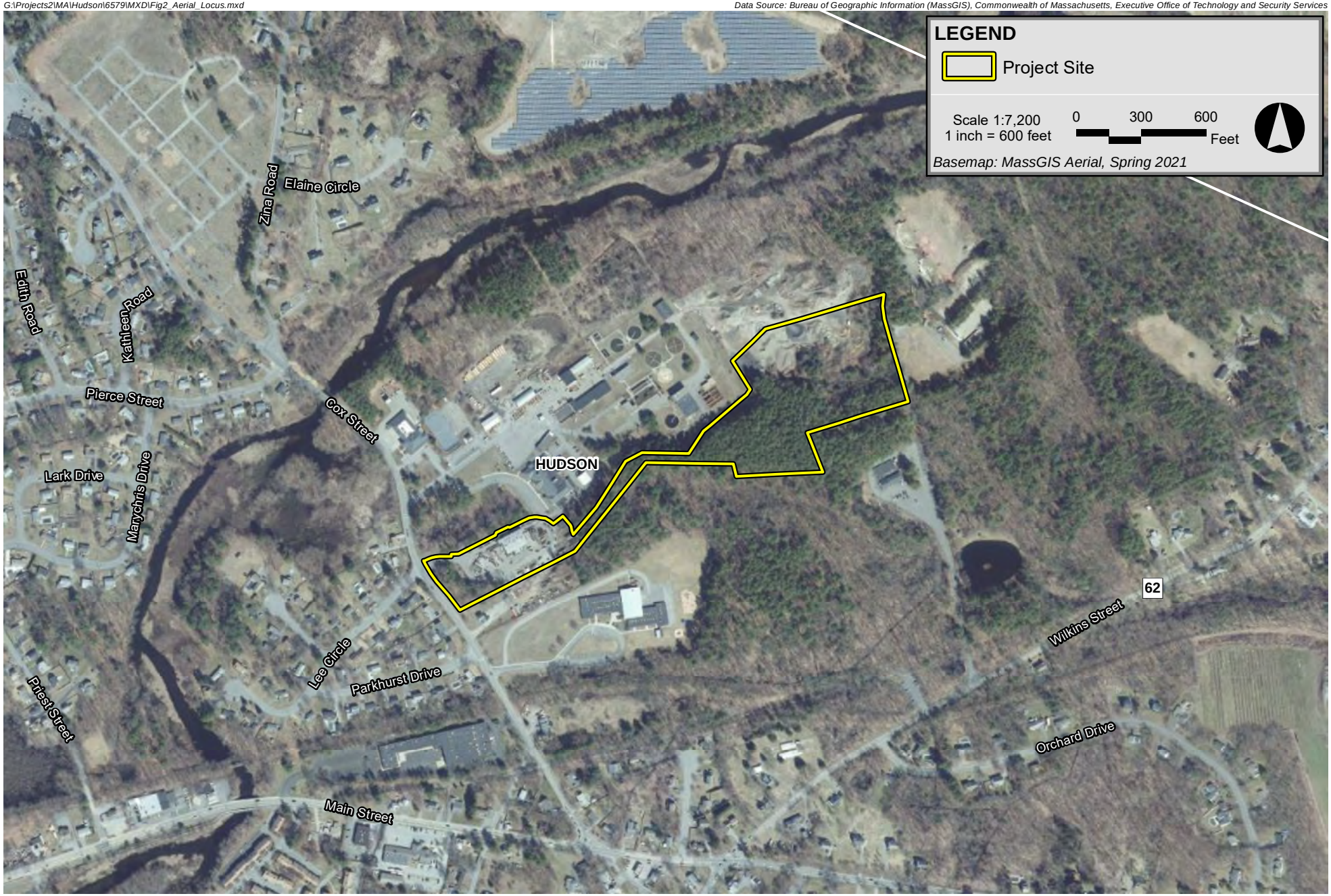
Epsilon Associates Inc.

Figure 1-1

USGS Locus

G:\Projects2\MA\Hudson\6579\MXD\Fig2_Aerial_Locus.mxd

Data Source: Bureau of Geographic Information (MassGIS), Commonwealth of Massachusetts, Executive Office of Technology and Security Services



Hudson Waste Transfer Station Hudson, Massachusetts

Epsilon Associates Inc.

Figure 1-2
Aerial Locus

semi-trailers that will transport the material off-site for final disposal or reclamation. The proposed Project will also allow Hudson residents to visit the facility for drop-off MSW and household recyclables in an exterior drop-off area.

The Project will also accept recyclable materials (glass, metal, plastic, paper) and, with the exception of glass, provide for sorting and baling of these materials within the building. The hours of operation will remain unchanged from the current operating hours. The facility will be open to the public from 7:00 a.m. to 5:00 p.m., Monday through Friday, and Saturdays from 7:00 a.m. to 2:00 p.m. Figures 1-3A and 1-3B show the existing Site layout, and Figure 1-4 shows the proposed layout.

1.3 Changes Since Filing the DEIR

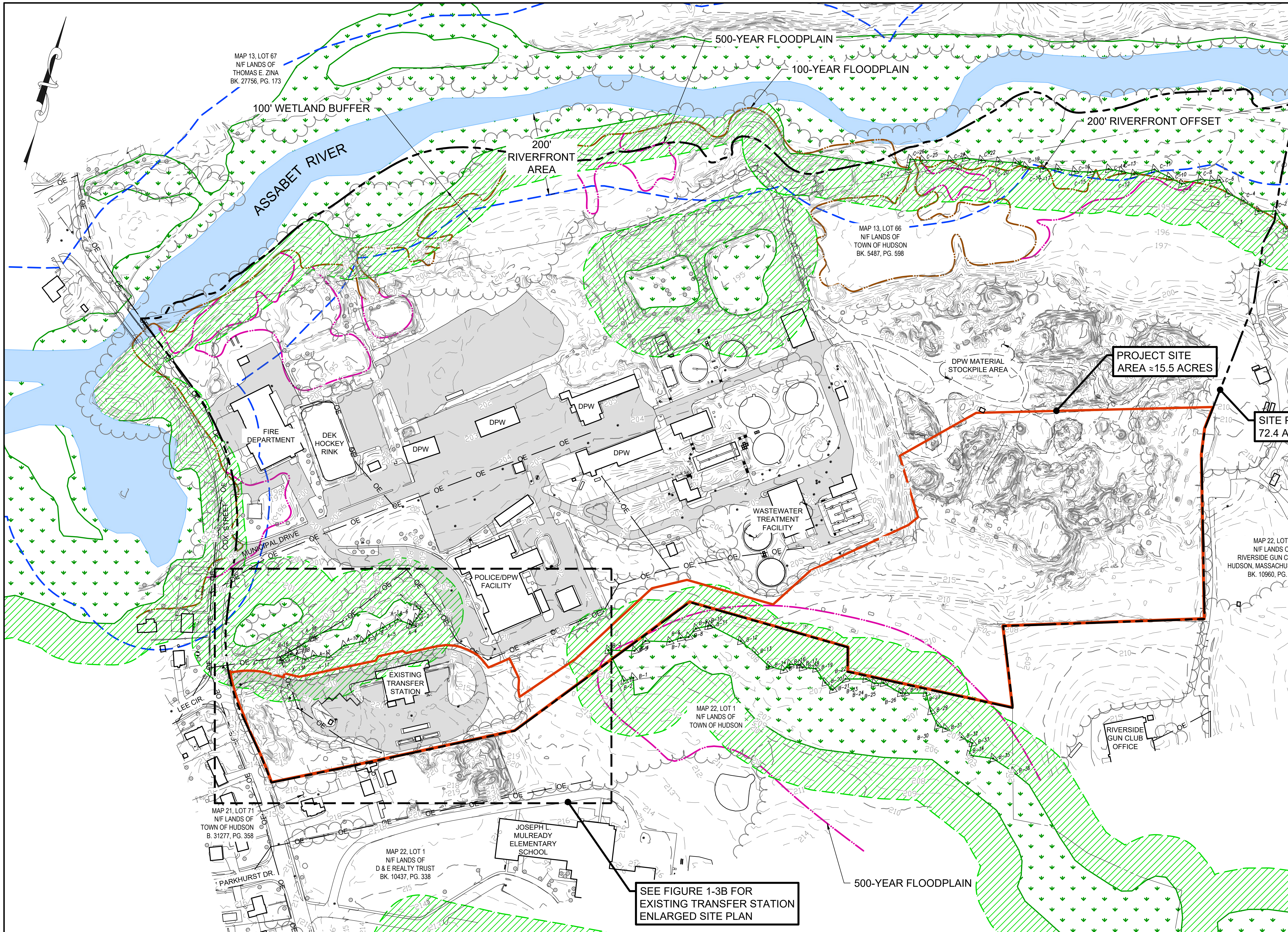
The Draft Environmental Impact Report (DEIR) was filed in April 2024. There have been no physical changes to the proposed site or building layout that have occurred since the DEIR filing, with the exception that additional detail is included in this Final Environmental Impact Report (FEIR) depicting stormwater Low Impact Development (LID) design features. The LID features have been incorporated into the FEIR in response to MEPA stormwater comments included in the DEIR Certificate. Other MEPA and MassDEP comments included in the DEIR Certificate are addressed in the FEIR, and while the responses to these comments did not require a modification to the physical layout of the site or building, they did prompt further clarification that in some instances resulted in a modification to operational features presented in the DEIR.

A summary of the LID stormwater design elements and various operational features that represent changes and/or clarifications to the Project since the DEIR was filed is summarized below.

- Additional information is provided on the respective volumes of municipal solid waste (MSW), construction and demolition debris (C&D), and recyclable materials that will be delivered to the proposed Transfer Station & Recycling Building. This information is presented in Chapter 3, Section 3.2 of the FEIR, which provides a detailed discussion demonstrating that the building's material handling footprint is sufficiently sized to support the expected volume of materials to be received.

- The dust and odor control misting system described in Section 8.4.2 of the DEIR will be replaced by the system described in Chapter 3, Section 3.4.1 of the FEIR. The system proposed in the FEIR will not require deactivation during the winter months, unlike that described in the DEIR.

- Wastewater from the Transfer Station & Recycling Building's floor drains, after having been conveyed through an MDC trap, will tie to the Hudson municipal sewer system. The DEIR proposed tying the floor drain system into an on-site holding tank. Chapter 3, Section 3.3.3 addresses this change.



NOTES:

1. TOPOGRAPHY, EXISTING SITE FEATURES AND PROPERTY LINE SURVEY WERE PROVIDED TO SANBORN HEAD BY CONTROL POINT ASSOCIATES, INC. (CONTROL POINT) OF SOUTHBOROUGH, MA IN AN ELECTRONIC FILE TITLED "03-180244-01 - BTU REV 1 (ISSUED 2023-03-17).dwg". ELECTRONIC FILE DEPICTS INFORMATION SHOWN ON DRAWINGS TITLED "BOUNDARY & TOPOGRAPHIC SURVEY", SHEETS 1 THOUGH 8, DATED MARCH 17, 2023 PREPARED BY CONTROL POINT OF SOUTHBOROUGH, MA FOR SANBORN HEAD.
2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON THE FOLLOWING:
   A. AERIAL IMAGERY, DATED APRIL 21, 2018, PROVIDED BY EASTERN TOPOGRAPHICS OF WOLFBORO NEW HAMPSHIRE, AND AN ON-THE-GROUND FIELD SURVEY BY CONTROL POINT BETWEEN OCTOBER 11, 2018 AND OCTOBER 22, 2018; AND
   B. PLANIMETRIC AND TOPOGRAPHIC FEATURES COMPILED BY CONTROL POINT USING PHOTOGRAMMETRIC METHODS FROM UAV PHOTOGRAPHY AND AN ON-THE-GROUND FIELD SURVEY BY CONTROL POINT ON JANUARY 3, 2023.
3. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). HORIZONTAL DATUM IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), MASSACHUSETTS STATE PLANE COORDINATE SYSTEM.
4. WETLAND INFORMATION WAS OBTAINED FROM MassGIS, EXCEPT IN THOSE AREAS SHOWN ON THE PLAN AS FOLLOWS:

   THE ABOVE LINE TYPE DESIGNATES THE LIMITS OF AN ON-THE-GROUND WETLAND DELINEATION PERFORMED BY EPSILON ASSOCIATES ON JANUARY 18 AND 22, 2023 AND FIELD LOCATED BY CONTROL POINT ON JANUARY 30, 2023.
5. ASSABET RIVER BOUNDARY WAS OBTAINED BY SANBORN HEAD FROM THE MassGIS HYDROGRAPHIC (WATER-RELATED) FEATURE DATA SET. HYDROGRAPHIC FEATURE DATA WAS LAST UPDATED BY MassDEP IN DECEMBER 2019.
6. FLOODPLAIN INFORMATION WAS OBTAINED FROM FLOOD INSURANCE RATE (FIRM) MAP FOR MIDDLESEX COUNTY, MASSACHUSETTS. MAP NUMBER 25017C0343F, MAP REVISED JULY 7, 2014.

LEGEND:

- EXISTING 5-FOOT CONTOUR
- EXISTING 1-FOOT CONTOUR
- EXISTING PAVED ROAD
- EXISTING GRAVEL ROAD
- EXISTING TREE LINE
- EXISTING FENCE
- OE — EXISTING OVERHEAD ELECTRIC
- EXISTING UTILITY POLE
- EXISTING MANHOLE
- EXISTING CATCH BASIN
- EXISTING FIRE HYDRANT
- PROJECT SITE AREA
- SITE PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- WETLAND AREA (SEE NOTE 4)
- WETLAND BOUNDARY (MASSGIS)
- SURVEYED WETLAND BOUNDARY (JAN 2023)
- 100-FOOT WETLAND BUFFER SETBACK
- ASSABET RIVER BOUNDARY (SEE NOTE 5)
- 200-FT RIVERFRONT OFFSET
- 100-YEAR FLOODPLAIN
- 500-YEAR FLOODPLAN

SANBORN | HEAD

GRAPHICAL SCALE: 120' 60' 0' 120' 240'

NO.	DATE	DESCRIPTION	BY

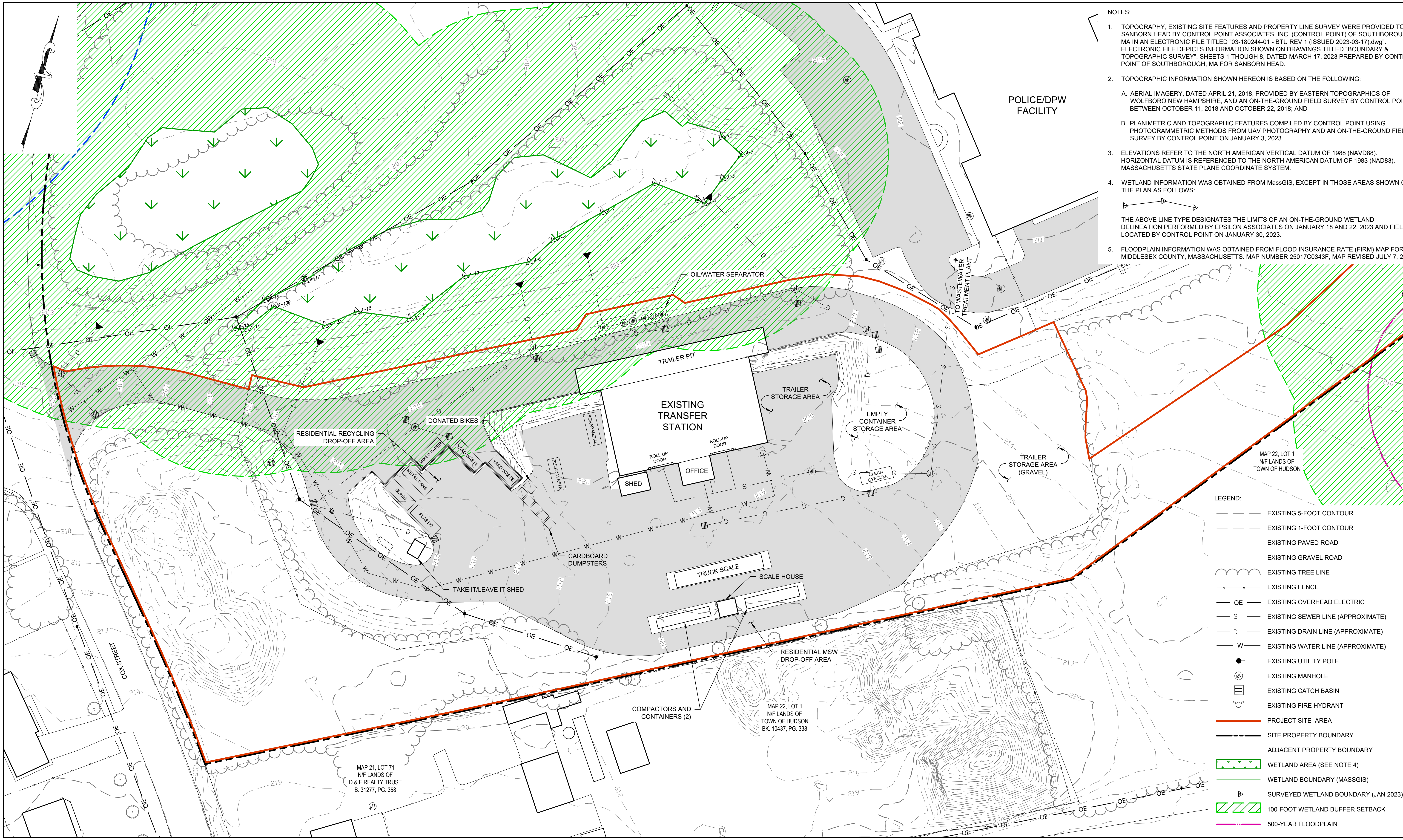
DRAWN BY: A. WILKER
DESIGNED BY: A. WILKER
REVIEWED BY: D. LONG
PROJECT MGR: S. WRIGHT
PIC: S. WRIGHT
DATE: OCTOBER 2024

FINAL ENVIRONMENTAL IMPACT REPORT
B-P TRUCKING TRANSFER STATION AND RECYCLING FACILITY
HUDSON, MASSACHUSETTS

EXISTING CONDITIONS SITE PLAN

PROJECT NUMBER: 3984.01

FIGURE NUMBER: 1-3A



NOTES:

1. TOPOGRAPHY, EXISTING SITE FEATURES AND PROPERTY LINE SURVEY WERE PROVIDED TO SANBORN HEAD BY CONTROL POINT ASSOCIATES, INC. (CONTROL POINT) OF SOUTHBOROUGH, MA IN AN ELECTRONIC FILE TITLED "03-180244-01 - BTU REV 1 (ISSUED 2023-03-17).dwg". ELECTRONIC FILE DEPICTS INFORMATION SHOWN ON DRAWINGS TITLED "BOUNDARY & TOPOGRAPHIC SURVEY", SHEETS 1 THOUGH 8, DATED MARCH 17, 2023 PREPARED BY CONTROL POINT OF SOUTHBOROUGH, MA FOR SANBORN HEAD.
2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON THE FOLLOWING:
   A. AERIAL IMAGERY, DATED APRIL 21, 2018, PROVIDED BY EASTERN TOPOGRAPHICS OF WOLFBORO NEW HAMPSHIRE, AND AN ON-THE-GROUND FIELD SURVEY BY CONTROL POINT BETWEEN OCTOBER 11, 2018 AND OCTOBER 22, 2018; AND
   B. PLANIMETRIC AND TOPOGRAPHIC FEATURES COMPILED BY CONTROL POINT USING PHOTOGRAMMETRIC METHODS FROM UAV PHOTOGRAPHY AND AN ON-THE-GROUND FIELD SURVEY BY CONTROL POINT ON JANUARY 3, 2023.
3. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). HORIZONTAL DATUM IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), MASSACHUSETTS STATE PLANE COORDINATE SYSTEM.
4. WETLAND INFORMATION WAS OBTAINED FROM MassGIS, EXCEPT IN THOSE AREAS SHOWN ON THE PLAN AS FOLLOWS:

   THE ABOVE LINE TYPE DESIGNATES THE LIMITS OF AN ON-THE-GROUND WETLAND DELINEATION PERFORMED BY EPSILON ASSOCIATES ON JANUARY 18 AND 22, 2023 AND FIELD LOCATED BY CONTROL POINT ON JANUARY 30, 2023.
5. FLOODPLAIN INFORMATION WAS OBTAINED FROM FLOOD INSURANCE RATE (FIRM) MAP FOR MIDDLESEX COUNTY, MASSACHUSETTS. MAP NUMBER 25017C0343F, MAP REVISED JULY 7, 2014.

SANBORN HEAD

NO.	DATE	DESCRIPTION	BY

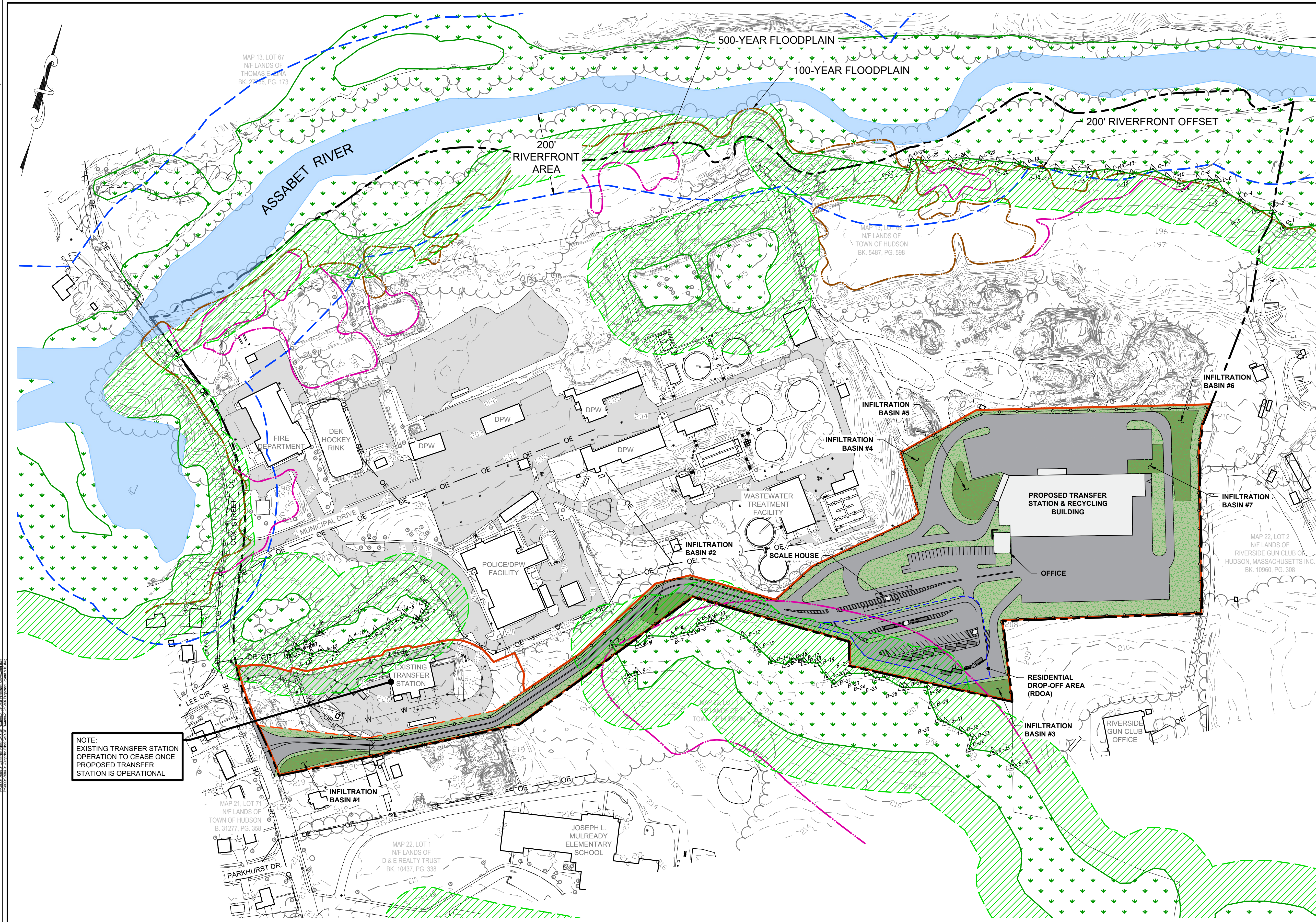
DRAWN BY: A. WILKER
DESIGNED BY: A. WILKER
REVIEWED BY: D. LONG
PROJECT MGR: S. WRIGHT
PIC: S. WRIGHT
DATE: OCTOBER 2024

FINAL ENVIRONMENTAL IMPACT REPORT
B-P TRUCKING TRANSFER STATION AND RECYCLING FACILITY
HUDSON, MASSACHUSETTS

PROJECT NUMBER: 3984.01

EXISTING CONDITIONS
ENLARGED SITE PLAN (EXISTING TRANSFER STATION)

FIGURE NUMBER: 1-3B



NOTES:

1. TOPOGRAPHY, EXISTING SITE FEATURES AND PROPERTY LINE SURVEY WERE PROVIDED TO SANBORN HEAD BY CONTROL POINT ASSOCIATES, INC. (CONTROL POINT) OF SOUTHBOROUGH, MA IN AN ELECTRONIC FILE TITLED "03-180244-01 - BTU REV 1 (ISSUED 2023-03-17).dwg". ELECTRONIC FILE DEPICTS INFORMATION SHOWN ON DRAWINGS TITLED "BOUNDARY & TOPOGRAPHIC SURVEY", SHEETS 1 THOUGH 8, DATED MARCH 17, 2023 PREPARED BY CONTROL POINT OF SOUTHBOROUGH, MA FOR SANBORN HEAD.

2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON THE FOLLOWING:

   A. AERIAL IMAGERY, DATED APRIL 21, 2018, PROVIDED BY EASTERN TOPOGRAPHICS OF WOLFBORO NEW HAMPSHIRE, AND AN ON-THE-GROUND FIELD SURVEY BY CONTROL POINT BETWEEN OCTOBER 11, 2018 AND OCTOBER 22, 2018; AND

   B. PLANIMETRIC AND TOPOGRAPHIC FEATURES COMPILED BY CONTROL POINT USING PHOTOGRAMMETRIC METHODS FROM UAV PHOTOGRAPHY AND AN ON-THE-GROUND FIELD SURVEY BY CONTROL POINT ON JANUARY 3, 2023.

3. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). HORIZONTAL DATUM IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), MASSACHUSETTS STATE PLANE COORDINATE SYSTEM.

4. WETLAND INFORMATION WAS OBTAINED FROM MassGIS, EXCEPT IN THOSE AREAS SHOWN ON THE PLAN AS FOLLOWS:

   THE ABOVE LINE TYPE DESIGNATES THE LIMITS OF AN ON-THE-GROUND WETLAND DELINEATION PERFORMED BY EPSILON ASSOCIATES ON JANUARY 18 AND 22, 2023 AND FIELD LOCATED BY CONTROL POINT ON JANUARY 30, 2023.

5. ASSABET RIVER BOUNDARY WAS OBTAINED BY SANBORN HEAD FROM THE MassGIS HYDROGRAPHIC (WATER-RELATED) FEATURE DATA SET. HYDROGRAPHIC FEATURE DATA WAS LAST UPDATED BY MassDEP IN DECEMBER 2019.

6. FLOODPLAIN INFORMATION WAS OBTAINED FROM FLOOD INSURANCE RATE (FIRM) MAP FOR MIDDLESEX COUNTY, MASSACHUSETTS. MAP NUMBER 25017C0343F, MAP REVISED JULY 7, 2014.

LEGEND:

- 210 — EXISTING 5-FOOT CONTOUR
- EXISTING 1-FOOT CONTOUR
- 210 — PROPOSED 10-FOOT CONTOUR
- PROPOSED 2-FOOT CONTOUR
- PROJECT SITE AREA
- SITE PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- WETLAND AREA
- WETLAND BOUNDARY (MASSGIS)
- SURVEYED WETLAND BOUNDARY (JAN 2023)
- 100-FOOT WETLAND BUFFER SETBACK
- ASSABET RIVER BOUNDARY
- 200-FT RIVERFRONT OFFSET
- 100-YEAR FLOODPLAIN
- 500-YEAR FLOODPLAIN
- PROPOSED CHAIN LINK FENCE

SANBORN HEAD

GRAPHICAL SCALE

120' 60' 0' 120' 240'

NO.	DATE	DESCRIPTION	BY

DRAWN BY: A. WILKER
DESIGNED BY: S. WRIGHT
REVIEWED BY: D. LONG
PROJECT MGR: S. WRIGHT
PIC: S. WRIGHT
DATE: OCTOBER 2024

FINAL ENVIRONMENTAL IMPACT REPORT
B-P TRUCKING TRANSFER STATION AND RECYCLING FACILITY
HUDSON, MASSACHUSETTS

PROPOSED CONDITIONS SITE PLAN

PROJECT NUMBER: 3984.01

FIGURE NUMBER: 1-4

- Stormwater Low Impact Development features, including grassed swales, grassed buffer areas, permeable pavers, and bioretention basins, have been incorporated into the facility layout. These features are described in Chapter 4, Section 4.4.

- Although not a change to the Project since the DEIR was filed, the FEIR provides further detail on the increase in impervious surface associated with the Project, as well as further detail on the total amount of new land alteration proposed and land cover types to be altered. This information is presented in Chapter 4, Sections 4.2 and 4.3.

- Although not a change to the Project since the DEIR was filed, the FEIR provides further detail on the extent of tree clearing proposed and types of trees to be cleared. This information is provided in Chapter 5.

1.4 Public Benefits

Chapter 1 of the DEIR identifies public benefits associated with the Project. An added benefit to those described in the DEIR is the Proponent's commitment to donate funds to the Town of Hudson expressly for the purpose of tree planting associated with Town projects. This public benefit is described further in Chapter 5, Section 5.2 of the FEIR.

The more modern, efficient transfer station will benefit the Town and the broader community. The facility will have the space to transfer MSW and C&D material into semi-trailers for offsite disposal or reclamation. The Project will also allow Hudson residents to visit the facility to drop-off MSW and household recyclables in an exterior drop -off area. The new area will be over two times larger than the existing residential drop-off area and available for the exclusive use of Hudson residents only.

The Project will also accept recyclable materials (glass, metal, plastic, paper) and provide for the sorting and baling of cardboard within the building. Additional benefits include the creation of temporary construction and new full-time jobs, resulting in a positive impact due to construction spending and employment.

In addition to the benefits associated with the operational features of the proposed facility, B-P will continue to provide the following public benefits to the Town:

- Free trash and recycling to all town buildings (schools, town buildings, town fields; currently over 28 different locations);

- Free disposal at the transfer station for the Hudson Department of Public Works;

- Support to town community organizations and events by way of free container use and free disposal (examples: Assabet River Clean-up and Hudson Clean-up Day); and

- Since the filing of the DEIR, the Proponent has committed to contribute $50,000 ($10,000 annually for the first five years from when the facility begins operating) to the Town of Hudson expressly for the purpose of tree planting associated with Town projects. The intent of this commitment is to assist the Town in adding new trees to greenspaces on public land. The Proponent will work with the Town to identify an appropriate financial mechanism for establishing and tracking funding used under the proposed tree planting program.

1.5 Project Schedule

Permitting for the Project is expected to extend into early 2026 with construction estimated to begin by spring 2026 and the facility to begin operating in 2027. The existing transfer station will cease operations once the new transfer station begins operating.

1.6 Statutory and Regulatory Standards

Anticipated permits and approvals for the Project are listed in Table 1-1.

Table 1-1 Anticipated Permits and Approvals

Agency	Review or Approval[1]
Town of Hudson	
Board of Health	Minor Modification to Existing Site Assignment
Conservation Commission	Wetlands Protection Act Order of Conditions
Planning Board	Site Plan Approval
Building Department	Building Permit and Occupancy Permit
State	
MassDEP Solid Waste	Authorization to Construct Large Handling Facility (BWP SW 05) Authorization to Operate Large Handling Facility (BWP SW 06)
Federal	
Environmental Protection Agency	National Pollutant Discharge Elimination System General Permit(s), if required

1 Pursuit of permits will begin once the MEPA process has concluded.

As noted by MassDEP as part of their review of the ENF (MassDEP August 30, 2022 comment letter included with the September 9, 2022 ENF Certificate), the solid waste permits for the Project will be issued to both the Proponent (B-P Trucking) as the facility owner/operator and the Town of Hudson as the owner of the property.

Chapter 2

Environmental Justice and Air Quality

2.0 ENVIRONMENTAL JUSTICE AND AIR QUALITY

2.1 Introduction

This chapter addresses the MEPA scope on the Project's DEIR related to Environmental Justice (EJ) and air quality. Specifically, this chapter includes the following:

- Updates on community engagement;
- Discussion of truck routing through and near EJ communities in Marlborough;
- Additional EJ impacts analysis; and
- Mitigation measures to address air impacts.

2.2 Community Engagement

The Proponent will continue to maintain a distribution list including Community Based Organizations, tribes, and other individual entities within the Designated Geographic Area (DGA), to circulate notices of the MEPA Site Visit, summaries of supplemental information submitted to the MEPA office, and any other relevant notices or materials generated during the course of the Project's MEPA review.

Coordination on EJ outreach was conducted in July and August of 2022. A public information session was originally held on August 22nd both in person and via Zoom. The Proponent also posted flyers (Fact Sheet and Meeting Notice) regarding the Project information in community spaces in Hudson, and in potentially impacted EJ populations in Marlborough. Copies of the Fact Sheet in English, Portuguese, and Spanish were also posted on the Proponent's website (https://bptrucking.com/). These Fact Sheets will be updated as needed throughout the MEPA review process.

As part of community engagement, the Proponent held a pre-filing conference for the DEIR with the MEPA office and EEA on March 30, 2023. The Proponent presented a plan for additional community engagement prior to filing the DEIR and solicited input on the process from the MEPA office and EEA.

Two informational sessions were held on June 14, 2023. The in-person meeting was held at the Hudson Public Library during the daytime (to allow use of public transportation). An online meeting was held in the evening to allow broader access outside of working hours. Eleven members of the public attended the daytime meeting, and eleven members of the public joined the online meeting.

In both meetings the Proponent requested feedback on the proposed Project and asked about concerns that members of the public may have. The attendees provided feedback and described their concerns, and the meetings included informal discussions regarding existing transfer station operations. Attendees who provided email addresses were notified of the availability of the DEIR when it was filed.

On April 24, 2024, during the DEIR comment period, the Proponent held a virtual public information session where the Project was presented, and members of the public were provided with time to ask questions of the design team. The meeting was well attended and allowed the team to further clarify the benefits and effects of the Project.

The Proponent has reached out ahead of the filing of the FEIR to individuals who have expressed interest and provided contact information to make them aware that it was available for their review and comment.

2.3 Truck Routes in the Designated Geographic Area

The Project is expected to generate 150 or more new average daily trips of diesel traffic over one year or more, so the area within five miles of a project is defined as the designated geographic area (DGA).

The Proponent developed transportation routes that would require trucks to traverse roads in EJ communities as little as possible. Several pathways within a five-mile radius of the facility were analyzed. To minimize local traffic disruption, all semi-trailer trucks were routed towards the interstate highways. In terms of directions, due to the 17-ton capacity limit of the bridge on Cox Street over the Assabet River, semi-trailer trucks exiting the Hudson Transfer Station are required to turn left onto Cox Street and head south of the site. As a result, routes were identified, and the percentage of potential truck traffic on these routes is shown in Figure 2-1. The EJ communities that are potentially impacted by the Project truck traffic are listed in Table 2-1. See Attachment 10 of Appendix D of the DEIR for detailed route evaluation.

Of the 25 EJ Block Groups within the DGA, 3 EJ Block Groups in Hudson (322200-1, 322300-3, 322400-2) and 2 EJ Block Groups in Marlborough (321500-2, 321500-4) are along routes where the majority of the truck trips are predicted to travel. Other Block Groups in Marlborough will be minimally affected by Project truck trips.

The Transportation Impact Assessment (TIA) extended to Marlborough to evaluate the impact of these truck trips. As discussed in the DEIR (Chapter 3, Section 3.2), the worst-case intersection was Lakeside Avenue & Lincoln Street in Marlborough based on peak AM emissions with about 40 peak Project-related vehicles per hour, and a delay time of 76 seconds. When these emissions are compared to other Massachusetts projects for which air modeling was conducted, the results indicate that these emissions will contribute minimally to overall air quality. As the air quality is generally very good in Massachusetts, and well below health-based air quality standards, there is no anticipated adverse or disproportionate impact on EJ communities.

Table 2-1 2022 EJ Block Groups within the DGA along Truck Routes

Census Tract	Block Group	EJ Designation	Municipality
3222	1	Minority	Hudson
3223	3	Minority	Hudson
3224	2	Minority	Hudson
3211	2	Minority and income	Marlborough
3212	1	Minority	Marlborough
3212	3	Minority	Marlborough
3213.01	1	Minority	Marlborough
3213.01	2	Minority and income	Marlborough
3213.01	3	Minority	Marlborough
3213.02	1	Minority	Marlborough
3214	2	Minority	Marlborough
3215	1	Minority, income and English isolation	Marlborough
.3215	3	Minority and income	Marlborough
3215	2	Minority	Marlborough
3215	4	Minority	Marlborough
3216	2	Minority	Marlborough
3216	5	Minority	Marlborough

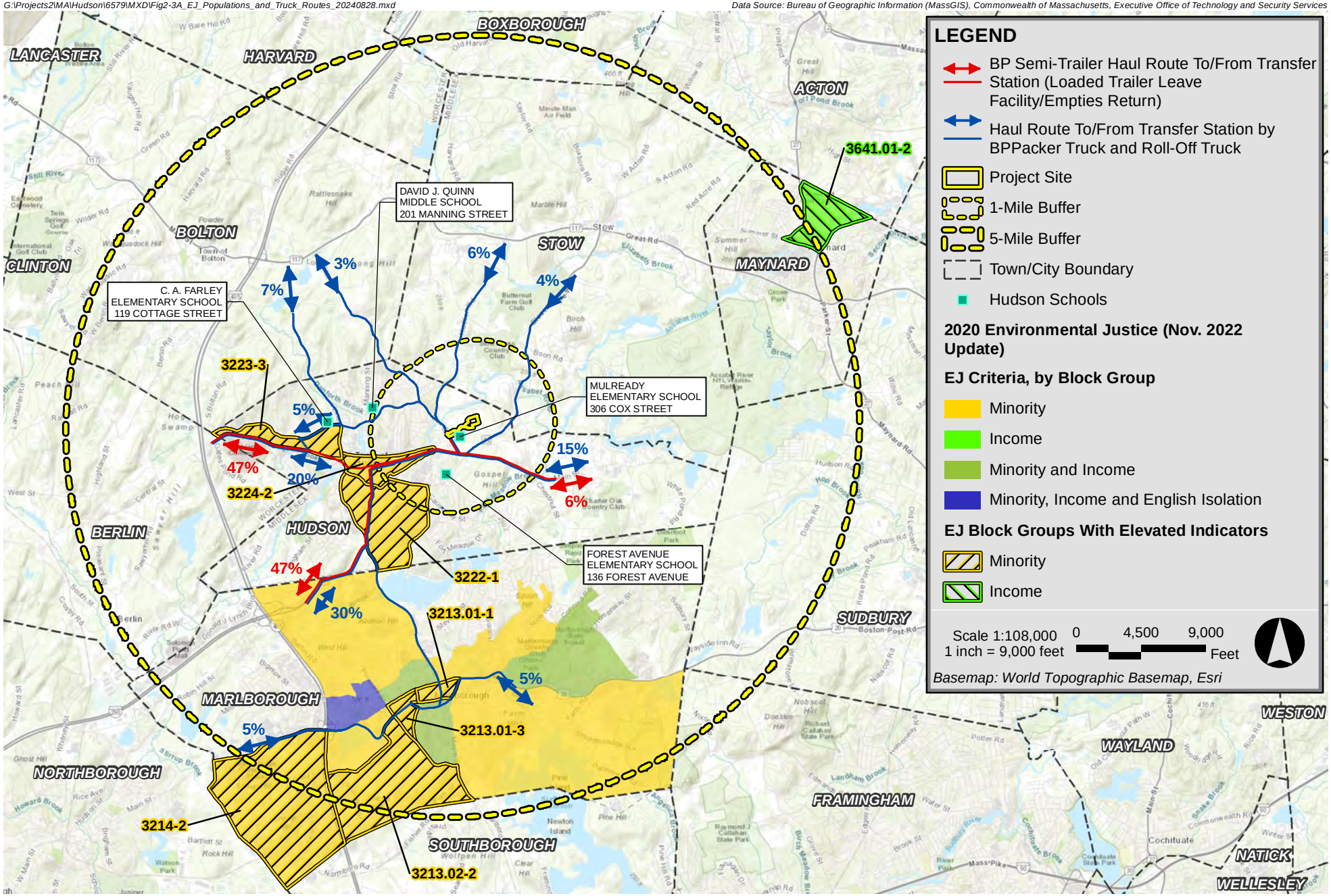
2.4 Additional EJ Analysis

2.4.1 Asthma prevalence in PK-12 Schools in Hudson

In March 2024, the Massachusetts Department of Environmental Protection (MassDEP) promulgated new cumulative impact analysis (CIA) regulations that apply to facilities requiring an air permit if they are within 1 or 5 miles of an EJ community. Along with the regulation, MassDEP developed tools that can be used to conduct the CIA. As this project does not require an air permit, these regulations do not apply. However, the MEPA scope on the Project's DEIR requested the use of these CIA tools to evaluate the asthma prevalence in PK-12 school near EJ communities and the Project Site. The results are summarized in Table 2-2 and the locations of the schools are shown on Figure 2-1. The results show that asthma rates are slightly higher than the state rate of 12.2 % (percentiles less than 70% of the state average) for all the schools except for Mulready Elementary School. The Mulready Elementary School, which is the closest school to the Project Site on Cox Street, has an asthma prevalence rate of 10.3%, which is lower than the state rate of 12.2% and is in the 39th percentile for the state. These data do not suggest that asthma prevalence is of particular concern in these areas. As discussed in the DEIR and summarized above, the air quality in the area is good and below health-based standards that are set to protect the most vulnerable population groups including asthmatic children.

G:\Projects2\MA\Hudson\6579\MXD\Fig2-3A_EJ_Populations_and_Truck_Routes_20240828.mxd

Data Source: Bureau of Geographic Information (MassGIS), Commonwealth of Massachusetts, Executive Office of Technology and Security Services



B-P Trucking Transfer Station Hudson, Massachusetts

Epsilon Associates Inc.

Figure 2-1

Distribution of Trucks in EJ Areas

Furthermore, asthma is a complex, multi-factorial disease, with multiple triggers and risk factors. Some studies suggest that ambient air pollution is one risk factor, however, asthma prevalence is more closely associated with allergic status, lifestyle factors and indoor air pollutants. For example, some of the most potent asthma-inducing allergens such as mold, pets, cockroaches, and dust mites can be found in indoor environments.

Table 2-2 Hudson Schools near EJ Communities and along Project Truck Routes

School Name/ Census Tract	Street Name	Average Case Count	Average Enrollment Count	Pediatric Asthma Prevalence (% of students)	Pediatric Asthma Prevalence (% of MA rate)	Pediatric Asthma Prevalence (%tile)
C A Farley/3223 and 3224	Cottage Street	68.3	486	14.1	115%	68
Forest Avenue Elementary/3222 and 3224	Forest Avenue	43.7	325	13.4	110%	64
David J. Quinn Middle School/3223	Manning Street	85	656.7	12.9	105%	60
Mulready Elementary/3224	Cox Street	26	253.3	10.3	84%	39

2.4.2 EJ Screen Analysis

EJ Screen presents results for environmental and socioeconomic indicators. There are 13 environmental indicators and seven socioeconomic indicators. In addition, data are presented in terms of EJ and supplemental indexes that combine specific environmental indicators with socioeconomic indicators to evaluate combined vulnerabilities. EJ Screen analyses are conducted at the Census "block group" level, which is the finest level of detail. Analyses can also be conducted using a buffer around a point. EJ Screen will aggregate portions of the block groups that the buffer intersects, weighted by population in order to provide representative data for that buffer region.

EJ Screen analyses are presented in terms of percentiles, which is a relative term that compares each block group with either the rest of the state, or the whole US. Importantly, EJ Screen is meant to be used as a screening level analysis and EPA has determined that the 80th percentile is an appropriate percentile to identify areas that warrant further investigation. In the EJ Screen Technical Document[1] EPA notes that "a high percentile is not necessarily a real concern from a health or legal perspective. To understand the actual health or other implications of any screening results requires looking at the actual data the indicator represents, and also looking at other relevant data if available." Other data that EPA refers to includes whether the air pollution measurements exceed health-based standards.

[1] EJSCREEN Technical Documentation 2014 - environmental justice screening and mapping tool (epa.gov)

EPA notes that there are a number of limitations to an EJScreen analysis. These limitations are generally associated with uncertainty in the underlying data for a particular indicator since often data are not available at the block group level. Also, as noted by EPA, many of the indicators are screening-level proxies of potential health impacts, and do not represent actual health impacts. This is especially true for the "proximity" indicators such as proximity to Risk Management Planning (RMP) sites or facilities that potentially release air toxics. Specifically, RMP is a federal program that applies to certain facilities that store flammable or toxic chemicals, to reduce the risks of an accidental release. If a facility is subject to RMP, this does not mean that the facility has any releases of chemicals. Similarly, for any listed hazardous waste sites, this does not mean that hazardous materials have been or could be released into the broader environment.

Table 2-3 shows the environmental indicators that are elevated (at or above 80th percentile) in the block groups in Marlborough within 5 miles of the Project Site. As noted above, these environmental indicators are proximity indicators, which are proxies for potential environmental exposures, but this does not mean that there are any actual exposures. None of the air pollutants of concern, including PM2.5, diesel PM, and ozone were elevated compared to state levels, which is consistent with the air quality analysis presented in the DEIR.

An additional EJ Screen analysis was conducted using the buffer approach with a 5-mile buffer. The results are shown in Table 2-4, and the report is provided in Appendix A. With the buffer approach, none of the key air pollution related indicators exceeded the 80th percentile. This lends further support to the findings from the air quality analysis and indicates that these EJ communities are not disproportionately burdened compared to other communities.

Table 2-3 Summary of Elevated Indicators in EJ Screen

Block Group	Elevated Indicators (≥ 80th percentile)
321302-2	RMP Proximity
321400-2	Air Toxics; Hazardous Waste Proximity; RMP Proximity

Table 2-4 Summary of EJ Screen Results for Pollution and Sources (5-mile Buffer)

Variable	Value	State Average	Percentile in State
Particulate Matter 2.5 (ug/m^3)*	6.8	6.5	73
Ozone (ppb)	55	56.7	23
Nitrogen Dioxide (ppb)**	7.1	8.8	37
Diesel Particulate Matter (ug/m^3)*	0.13	0.18	35
Toxic Releases to Air	2,200	2,800	48
Traffic Proximity (daily traffic count/distance to road)	2,100,000	6,100,000	26
Superfund Proximity (site count/km distance)	0.14	0.34	56
RMP Facility Proximity (facility count/km distance)	0.052	0.37	28
Hazardous Waste proximity (facility count/km distance)	4.4	11	38

*ug/m^3 = micrograms per square meter

**ppb = parts per billion

2.5 Mitigation of Project Impacts

2.5.1 Construction Mitigation

Air impacts are expected to result from the Proponent's construction activities. The increased truck traffic will depend on the nature of the work being performed and is temporary. The Proponent will work with contractors to minimize air impacts by:

- Encouraging contractors to use EPA Tier 4 construction equipment or equipment retrofitted with diesel emission control devices to the greatest extent practicable;
- Using Ultra-Low Sulfur Diesel for all trucks and construction machinery;
- Maintaining an "idle free" work area; and
- Minimizing exposed storage of debris on-site through measures such as wetting soils prior to disturbing and covering stockpiles.

Section 12.3 of the DEIR further discusses construction mitigation measures including the construction-related traffic, noise, and air quality impacts.

2.5.2 Other Mitigation

Through this FEIR, B-P has documented that the Project uses all feasible measures to avoid, minimize, and mitigate damage to the environment. Specific to diesel emissions, the Project's operations will also have some air impacts; as discussed in Section 3.2.2, 3.2.3, and 4.1 of the DEIR. Based on the results from the air quality analysis, which was a conservative analysis of those emissions and included a comparison with other projects where air modeling was conducted, the Project-related traffic that will travel through EJ communities will result in only minor contributions to overall air pollution levels and will not contribute to any exceedance of the health-based National Ambient Air Quality Standards (which are set to be protective of public health). Therefore, any air quality impacts will not result in a disproportionate adverse effect on EJ populations in the Project area.

To mitigate these low impacts on EJ populations, the Proponent has committed to routing of Project trucks such that roads traversed are in EJ communities as infrequently as possible for those vehicles that are under the Proponent's direct control, and communication with Proponent's drivers to promote adherence to these routes while still providing the necessary solid waste handling services.

That said, the Proponent has considered additional mitigation as suggested by the MEPA office. A discussion of those measures is below.

- Tree planting: B-P lacks the authority to plant trees outside of areas under its control, and there is no specific location where tree planting would directly mitigate any Project-related impact. However, to contribute to this effort, the Proponent will donate $50,000 ($10,000 annually for the first five years from when the facility begins operating) to the Town of Hudson expressly for the purpose of tree planting associated with Town projects. It is anticipated that these projects would be performed under the authority of the Hudson DPW and the donated funds could be used by the Town to support tree planting in Town rights-of-way for roadway improvement projects and other similar projects that benefit the community.
- Road barriers for sound/emissions: There are no locations where road barriers would avoid, minimize, or mitigate damage to the environment caused by the proposed Project. Any barriers would need to be installed outside areas under B-P's control and would be outside the scope of this Project. Any such barriers would have impacts that would likely exceed their benefits, including impeding pedestrian and bicycle flow, eliminating sightlines and creating traffic hazards, reflecting noise, negatively impacting the character of the neighborhoods in which they are installed, and creating short-term emissions, noise, and traffic impacts associated with their installation.
- Public health contributions in collaboration with local community centers or health centers: B-P is an established business with a long history of engaging with and supporting the community of Hudson and the broader community. This has included:

- Free trash and recycling to all town buildings (schools, town buildings, town fields; currently over 28 different locations);
- Free disposal at the transfer station for the Hudson Department of Public Works;
- Support to town community organizations and events by way of free container use and free disposal (examples: Assabet River Clean-up and Hudson Clean-up Day);and
- The monetary commitment to the Town's tree planting effort as described above.

♦ B-P reviewed opportunities to engage further with local community centers or health centers and did not identify any new engagement opportunities that would relate to the Project specifically or to B-P's mission to support the region in the efficient handling of recyclables and solid waste. B-P will retain its existing community engagement programs and will continue to look for new opportunities to be a good neighbor and corporate citizen, aligned with its principles and core mission. Such efforts will continue outside the MEPA process.

2.6 Conclusions

As noted above, the main impacts of the Project are increased emissions from Project-related vehicle trips; air quality impacts were evaluated by estimating the emissions expected from Project trucks travelling between I-495 and the Site. Intersections near EJ populations were analyzed and emissions from Project trucks were estimated using emission factors calculated through mesoscale analysis using the US EPA's MOVES4 program, described in Chapter 3 of the DEIR and combined with expected delay times and vehicle volumes at studied intersections as determined by the traffic analysis presented in Chapter 7 of the DEIR. The results of the analysis indicate that EJ communities will not be adversely or disproportionately impacted by the increased vehicle emissions.

Chapter 3

Solid Waste

3.0 SOLID WASTE

3.1 Introduction

The proposed facility will consist of two primary operational areas: an approximately 53,000 square foot Transfer Station & Recycling Building; and an approximately 1.3-acre Residential Drop-off Area, reserved for Hudson residents who choose to visit the Site to drop-off their household waste and recyclables. The expected operations of the facility were described in Chapter 8, Solid Waste, of the Project's DEIR filed April 1, 2024.

This chapter addresses MEPA comments on the Solid Waste section of the DEIR Certificate, which included comments from MassDEP as part of its review of the DEIR. Comments provided by these agencies included:

- A request that the FEIR demonstrate that the proposed Transfer Station & Recycling Building is sufficiently sized to support the expected volumes of materials the facility will receive;
- A request that additional information be provided in connection with the proposed facility's compliance with MassDEP's Minimum Performance Standard (MPS) applicable to C&D handling facilities;
- A request that the FEIR provide additional/confirmatory information regarding proposed odor and dust control, building ventilation and air filtration, and management of industrial wastewater discharge; and
- Lastly, the DEIR Certificate requested additional information regarding the Site Assignment Minor Modification that will be needed for the proposed Project.

Responses to the Solid Waste-related comments of the DEIR Certificate are provided in Sections 3.2 through 3.5 below.

3.2 Material Handling Capacity of Facility

Sections 3.2.1 and 3.2.2 respond to MassDEP's comments on the material handling capacity of the facility.

3.2.1 MSW and C&D Handling Capacity

The MSW and C&D handling capacity evaluation considers the rate at which these materials can be moved through the proposed Transfer Station & Recycling Building during peak operating conditions of 850 tons per day (TPD). The evaluation also identifies the temporary floor storage space needed to support material handling activities during peak operations.

3.2.1.1 Overview of MSW and C&D Handling Operations

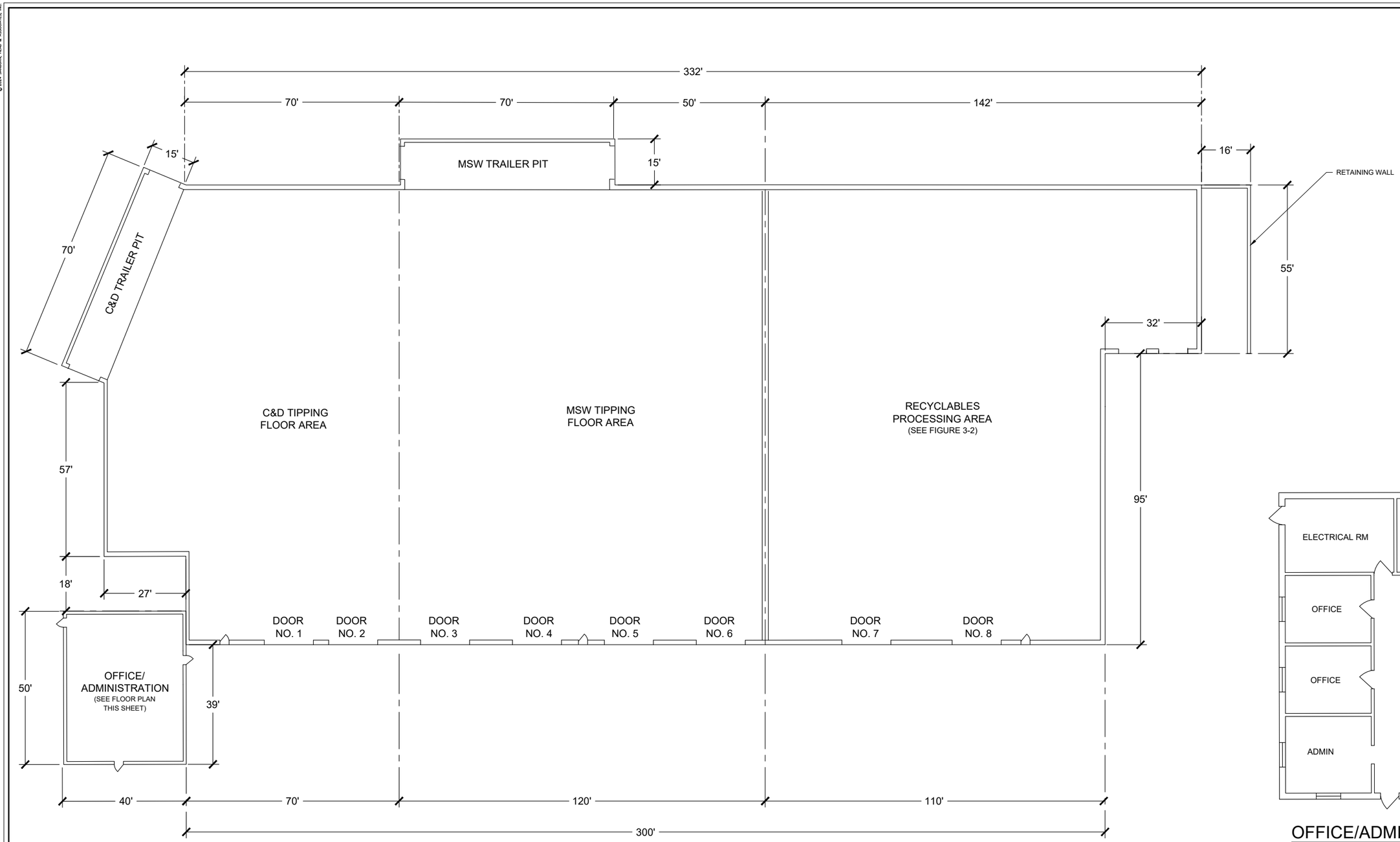
A floor plan of the proposed Transfer Station & Recycling Building is provided as Figure 3-1A. As described in Section 8.2 of the DEIR, the building will provide a large tipping floor area for the receipt of MSW and unprocessed C&D waste, and a Recyclables Processing Area for the receipt, sorting and baling of recyclable materials. The MSW and C&D operational areas occupy the central and western portion of the building, respectively, with the MSW tipping floor encompassing an area of approximately 17,800 square feet and the C&D tipping floor encompassing an area of approximately 12,900 square feet.

During the normal course of operations, as MSW and C&D loads are deposited on the tipping floor, a front-end-loader will be used to move C&D material and stockpile it against the western end wall of the building. MSW loads will be similarly moved and stockpiled against the common wall that separates the MSW/C&D tipping floor area from the building's Recyclables Processing Area. The pushwalls against which MSW and C&D material will be stockpiled will be constructed of concrete to a height of approximately 12 feet above finished floor and clad with steel plate to a height of approximately 16 feet above finished floor.

As shown on Figure 3-1A, two trailer pits, one for MSW trailer loading and the other for C&D trailer loading, will provide for the material loadout at the building. Each pit, with approximate dimensions of 70 feet by 15 feet, will have an overhead door at either end, allowing open top trailers to use the pits in a drive-through manner (trailers can be brought into the pits at one end, loaded, and driven out at the opposite end, eliminating the need for back-up maneuvering into the pit if it had only one doorway for access and egress). Each pit will have a floor elevation approximately 12 feet below the tipping floor elevation and an excavator will be used to load the open-top trailers in each pit.

3.2.1.2 MSW and C&D Quantities

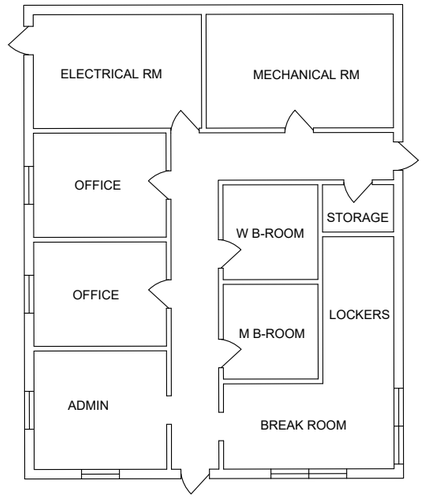
As described in the DEIR, the proposed permitted capacity for waste materials delivered to the new transfer station facility is 850 TPD. This represents an increase of 500 TPD to the existing facility's permitted capacity. The solid waste material accepted at the proposed facility will be the same as currently accepted at the existing transfer station, consisting of MSW (inclusive of bulky waste) and C&D debris. As noted in the DEIR, the quantity of C&D waste handled at the proposed facility is expected to represent 200 TPD of the 850 TPD permitted capacity. Table 3-1 summarizes the distribution of C&D debris versus MSW that constitutes the total sought-after permitted capacity of 850 TPD.



TRANSFER STATION & RECYCLING BUILDING FLOOR PLAN

GRAPHICAL SCALE

16' 8' 0' 16' 32'



OFFICE/ADMINISTRATION FLOOR PLAN

GRAPHICAL SCALE

8' 4' 0' 8' 16'

SANBORN HEAD

SCALE: AS NOTED

NO.	DATE	DESCRIPTION	BY

DRAWN BY: O. HERNANDEZ/ M. PARENT
DESIGNED BY: S. WRIGHT
REVIEWED BY: D. LONG
PROJECT MGR: S. WRIGHT
PIC: S. WRIGHT
DATE: OCTOBER 2024

FINAL ENVIRONMENTAL IMPACT REPORT
B-P TRUCKING TRANSFER STATION AND RECYCLING FACILITY
HUDSON, MASSACHUSETTS

FLOOR PLAN
TRANSFER STATION & RECYCLING BUILDING

PROJECT NUMBER: 3984.01

FIGURE NUMBER: 3-1A

Table 3-1 Anticipated Distribution of MSW and C&D Materials Associated with Proposed 850 TPD Permitted Capacity

Material	Tons/Day
Municipal Solid Waste (MSW)	650
Construction & Demolition Debris (C&D)	200
Total	**850**

3.2.1.3 MSW and C&D Material Handling Rate

Using the daily tonnages of MSW and C&D associated with an 850 TPD facility, the capacity of the proposed Transfer Station & Recycling Building to support the receipt of these materials at the anticipated tonnages can be evaluated. With respect to the movement of material through the building, this is evaluated on a throughput rate basis reflecting the time required to move the tonnage of material delivered to the building into long haul transfer trailers for transportation off-site. The typical time for B-P to load a 100 cubic yard transfer trailer is 15 minutes. When receiving waste at a peak rate, a full trailer can be tarped and removed from the pit and replaced with a full trailer in 5 minutes. Therefore, the total time to fill a trailer and replace it with an empty trailer is approximately 20 minutes. For both C&D and MSW trailers loads, the weight of the load typically averages 25 tons. Therefore, the waste throughput rate at the building is approximately 75 tons per hour for each trailer pit (25 tons/20 minutes = 1.25 tons/minute = 75 tons/hour), or 150 tons per hour (TPH) for the two pits combined.

Table 3-2 summarizes the total time required to move a day's worth of C&D and MSW received at the facility under peak daily tonnage conditions using the 75 tons per hour (TPH) material throughput rate for each trailer pit.

Table 3-2 Estimated MSW and C&D Total Trailer Loadout Times During Peak (850 TPD) Operations

Material	Tons/Day	Hourly Throughput Rate (Tons/Hour)[1]	Total Daily Trailer Loadout Time (Hours/Day)
MSW	650	75	8.7
C&D	200	75	2.7

1. Hourly throughput rate represents the estimated tons per hour that can be moved through each of the proposed facility's trailer pits. The throughput rate includes the time to load a trailer, remove it from the pit, and cycle an empty trailer into the pit for loading.
2. Total daily trailer loadout time is the estimated time required to move the specified tons per day of each material type through the facility for transportation off-site.

As shown in Table 3-2, it is estimated if MSW is received at an anticipated peak of 650 TPD, a total of approximately 8.7 hours will be spent loading the waste into trailers for off-site disposal. Based on a 10-hour operating day (7:00 am to 5:00 pm), and assuming one hour reflects break periods from loading, approximately 9 hours are assumed as the typical hours per day available for trailer loading/loadout activities. With respect to the anticipated quantity of C&D received at 200 TPD, the total trailer loadout time is approximately 2.7 hours per day. At these rates, a single trailer pit, if solely dedicated to each material type (MSW or C&D), can move the anticipated peak daily tonnage of the material through the facility within a net 9-hour operating day.

The throughput analysis also indicates that the C&D trailer pit can be used to load an additional volume of MSW during the day, where the pit could be available for up to approximately 6 hours for this purpose. This would reduce the time demand placed on the MSW trailer pit if only that pit was loaded during the peak operating day. The key to taking advantage of this added availability of the C&D pit for MSW loadout is having adequate temporary storage capacity on the tipping floor for C&D material so that it can aggregate for those periods when the C&D trailer pit may be used for loading out MSW during high demand periods. As discussed in Section 3.2.1.4, the C&D portion of the tipping floor can provide a minimum of one day's worth of temporary floor storage. This will provide the needed flexibility to aggregate C&D on the tipping floor when it is beneficial to use the C&D trailer pit to loadout MSW during peak demand periods.

To place the throughput capacity of the material loadout into a generalized context, with each trailer pit providing up to 75 TPH of loadout capacity, the two pits combined provide 150 TPH of loadout capacity for the entire facility. Over a 9-hour period of trailer loading activities, this equates to the ability to move a total of approximately 1,350 TPD through the transfer station (75 TPH/pit x 2 pits x 9 loadout hours/day). Adjusting this total tonnage to the 850 TPD permitted capacity results in an average loadout time of approximately 5.7 hours to move all material through the building on a peak operating day (850 TPD/150 TPH). This shows the added flexibility provided by having the C&D pit available for MSW trailer loading, allowing two pits to be used for MSW loading as needed to manage the daily demands placed on the facility.

3.2.1.4 Tipping Floor Storage Capacity

The ability of the tipping floor to provide operational storage capacity is an important consideration when evaluating the physical space requirements for a facility. Operational storage capacity is used here to mean the floor storage area needed to temporarily stockpile a day's worth of incoming materials in areas that will keep the tipping floor clear for incoming loads. By providing a minimum of a peak day's-worth of floor storage capacity, the facility will have the ability to temporarily store incoming material out of the way of incoming loads, have sufficient floor storage capacity for periods when trailer storage loading is not occurring, and allow both trailer pits to be used for one material type (C&D or MSW) during periods when that may be helpful in maximizing the loadout efficiency of the material in question.

As discussed in Section 3.2.1.3, the use of both trailer pits for a single waste stream during portions of the day is expected to pertain to the larger volume waste stream of MSW that will be received at the facility. However, by having a day's worth of peak storage capacity on the tipping floor for both the C&D and MSW streams, the building will have the capacity to load either MSW or C&D in both trailer pits simultaneously, allowing either material to be moved through the building at an increased rate if needed.

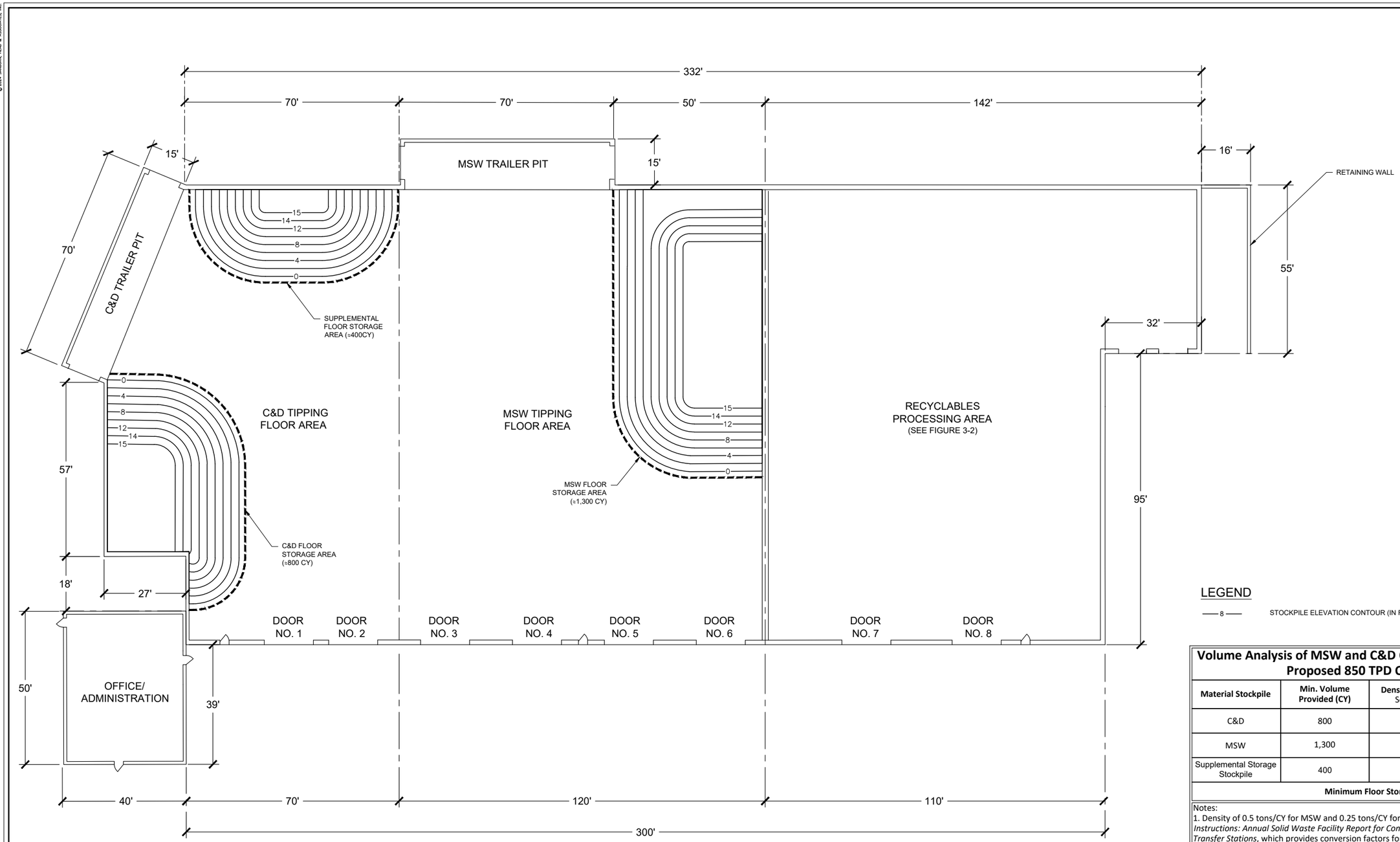
The building floor plan provided as Figure 3-1B shows the estimated operational stockpile sizes needed to store one day's worth of MSW and C&D on the tipping floor delivered during a peak operating day. As shown on the figure, two primary operational piles would be located on the floor, one dedicated to C&D and the other to MSW. Each pile is sized to provide sufficient volume to store the equivalent of 200 tons of C&D and 650 tons of MSW, quantities which are equivalent to the estimated peak daily tonnages that would be received for these two waste streams. Table 3-3 summarizes the equivalent volume needs associated with these tonnages, based on common densities for C&D waste and MSW.

Table 3-3 Estimated Operational Stockpile Sizes Associated with Handling Peak Daily Tonnage of MSW and C&D

Material	Tonnage Received (Peak Day)	Density (Tons/CY)[1]	Equivalent Operational Storage Volume (CY)
MSW	650	0.5	1,300
C&D	200	0.25	800

1. Densities of 0.5 tons/cy for MSW and 0.25 tons/cy for C&D waste are from MassDEP's *Annual Solid Waste Facility Report Form for C&D Processors and Transfer Stations*, which provides conversion factors for various wastes and other materials.

As shown in Table 3-3, providing a storage volume of approximately 1,300 cubic yards on the tipping floor provides the operational stockpile capacity needed to handle one day's worth of MSW delivered to the facility. Similarly, 800 cubic yards of stockpile volume will provide the capacity needed to handle one day's worth of C&D. The MSW and C&D stockpiles shown on Figure 3-1B are sized to meet the respective material volumes presented in Table 3-3. It should be noted that there is additional storage volume available on the tipping floor, including an area along the north wall of the building between the two trailers pits. The limits of this supplemental floor storage area are shown on Figure 3-1B. For planning purposes, in the event the transfer station was to receive only MSW during a peak operating day (850 tons of MSW as opposed to 650 tons), the limits of the north wall storage area shown on Figure 3-1B provides approximately 400 cubic yards of temporary storage volume that can be used if needed to handle the additional 200 tons of MSW (200 tons/(0.5 ton/cy) = 400 cubic yards).



TRANSFER STATION & RECYCLING BUILDING FLOOR PLAN

LEGEND

—— 8 —— STOCKPILE ELEVATION CONTOUR (IN FEET)

Volume Analysis of MSW and C&D Operational Stockpiles for Proposed 850 TPD Operations

Material Stockpile	Min. Volume Provided (CY)	Density (Tons/CY) See Note 1	Tonnage
C&D	800	0.25	200
MSW	1,300	0.50	650
Supplemental Storage Stockpile	400	See Note 2	
		Minimum Floor Storage Provided =	**850 TONS**

Notes:
1. Density of 0.5 tons/CY for MSW and 0.25 tons/CY for C&D waste are from MassDEP's *Instructions: Annual Solid Waste Facility Report for Construction & Demolition Processors or Transfer Stations*, which provides conversion factors for various wastes and other materials.

2. Supplemental Storage Stockpile of 400 CY provides an additional 100 tons of C&D floor storage or 200 tons of MSW floor storage.

SANBORN HEAD

GRAPHICAL SCALE
16' 8' 0' 16' 32'

NO.	DATE	DESCRIPTION	BY

DRAWN BY: O. HERNANDEZ/ M. PARENT
DESIGNED BY: S. WRIGHT
REVIEWED BY: D. LONG
PROJECT MGR: S. WRIGHT
PIC: S. WRIGHT
DATE: OCTOBER 2024

FINAL ENVIRONMENTAL IMPACT REPORT
B-P TRUCKING TRANSFER STATION AND RECYCLING FACILITY
HUDSON, MASSACHUSETTS

TIPPING FLOOR MATERIAL STORAGE FOR 850 TPD OPERATIONS

PROJECT NUMBER: 3984.01

FIGURE NUMBER: 3-1B

3.2.1.5 Summary of MSW and C&D Handling Capacity Evaluation

Based on the above evaluation of the facility's MSW and C&D throughput rate, as well as the operational floor storage capacity provided for these materials, the waste handling area of the proposed Transfer Station & Recycling Building is appropriately sized to accept MSW and C&D at the sought-after permitted capacity of 850 TPD.

3.2.2 Recyclables Handling Capacity

This section provides a detailed evaluation of the material handling capacity of the Recyclables Processing Area portion of the proposed Transfer Station & Recycling Building. The capacity evaluation presents the quantities of recyclables that will be managed at the building over the near- and long-term and, based on these quantities, evaluates the physical space provisions and equipment throughput rates to confirm that the facility is appropriately sized to accept the proposed recycling tonnages.

3.2.2.1 Recyclable Quantities – Current and Future Conditions

The quantity of recyclables currently collected by B-P from commercial customers (businesses) and municipal customers (residential drop-off facilities and residential curbside pick-up) is approximately 5,800 tons per year (TPY). This is equivalent to approximately 22 TPD when averaged over a 5 day per week, 52-week year. The recyclables will be collected as both commingled and source-separated material streams, as described in Section 8.2.4 of the DEIR.

The 5,800 TPY of recyclables currently collected by B-P represents the initial quantity of material that will be brought to the Recyclables Processing Area of the proposed Transfer Station & Recycling Building when the facility begins operating. To account for future growth in recyclable quantities that will be brought to the facility over time, for planning purposes the building's recyclables handling capacity is based on accepting up to 20,000 TPY, or 77 TPD, of recyclables.

The recyclable tonnages to be handled at the facility under current and future conditions are summarized in Table 3-4.

Table 3-4 Quantity of Recyclables to be Handled at Facility

Condition	Quantity of Recyclables Handled at Building's Recyclables Processing Area	
	Tons/Year	Tons/Day
Current[1]	5,800	22
Future[2]	20,000	77

1. "Current Conditions" refers to the current quantity of recyclables collected by B-P, representing the initial quantity of recyclable material brought to the building when the facility begins operating.
2. "Future Conditions" refers to the projected growth in recyclable quantities that will be brought to the facility over time.

The recyclables processing portion of the building will have the capacity to handle the quantity of material brought to the facility for both existing and future conditions. To demonstrate this, it is important to first present the quantities of individual recyclable material streams that will be received at the facility and how the sorting and baler feed lines prioritize the movement of cardboard (OCC) through the sorting system, as this is the largest quantity of material that will be handled at the facility. The estimated tonnage distribution of individual recyclable material streams that comprise the current and future total quantity of recyclables handled at the building is summarized in Table 3-5.

Table 3-5 Tonnage Distribution of Recyclable Material Types

Material	Total Tons/Day Received	
	Current	Future
Cardboard (OCC)	17	59.5
Mixed Paper	1	3.4
Plastic (Food and Beverage Containers)	1.5	5.4
Aluminum and Steel (Food and Beverage Containers)	2.4	8.3
White Ledger (paper)	0.1	0.3
Totals	**22 TPD**	**77 TPD**

As shown in Table 3-5, OCC represents slightly more than 75 percent of the material that will be handled at the facility under both current and future conditions. The Recyclables Processing Area, shown in detail on Figure 3-2, depicts the proposed commingled recyclables sorting line and baler infeed line. These lines will preferentially operate so that OCC is the primary material being baled during facility operations. The lesser volume materials (mixed paper, plastic containers, metal containers, and white ledger) will be baled during periods when interior storage bunkers and sort line storage bins for these materials are reaching capacity. Because the storage capacity for these lesser quantity materials is high (equating to their lower volumes), the facility will have flexibility to run the infeed baler line when needed for these materials and the baler run times will be comparatively short (less than 1 hour/day under current conditions, see Table 3-8; and less than 2 hours/day under future conditions, see Table 3-10), allowing the line to return to OCC sorting and baling for the majority of the operating day.

3.2.2.2 Pre-Baling Material Storage Capacity - Current Conditions

The pre-baling storage capacity provided for the various recyclable materials handled within the building under current conditions is summarized in Table 3-6. The table shows the sort-line bin storage capacity provided for the plastic, aluminum, and steel containers pulled from the commingled sort line, as well as the bunker storage capacity provided for the source-separated material brought to the building. The approximate storage quantities for the individual storage bins and bunkers, in both tons and cubic yards, are provided on Figure 3-2 for reference.

RECYCLABLES PROCESSING AREA EQUIPMENT LIST

ITEM #	DESCRIPTION
C-1	C-1 INFEED CONVEYOR
BSD-2	BACK SCRAPING DRUM
C-3	PRE-SORT CONVEYOR
S-4	OCC SCREEN
S-5	FINES SCREEN
C-6	OCC CONVEYOR
C-7	OCC REVERSING CONVEYOR
C-8	FINES SCREEN OVERS CONVEYOR
C-9	GLASS FINES CONVEYOR
SEPB-10	8 PADDLE BALLISTIC
C-11	3D CONTAINERS TRANSFER CONVEYOR
C-12	CONTAINERS TRANSFER CONVEYOR
MAG-13	FERROUS MAGNET
C-14	FERROUS METALS CONVEYOR
C-15	CONTAINERS TRANSFER CONVEYOR
ECS-16	EDDY CURRENT
C-17	EDDY SORT LINE
AB-18	NON FERROUS BLOWER
C-19	PLASTIC CONTAINERS SORTING CONVEYOR
C-20	PLASTIC CONTAINERS BUNKER FEED CONVEYOR
C-21	RESIDUE CONVEYOR
C-22	RESIDUE CONVEYOR
PLA-1	PRESORT & BUNKERS
PLA-2	SCREEN STRUCTURES
PLA-3	SCREEN SERVICE PLATFORM
PLA-4	OCC & GLASS FINES FLOOR BUNKERS
PLA-5	BALLISTIC-STEEL PACKAGE
PLA-6	MAGNET-STEEL PACKAGE
PLA-7	CONTAINER LINE-STEEL PACKAGE
PLA-8	EDDY CURRENT-STEEL PACKAGE
PLA-9	SLOPE FLOOR BUNKER PACKAGE
B-100	SINGLE SORTED FIBER INFEED CONVEYOR
B-101	DUAL RAM BALER

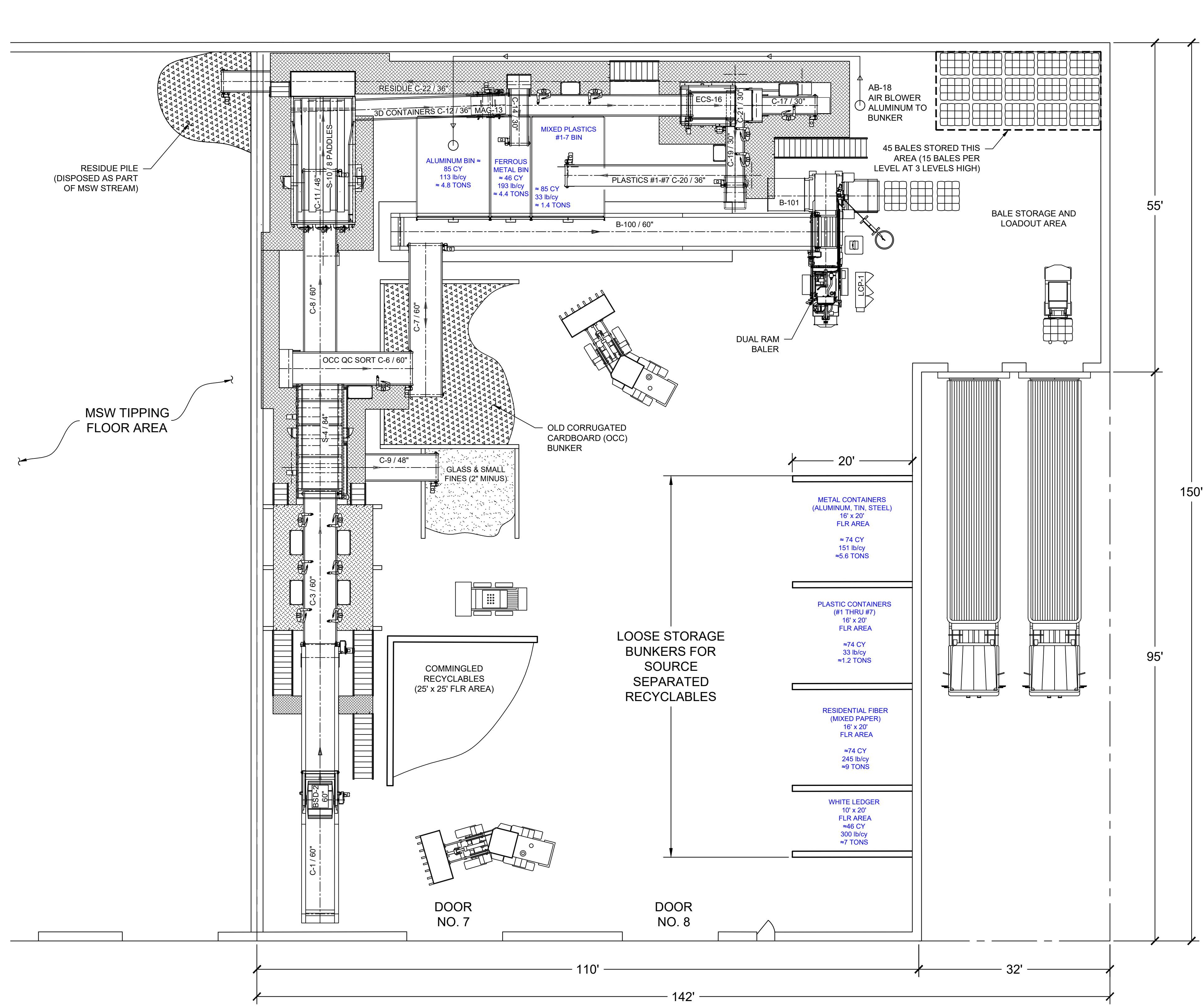
NOTE REGARDING STORAGE ESTIMATES SHOWN ON PLAN FOR COMMINGLED SORT LINE BINS AND SOURCE-SEPARATED BUNKERS.

MATERIAL STORAGE VOLUME IN CUBIC YARDS, TYPICAL LOOSE VOLUME DENSITY IN POUNDS PER CUBIC YARD, AND EQUIVALENT MATERIAL STORAGE VOLUME IN TONS ARE SHOWN ON THE LAYOUT PLAN FOR EACH BIN AND BUNKER BAY AS FOLLOWS:

≈XX CY (APPROXIMATE STORAGE VOLUME PROVIDED)

YY lb/cy (TYPICAL LOOSE DENSITY OF STORED MATERIAL)

≈ZZ TONS (EQUIVALENT TONS OF STORAGE PROVIDED)



RECYCLABLES PROCESSING AREA FLOOR PLAN

SANBORN HEAD

GRAPHICAL SCALE
10' 5' 0' 10' 20'

NO.	DATE	DESCRIPTION	BY

DRAWN BY: O. HERNANDEZ
DESIGNED BY: MXI/SEW
REVIEWED BY: D. LONG
PROJECT MGR: S. WRIGHT
PIC: S. WRIGHT
DATE: OCTOBER 2024

FINAL ENVIRONMENTAL IMPACT REPORT
B-P TRUCKING TRANSFER STATION AND RECYCLING FACILITY
HUDSON, MASSACHUSETTS

RECYCLABLES PROCESSING AREA LAYOUT PLAN

PROJECT NUMBER: 3984.01

FIGURE NUMBER: 3-2

Table 3-6 Pre-Baling Storage Capacity for Source-Separated and Sort-Line Recyclable Materials – CURRENT CONDITIONS

Material	Total TPD	Commingled Sort Line			Source-Separated Direct Infeed to Baler		
		Infeed TPD	Bin Storage Provided (Tons)	Storage Capacity (Days)	Infeed TPD	Bunker Storage Provided (Tons)	Storage Capacity (Days)
OCC	17	5	NA (routine line feed)	NA	12	NA (routine line feed)	NA
Mixed Paper	1	NA (Residue)	NA	NA	1	9	9
Plastic	1.5	1.3	1.4	1.1	0.2	1.2	6
Alum & Steel	2.4	0.9	9.2	10.2	1.5	5.6	3.7
White Ledger	0.1	0	NA	NA	0.1	7	70
Totals	**22**	**7.2**			**14.8**		

As shown in Table 3-6, the sort line bin storage and source separated bunker storage for the various recyclable materials provides several days of material storage for the non-OCC materials. The lowest storage capacity in terms of day's storage is for plastic stored in the commingled sort line bin for plastic. This is not unusual given the high-volume storage needs per unit ton associated with storage of "loose" (unflattened) plastic, which is assumed here. It should also be noted that OCC does not have bin or bunker storage per se for either commingled OCC or source-separated OCC. This is because the commingled sort line will be fed routinely with incoming material, separating the OCC and direct feeding it to the baler. In addition, the source separated OCC will be direct fed to the baler via the baler infeed conveyor, thereby expediting the processing of the pre-sorted OCC by bypassing the commingled sort line. In this way, the Recyclables Processing Area will maximize the OCC bale production throughput rate, which is appropriate for material estimated to represent approximately 75 percent of the total tonnage of recyclables delivered to the building.

3.2.2.3 Bale Production Material Throughput Rates

The comparative ton-per-hour throughput rates for various recyclable materials is shown in Table 3-7. These throughput rates refer to the approximate time it takes to run commingled material through the sort line and make an OCC bale, as well as run separated recyclables through the baler once directly loaded onto the baler infeed conveyor.

Table 3-7 Bale Production Material Throughput Rates Per Recyclable Material Type

Material	Approximate Bale Production Material Throughput Rate (Tons/Hour)[1]	
	Infeed to Baler via Commingled Sort Line	Pre-Sorted Material Direct Fed to Baler[2]
OCC	7[3]	15
Mixed Paper	NA (residue)	20
Plastic Containers	Plastic containers from commingled separation will be stored in the Mixed Plastics sort line bin. From this bin the material will be direct fed into the baler and have a bale production rate shown in the column to the right →	20
Aluminum & Steel Containers	Metal containers from commingled separation will be stored in the Aluminum and Ferrous Metal sort line bins. From these bins the material will be direct fed into the baler and have a bale production rate shown in the column to the right →	31

1. Bale production throughput rate refers to the time it takes from placement of material at point of infeed on the respective line (start of commingled sort line vs. direct infeed line to baler) and moving the material through the line, into the baler, and production of the bale.
2. Direct feed bale production rates based on dual ram baler manufactured by Machinex Industries (MTR-195-TP) of Plessisville, Canada. Machinex is the equipment manufacturer supporting B-P on the design of the recyclables processing portion of the Transfer Station & Recycling Building.
3. Commingled sort line bale production throughput rate provided by Machinex Industries and reflects typical OCC bale production rate for the layout shown on Figure 3-2.

3.2.2.4 Estimated Daily Run Times for Sorting and Baling Line – Current Conditions

The bale throughput rates provided in Table 3-7 indicate that a bale of OCC can be produced from the commingled sort line at a rate of 7 TPH. Comparing this to the estimated quantity of 5 TPD of OCC that will be run through the sort line under current conditions (per Table 3-6) means, under current conditions, the sort line can process a day's worth of OCC within the commingled material stream in slightly less than one hour (5 TPD/7 TPH = 0.7 hours/day that the sort line would run to bale a day's quantity of OCC coming from the commingled stream). When adding the source separated OCC to the bale production via the direct infeed of this material to the baler, the estimated 12 TPD of source-separated OCC can also be processed in slightly less than an hour (12 TPD/15 TPH = 0.8 hours/day that the baler would run to bale the direct infeed of source separated OCC). Therefore, roughly 1.5 hours is the estimated time needed to run the line under current conditions to bale the total estimated tonnage of OCC that would be delivered to the facility (approximately 17 TPD per Table 3-6).

As commingled and source separated material is delivered to the building, the handling areas for these two material streams are large enough to allow an accumulation of a day's worth of OCC before needing to load it onto the commingled sort line and baler infeed conveyor. This provides flexibility in allowing some on-the-floor material accumulation before loading the material on the line and producing the OCC bales.

Having evaluated the sort line/baler infeed run time for OCC baling under current conditions, for comparative purposes it is informative to estimate what the baler infeed run times would be for plastic under current conditions. This can be estimated by taking the total estimated plastic tonnage that would be delivered to the facility daily (1.5 TPD from Table 3-6) and dividing the daily tonnage by the bale production throughput rate for plastic provided in Table 3-7 (20 TPH). This indicates that under current conditions, a day's worth of plastic can be baled in less than 10 minutes (1.5 TPD/20 TPH). It is appropriate to consider plastic because, as shown in Table 3-6, the sort bin storage begins to reach capacity in slightly more than one day. Therefore, under current conditions, baling of plastic would be anticipated to occur once per day as needed to empty the sort line storage bin and any supplemental material needed to build the bale would be obtained from the source-separated plastics storage bunker.

Performing a similar evaluation of other recyclables (mixed paper, metal containers, and white ledger) delivered to the facility under current conditions allows us to estimate the daily run times of the sorting and baling line for these materials. Table 3-8 summarizes these estimated daily run times for the sorting and baling line under current conditions for all recyclable material streams and shows that the total run time for the line is just over 2 hours per day, well within the 9-hour available line run time for the facility (9 hours of accepting material during a 10-hour operating day).

Table 3-8 Estimated Daily Run Times for Sorting and Baling Line – CURRENT CONDITIONS

Material	Current Conditions Estimated Line Run Time
OCC	1.5 hours/day
Mixed Paper	1 run at 0.2 hours/day
Plastic Container	1 run at 0.2 hours/day
Aluminum & Steel Containers	1 run at 0.2 hours/day
White Ledger	1 run at 0.5 hours/day every 70 days
Total Typical Daily Run Time[1]	**2.1 hours/day**

1. Due to the infrequent need to bale white ledger at the facility, the run time to bale this material is not included in the Total Typical Daily Run Time above.

3.2.2.5 Pre-Baling Material Storage Capacity – Future Conditions

A similar evaluation of bunker and bin storage capacity and sort line/baler infeed run times for OCC, plastic, and the other recyclable materials has been performed for future conditions. As with the evaluation of current conditions, the future condition evaluation begins with an estimation of the pre-baling recyclable material storage capacity provided in the building. The material storage estimates for future conditions are summarized in Table 3-9.

Table 3-9 Pre-Baling Storage Capacity for Source-Separated and Sort-Line Recyclable Materials – FUTURE CONDITIONS

Material	Total TPD	Commingled Sort Line			Source-Separated Direct Infeed to Baler		
		Infeed TPD	Bin Storage Provided (Tons)	Storage Capacity (Days)	Infeed TPD	Bunker Storage Provided (Tons)	Storage Capacity (Days)
OCC	59.5	16.2	NA (routine line feed)	NA	43.3	NA (routine line feed)	NA
Mixed Paper	3.4	NA (Residue)	NA	NA	3.4	9	2.6
Plastic	5.5	4.5	1.4	0.3	1	1.2	1.2
Alum & Steel	8.3	3.1	9.2	3	5.2	5.6	1.1
White Ledger	0.3	0	NA	NA	0.3	7	23.3
Totals	**77**	**23.8**			**53.2**		

With the increased quantity of materials associated with future conditions, the number of days' storage capacity of the sort line bins and source-separated bunkers is reduced when compared to current conditions. The most limiting storage capacity is related to that provided by the plastics sort line bin. The anticipated storage capacity of the plastics sort line bin drops from slightly over one day under current conditions (see Table 3-6) to 0.3 days under future conditions. Assuming the facility is receiving material during 9 hours of the 10-hour operating day, this would equate to the plastics sort bin reaching capacity at an average rate of approximately every 2.7 hours during the day (9 hours/day x 0.3 days of bin capacity). Therefore, under future conditions plastics baling would need to occur roughly three times per day to leave the commingled sort line plastics bin near-empty at the end of an operating day.

3.2.2.6 Estimated Daily Run Times for Sorting and Baling Line – Future Conditions

As shown in Table 3-9 (and shown on Figure 3-2), the plastics tonnage that can be stored in the sort line bin is estimated at 1.4 tons, which is equivalent to the quantity of material needed to make slightly over two bales of plastic (typical plastic bale weight of 1,270 pounds/bale). The time it would take to produce these two bales is based on the baler throughput rate for plastic, which as shown in Table 3-7 is approximately 20 tons per hour. At that throughput rate, the plastics stored in the commingled sort line bin could be baled in less than 10 minutes (1.4 tons/20 TPH). To maximize the efficiency of the plastics baling, during the three times per day that baling of

plastics would be performed, material from the source-separated plastics bunker would also be baled. In total, as shown in Table 3-9, an estimated 5.5 tons/day of plastics will be received at the facility under future conditions. If this material was baled in a single run, it could be baled in under 20 minutes (5.5 TPD/20 TPH baler throughput = 16.5 minutes/day). For conservative estimating purposes, assuming the three plastics bale runs per day each take 20 minutes, the time to run plastics bales will not negatively impact the time needed for sorting and baling OCC. The OCC sort line/baler infeed run time estimated for future conditions is presented below.

The bale throughput rates provided in Table 3-7 indicate that a bale of OCC can be produced from the commingled sort line at a rate of 7 TPH. Comparing this to the estimated quantity of 16.2 TPD of OCC that will be run through the sort line under future conditions (per Table 3-9) means, under future conditions, the sort line can process a day's worth of OCC within the commingled material stream in approximately two and a half hours (16.2 TPD/7 TPH = 2.3 hours/day that the sort line would run to bale a day's quantity of OCC coming from the commingled stream). When adding the source separated OCC to the bale production via the direct infeed of this material to the baler, the estimated 43.3 TPD of source-separated OCC can be processed in slightly less than three hours (43.3 TPD/15 TPH = 2.9 hours/day that the baler would run to bale the direct infeed of source separated OCC). Therefore, roughly 5.2 hours is the estimated time needed to run the line under future conditions to bale the total estimated tonnage of OCC that would be delivered to the facility (approximately 60 TPD per Table 3-9).

As shown in Table 3-9, the only other materials requiring baling on a daily basis under future conditions are aluminum and steel containers. If a full day's worth of this material (8.3 TPD) is baled in one run, the run time could be completed in under 20 minutes (8.3 TPD/31 TPH bale production throughput rate for metal containers per Table 3-7).

Table 3-10 summarizes these estimated daily run times for the sorting and baling line under future conditions for all recyclable material streams and shows that the total run time for the line is just under 7 hours per day, remaining well within the 9-hour available line run time for the facility.

Table 3-10 Estimated Daily Run Times for Sorting and Baling Line – FUTURE CONDITIONS

Material	Future Conditions Estimated Line Run Time
OCC	5.2 hours/day
Mixed Paper	1 run at 0.33 hours/day
Plastic Containers	3 runs at 0.30 hours each/day = 1 hr/day
Aluminum & Steel Containers	1 run at 0.3 hours/day
White Ledger	1 run at 0.5 hours/day every 12 days
Total Typical Daily Run Time[1]	**6.8 hours/day**

1. Due to the infrequent need to bale white ledger at the facility under current and future conditions, the run time to bale this material is not included in the Total Typical Daily Run Time above.

3.2.2.7 Bale Storage Capacity

Having demonstrated the capacity of the proposed facility to receive, store, and bale incoming recyclables at current (22 TPD; 5,800 TPY) and future (77 TPD; 20,000 TPY) rates, the final step in the facility sizing evaluation is to assess the building's capacity for storing bales and the frequency at which bales would need to be transported off site under current and future conditions.

Table 3-11 itemizes the estimated tonnage of recyclable materials that will be received at the facility on a daily basis under current conditions and shows the typical bale weight for each recyclable material. The respective material tonnages and bale densities allows us to calculate the anticipated number of whole bales produced per day at the facility under current conditions. The weekly number of bales produced is also shown in Table 3-11, which allows us to calculate the frequency at which bales would be removed from the facility on a weekly basis. For the purposes of this evaluation, it is assumed that baling occurs five days of the six-day operating week.

Table 3-11 Estimated Daily and Weekly Bale Production – CURRENT CONDITIONS

Material	Total TPD	Total Pounds/Day	Typical Bale Weight (pounds)[1]	Bales/Day Produced	Bales/Week Produced
OCC	17	34,000	1,520	22	110
Mixed Paper	1	2,000	1,603	1	6
Plastic	1.5	3,000	1,270	2	12
Alum & Steel	2.4	4,800	1,455	3	16
White Ledger	0.1	200	1,603	0	1
Totals	**22**			**28**	**145**

1. Typical bale weights are based on dual ram baler manufactured by Machinex Industries, Model MTR-195-TP.

The Recyclables Processing Area provides a minimum of 45 bales of storage within the building. The storage area is shown on Figure 3-2, where the bales will be stored close to the bale ejector side of the dual ram baler and within the bale loadout area that leads to the loading dock. The loading dock provides space for two semi-trailers, where each trailer can store an average of 41 bales. Therefore, total bale storage provided within the building and within the two semi-trailers is 127 bales. As shown in Table 3-11, the interior storage of 45 bales is more than adequate to accommodate the estimated number of bales produced per day. The 145 bales produced on a weekly basis slightly exceeds the 127-bale "static" capacity provided within the building and by the two semi-trailers. This indicates that, under current conditions, one semi-trailer would need to be hauled from the site two times per week and the second trailer emptied once per week, which would allow the full week's worth of bales produced to be removed from the facility in preparation for the next week's operations.

Table 3-12 shows the capacity of the facility to manage the weekly bales produced under current conditions based upon the number of semi-trailer loads hauled from the facility per week.

Table 3-12 Weekly Bale Storage Provided as a Function of Number of Semi-trailer Hauls Made from the Facility Per Week – CURRENT CONDITIONS

Bale Storage Location	Number of Bales Stored (Static Conditions)	Number of Semi-trailer Hauls/Week	Weekly Number of Bales that can be Stored Based on Semi-trailer Haul Frequency Noted
Inside Building	45	NA	45
Loading Dock Trailer #1	41	2	82
Loading Dock Trailer #2	41	1	41
Total	**127**		**168**

The facility's bale storage capacity under future conditions is evaluated in a similar manner as above. Table 3-13 summarizes the daily and weekly bales produced under future conditions and Table 3-14 shows the number of semi-trailer hauls per week that will provide the storage needed to meet or exceed a week's-worth of bales produced under future conditions.

Table 3-13 Estimated Daily and Weekly Bale Production – FUTURE CONDITIONS

Material	Total TPD	Total Pounds/Day	Typical Bale Weight (pounds)	Bales/Day Produced	Bales/Week Produced
OCC	59.5	119,000	1,520	78	390
Mixed Paper	3.4	6,800	1,603	4	20
Plastic	5.5	11,000	1,270	9	45
Alum & Steel	8.3	16,600	1,455	12	60
White Ledger	0.3	600	1,603	0	3
Totals	**77**			**103**	**518**

1. Typical bale weights are based on dual ram baler manufactured by Machinex Industries, Model MTR-195-TP.

Table 3-14 Weekly Bale Storage Provided as a Function of Number of Semi-trailer Hauls Made from the Facility Per Week – FUTURE CONDITIONS

Bale Storage Location	Number of Bales Stored (Static Conditions)	Number of Semi-trailer Hauls/Week	Weekly Number of Bales that can be Stored Based on Semi-trailer Haul Frequency Noted
Inside Building	45	NA	45
Loading Dock Trailer #1	41	6	246
Loading Dock Trailer #2	41	6	246
Total	**127**		**537**

As shown in Tables 3-13 and 3-14, under future conditions, the facility will generate approximately 104 bales per day, which will result in full bale storage in the building (45 bales), full storage in one semi-trailer (41 bales) and partial storage (17 bales) in the second semi-trailer. On a weekly basis, each semi-trailer hauled from the facility six times per week will provide capacity for 537 bales, exceeding the weekly estimated bale production rate of 518 bales. At this semi-trailer haul frequency, the full week's worth of bales produced under future conditions will be removed from the facility in preparation for the next week's operations.

3.2.2.8 Summary of Recyclables Processing Area Capacity Evaluation

Based on the above capacity evaluation for: 1) the storage of incoming recyclable materials; 2) the sorting and baling line run times for these materials; and 3) the associated bale storage needs, the Recyclables Processing Area is appropriately sized and equipped to accept recyclable materials for both the current condition of 22 TPD (5,800 TPY) and future growth condition of 77 TPD (20,000 TPY).

3.3 Conformance with Minimum Performance Standard for C&D Handling Facilities

The DEIR MEPA certificate included a comment from MassDEP noting that the FEIR should indicate where the outbound loads of C&D will be delivered, and if delivered to an out-of-state processing facility(ies), the Proponent should provide documentation that the facility(ies) conforms to MassDEP Minimum Performance Standard performance criteria for C&D handling facilities.

As described in Section 8.5.2 of the DEIR, C&D processing will not be performed at the proposed facility, however, since it will be classified as a Large C&D Transfer Station, the facility must be operated in compliance with the MPS guidance policy. The MPS was developed to provide a uniform standard for C&D facilities to comply with MassDEP's waste bans on disposal or transfer for disposal of banned materials such as wood; asphalt pavement, brick, and concrete (ABC); metal; and clean gypsum wallboard. The MPS and B-P's proposed procedures for complying with the policy are presented in Section 8.5.3 of the DEIR.

As described in the DEIR, the MPS establishes two performance criteria that are intended to improve the efficiency of C&D handling facilities in separating banned and other recoverable materials from inbound waste loads. These performance criteria are summarized below:

1. Facilities must achieve a minimum threshold Process Separation Rate (PSR) of 15%, which is defined as the ratio of the quantity (by weight) of materials recycled or diverted from the incoming waste stream compared to the total quantity (by weight) of the total inbound material accepted; and
2. Facilities must demonstrate that all banned materials are being separated to the greatest extent possible.

Shortly after the DEIR was submitted to the MEPA Office in April of 2024, MassDEP updated the MPS guidance. The updated guidance, issued on July 24, 2024, retains the same two criteria noted above however Criterion #1 now includes a schedule for incremental increases in the PSR that will become effective on January 1 of each year:

2020 = 15% (currently in effect)
2025 = 20% (goes into effect January 1, 2025)
2027 = 23% (goes into effect January 1, 2027)
2030 = 25% (goes into effect January 1, 2030)

As provided in the MPS guidance, if a transfer station elects to transfer all unprocessed or partially processed C&D materials to an MPS-compliant facility for further processing after first separating clean gypsum wallboard and zero-tolerance waste ban items (CRTs, whole tires, lead acid batteries, white goods, and mattresses), the above MPS performance criteria are "Not Applicable" and that transfer station is considered to be compliant with the MPS. The DEIR describes that this is how B-P operates the existing transfer station and that operations at the proposed facility will be performed in the same manner to comply with the MPS policy: clean gypsum wallboard and zero-tolerance items will be removed from the incoming C&D loads to the greatest extent possible when manual separation can be safely performed and the remaining C&D material will then be transferred to an MPS-compliant facility(ies) for further processing.

B-P anticipates transferring C&D loads from the proposed facility to the ReSource Waste Services of Epping (ReSource Epping) C&D Processing Facility, located in Epping New Hampshire. It is understood that when the new transfer station begins operating B-P will be responsible for obtaining sufficient information from ReSource Epping to demonstrate that the facility conforms to the MassDEP MPS criteria. However, it should be noted that ReSource Waste typically provides MassDEP data annually that demonstrates their processing facilities in both New Hampshire and Massachusetts meet MassDEP's Minimum Performance Standard.

3.4 Best Management Practices

MassDEP's May 7, 2024 DEIR comment letter noted three items that relate to the Best Management Practices narrative provided in Section 8.4 of the DEIR. In that section, routine operational housekeeping activities at the proposed facility are described, including activities associated with the control of dust, odor, and other nuisance conditions. Section 8.4 of the DEIR also addresses other operational features of the facility, including the proposed method for wastewater management.

3.4.1 Dust and Odor Control

Section 8.4.2.1 of the DEIR addresses odor and dust control mitigation measures to be employed at the proposed facility. As noted in the DEIR, a dust control and odor control misting system will be installed in the proposed building that would be deactivated during the winter months (generally from December through March) to prevent freezing in the misting system lines. Based on MassDEP's comment that the system should have the capacity to operate throughout the year, a further evaluation of the proposed odor and dust control system was performed. Based on this evaluation, the system will be modified from that proposed in the DEIR, which reflected an overhead sprinkler-style misting system, to one that is now proposed to consist of wall-mounted fog cannons that operate using a combined air/water mix to produce the misting spray.

A total of three fog cannons are proposed that will provide odor and dust control coverage for the MSW and C&D tipping floor and trailer pit areas. Two fog cannons will be located above the overhead doors that provide access onto the tipping floor and a third will be installed in the northwest corner of the building providing both tipping floor coverage and coverage at the two trailer pits. The fog cannons, which can be operated in both stationary and oscillating mode, will be connected to a central pump/deodorizer/control station via high pressure hydraulic piping. The system will be installed with auto drain lines at the low point in the hydraulic feed lines. These will drain the pumps and feed lines to prevent freezing, allowing the system to operate throughout the year without requiring a system deactivation during the winter months.

3.4.2 Building Ventilation

The building's ventilation system will be designed to account for considerations such as odor and dust control, as well as management of emissions from mobile equipment operating on the tipping floor. Air filtration options and ventilation needs, including the location of ventilation components such as air intake louvers and exhaust fans, will be identified as part of the mechanical system design for the building.

3.4.3 Wastewater Management

Pursuant to MassDEP's DEIR comment stating that the Department will not permit a holding tank to be used for the storage of industrial wastewater generated from the building's floor drain system, this method of industrial wastewater management will not be employed. Instead, wastewater from the floor drains, after having been conveyed through an MDC trap, will tie to the Hudson municipal sewer system.

3.5 Minor Modification to Existing Site Assignment

The Project's proposed increase to the permitted tonnage limits at the facility will require the Proponent to obtain a minor modification to the existing site assignment from the Town of Hudson in accordance with 310 CMR 16.22 of the Site Assignment Regulations. Section 8.5.4 of the DEIR presents information relative to the existing site assignment and describes how the regulatory provisions of 310 CMR 16.22 *Modifications to and Recissions and Suspensions of Site Assignments* apply to the proposed Project and why a Minor Modification to the site assignment will be required to address the increase in permitted tonnage from 350 TPD to the proposed 850 TPD.

As presented in the DEIR, pursuant to 310 CMR 16.22(3), the Minor Modification to the site assignment will be sought from the Hudson Board of Health in accordance with the public notice and public hearing requirements provided in the Site Assignment Regulations. Once the MEPA process concludes, B-P will initiate the site assignment modification process with the Board of Health, which is expected to begin in the late fall of 2024. The site assignment modification process will be performed as a preceding activity to the submission to MassDEP of the BWP SW 05 *Authorization to Construct (ATC) Large Handling Facility* permit application. The site assignment modification documentation will be included in the ATC permit application pursuant to the requirements of the ATC permitting process.

Chapter 4

Stormwater Management

4.0 STORMWATER MANAGEMENT

4.1 Introduction

This chapter addresses MEPA comments included in the Land Alteration/Stormwater section of the May 17, 2024 Draft Environmental Impact Report Certificate. Comments provided by the MEPA Office included:

- A request that the Final Environmental Impact Report clarify the extent of impervious surface increase associated with the Project;
- A request for an analysis of the land cover types to be altered; and
- Consideration of additional stormwater mitigation measures, including the addition of Low Impact Development features for the proposed stormwater management system design.

Responses to these comments are provided in Sections 4.2 through 4.4 below.

4.2 Increase in Impervious Surface Associated with Proposed Project

The DEIR Certificate included a comment from the MEPA Office requesting clarification on the extent of impervious surface increase associated with the Project, noting that the total amount of pavement increased from 5.3 acres to 7 acres between the ENF and DEIR filings. This increased pavement area that occurred between filings is described in Section 1.3.3 of the DEIR and reflects the results of further design development activities that occurred between the ENF and DEIR filings. Specifically, proposed access roads and paved areas were refined to accommodate vehicle access to and movement within the proposed Residential Drop-off Area (RDOA) and vehicle access and movement in and around the Transfer Station & Recycling Building. Pavement areas were also refined to accommodate empty trailer storage, temporary full trailer vehicle layover, and roll-off container storage. As described in Section 1.3.3 of the DEIR, the results of these activities led to the following changes to the limits of pavement shown in the ENF:

- The access road into the site was widened to provide two inbound lanes beginning near Stormwater Basin #2 and continuing to the entrance of the RDOA. The widening of the road in this area (from one inbound lane and one outbound lane to two inbound lanes and one outbound lane) will provide residents with a dedicated lane to the RDOA so that they do not need to share this length of the road with commercial vehicles visiting the Transfer Station & Recycling Building.
- In the ENF the RDOA was shown as a reserve area depicting approximate pavement limits but without specific detail on its layout or materials to be accepted. The DEIR included detailed information on the layout of this area, traffic flow, and materials to be accepted, which will include residential MSW, household recyclables, yard waste, and other waste

- ban materials. To accommodate the extent of recyclables that will be accepted in the RDOA, the pavement for this area increased slightly in the DEIR from the limits shown in the ENF.

- Additional pavement is provided in the weigh scale area to improve traffic flow for the scale bypass lane for inbound vehicles.

- Additional pavement is provided at the main access road turn-off to the northern perimeter road that loops around the building. The additional pavement is necessary to accommodate transfer trailer turning movements in this area.

- Additional pavement is provided for employee/visitor parking to accommodate 25 spaces (compared to 20 spaces provided in the ENF).

- Additional pavement is provided near the C&D trailer pit as needed for it to function as a drive-through pit.

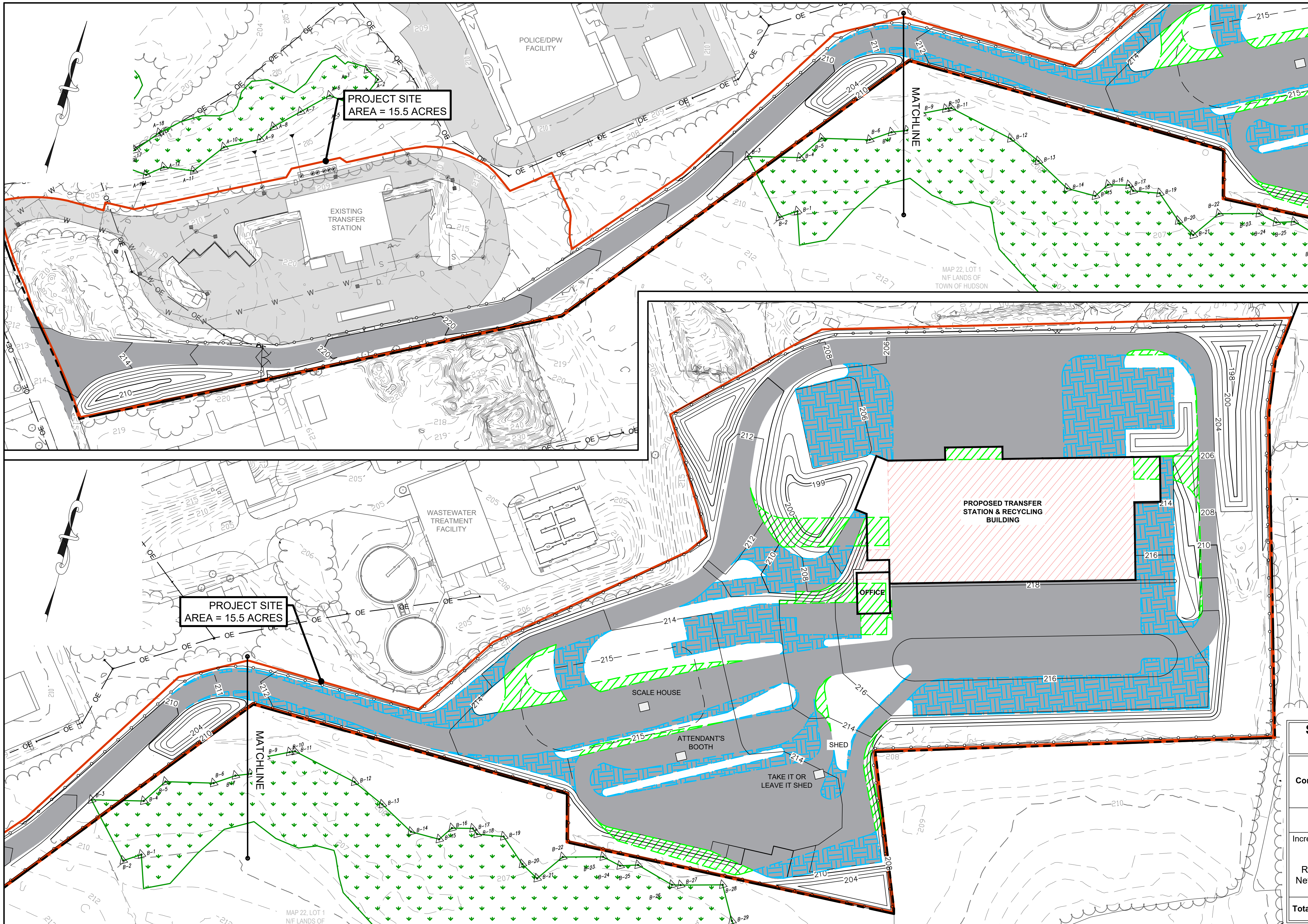
- Additional pavement is provided on the north side of the building for trailer and container storage.

- Additional pavement is provided on the south side of the building that will extend the paved apron in this area further to the south by approximately 45 feet. This area will provide trailer storage and additional vehicle maneuvering space on the vehicle entrance side of the building.

- Additional pavement is provided on the east end of the building for the loading dock that supports the recycling operations.

The adjustments to the pavement areas itemized above result in a net increase in pavement area of 1.7 acres that will be added to the 5.3 acre change in pavement area identified in the ENF. These changes to the pavement area that occurred following the filing of the ENF are shown graphically on Figure 4-1A.

The increase in impervious surface associated with the proposed Project is the sum of the increase in pavement area plus the increase in building footprint area. This information is presented in Table 4-1 which summarizes: the pavement and building area increases as they existed at the time the ENF was filed; the incremental increase to these areas that occurred following submittal of the ENF; and the total increase in impervious area associated with the DEIR/FEIR filing.



NOTES:

1. TOPOGRAPHY, EXISTING SITE FEATURES AND PROPERTY LINE SURVEY WERE PROVIDED TO SANBORN HEAD BY CONTROL POINT ASSOCIATES, INC. (CONTROL POINT) OF SOUTHBOROUGH, MA IN AN ELECTRONIC FILE TITLED "03-180244-01 - BTU REV 1 (ISSUED 2023-03-17).dwg". ELECTRONIC FILE DEPICTS INFORMATION SHOWN ON DRAWINGS TITLED "BOUNDARY & TOPOGRAPHIC SURVEY", SHEETS 1 THOUGH 8, DATED MARCH 17, 2023 PREPARED BY CONTROL POINT OF SOUTHBOROUGH, MA FOR SANBORN HEAD.

2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON THE FOLLOWING:

   A. AERIAL IMAGERY, DATED APRIL 21, 2018, PROVIDED BY EASTERN TOPOGRAPHICS OF WOLFBORO NEW HAMPSHIRE, AND AN ON-THE-GROUND FIELD SURVEY BY CONTROL POINT BETWEEN OCTOBER 11, 2018 AND OCTOBER 22, 2018; AND

   B. PLANIMETRIC AND TOPOGRAPHIC FEATURES COMPILED BY CONTROL POINT USING PHOTOGRAMMETRIC METHODS FROM UAV PHOTOGRAPHY AND AN ON-THE-GROUND FIELD SURVEY BY CONTROL POINT ON JANUARY 3, 2023.

3. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). HORIZONTAL DATUM IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), MASSACHUSETTS STATE PLANE COORDINATE SYSTEM.

4. WETLAND INFORMATION WAS OBTAINED FROM MassGIS, EXCEPT IN THOSE AREAS SHOWN ON THE PLAN AS FOLLOWS:

   THE ABOVE LINE TYPE DESIGNATES THE LIMITS OF AN ON-THE-GROUND WETLAND DELINEATION PERFORMED BY EPSILON ASSOCIATES ON JANUARY 18 AND 22, 2023 AND FIELD LOCATED BY CONTROL POINT ON JANUARY 30, 2023.

LEGEND:

- EXISTING 5-FOOT CONTOUR
- EXISTING 1-FOOT CONTOUR
- PROPOSED 10-FOOT CONTOUR
- PROPOSED 2-FOOT CONTOUR
- PROJECT SITE AREA
- SITE PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- WETLAND AREA (SEE NOTE 4)
- WETLAND BOUNDARY (MASSGIS)
- SURVEYED WETLAND BOUNDARY (JAN 2023)
- PROPOSED CHAIN LINK FENCE
- PROPOSED AREA OF PAVEMENT (SHOWN IN DEIR/FEIR)
- AREA OF PAVEMENT ADDED BETWEEN ENF AND DEIR FILINGS
- AREA OF PAVEMENT REMOVED BETWEEN ENF AND DEIR FILINGS
- BUILDING FOOTPRINT AT TIME OF ENF FILING

Summary of Impervious Surface Increase Associated With Proposed Project

Condition (ENF to DEIR/FEIR)	Pavement Area Increase (acres)	Building Area Increase (acres)	Total Impervious Area Increase (acres)
From ENF	5.3	1.1	6.4
Increase from ENF to DEIR/FEIR Added to ENF Area Removed from ENF Area Net Added Since Filing ENF	2.0 -0.3 1.7	0.1	1.8
Total Impervious Area Increase	**7.0**	**1.2**	**8.2**

SANBORN HEAD

GRAPHICAL SCALE

60' 30' 0' 60' 120'

NO.	DATE	DESCRIPTION	BY

DRAWN BY: D. LONG
DESIGNED BY: D. LONG
REVIEWED BY: D. LONG
PROJECT MGR: S. WRIGHT
PIC: S. WRIGHT
DATE: OCTOBER 2024

FINAL ENVIRONMENTAL IMPACT REPORT
B-P TRUCKING TRANSFER STATION AND RECYCLING FACILITY
HUDSON, MASSACHUSETTS

PROPOSED IMPERVIOUS SURFACE AREA
(SHOWING CHANGES FROM ENF TO DEIR/FEIR)

PROJECT NUMBER: 3984.01

FIGURE NUMBER: 4-1A

Table 4-1 Summary of Estimated Impervious Surface Increase Associated with Proposed Project

Condition (ENF to DEIR/FEIR)	Proposed Pavement Area Increase (acres)	Proposed Building Area Increase (acres)	Total Proposed Impervious Area Increase (acres)
From ENF	5.3	1.1	6.4
Incremental Increase from ENF to DEIR/FEIR • *Added to ENF Area* • *Removed from ENF Area* • *Net Added since filing ENF*	*2.0* *-0.3* *1.7* 1.7	0.1	1.8
Total Impervious Area Increase	**7.0**	**1.2**	**8.2**

As shown in Table 4-1, the total proposed pavement area increase associated with the Project is approximately 7 acres and the total proposed building area increase is approximately 1.2 acres, resulting in a total proposed impervious surface area increase for the Project of approximately 8.2 acres.

4.3 Proposed Land Alteration and Cover Types

The DEIR Certificate included a comment from the MEPA Office requesting further detail on the total amount of new land alteration for the Project and an analysis of the land cover types to be altered. Section 4.3.1 provides a detailed breakdown of the amount of new land alteration associated with the Project, comparing the proposed land uses within the alteration area to the acreages provided in the ENF and how these acreages have changed since the ENF filing. Section 4.3.2 presents an analysis of the land cover types to be altered.

4.3.1 Total Amount of New Land Alteration

With respect to the total amount of new land alteration, this was first estimated in the "Land Section" of the ENF form. Under Part II of that section, the ENF asks the Proponent to provide a summary, in acres, of the current and proposed character of the Project Site, which it divides into the following land area categories: Footprint of Buildings; Internal Roadways; Parking and Other Paved Areas; Other Altered Areas; and Undeveloped Areas. Table 4-2 summarizes the existing conditions acreages for each of these land area categories, identifies the change in acreage for each category due to the proposed Project, and presents the sum of the existing conditions and proposed changes, reflecting the final land area conditions within the Project Site. Table 4-2 has been prepared to show these acreages as they were originally presented in the Land Section of the ENF. The table also summarizes incremental acreage changes that have occurred for each land area category since the ENF was filed (the period between the ENF and DEIR filing), as well as the cumulative acreage changes for each land area category currently associated with the proposed Project as presented in the DEIR/FEIR filing.

Table 4-2 Summary of Existing and Proposed Land Alteration within Project Site Area

Land Area Categories Provided in Land Section of ENF Form	ENF Filing (acres)			Incremental Change Since ENF was Filed (acres)	DEIR/FEIR Filing (acres)	
	Existing	Change	Total		Change	Total
1. Footprint of Buildings	0.2	1.1	1.3	0.1	1.2	1.4
2. Internal Roadways	0.9	3.0	3.9	0.2	3.2	4.1
3. Parking and Other Paved Areas	0.7	2.3	3.0	1.5	3.8	4.5
4. Other Altered Areas	0.8	4.4	5.2	0	4.4	5.2
5. Undeveloped Areas	12.9	-10.8	2.1	-1.8	-12.6	0.3
Total: Project Site Acreage	**15.5**	**0**	**15.5**	**0**	**0**	**15.5**

The discussion regarding increase in impervious surface area presented in Section 4.2 and quantified in Table 4-1 is also captured as a component of the land alteration information summarized in Table 4-2. As summarized in Table 4-1, the total proposed pavement area increase due to the Project, as originally identified in the ENF, was 5.3 acres. Table 4-2 subdivides this increase into "Internal Roadways" and "Parking and Other Paved Areas", where the sum of the acreages of these two land area categories totals 5.3 acres (3 acres for Internal Roadways and 2.3 acres for Parking and Other Paved Areas, as shown in rows 2 and 3 under the Change column of the ENF Filing portion of Table 4-2). At the time the ENF was filed, the contribution of proposed building area to the total impervious area increase was approximately 1.1 acres, which is shown in Table 4-1 and again in row 1 of the Change column of the ENF Filing portion of Table 4-2. Therefore, as summarized in Table 4-1, the total proposed impervious area increase at the time the ENF was filed was 6.4 acres, which is also itemized in rows 1 through 3 of the Change column for the ENF Filing portion of Table 4-2.

Table 4-1 also summarizes the estimated incremental increase in impervious surface that occurred between the filing of the ENF and the DEIR/FEIR resulting from further refinements to the facility layout that occurred during that period. As shown in Table 4-1, these incremental increases totaled 1.8 acres, which is also itemized in rows 1 through 3 of the Incremental Change Since ENF was Filed column of Table 4-2. Adding the original ENF-identified change in impervious surface area (6.4 acres) to the incremental change occurring since the ENF was filed (1.8 acres), results in a total change in impervious surface on the Project Site of 8.2 acres due to the Project. This is shown in Table 4-1 and is also itemized in rows 1 through 3 of the Change column of the DEIR/FEIR Filing portion of Table 4-2.

The above narrative is intended to quantify the impervious surface increase, described in detail in Section 4.2 and shown graphically on Figure 4-1A, in comparison to the total amount of new land alteration for the Project. As shown in Table 4-2, the total amount of new land alteration for the Project is the sum of the change (increase) in the impervious surface land area categories (Footprint of Buildings, Internal Roadways, and Parking and Other Paved Areas) and the Other

Altered Areas category. The increase in acreage of Other Altered Areas as represented in the DEIR/FEIR filing is approximately 4.4 acres, shown in row 4 of the Change column of the DEIR/FEIR Filing portion of Table 4-2. The locations of these Other Altered Areas are shown on Figure 4-1B.

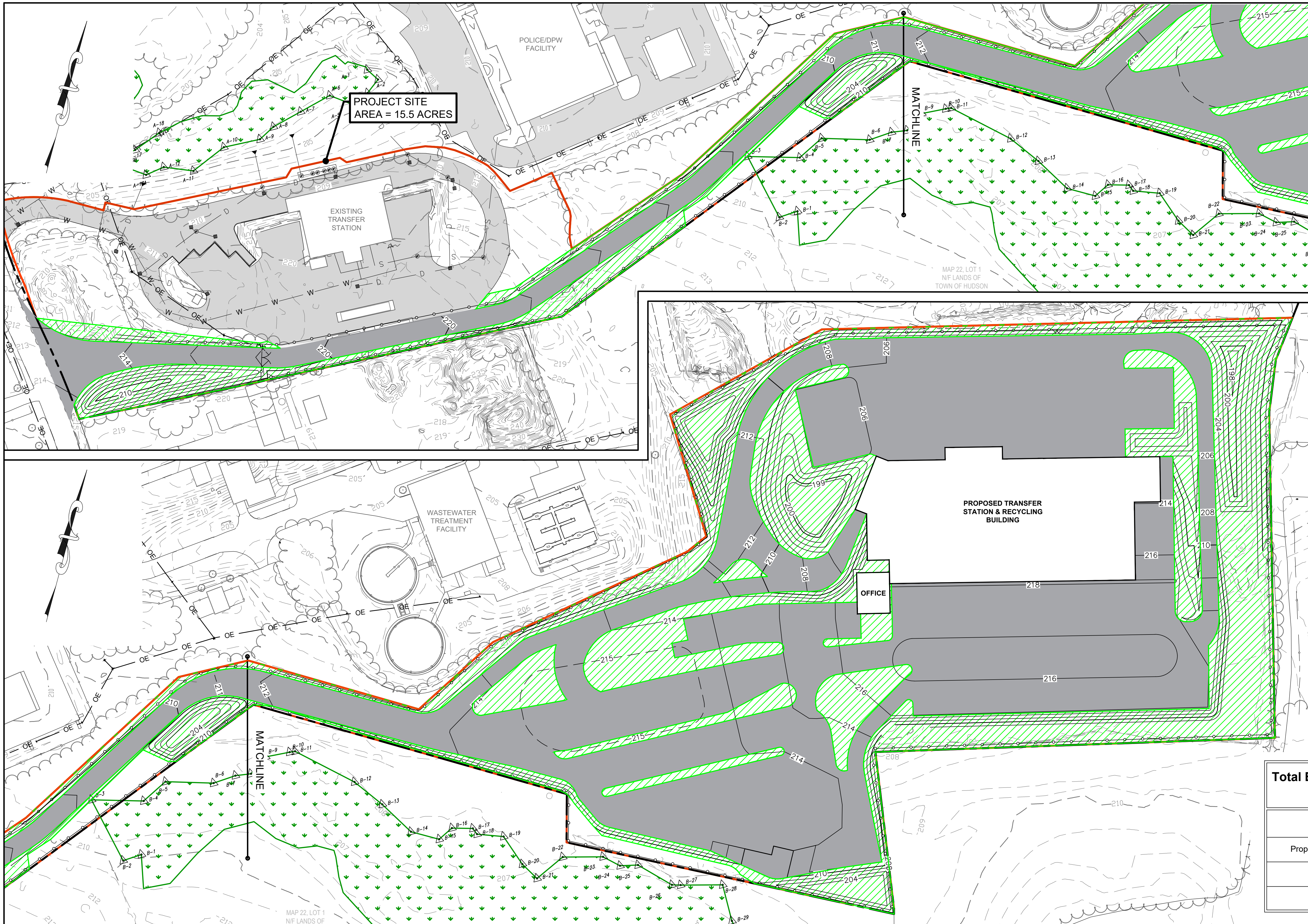
Adding the impervious surface increase (8.2 acres) to the Other Altered Areas increase (4.4 acres) results in a total amount of new land alteration for the project of 12.6 acres. This area is itemized in Table 4-2 and shown on Figure 4-1B as a combination of the proposed Other Altered Areas, proposed pavement areas, and proposed building footprint areas.

4.3.2 Land Cover Types to be Altered

The Project Site encompasses an area of approximately 15.5 acres. As described in Section 4.3.1, approximately 12.6 acres will be altered as part of the development of the proposed Project. Figure 4-2 has been prepared to show the estimated acreage of land cover types to be altered. These areas include proposed alteration of existing pavement areas near the existing transfer station, alteration of existing building areas (removal of the scale house at the existing transfer station), alteration of gravel cover, and alteration of existing vegetated cover areas, consisting of grass areas, scrub/brush areas, and woodland areas. The differing cover types to be altered and their associated acreages are shown on Figure 4-2 and summarized in Table 4-3.

Table 4-3 Summary of Existing Land Cover Types to be Altered

Existing Land Cover Types	Approximate Area of Alteration (acres)
Pavement Areas	0.18
Building Areas (existing scale house)	0.01
Gravel Cover Areas	1.18
Grass Areas	0.24
Scrub/Brush Areas	1.55
Woodland Areas	9.44
Total Proposed Area of Land Alteration	**12.6**



NOTES:

1. TOPOGRAPHY, EXISTING SITE FEATURES AND PROPERTY LINE SURVEY WERE PROVIDED TO SANBORN HEAD BY CONTROL POINT ASSOCIATES, INC. (CONTROL POINT) OF SOUTHBOROUGH, MA IN AN ELECTRONIC FILE TITLED "03-180244-01 - BTU REV 1 (ISSUED 2023-03-17).dwg". ELECTRONIC FILE DEPICTS INFORMATION SHOWN ON DRAWINGS TITLED "BOUNDARY & TOPOGRAPHIC SURVEY", SHEETS 1 THOUGH 8, DATED MARCH 17, 2023 PREPARED BY CONTROL POINT OF SOUTHBOROUGH, MA FOR SANBORN HEAD.

2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON THE FOLLOWING:

   A. AERIAL IMAGERY, DATED APRIL 21, 2018, PROVIDED BY EASTERN TOPOGRAPHICS OF WOLFBORO NEW HAMPSHIRE, AND AN ON-THE-GROUND FIELD SURVEY BY CONTROL POINT BETWEEN OCTOBER 11, 2018 AND OCTOBER 22, 2018; AND

   B. PLANIMETRIC AND TOPOGRAPHIC FEATURES COMPILED BY CONTROL POINT USING PHOTOGRAMMETRIC METHODS FROM UAV PHOTOGRAPHY AND AN ON-THE-GROUND FIELD SURVEY BY CONTROL POINT ON JANUARY 3, 2023.

3. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). HORIZONTAL DATUM IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), MASSACHUSETTS STATE PLANE COORDINATE SYSTEM.

4. WETLAND INFORMATION WAS OBTAINED FROM MassGIS, EXCEPT IN THOSE AREAS SHOWN ON THE PLAN AS FOLLOWS:

   THE ABOVE LINE TYPE DESIGNATES THE LIMITS OF AN ON-THE-GROUND WETLAND DELINEATION PERFORMED BY EPSILON ASSOCIATES ON JANUARY 18 AND 22, 2023 AND FIELD LOCATED BY CONTROL POINT ON JANUARY 30, 2023.

LEGEND:

- EXISTING 5-FOOT CONTOUR
- EXISTING 1-FOOT CONTOUR
- PROPOSED 10-FOOT CONTOUR
- PROPOSED 2-FOOT CONTOUR
- PROJECT SITE AREA
- SITE PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- WETLAND AREA (SEE NOTE 4)
- WETLAND BOUNDARY (MASSGIS)
- SURVEYED WETLAND BOUNDARY (JAN 2023)
- PROPOSED CHAIN LINK FENCE
- PROPOSED AREA OF PAVEMENT (SHOWN IN DEIR/FEIR)
- PROPOSED OTHER ALTERED AREAS

Total Estimated Amount of New Land Alteration Associated with Proposed Project

Land Area Type	Alteration (acres)
Proposed Impervious Surface Area (See Figure 4-1A)	8.2
Proposed "Other Altered Areas"	4.4
Total Proposed Area of Land Alteration	**12.6**

SANBORN HEAD

GRAPHICAL SCALE: 60' 30' 0' 60' 120'

NO.	DATE	DESCRIPTION	BY

DRAWN BY: D. LONG
DESIGNED BY: D. LONG
REVIEWED BY: D. LONG
PROJECT MGR: S. WRIGHT
PIC: S. WRIGHT
DATE: OCTOBER 2024

FINAL ENVIRONMENTAL IMPACT REPORT
B-P TRUCKING TRANSFER STATION AND RECYCLING FACILITY
HUDSON, MASSACHUSETTS

PROPOSED LAND ALTERATION AREA

PROJECT NUMBER: 3984.01

FIGURE NUMBER: 4-1B

PROJECT SITE
AREA = 15.5 ACRES

POLICE/DPW FACILITY

EXISTING TRANSFER STATION

MATCHLINE

MAP 22, LOT 1
N/F LANDS OF
TOWN OF HUDSON

PROPOSED TRANSFER STATION & RECYCLING BUILDING

OFFICE

WASTEWATER TREATMENT FACILITY

PROJECT SITE
AREA = 15.5 ACRES

MATCHLINE

MAP 22, LOT 1
N/F LANDS OF
TOWN OF HUDSON

NOTES:

1. TOPOGRAPHY, EXISTING SITE FEATURES AND PROPERTY LINE SURVEY WERE PROVIDED TO SANBORN HEAD BY CONTROL POINT ASSOCIATES, INC. (CONTROL POINT) OF SOUTHBOROUGH, MA IN AN ELECTRONIC FILE TITLED "03-180244-01 - BTU REV 1 (ISSUED 2023-03-17).dwg". ELECTRONIC FILE DEPICTS INFORMATION SHOWN ON DRAWINGS TITLED "BOUNDARY & TOPOGRAPHIC SURVEY", SHEETS 1 THOUGH 8, DATED MARCH 17, 2023 PREPARED BY CONTROL POINT OF SOUTHBOROUGH, MA FOR SANBORN HEAD.
2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON THE FOLLOWING:
   A. AERIAL IMAGERY, DATED APRIL 21, 2018, PROVIDED BY EASTERN TOPOGRAPHICS OF WOLFBORO NEW HAMPSHIRE, AND AN ON-THE-GROUND FIELD SURVEY BY CONTROL POINT BETWEEN OCTOBER 11, 2018 AND OCTOBER 22, 2018; AND
   B. PLANIMETRIC AND TOPOGRAPHIC FEATURES COMPILED BY CONTROL POINT USING PHOTOGRAMMETRIC METHODS FROM UAV PHOTOGRAPHY AND AN ON-THE-GROUND FIELD SURVEY BY CONTROL POINT ON JANUARY 3, 2023.
3. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). HORIZONTAL DATUM IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), MASSACHUSETTS STATE PLANE COORDINATE SYSTEM.
4. WETLAND INFORMATION WAS OBTAINED FROM MassGIS, EXCEPT IN THOSE AREAS SHOWN ON THE PLAN AS FOLLOWS:

   THE ABOVE LINE TYPE DESIGNATES THE LIMITS OF AN ON-THE-GROUND WETLAND DELINEATION PERFORMED BY EPSILON ASSOCIATES ON JANUARY 18 AND 22, 2023 AND FIELD LOCATED BY CONTROL POINT ON JANUARY 30, 2023.
5. COVER TYPES SHOWN ON THIS PLAN ARE APPROXIMATE. AREAS BASED ON AERIAL SURVEY LIMITS, MAY 2023 SATELLITE PHOTOGRAPHY, AND ON-THE-GROUND FIELD OBSERVATIONS.

LEGEND:

- EXISTING 5-FOOT CONTOUR
- EXISTING 1-FOOT CONTOUR
- PROPOSED 10-FOOT CONTOUR
- PROPOSED 2-FOOT CONTOUR
- PROJECT SITE AREA
- SITE PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- WETLAND AREA (SEE NOTE 4)
- WETLAND BOUNDARY (MASSGIS)
- SURVEYED WETLAND BOUNDARY (JAN 2023)
- 100-FOOT WETLAND BUFFER SETBACK
- 25-FOOT NO DISTURBANCE SETBACK
- PROPOSED CHAIN LINK FENCE
- PROPOSED BUILDING FOOTPRINT
- AREA OF EXISTING PAVEMENT COVER TYPE TO BE ALTERED (0.18 AC)
- AREA OF EXISTING BUILDING COVER TYPE TO BE ALTERED (0.01 AC)
- AREA OF EXISTING GRAVEL COVER TYPE TO BE ALTERED (1.18 AC)
- AREA OF EXISTING GRASS COVER TYPE TO BE ALTERED (0.24 AC)
- AREA OF EXISTING SCRUB/BRUSH COVER TYPE TO BE ALTERED (1.55 AC)
- AREA OF EXISTING WOODLAND COVER TYPE TO BE ALTERED (9.44 AC)

SANBORN HEAD

GRAPHICAL SCALE
60' 30' 0' 60' 120'

NO.	DATE	DESCRIPTION	BY

DRAWN BY: D. LONG
DESIGNED BY: D. LONG
REVIEWED BY: D. LONG
PROJECT MGR: S. WRIGHT
PIC: S. WRIGHT
DATE: OCTOBER 2024

FINAL ENVIRONMENTAL IMPACT REPORT
B-P TRUCKING TRANSFER STATION AND RECYCLING FACILITY
HUDSON, MASSACHUSETTS

LAND COVER TYPES TO BE ALTERED

PROJECT NUMBER: 3984.01

FIGURE NUMBER: 4-2

IMAGES: P:\3900s\3984.01\Graphics Files\CAD\XREF\BORDER.dwg
P:\3900s\3984.01\Graphics Files\CAD\XREF\Wetland.dwg
P:\3900s\3984.01\Graphics Files\CAD\XREF\Proposed Layout V3.dwg
P:\3900s\3984.01\Graphics Files\CAD\XREF\EXISTING LAND COVER TYPES & 2-ft Contours.dwg
FILE: P:\3900s\3984.01\Graphics Files\CAD\FIGURES\TRX FIGURES\3984.01 - FEIR - EXISTING LAND COVER TYPES & 2-ft Contours.dwg
LAYOUT: 4-2
USER: wwright
PLOT DATE: 10-Oct-24 4:16 PM

4.4 Stormwater Low Impact Development Considerations

The DEIR Certificate included a comment from the MEPA Office recommending that additional mitigation measures be considered to manage stormwater, including Low Impact Development (LID) features, grass swales, and other potential methods for redirecting stormwater. In response to this comment, several locations have been identified where grassed swales, grassed buffer areas, permeable pavers, and bioretention basins can be incorporated into the proposed drainage system. The proposed locations of these stormwater improvements, each of which represent Low Impact Development features, are shown on Figure 4-3 and described below.

- The two grassed islands, located north and northwest of the proposed truck scales, are sufficient in size to construct two bioretention basins. Each basin will incorporate a grass swale to aid in treatment and conveyance of stormwater runoff. The contributing drainage flow for these basins will include the paved surfaces from the employee parking area and a portion of the paved roadways adjacent to the two grassed islands in which the basins are located.
- There is a proposed grassed island located along the northern edge of the Residential Drop-off Area that separates the RDOA from the inbound traffic lane to the proposed Transfer Station & Recycling Building. There is second proposed grassed island located within the RDOA separating the residential MSW compactors from the recycling drop-off area. These two narrow grassed islands can be converted into grassed swales. Each grassed swale will include a stormwater outlet control structure that will convey stormwater discharge to the proposed closed drainage system. The contributing drainage flow to these swales includes a majority of the RDOA and the paved access/bypass road near the southerly (inbound) truck scale.
- A grassed buffer area is proposed along the northern portion of the grassed island located at the northeastern corner of the RDOA. The grassed buffer area will be pitched at approximately 5% slope for treatment of stormwater runoff from the abutting paved access road. The grassed buffer area will drain to a grassed swale on the southern end of the island and discharge to a stormwater outlet control structure that discharges to the proposed closed drainage system.
- A grass swale is proposed within the grassed island east of the Transfer Station & Recycling Building. The swale will be located adjacent to the perimeter road that runs in a north/south direction on the eastern side of the site and drain to Infiltration Basin #7. The proposed swale will collect runoff from the paved perimeter road and pavement area at the southeast corner of the Transfer Station & Recycling Building.
- Permeable pavers are proposed for installation in the parking stalls in the employee parking lot, encompassing an area of approximately 4,600 square feet. The permeable paver system will be comprised of a concrete paver underlain by a sand layer, stone base layer, and stone reservoir layer. The system will collect and infiltrate stormwater runoff from the parking lot area.

INFILTRATION BASIN #4
INFILTRATION BASIN #5
INFILTRATION BASIN #6
INFILTRATION BASIN #7
INFILTRATION BASIN #3
MSW TRAILER PIT
C&D TRAILER PIT
PROPOSED TRANSFER STATION & RECYCLING BUILDING
OFFICE/ ADMIN
WASTEWATER TREATMENT FACILITY
PERMEABLE CONCRETE PAVER PARKING STALLS (4,600 SF)
BIORETENTION BASIN WITH STORMWATER OUTLET CONTROL
EMPLOYEE PARKING LOT
GRASS BUFFER AREA
GRASS SWALE
SCALE
SCALE
BYPASS LANE
STORMWATER OUTLET CONTROL
STORMWATER OUTLET CONTROL
GRASS SWALE
GRASS SWALE
GRASS SWALE
OE
OE
OE
OE
B-12
B-13
B-14
B-15
B-16
B-17
B-18
B-19
B-20
B-21
B-22
B-23
B-24
B-25
B-26
B-27
B-28
B-29

STORMWATER LOW IMPACT DESIGN (LID) LEGEND:

- SWALE FLOW LINE
- BIORETENTION BASIN
- GRASS BUFFER AREA
- PERMEABLE CONCRETE PAVERS
- DRAINAGE CONTROL STRUCTURE

LEGEND:

- 210 EXISTING 5-FOOT CONTOUR
- EXISTING 1-FOOT CONTOUR
- PROJECT SITE AREA
- SITE PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- WETLAND AREA
- WETLAND BOUNDARY (MASSGIS)
- SURVEYED WETLAND BOUNDARY (JAN 2023)
- PROPOSED CHAIN LINK FENCE
- PROPOSED RETAINING WALL

SANBORN HEAD

GRAPHICAL SCALE
40' 20' 0' 40' 80'

NO.	DATE	DESCRIPTION	BY

DRAWN BY: R. KENNEALLY
DESIGNED BY: R. KENNEALLY
REVIEWED BY: S. WRIGHT
PROJECT MGR: S. WRIGHT
PIC: S. WRIGHT
DATE: OCTOBER 2024

FINAL ENVIRONMENTAL IMPACT REPORT
B-P TRUCKING TRANSFER STATION AND RECYCLING FACILITY
HUDSON, MASSACHUSETTS

PROJECT NUMBER: 3984.01

STORMWATER LOW IMPACT DEVELOPMENT CONCEPT PLAN

FIGURE NUMBER: 4-3

Chapter 5

Climate Change Resilience

5.0 CLIMATE CHANGE RESILIENCE

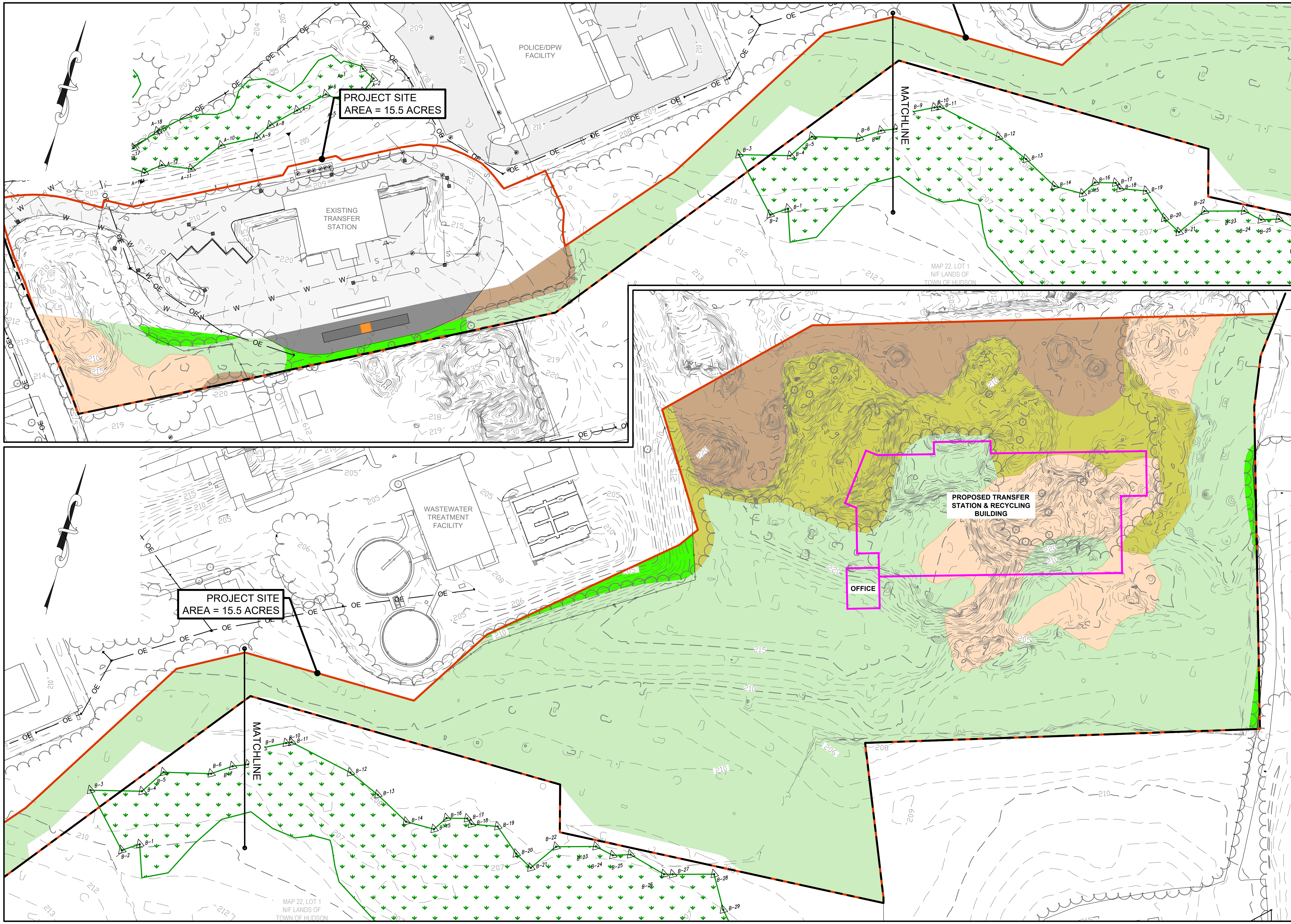
5.1 Introduction

This chapter addresses MEPA comments included in the Climate Change section of the May 17, 2024 DEIR Certificate. Comments provided by the MEPA Office included a request that the Final Environmental Impact Report describe the extent of on-site tree clearing anticipated in connection with the Project and clarify the amount and type of vegetation that will be cleared. MEPA comments also noted that the FEIR should discuss whether the Project design will be resilient to future heat conditions and demonstrate that all feasible measures will be taken to maximize landscaping and tree planting to reduce the impacts associated with tree removal and increase in impervious areas.

5.2 Extent of Tree Clearing and Proposed Mitigation

The MEPA Office's comment regarding the extent of on-site tree clearing included a request that the FEIR clarify the amount and type of vegetation that will be cleared (i.e., mature trees, scrub/brush, grass areas). The extent of vegetation that will be altered for the Project is described in Section 4.3.2 of the FEIR, which describes the various land cover types that will be altered and their respective acreages of disturbance. This information is summarized in Table 4-3 of Chapter 4 where grass areas, brush/scrub areas, and woodland areas are estimated to total approximately 11.23 acres of the total proposed land alteration area of 12.6 acres. Of the 11.23 acres of proposed vegetation clearing, approximately 0.24 acres is grass area, 1.55 acres is brush/scrub area, and 9.44 acres is woodland area. These areas and non-vegetative land disturbance areas (pavement, building, and gravel areas) are shown on Figure 4-2.

With respect to the type of tree clearing, Sanborn Head further refined the total area of woodland disturbance shown on Figure 4-2 by categorizing the tree clearing into the estimated amount of deciduous tree clearing versus coniferous (evergreen) tree clearing. The limits of these two differing tree types were estimated using available aerial photography of site conditions taken in early spring prior to "leaf-out" (April) in comparison to aerial photography taken in late spring after leaf-out (late May). Where the late May aerial shows a more uniform tree canopy, the April aerial shows where canopy is absent in areas where it is present in May, allowing us to estimate these "April absent canopy areas" as areas representative of deciduous tree growth. The estimated limits of the deciduous and coniferous trees within the proposed development area are shown on Figure 5-1.



NOTES:

1. TOPOGRAPHY, EXISTING SITE FEATURES AND PROPERTY LINE SURVEY WERE PROVIDED TO SANBORN HEAD BY CONTROL POINT ASSOCIATES, INC. (CONTROL POINT) OF SOUTHBOROUGH, MA IN AN ELECTRONIC FILE TITLED "03-180244-01 - BTU REV 1 (ISSUED 2023-03-17).dwg". ELECTRONIC FILE DEPICTS INFORMATION SHOWN ON DRAWINGS TITLED "BOUNDARY & TOPOGRAPHIC SURVEY", SHEETS 1 THOUGH 8, DATED MARCH 17, 2023 PREPARED BY CONTROL POINT OF SOUTHBOROUGH, MA FOR SANBORN HEAD.
2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON THE FOLLOWING:
   A. AERIAL IMAGERY, DATED APRIL 21, 2018, PROVIDED BY EASTERN TOPOGRAPHICS OF WOLFBORO NEW HAMPSHIRE, AND AN ON-THE-GROUND FIELD SURVEY BY CONTROL POINT BETWEEN OCTOBER 11, 2018 AND OCTOBER 22, 2018; AND
   B. PLANIMETRIC AND TOPOGRAPHIC FEATURES COMPILED BY CONTROL POINT USING PHOTOGRAMMETRIC METHODS FROM UAV PHOTOGRAPHY AND AN ON-THE-GROUND FIELD SURVEY BY CONTROL POINT ON JANUARY 3, 2023.
3. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). HORIZONTAL DATUM IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), MASSACHUSETTS STATE PLANE COORDINATE SYSTEM.
4. WETLAND INFORMATION WAS OBTAINED FROM MassGIS, EXCEPT IN THOSE AREAS SHOWN ON THE PLAN AS FOLLOWS:

   THE ABOVE LINE TYPE DESIGNATES THE LIMITS OF AN ON-THE-GROUND WETLAND DELINEATION PERFORMED BY EPSILON ASSOCIATES ON JANUARY 18 AND 22, 2023 AND FIELD LOCATED BY CONTROL POINT ON JANUARY 30, 2023.
5. COVER TYPES SHOWN ON THIS PLAN ARE APPROXIMATE. AREAS BASED ON AERIAL SURVEY LIMITS, MAY 2023 SATELLITE PHOTOGRAPHY, AND ON-THE-GROUND FIELD OBSERVATIONS.

LEGEND:

- EXISTING 5-FOOT CONTOUR
- EXISTING 1-FOOT CONTOUR
- PROPOSED 10-FOOT CONTOUR
- PROPOSED 2-FOOT CONTOUR
- PROJECT SITE AREA
- SITE PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- WETLAND AREA (SEE NOTE 4)
- WETLAND BOUNDARY (MASSGIS)
- SURVEYED WETLAND BOUNDARY (JAN 2023)
- 100-FOOT WETLAND BUFFER SETBACK
- 25-FOOT NO DISTURBANCE SETBACK
- PROPOSED CHAIN LINK FENCE
- PROPOSED BUILDING FOOTPRINT
- AREA OF EXISTING PAVEMENT COVER TYPE TO BE ALTERED (0.18 AC)
- AREA OF EXISTING BUILDING COVER TYPE TO BE ALTERED (0.01 AC)
- AREA OF EXISTING GRAVEL COVER TYPE TO BE ALTERED (1.18 AC)
- AREA OF EXISTING GRASS COVER TYPE TO BE ALTERED (0.24 AC)
- AREA OF EXISTING SCRUB/BRUSH COVER TYPE TO BE ALTERED (1.55 AC)
- AREA OF EXISTING CONIFER TREES TO BE ALTERED (7.87 AC)
- AREA OF EXISTING DECIDUOUS TREES TO BE ALTERED (1.57 AC)

SANBORN HEAD

GRAPHICAL SCALE
60' 30' 0' 60' 120'

NO.	DATE	DESCRIPTION	BY

DRAWN BY: D. LONG
DESIGNED BY: D. LONG
REVIEWED BY: D. LONG
PROJECT MGR: S. WRIGHT
PIC: S. WRIGHT
DATE: OCTOBER 2024

FINAL ENVIRONMENTAL IMPACT REPORT
B-P TRUCKING TRANSFER STATION AND RECYCLING FACILITY
HUDSON, MASSACHUSETTS

LAND COVER TYPES TO BE ALTERED
INCLUSIVE OF TREE TYPES (CONIFEROUS VS. DECIDUOUS)

PROJECT NUMBER: 3984.01

FIGURE NUMBER: 5-1

Per the tree type limits shown on Figure 5-1, approximately 7.87 acres of the roughly 9.44-acre woodland disturbance area consists of conifers and the remaining 1.57 acres consists of deciduous trees. With respect to the typical heights of the trees within the disturbance area, Sanborn Head used USGS LIDAR information (2021) containing surfaces for top of vegetation and topographic ground surface. The elevational difference between the two surfaces allowed estimation of the typical height of the trees in the woodland disturbance area. The conifers had typical heights ranging from 50 to 80 feet, whereas the deciduous tree heights ranged from 10 to 50 feet. Sanborn Head also visited the Site to observe vegetated areas, tree types, and heights in the proposed development area. The conifers were identified as pine trees and the deciduous trees were found to consist predominantly of oak and Norway Maple.

To reduce the impacts associated with the proposed tree removal activities and related increase in impervious area, the Proponent proposes to implement the following mitigation measures:

- To the extent possible, existing trees will be preserved along portions of the southern and eastern property boundaries of the Project Site. To this end, large pines located along portions of the access road into the Site and those in the southeastern corner of the Site will be marked to remain, insofar as they do not interfere with proposed stormwater management features (for example, grass swales and infiltration basins). Due to the relatively narrow corridors of vegetated greenspace located along the southern and eastern perimeter of the Site, it is anticipated that large pines identified to remain will likely constitute a single row of trees located close to the property line. If existing understory deciduous trees are present in these areas, they too will be marked to remain, with preference given to non-invasive species, for example, oak preserved instead of Norway Maple.
- There is limited opportunity to plant additional trees on the Project Site due to the areas needed for vehicle maneuvering and access to the principal drop-off nodes at the proposed facility. However, during the design phase, areas that may support the planting of select trees and/or shrubs in grassed island areas will be evaluated.
- Given the limited options for planting additional trees on the Project Site, the Project Proponent will donate $50,000 ($10,000 annually for the first five years from when the facility begins operating) to the Town of Hudson expressly for the purpose of tree planting associated with Town projects. It is anticipated that these projects would be performed under the authority of the Hudson DPW and the donated funds could be used by the Town to support tree planting in Town rights-of-way for roadway improvement projects and other similar projects that benefit the community. The intent of this commitment is to assist the Town in adding new trees to greenspaces on public land. The Proponent will work with the Town to identify an appropriate financial mechanism for establishing and tracking funding used under the proposed tree planting program.
- As described in Section 4.4 and shown on Figure 4-3, the Project will incorporate Low Impact Development (LID) stormwater management methods to help reduce the impacts of tree removal and the increase in impervious area associated with the Project.

In the process of investigating the above mitigation measures, the Proponent also evaluated the protection of forested and open land within the 15.5-acre Project Site area via a conservation restriction or other means and determined that this is not feasible. The Site is almost entirely dedicated to the proposed development, leaving little area available or appropriate to designate for conservation restriction purposes. Additionally, the 72-acre parcel of land on which the Project Site is located is municipally owned and supports several other municipal operations, including the Hudson Wastewater Treatment Facility, Fire Department, and Police Department/Public Works Facility. These operations encompass much of the remainder of the overall site and provide needed area to support these differing municipal operations. Placing a conservation restriction on any portion of the larger site area would be unduly restrictive to the needs of these other municipal support activities, particularly those related to DPW operations.

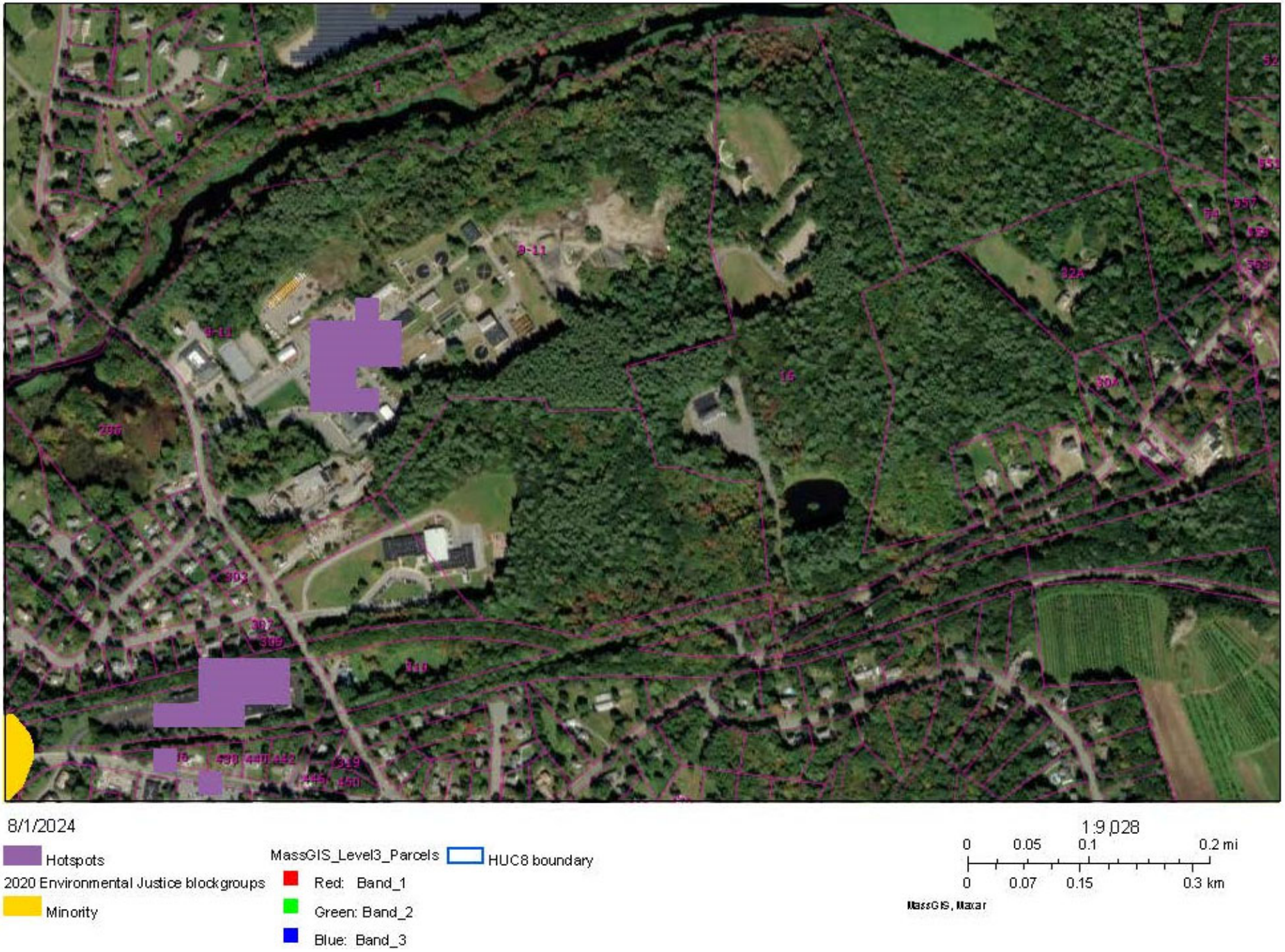
5.3 Resiliency to Future Heat Conditions

The DEIR Certificate included a comment from the MEPA Office stating that the FEIR should identify whether the project design will be resilient to future heat conditions. The MEPA Office further commented that the evaluation of the Project's future heat resiliency incorporate the recommended methodologies in the RMAT Tool on a site-specific basis.

As part of the evaluation of the Project's resiliency to future heat conditions, "hot spot" areas within 500 feet of the proposed limits of the tree clearing area were identified using present-day land surface temperature indices available through the Resilient MA Climate Change Projections Dashboard. As shown on Figure 5-2, the Resilient MA tool showed that one existing hot spot is located in the center of the municipal complex adjacent to the Project Site (labeled as tax parcel '9-11') and approximately 100 feet from the proposed tree clearing area for the Project.

This area is not located in an EJ community and the closest hot spot to the Site that is located within an EJ community is approximately 0.9 miles away from tree removal activities. To the extent possible, existing trees will be preserved along portions of the southern and eastern property boundaries of the Project Site as described in Section 5.2; additionally, because the effects of hot spots are localized, the impacts of tree clearing on the Site would be limited to the Project Site and would not exacerbate any existing hot spot conditions that may be mapped within nearby EJ communities.

The Proponent has developed the Project to be resistant to future climate conditions including heat. Following recommended practices from the RMAT tool, the Project's design will include efforts to retain existing trees on Site and planting shade trees and/or shrubs in grassed island areas where feasible to reduce the heat island effect; this will help to reduce this localized climate effect on the Site both now and in the future.



B-P Trucking Transfer Station Hudson, MA

Chapter 6

Mitigation and Draft Section 61 Findings

6.0 MITIGATION AND DRAFT SECTION 61 FINDINGS

6.1 Introduction

M.G.L.c.30, s.61 requires that "[a]ll authorities of the Commonwealth … review, evaluate, and determine the impact on the natural environment of all works, projects or activities conducted by them and … use all practicable means and measures to minimize [their] damage to the environment. … Any determination made by an agency of the Commonwealth shall include a finding describing the environmental impact, if any, of the project and a finding that all feasible measures have been taken to avoid or minimize said impact." Each state agency that issues a permit for the Project shall issue a Section 61 Finding in connection with permit issuance, identifying mitigation that is relied upon to satisfy the Section 61 requirement. A proposed Section 61 Finding is provided in Section 6.3, and a table of mitigation measures is included as part of the Section 61 Finding. All mitigation will be the responsibility of the Proponent. Section 1.4 includes a description of the Project Benefits.

6.2 Anticipated State Permits and Approvals

The State Actions for the Project include the issuance of an Authorization to Construct Permit for a Large Handing Facility, as well as an Authorization to Operate Permit for a Large Handing Facility from the Massachusetts Department of Environmental Protection.

6.3 Proposed Section 61 Findings

Project Name	Hudson Solid Waste Transfer Station
Project Location	Hudson, MA
Project Proponent	B-P Trucking, Inc.
EEA Number	16586
Date Noticed in Monitor	October 23, 2024

The potential environmental impacts of the Project have been characterized and quantified in the ENF dated August 1, 2022, the Draft EIR dated April 1, 2024, and this Final EIR, which are incorporated by reference into this Section 61 Finding. Throughout the planning and environmental review process, the Proponent has been working to develop measures to mitigate significant impacts of the Project. With the mitigation proposed and carried out in cooperation with state agencies, the [Agency] finds that there are no significant unmitigated impacts.

The Proponent recognizes that the identification of effective mitigation, and implementation of that mitigation throughout the life of the Project, is central to its responsibilities under the Massachusetts Environmental Policy Act (MEPA). The Proponent has accordingly prepared the annexed Table of Impacts and Mitigation Measures that specifies, for each potential state permit category, the mitigation that the Proponent will provide.

Now, therefore, [Agency], having reviewed the MEPA filings for the Project, including the mitigation measures itemized on the annexed Table of Impacts and Mitigation Measures, finds pursuant to M.G.L. C. 30, S. 61, that with the implementation of the aforesaid measures, all practicable and feasible means and measures will have been taken to avoid or minimize potential damage from the Project to the environment.

_____

[Agency]

_____

By

_____

[Date]

Table 6-1 Summary of Mitigation Measures

Mitigation	Schedule	Cost
Sustainable Design Features		
LED Lighting utilized throughout the building design	During operation	Part of operating cost
Energy Efficient Infrastructure	During construction & operation	Included in the overall Project cost
Low-Flow Fixtures	During construction & operation	Included in the overall Project cost
Stormwater Management		
Erosion and sedimentation controls will be implemented to prevent stormwater impacts during construction or land disturbance activities. A Construction Stormwater Pollution Prevention Plan (SWPPP) will be prepared by the contractor prior to the start of construction identifying temporary best management practices (BMPs) for erosion and sedimentation control.	During construction	Included in the overall Project cost
Treatment of the stormwater through a combination of BMPs including deep sump catch basins, oil/grit separators, subsurface detention/infiltration structures, and sediment forebays paired with infiltration basins, as well as Low Impact Development features, such as grassed swales, grassed buffer areas, permeable pavers, and bioretention basins.	During operation	Included in the overall Project cost
Stormwater management and conveyance systems will comply with MassDEP's Stormwater Management Standards and the storm water control requirements provided in 310 CMR 19.205 of the Solid Waste Management Regulations.	During operation	Included in the overall Project cost
The Facility's O&M Plan will include a SWPPP that addresses the long-term inspection and maintenance program for the stormwater BMPs. The SWPPP will be reviewed, amended, or updated as necessary to ensure the functionality of the stormwater management system after construction of the Project.	During operation	Part of the operating cost
Climate Resiliency		
The proposed stormwater infrastructure, including structure and pipe sizing and elevations, is designed to safely convey stormwater during the Resilient Mass Action Team (RMAT) 50-year, 24-hour storm event projected for the year 2070.	During operation	Included in the overall Project cost

Table 6-1 Summary of Mitigation Measures (Continued)

Mitigation	Schedule	Cost
To the extent possible, existing trees will be preserved along portions of the southern and eastern property boundaries of the Project Site. To this end, large pines located along portions of the access road into the Site and those in the southeastern corner of the Site will be marked to remain, insofar as they do not interfere with proposed stormwater management features (for example, grass swales and infiltration basins).	During construction	Included in the overall Project cost
The Project Proponent will donate $50,000 ($10,000 annually for the first five years from when the facility begins operating) to the Town of Hudson expressly for the purpose of tree planting associated with Town projects. It is anticipated that these projects would be performed under the authority of the Hudson DPW and the donated funds could be used by the Town to support tree planting in Town rights-of-way for roadway improvement projects and other similar projects that benefit the community. The intent of this commitment is to assist the Town in adding new trees to greenspaces on public land. The Proponent will work with the Town to identify an appropriate financial mechanism for establishing and tracking funding used under the proposed tree planting program.	Post Construction	Included in the overall Project cost
The proposed Transfer Station & Recycling Building will be located approximately 500 feet from the 100-year floodplain of the Assabet River. The building's lowest floor elevation (the trailer pit floors) will be approximately 10 feet above the 100-year base flood elevation of the river and the major operational space of the building (tipping floor) will be approximately 22 feet above the base flood elevation. On this basis, the elevation of the Transfer Station & Recycling Building, as well as the proposed elevations of the scale house and attendant's booth, will be situated to be resilient to future climate conditions.	During operation	Included in the overall Project cost
Transportation		
The Proponent is committed to the following mitigation elements for the Project: ♦ The driveways will be placed under STOP-sign (Manual on Uniform Traffic Control Devices (MUTCD) R1-1) control, with a painted STOP-bar included. ♦ All signs and other pavement markings to be installed within the Project site shall conform to the applicable standards of the current MUTCD. ♦ Snow windrows within sight triangle areas of the Project site driveway will be promptly removed where such accumulations would impede sight lines. ♦ In order to encourage safe and efficient flow of traffic to and from the site, should any landscaping or signage along the site frontage or the site driveway be proposed or requested by others, these features will be no higher than 24 inches or be set back sufficiently from the edge of the roadways so as not to inhibit the available sightlines. The existing vegetation on the north site of the driveway will be trimmed or removed to provide an unobstructed sight line for vehicles exiting the Project driveway.	During construction & operation	Part of the operating cost

Table 6-1 Summary of Mitigation Measures (Continued)

Mitigation	Schedule	Cost
The Proponent is committed to the following off-site improvements for the Project in collaboration with the Town of Hudson Department of Public Works as required: ♦ Main Street at Mackin Street in order to improve overall safety at this location the Project will install appropriate warning signage, such as MUTCD designation W8-6 (Truck Crossing), along Main Street. This will alert motorists driving along Main Street to the possibility of trucks crossing at the intersection, thereby improving overall traffic safety. The sign would be installed on each direction of Main Street approximately 200 feet away from the intersection. See Figure 7-13 of the DEIR. ♦ Main Street at Cox Street - The Main Street eastbound stop bar be relocated (approximately 20 ft) to the west of the intersection, to reduce the level of encroachment from B-P's outbound semi-trailers (see Figure 7-13 of the DEIR). In order to allow trucks to safely navigate the turn, this improvement includes extending the existing scored concrete island and replacing the existing raised island.	During construction	Included in the overall Project cost
Greenhouse Gas		
The Proponent is committed to the following mitigation elements for the Project: ♦ High performing envelope for conditioned office spaces; ♦ 100% electric heat pump space heating and cooling; ♦ Electric domestic hot water heating via air source heat pumps; ♦ Roofs to be constructed PV-ready; ♦ Installed electric vehicle (EV) charging and readiness per Stretch Energy Code;	During construction & operation	Included in the overall Project cost
Upon completion of the Project, the Proponent will submit a self-certification to the MEPA Office, prepared in accordance with the GHG Policy. This certification will identify the GHG mitigation measures incorporated into the building and will illustrate the degree of GHG reduction from a Baseline case, as Baseline is defined herein, and how such reductions are achieved. Details of the Proponent's implementation of operational measures will also be included.	Post Construction	Part of operating cost

Table 6-1 Summary of Mitigation Measures (Continued)

Mitigation	Schedule	Cost
Construction		
Construction methodologies that ensure public safety and protection of the immediate surrounding area will be employed. Techniques such as barricades and signage will be used. Construction management and scheduling will minimize impacts on the surrounding environment and will include plans for construction worker commuting and parking, routing plans for trucking and deliveries, and the control of noise and dust.	During construction	Included in Project cost
"Don't Dump - Drains to Waterways" plaques will be installed at storm drains that are replaced or installed as part of the Project.	Following construction	Included in Project cost
The general contractor will work to ensure that construction workers are well informed of the public transportation options serving the area. Space on-site will be made available for workers' supplies and tools, so they do not have to be brought to the site each day.	During construction	Included in Project cost
"No Idling" signs will be included at the loading, delivery, pick-up, and drop-off areas. Ensuring construction vehicle operators abide by the Massachusetts Vehicle Idling Regulations (Massachusetts 5-Minute idle Law), idling of construction equipment would comply with 310 CMR 7.11;	During construction and operations	Included in Project cost
Plans for controlling fugitive dust during construction activities include mechanical street sweeping, wetting portions of the site during periods of high wind, and careful removal of debris by covered trucks.	During construction	Included in Project cost
The Proponent will require the Project's construction contractor to use after-engine emission controls such as diesel oxidation catalysts or diesel particulate filters on construction vehicles and use of Ultra Low Sulfur Diesel fuel in off-road engines. Additionally, the Proponent will maintain a list of the engines, their emission tiers, and, if applicable, the best available control technology installed on each piece of diesel equipment used in the operation of the facility.	During construction	Included in Project cost
The construction contract will include provisions that promote implementation of procedures for the necessary segregation, reprocessing, reuse, and recycling of construction materials when possible. For those materials that cannot be recycled, solid waste will be transported in covered trucks to an approved solid waste facility or facilities.	During construction	Included in Project cost
Public Health		
The general contractor will work to ensure that construction workers are well informed of the public transportation options serving the area. Space on-site will be made available for workers' supplies and tools, so they do not have to be brought to the site each day.	During construction	Included in Project cost
"No Idling" signs will be included at the loading, delivery, pick-up, and drop-off areas. Ensuring construction vehicle operators abide by the Massachusetts Vehicle Idling Regulations (Massachusetts 5-Minute idle Law), idling of construction equipment would comply with 310 CMR 7.11;	During construction and operations	Included in Project cost
Plans for controlling fugitive dust during construction activities include mechanical street sweeping, wetting portions of the site during periods of high wind, and careful removal of debris by covered trucks.	During construction	Included in Project cost

Table 6-1 Summary of Mitigation Measures (Continued)

Mitigation	Schedule	Cost
Environmental Justice		
Routing of Project trucks such that roads traversed are in EJ communities as infrequently as possible for those vehicles that are under the Proponent's direct Control. Communication with Proponent's drivers to promote adherence to these routes.	Ongoing	Part of operating cost
The Project Proponent will donate $50,000 ($10,000 annually for the first five years from when the facility begins operating) to the Town of Hudson expressly for the purpose of tree planting associated with Town projects. It is anticipated that these projects would be performed under the authority of the Hudson DPW and the donated funds could be used by the Town to support tree planting in Town rights-of-way for roadway improvement projects and other similar projects that benefit the community in the area which includes EJ populations. The intent of this commitment is to assist the Town in adding new trees to greenspaces on public land. The Proponent will work with the Town to identify an appropriate financial mechanism for establishing and tracking funding used under the proposed tree planting program.	Post Construction	Included in the overall Project cost

Chapter 7

Response to Comments

7.0 RESPONSE TO COMMENTS

7.1 MEPA Certificate and Associated Comment Letters

This Chapter provides responses to the comment letters received by the Secretary during the review of the DEIR. The comment letters have been annotated and individual comments coded in the right-hand margin. The responses to the comments are listed below with the corresponding code numbers and a brief synopsis of the comments. Comment letters were received from the following agencies individuals and organizations:

Table 7-1 Secretary's Certificate and Comment Letters

Commenter	Abbreviation
EEA Secretary's Certificate on the ENF	MEPA
Massachusetts Department of Environmental Protection	DEP
Department of Energy Resources	DOER
James Carvalho	JC
Michael McCormack	MM
Susan & Joseph Lalli	SJL
Nancy Puia	NP
Katie Cunningham	KC

The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Maura T. Healey
GOVERNOR

Kimberley Driscoll
LIEUTENANT GOVERNOR

Rebecca L. Tepper
SECRETARY

Tel: (617) 626-1000
Fax: (617) 626-1081
http://www.mass.gov/eea

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT

PROJECT NAME	: Hudson Solid Waste Transfer Station
PROJECT MUNICIPALITY	: Hudson
PROJECT WATERSHED	: SuAsCo
EEA NUMBER	: 16586
PROJECT PROPONENT	: B-P Trucking, Inc.
DATE NOTICED IN MONITOR	: April 10, 2024

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62L) and Section 11.08 of the MEPA regulations (301 CMR 11.00), I have reviewed the Draft Environmental Impact Report (DEIR) and hereby determine that it **adequately and properly complies** with MEPA and its implementing regulations. The Proponent may prepare and submit for review a Final Environmental Impact Report (FEIR) in accordance with the Scope included in this Certificate.

Project Description

As described in the DEIR, the project consists of constructing a new approximately 47,000 sf waste transfer station permitted to accept up to 850 tons per day (tpd) of solid waste consisting of municipal solid waste (MSW), construction and demolition (C&D) debris, and recyclable materials (glass, metal, plastic, paper). The new facility is proposed to be located approximately 1,800 ft from Cox Street, and will provide enough space to transfer MSW and C&D debris into semi-trailers that will transport the material off-site for final disposal or reclamation. Cardboard will be sorted and baled inside the facility and the remaining recyclables will be transported off-site via a semi-trailer to a material recovery facility. Additionally, the new facility will also allow Hudson residents to drop-off municipal solid waste and household recyclables in an exterior drop-off. Hours of operation will remain unchanged from the existing facility: open to the public 7:00am – 5:00pm Monday – Friday, and Saturday from 7:00am – 2:00pm. The existing solid waste transfer station located on the site is currently permitted to accept up to 350 tpd of solid waste. The new facility will seek to increase this capacity by 500 tpd. The

existing facility will be decommissioned, repurposed and likely utilized by the Hudson Department of Public Works (DPW) as a material stockpile and storage area, once the new facility is in operation.

Changes Since the ENF

Since the filing of the Environmental Notification Form (ENF), the Proponent has evaluated and refined the layout and operating concepts; such changes include the following:

- Recycling operations have been moved to the eastern end of the building, where a bump-out to the building footprint is now located to support additional interior bale storage and a loading dock area that integrates more effectively into the overall site layout.
- Two trailer pits within the building have been enabled to function as drive-through pits, with one pit designated for MSW transfer loading and one pit for C&D debris trailer loading.
- As a result of modifications to the recycling, MSW, and C&D portions of the Transfer Station, the building's footprint has increased by approximately 6,000 square feet.
- The site was also increased by approximately 0.2 acres for the Residential Drop-off Area (RDOA).
- Site access road was widened, and additional pavement increased throughout the site by approximately 1.7 acres (5.3 to 7) to accommodate access to and movement within the RDOA and vehicle access and movement in and around the Transfer Station & Recycling Building.
- Addition of a detailed stormwater design.
- Plans for a 225-foot length perimeter fence to be installed along the project site's eastern property, as opposed to the proposed Earthen Berm in the ENF.
- An increase from 428 to 448 new vehicle trips associated with an increase in estimated employee trips[1] on an average weekday, with an overall site total of 1,202 vehicle trips, including 414 truck trips.

Project Site and Procedural History

The Town of Hudson (the Town) owns an approximately 72.4-acre parcel which consists of a number of municipal facilities, including an existing solid waste transfer station, the Hudson Fire Department, Hudson Wastewater Treatment Facility, the Hudson Police Department, and Department Public Works Facility. The existing solid waste transfer station (8,286 sf) was constructed in 1988 and began operating in 1996. Since 1999, the waste transfer station has been operated by the Proponent. The existing waste transfer facility accepts up to 350 tpd of solid waste consisting of MSW and C&D debris.

The ENF indicates the site was previously subject to an archaeological survey, though no archaeological resources were found on the site. According to preliminary mapping of Environmental Justice (EJ) populations available when the ENF was filed, the site is located within one mile (0.3-miles) of an Environmental Justice (EJ) population characterized by Minority and within five miles of 16 additional EJ populations characterized by Minority (13), Minority and Income (1), Minority, Income, and English Isolation (2). As described below, the ENF identified the "Designated Geographic Area"

[1] The DEIR indicates that there will be an addition of 17 new employees, which has been factored into the daily trips.

(DGA) for the project as five miles around EJ populations, included a review of potential impacts and benefits to EJ populations within this DGA, and described public outreach efforts undertaken to date.[2]

The existing solid waste facility was permitted when the Hudson Board of Health filed an ENF (EEA# 6415) on February 11, 1987; a Certificate was issued on March 3, 1987 stating that no EIR was required. The original site assignment did not include a tonnage limit. On December 23, 2000, the Proponent filed an ENF for the Hudson Transfer Station and Recycling Project (EEA# 12391) at this location; this Certificate was issued on January 1, 2001 and stated that no EIR was required.

Environmental Impacts and Mitigation

Potential environmental impacts associated with the project include 10.8 acres of land alteration, creation of 6.4 acres of impervious area (8.2 acres of impervious area total), and addition of 448 vehicle trips (1,202 vehicle trips total and 414 truck trips). The project will add 20 parking spaces (26 spaces total), use 1080 additional gallons of water per day (gpd; 1,390 gpd), and generate 220 gpd of wastewater (345 gpd). The facility will increase handling of solid waste by 500 tpd (and is proposing to accept 850 tpd of solid waste total).

Measures to avoid, minimize, and mitigate project impacts include installing a erosion and sedimentation controls, utilizing best management practices (BMPs), and designing stormwater infrastructure for climate resiliency. According to the ENF and DEIR, the additional capacity of the facility will improve waste management in the area and address anticipated capacity concerns associated with solid waste management. A water misting system will be used to suppress dust and the improved efficiency of the operations will minimize odors. Essential mechanical systems will be elevated to reduce risk of flooding.

Jurisdiction and Permitting

The project is undergoing MEPA review because it requires Agency Action and exceeds ENF thresholds at 301 CMR 11.03(1)(b)(2) creation of five or more acres of impervious area and 301 CMR 11.03(9)(b)(1) New capacity or Expansion in capacity for combustion or disposal of any quantity of solid waste, or storage, treatment or processing of 50 or more tpd of solid waste.[3] The project is required to prepare an EIR pursuant to 301 CMR 11.06(7)(b) because it is located within a Designated Geographic Area (or DGA, as defined in 301 CMR 11.02) around one or more EJ populations. The project requires a Massachusetts Department of Environmental Protection (MassDEP) Authorization to Construct Permit for Large Handling Facility and Authorization to Operate Permit for Large Handling Facility.

[2] Under updated mapping issued on November 12, 2022 and made effective January 4, 2023, the site is located within a census block designated as XX. Current mapping tools designate 25 EJ populations present within the DGA and are characterized as Minority (20 census block groups); Income (1); Minority and Income (3); and Minority, Income, and English Isolation (1).

[3] As discussed below, the project is proposed to be a "transfer station," and, therefore, is asserted to be exempt from the mandatory EIR threshold at 301 CMR 11.03(9)(a), *New Capacity or Expansion in Capacity of 150 or more tpd for storage, treatment, processing, combustion or disposal of solid waste, unless the Project is a transfer station, is an Expansion of an existing facility within a validly site assigned area for the proposed use, or is exempt from site assignment requirements.* As noted, the project requires EIR review in any event due to its proximity to EJ populations.

The project requires a local Order of Conditions (OOC) from the Hudson Conservation Commission; if the OOC is appealed, a Superseding OOC will be required from MassDEP. The entire site is within a valid site assigned area. Comments from MassDEP state that because the original site assignment did not specify a tonnage limit and this project proposes an increase in tonnage without any physical expansion of the facility, it can be permitted by the Hudson Board of Health through a minor modification to the existing Site Assignment in accordance with 310 CMR 16.22.

The project is not receiving Financial Assistance from the Commonwealth. MassDEP's site suitability regulations are broad enough to confer broad scope jurisdiction for purposes of MEPA review Therefore, MEPA jurisdiction extends to all aspects of the project that may cause Damage to the Environment, as defined in the MEPA regulations.

Review of the DEIR

The DEIR was generally responsive to the Scope included in the ENF Certificate. It included a project description, existing and proposed conditions plans, updated project-related impacts, a detailed stormwater design, a Transportation Impact Assessment (TIA), and a GHG emissions analysis of the project's mobile source emissions using the EPA MOVES emissions model. It identifies measures to avoid, minimize and mitigate environmental impacts. The DEIR provides a response to comments on the ENF, draft Section 61 Findings, and information regarding the project's potential impacts to EJ communities. The DEIR provided further description of climate resilience strategies to be undertaken by the project.

Environmental Justice (EJ) / Public Health

The DEIR assessed environmental justice utilizing the most recent EJ neighborhood maps, updated November 2022. As such, the DEIR counts and designations of EJ populations are different from project ENF. The project site is located within one mile of two EJ populations characterized by Minority within the city of Hudson. Twenty-three additional EJ populations are also included within five-mile DGA, characterized by Minority (18); Income (1); Minority and Income (3); and Minority, Income, and English Isolation (1). Portuguese or Portuguese Creole are identified as being spoken by 5% or more of Limited English Proficiency ("LEP") residents within one mile of the site. And Spanish or Spanish Creole and Portuguese or Portuguese Creole are identified as being spoken by 5% or more of LEP residents within five miles of the Site.

Public Outreach

The ENF Scope directed the proponent to provide additional information on public outreach and engagement activities undertaken after the filing of the ENF, as well as describe the outreach and public involvement measures the project planned to undertake for the remainder of the MEPA process. The DEIR outlines the project's community engagement efforts, citing coordination on EJ outreach taking place in July and August of 2022. A public information session was held on August 22, 2022, both in person and via Zoom. Prior to filing the DEIR, the proponent posted flyers and factsheets regarding the project within the community spaces of Hudson, and in potentially impacted EJ populations in Marlborough. Copies of the flyers and factsheets were translated into English, Portuguese, and Spanish, and were posted on the proponent's website. The DEIR states that these flyers will be updated as needed throughout the MEPA process. The proponent held two public information sessions in June of 2023, consisting of one daytime in-person meeting and one evening online meeting to allow for broader

engagement. The information sessions provided information on the existing transfer station operations as well as addressed concerns and feedback from public participants. The DEIR also indicated that eleven members of the public attended the daytime meeting, and eleven members of the public joined the online meeting. Attendees who provided email addresses were notified of the availability of the DEIR. Project-related comments/concerns and responses that were gathered by the proponent during their community engagement efforts are summarized in the filing. The proponent confirmed that it will continue to engage with members of the public who attended the information sessions and provided their contact information.

Baseline Conditions

The DEIR contained a baseline assessment of any existing unfair or inequitable Environmental Burden and related public health consequences impacting EJ Populations in accordance with 301 CMR 11.07(6)(n)1. and the MEPA Interim Protocol for Analysis of EJ Impacts. According to the DEIR, the data surveyed showed some indications of an existing "unfair or inequitable" burden impacting the EJ populations within the DGA. Specifically, the DEIR identified census tracts and municipalities that exhibit "vulnerable health EJ criteria" that are measured to be 110% above state-wide averages for vulnerable health criteria and are presented via the Massachusetts Department of Public Health (DPH) EJ tool. Census tract level health data are available for Low Birth Weight prevalence and Elevated Blood Lead Level prevalence. Census tracts in Boxborough (census tract 3881) and Marlborough (census tracts 3211, 3214, 3216) are measured to be 110% above statewide rates based on a five-year rolling average for Low Birth rate. As noted in the Project Impacts section, a number of truck routes transect Marlborough census tracts 3215, 3213.01, 3213.02, and 3214; none of these Marlborough census tracts are associated with elevated Low Birth Weight rates, except for 3214. Boxborough is nearly five miles from the project site and not proximal to any preferred truck routes. The DPH EJ tool also identifies two municipalities with vulnerable health criteria: Boxborough exhibits Low Birth rates and Framingham exhibits Pediatric Asthma rates measured to be 110% above statewide averages. Both municipalities are at the far edge of the project's five-mile DGA and are not located proximal to anticipated truck routes associated with the project. The two municipalities where truck routes are anticipated to traverse, Hudson and Marlborough, do not exhibit vulnerable health EJ criteria at the municipal level.

In addition, the DEIR indicates that sources of potential pollution exist within the identified EJ populations[4], based on the mapping layers available in the DPH EJ Tool:

- MassDEP Major Air and Waste Facilities: 34
- M.G.L. c. 21E Sites: 10
- Tier II Facilities: 41
- MassDEP Sites with AULs: 17
- MassDEP Groundwater Discharge Permits: 6
- Wastewater Treatment Plants: 3
- MassDEP Public Water Suppliers: 8
- Underground Storage Tanks: 34
- EPA Facilities: 21

[4] Note that facilities which are located outside the DGA, but within the EJ block groups that are located wholly within or in-part of the DGA, are included in the sources of pollution counts presented in the DEIR.

- Road Infrastructure: numerous major routes within a five-mile radius of the site including Routes 27, 85 and 111 which run north and south and Routes 2 and 62 which run east and west.
- MBTA Bus and Rapid Transit: 6 bus or rapid transit routes
- Other Transportation Infrastructure: 1 airport and 10 railroad lines
- Regional Transit Agencies: Lowell, Montachusett, Worcester, and MetroWest
- Energy Generation and Supply: 2

The DEIR also consulted the U.S. EPA's "EJScreen"[5] Tool to survey whether EJ Populations located in the DGA are subject to adverse impacts related to environmental indicators as compared to other EJ populations within Massachusetts. The following indicators are elevated at 80th percentile or higher of statewide average within the identified EJ populations:

- Lead Paint Exposure – block groups: 32130-1 (Marlborough) and 32130-3 (Marlborough)
- Proximity to RMP (Risk Management Plan / hazardous waste cleanup) Sites – block group: 3213.02-2 (Marlborough) and 3214-2 (Marlborough)
- Lifetime cancer risk from inhalation of air toxics – block group: 3214-2 (Marlborough)
- Hazardous Waste Proximity – block group: 3214-2 (Marlborough)
- Wastewater Discharge Proximity – block groups: 3222-1 (Hudson), 3223-3 (Hudson), 3224-2 (Hudson), and 3641.01-2 (Maynard)
- Superfund Proximity – block group: 3641.01-2 (Maynard)

As discussed in the Project Impacts Section below, three EJ neighborhoods in Hudson (3222-1, 3223-3, and 3224-2) and nine EJ neighborhoods in Marlborough (3214-2, 3215-1, 3215-2, 3215-3, 3215-4, 3213.01-1, 3213.02-1, 3213.01-3, and 3213.02-2) are transected by proposed truck routes. The three EJ neighborhoods in Hudson are flagged for proximity to wastewater discharge, and four of the nine transected Marlborough EJ neighborhoods, 3213.01-1, 3213.01-3, 3213.02-2, and 3214-2, exhibit elevated indicators. Specifically, Marlborough block groups 3213.01-1 and 3213.01-3 are flagged for lead paint exposure; 3213.02-2 is flagged for proximity to RMP; and 3214-2 is flagged for proximity to RMP, lifetime cancer risk from inhalation of air toxics, and hazardous waste proximity.

Proximity to wastewater discharge and lead paint exposure are not related to degraded air quality, so according to EPA EJScreen, Hudson block groups 3222-1, 3223-3, and 3224-2, and Marlborough block groups 3213.01-1 and 3213.01-3 do not suggest compromised air quality that would be exacerbated by project conditions. However, proximity to RMP, proximity to hazardous waste, and lifetime cancer risk from air toxins could have some relation to exposure to degraded air quality. Accordingly, project contributions to baseline degraded air quality should be further evaluated for EJ communities in Marlborough block groups 3213.02-2 and 3214-2.

Project Impacts

The ENF scope also required that the DEIR include an analysis of routes of travel for new truck trips, as well as whether new traffic would disproportionately affect EJ populations. The facility is expected to generate 370 new inbound (packer/roll-off) truck trips and 44 new outbound (semi-trailer) truck trips on an average weekday, for a combined total of 414 daily truck trips. The facility will provide

[5] See https://ejscreen.epa.gov/mapper/.

space to transfer MSW and C&D debris into semi-trailers that will transport the material off-site for final disposal or reclamation. The DEIR includes a Transportation Impact Assessment (TIA) that analyzes the impacts of all project traffic. Appendix D, Table 10 of the DEIR also discusses potential alternative routes for semi-trailer trucks, which are under the control of the facility operator.

The routes were determined based on the existing truck routes, existing road characteristics, as well as their proximity to EJ communities. Multiple pathways within a 5-mile radius of the facility were analyzed in order to determine the alternate truck routes. In attempts to minimize local traffic disruptions, the semi-trailer trucks were routed towards the interstate highways. According to the DEIR, Routes 2, 3 and 4 (proceeding west, south, and east of the site, respectively) were selected as the best possible options, while Routes 1 and 5 (proceeding south and north, respectively) were deemed to be infeasible. The assessment of Route 1 revealed that while it is an advantageous path as it avoids the downtown EJ community and traverses through a predominantly vacant lot, there were several issues regarding the trucks' abilities to execute turning maneuvers at several intersections along the route. The assessment of Route 5 revealed that while it would entirely avoid all of the identified EJ communities, key constraints were noted, including the fact that the route would require crossing three bridges that do not have the capacity to withstand semi-trailer traffic. In addition, the 17-ton capacity limit of the bridge on Cox Street over the Assabet River will require trucks exiting the Transfer Station to instead turn left onto Cox Street and head south of the site.

The DEIR includes a graphic which shows the trip distribution of packer and roll-off trucks (inbound) and semi-trailer trucks (outbound) to and from the site. The percentages listed in the image represent the percentage of trips within the respective type of truck only (i.e., the blue arrows showing percentages of packer/roll-off trucks that carry waste to the site and leave empty, with the red arrows showing percentages of semi-trailer trucks that leave the site with waste and return empty). As shown below, the three routes considered for semi-trailer trucks (Routes 2, 3, and 4) would carry approximately 47% of the estimated 44 additional truck trips each for Routes 2 and 3 (about 20 trips a day along each route, with 94% or 40 trips a day along the first segment along Main street where the two routes overlap) and approximately 6% of the estimated additional 44 truck trips (about 2 trips a day) along Route 4 to the east of the site. Route 4 does not traverse through EJ neighborhoods, while Routes 2 and 3 traverse through four EJ neighborhoods (3222-1, 3223-3, 3224-2, and 3215-2).

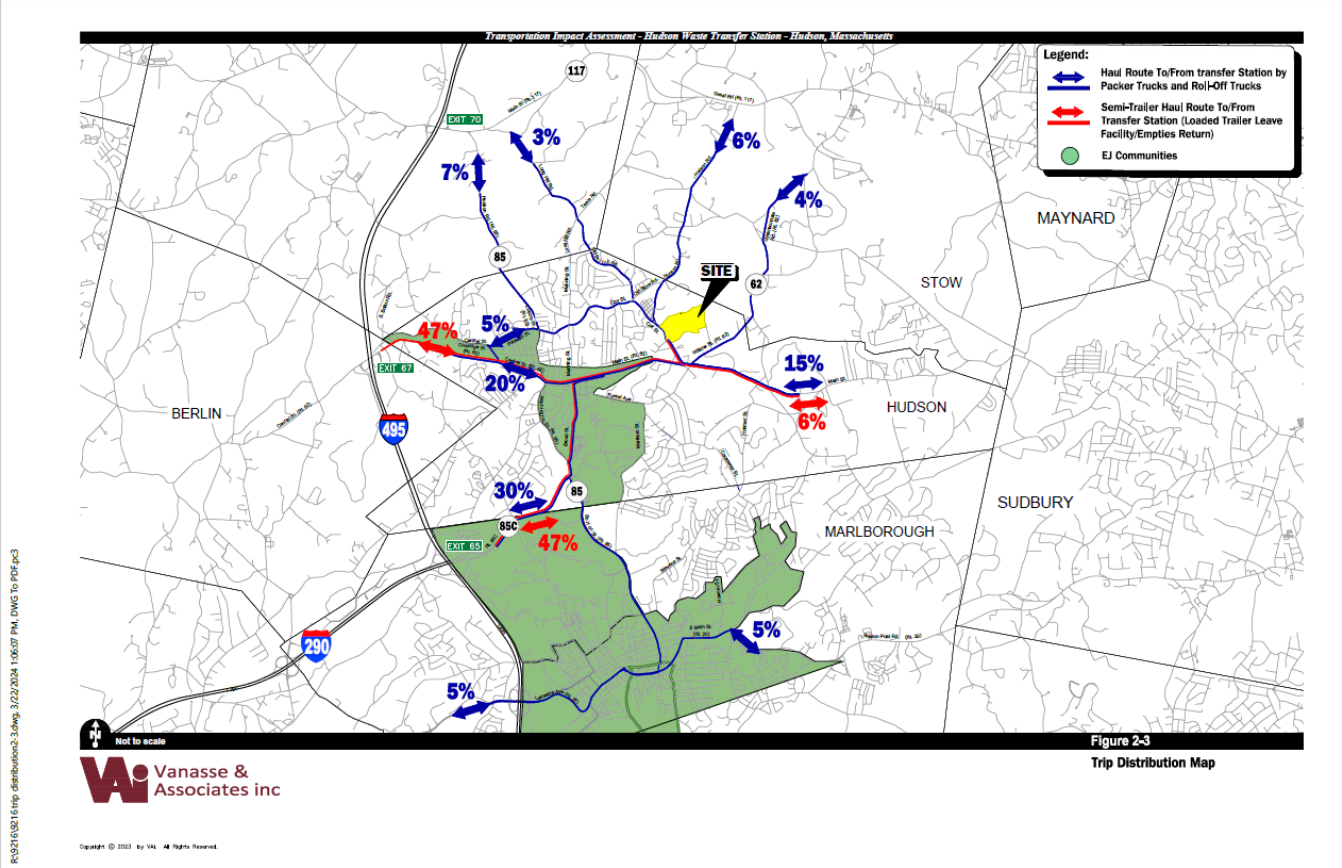


Figure 2. Trip Distribution Map

As required by the Scope, the DEIR included a mesoscale analysis of all vehicle emissions for volatile organic compounds (VOC), nitrogen oxides (NOx), particulate matters (PM2.5 and PM10) and Diesel PM (DPM) for the 2024 Existing and 2031 No Build, 2031 No Build, 2031 Build with Mitigation scenarios, utilizing the EPA's MOVES4 Mobile Source Emission Factor Model and following the MassDEP Guidelines for Performing Mesoscale Analysis of Indirect Sources. As compared to 2024 Existing Conditions, emissions under the 2031 No Build Condition will decrease or remain constant for VOCs, NOx, PM2.5 and DPM from 6.7 tons per year (tpy) to 5.7 tpy for VOCs, from 7.2 tpy to 3.5 tpy for NOx, from 0.4 tpy to 0.4 for PM2.5, and 0.2 tpy to 0.2 tpy for DPM emissions. The general decrease in total emissions is attributable to the anticipated improvements in vehicle engine and emissions technologies, which are expected to reduce the per-vehicle emission rates; additionally, the project will remain relatively constant from future No Build to future Build conditions. As compared to 2031 No Build, emissions under the 2031 Build Condition will increase by 0.006 to 0.6 tpy for any pollutant (specifically, from 5.73 tpy to 5.79 tpy for VOCs, from 3.54 tpy to 3.58 tpy for NOx, from 0.398 tpy to 0.406 tpy for PM2.5, and from 0.175 to 0.181 for DPM). Based on the mesoscale analysis, the DEIR concludes that air quality emissions will not result in a material increase in pollutants within the project area. I note, however, that the analysis was conducted over the traffic study radius, and does not reflect conditions over the entire 5-mile DGA.

The ENF Scope required the DEIR to include an analysis of air emissions caused by potential truck traffic that extends onto adjacent EJ populations. The DEIR includes an analysis of diesel truck emissions only. The proposed project is expected to generate a total of 207 new inbound and outbound

truck trips (total 414 roundtrip) on an average weekday. MOVES4 was used to generate idle emissions factors, with the vehicle population adjusted to be made up of single unit short-haul trucks, and combination short-haul trucks. These source types represent the diesel trucks associated with the project. These The analysis revealed that air pollutant emissions at any one of 16 identified intersections, 8 of which are located in EJ block groups, have an increase of less than 0.1 tons per year for any pollutant. As such, the DEIR concludes that the addition of the project-generated daily traffic is not expected to the meaningfully increase emissions at any particular intersection. As noted below, three EJ census block groups are located outside a 1-mile radius around the project site but along routes of truck traffic. The FEIR should provide a discussion of potential impacts to those areas.

As described in the Baseline Conditions section above, only two of the twelve total EJ block groups traversed by truck routes (Marlborough block groups 3213.02-2 and 3214-2) display elevated environmental health indicators related to air quality (according to DPH EJ Tool and EPA EJScreen). Further evaluation of project impacts on existing conditions within these neighborhoods is required. As stated in the Scope, the Proponent should consider the elevated percentiles of proximity to RMP (3213.02-2 and 3214-2), proximity to hazardous waste (3214-2), and lifetime cancer risk from air toxins (3214-2) observed in these communities in the context of air pollution exposure due to packer/roll-off trucks trips and semi-trailer truck trips proximal to these communities.

Moreover, current truck routing exposes EJ populations to the west and south of the site to up to 94% of semi-trailer truck trips and up to 60% of packer/roll-off truck trips, compared to the 6% of semi-trailer truck trips and 40% of packer/roll-off truck trips that traverse through non-EJ neighborhoods to the east and north of the site. Given this inequitable distribution of truck traffic, a more detailed analysis of respiratory conditions within EJ communities along truck routes is required in the FEIR, as well as consideration of additional mitigation strategies.

The DEIR presents a graphic that overlays EJ census tracts with elevated environmental indicators from EPA EJScreen and the proposed truck routes (Figure 3), as shown below:

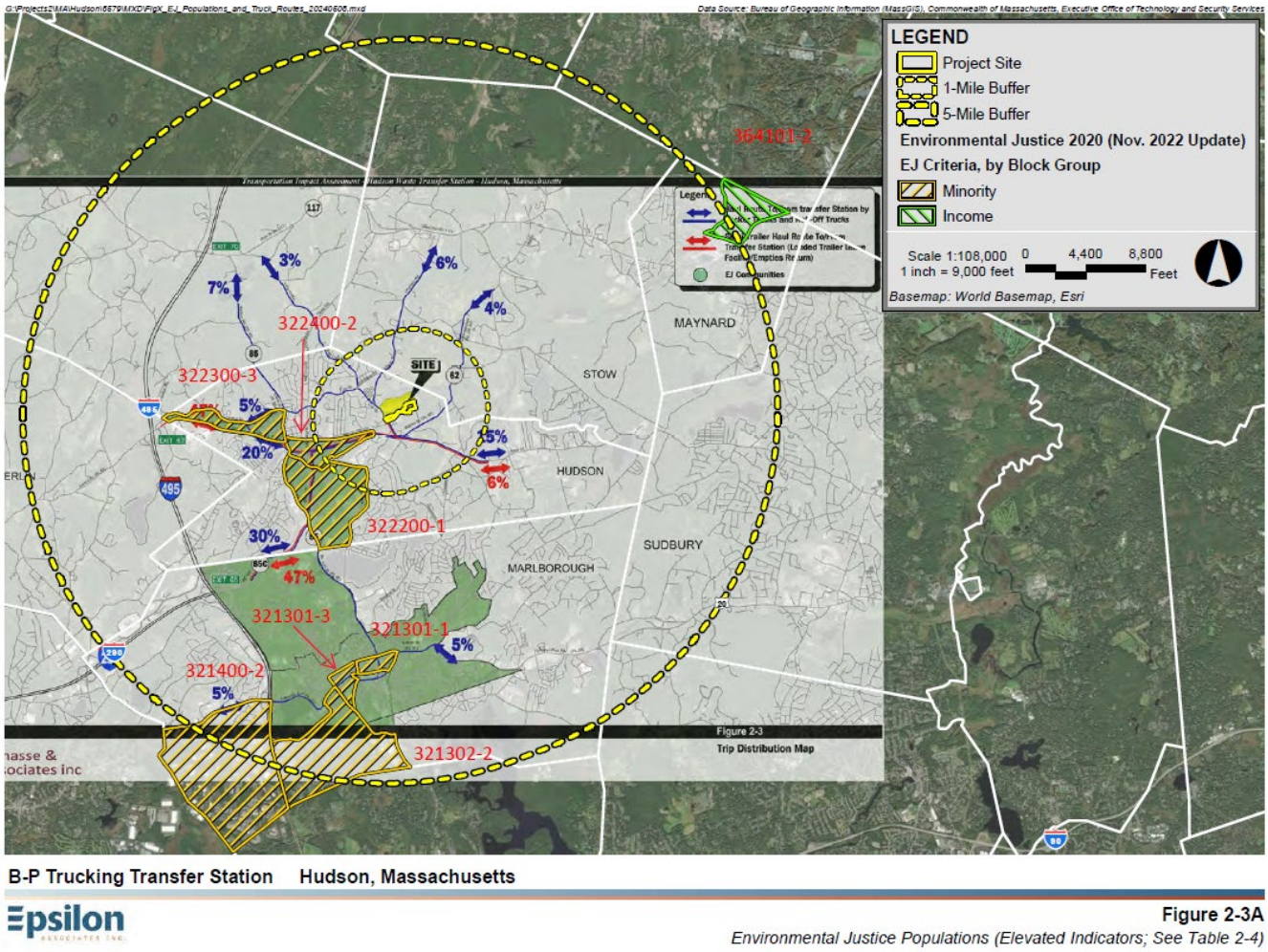


Figure 3. Environmental Justice Populations (Elevated Indicators)

Solid Waste

In response to the Scope, the DEIR include a description of project operations as well as indicated areas allocated for C&D activities, handling of MSW, and recycling. According to the DEIR, the proposed facility will consist of two primary operational areas: an approximately 53,000 square foot Transfer Station & Recycling Building, and an approximately 1.3-acre residential drop-off area that will be reserved for Hudson residents to drop-off their household waste and recyclables. The Transfer Station will be accepting commercial loads of both municipal solid waste (MSW) and unprocessed construction and demolition debris (C&D), as well as recyclable materials. The DEIR states that nearly 65 percent of the building's footprint will be occupied by the MSW and C&D operations and will be maintained in accordance with MassDEP's handling facility operation and maintenance requirements specified in the 310 CMR 19.207 Solid Waste Regulations. Comments from MassDEP indicate that the Proponent should describe the respective volumes of MSW, C&D and recyclable materials as well provide information that demonstrates the building's material handling footprint has the capacity to receive the expected volume of materials. The DEIR states that the Recyclables Processing Area will be located at the eastern end of the Transfer station, encompassing an area of about 18,000 square feet, comprising nearly 35 percent of the building's material handling footprint.

The DEIR indicates that to the Proponent will abide by Best Management Practices (BMPs) for facility operations, including BMPs related to the following operational categories: Housekeeping; Nuisance Control; Fire Protection; Stormwater Management; Wastewater Management; Site Security; and Facility Inspections. In coordination with MassDEP's Solid Waste Management Program, the following permits will be required for the proposed facility:

- Authorization to Construct (ATC) Large Handling Facility (permit application BWP SW 05); and
- Authorization to Operate (ATO) Large Handling Facility (permit application BWP SW 06)

The DEIR states that the proposed activities are appropriately designated as "Transfer Station" and more specifically classified to a "Large Construction and Demolition Debris Transfer Station" under MassDEP's solid waste regulations. The DEIR asserts that this classification is appropriate under MassDEP's definition of a C&D Transfer Station due to the facility being permitted to accept over 50 TPD (tons per day) of C&D waste, as well as the permission to accept Bulky Waste and MSW. Comments from MassDEP indicate that because the project includes an increase to the permitted tonnage limits at the facility, the Proponent will be required to obtain a minor modification to the existing Site Assignment from the Town of Hudson in accordance with the 310 CMR 16.22. In addition, DEP also states that they anticipate the permitting of the project to include a condition limiting the tons per day of inbound recyclables based on the capacity limitations of the building.

Land Alteration / Stormwater

According to the DEIR, the project's proposed Limit of Work is not expected to traverse the delineated wetland boundaries, however, a limited amount of work will occur in the 100-foot buffer zone which will result in permanent and temporary land alterations. The DEIR states that 47,605 sf of the buffer zone will result in permanent alterations which include areas where pavement and/or a permanent grade change will occur. Temporary impacts will result in 11,125 sf of land alteration which will include short-term construction related work.

The ENF states that the project will add 6.4 acres of impervious area to the site (8.2 acres of impervious area total for the site). Treatment of stormwater will be achieved through BMPs such as deep sump catch basins, oil/grit separators, subsurface detention/infiltration structures and sediment forebays paired with infiltration basins. The post-development stormwater plan includes a closed drainage system compromised of 4 subsurface detention/infiltration structures and oil grit separators, 50 deep sump catch basins, 29 drain manholes, and associated drain piping. The DEIR mentions that the proposed facility is classified as an area with higher potential pollutant loads. As a result, structural BMPs were selected for treating stormwater runoff. The Total Suspended Solids (TSS) removal rate for all proposed discharges was calculated to be greater than or equal to 80%, meeting the minimum required TSS removal rate as outlined in the Massachusetts Stormwater Handbook. Additionally, the project plans to prepare a Construction Stormwater Pollution Prevention Plan (SWPPP) that will address long-term inspection and maintenance for the stormwater BMPs.

Wild and Scenic Rivers

The River Stewardship Council was established to coordinate the conservation of the Sudbury, Assabet and Concord Rivers and includes representatives from the Towns of Bedford, Billerica, Carlisle, Concord, Lincoln, Sudbury, and Wayland; the City of Framingham; OARS; Sudbury Valley Trustees; the Commonwealth of Massachusetts; U.S. Fish and Wildlife Services; and the National Parks Services (NPS). The River Stewardship Council (RSC) provides guidance and coordination for implementation of the River Conservation Plan. The Assabet River is listed as an impaired waterbody due to organic enrichment, low dissolved oxygen, and noxious aquatic plants. Though the project site is located upstream of the portion of the Assabet River that is designated as a Wild and Scenic River, any discharges to the river in this location could impact the portion of the Assabet River and Sudbury River designated as Wild and Scenic. According to the ENF, the project will not impact any of the outstandingly remarkable resources of these federally Wild and Scenic Rivers. The ENF scope indicated that the DEIR should include information on the location of Wild and Scenic River designation and consult with the RSC to determine if there will be any impacts to the Assabet River. The DEIR indicates that the Proponent has consulted with the RSC to provide them with the information regarding the project as well as solicit any potential feedback. The Council representative shared that the project should work to adequately manage stormwater on the site to prevent detrimental impacts to the river.

Wetland and Water Resources

As described in the ENF, the project will not result in any alteration of wetland resources. The portion of the project for residential drop-off and part of the access drive are located within the Buffer Zone to wetland resources (53,900 sf). Comments from MassDEP on the ENF indicated that site plans show areas of Bordering Vegetated Wetlands that appear to be within the limits of work. The Scope on the ENF directed the Proponent to ensure the delineation of resources areas and limits of works are included in the Notice of Intent (NOI) submitted to the local conservation commission. The DEIR confirms that the Proponent will include the delineation of resource areas and limits of work when filing the NOI.

Transportation

As mentioned above, the DEIR includes a TIA that assesses potential traffic-related impacts associated with the project. It described existing and proposed roadway, pedestrian, and bicycle conditions, public transit capacity and infrastructure, roadway and intersection volumes and roadway safety issues. The analysis reviewed future conditions and vehicular and transit operations under No Build and Build scenarios using a seven-year planning horizon.

Study Area

Based on an evaluation of the expected increase in project vehicle-trips, the DEIR included a proposed study area consisting of the following 16 intersections in both the Town of Hudson and City of Marlborough:

Town of Hudson

- Cox Street at Old Bolton Road
- Cox Street at Zina Road/Pierce Street
- Cox Street at Lee Circle/transfer station driveway
- Cox Street at Parkhurst Drive

- Main Street at Forest Avenue/Wilkins Street (Route 62)
- Main Street at Cox Street/Glendale Road
- Main Street at Mackin Street/Woodrow Street
- Main Street at Tower Road/Vila Do Porto Boulevard
- Broad Street at Vila Do Porto Boulevard/South Street
- Main Street at Washington Street (downtown rotary)
- Lincoln Street (Route 85) at Packard Street/Cox Street
- Broad Street at Washington Street (Route 85)
- Washington Street (Route 85) at Route 85C/Technology Drive

City of Marlborough

- East Main Street (Route 20) at Stevens Street and Lincoln Street
- Granger Boulevard (Route 20) at South Bolton Street (Route 85)
- Lakeside Avenue (Route 20) at Lincoln Street

Trip Generation / Distribution

The proposed expansion of the facility is expected to generate approximately 448 new vehicle trips on an average weekday (two-way, 24-hour volume), with 370 new inbound truck trips, 44 new outbound truck trips, and 34 new trips associated with the increase in employee trips due to the facility expansion. When accounting for the 754 existing waste facility trips, total vehicle trips for the site will increase to 1,202. The analysis accounted for the number of truck loads occurring every 15 minutes. The scale data revealed that on an hourly basis, the peak percentage showed a variation between 8 and 23 percent of total daily trips. The TIA assumes that based on these figures, approximately 23 and 8 percent of the daily trips will take place during the morning and afternoon peak hours for inbound trips, with approximately 9 percent of daily trips occurring during the morning and afternoon peak hours for outbound trips. The directional distribution of both the inbound and outbound trucks to and from the facility were determined by reviewing existing travel patterns as well as assessing the feasibility of alternative routes for heavy trucks.

Traffic Operations

The TIA provided peak period capacity analyses and level-of-service (LOS) designations for through traffic and turning movements at study area intersections under 2024 Existing, 2031 No Build and 2031 Build conditions. LOS is represented using letter grades “A” through “F,” with LOS A representing very low delays and free flow conditions and LOS F representing unacceptable conditions for most drivers and conditions in which vehicle demand generally exceeds roadway capacity. The intersections in the area surrounding the project site are generally anticipated to adequately accommodate traffic increases associated with the project. Specifically, the traffic study shows that the study intersections will operate below capacity (LOS D or better) under Existing, No Build and Build conditions. The intersection of Washington Street and Route 85/Technology Drive will operate at LOS E during the weekday evening peak period for the 2031 No Build conditions; however, no change to LOS is anticipated under Build conditions. The TIA concludes that the project will result in minimal impacts on motorist delays at the study intersections.

Safety

As required by the Scope, the TIA included crash analyses for all intersections in the study area using data provided by the MassDOT Safety Management/Traffic Operations Unit for t he most recent three-year period available (2016-2020) to examine motor vehicle crash trends. According to the analysis, most of the intersections appeared to have crash rates below the MassDOT District 3 crash rates for unsignalized and signalized intersections. As noted in the TIA, the intersection of Cox Street at Old Bolton Road, Main Street at Tower Road/Vila Do Porto Boulevard, Broad Street at Vila Do Porto Boulevard/South Street, and East Main Street (Route 20) at Stevens Street/ Lincoln Street, were observed to have crash rates below the MassDOT District 3 crash rates for unsignalized and signalized intersections. Additionally, the DEIR compared the study area intersections to the MassDOT Highway Safety Improvement Plan (HSIP) map of the Commonwealth's top crash locations. The following study area intersections were listed as HSIP cluster locations:

- Top 200 crash 2018-2020 HSIP clusters
  - Main Street at Forest Avenue/Wilkins Street (Route 62)
  - Main Street at Tower Road/Vila Do Porto Boulevard
  - Broad Street at Vila Do Porto Boulevard/South Street
  - East Main Street (Route 20) at Stevens Street/Lincoln Street

- The Top 5% Intersection 2016-2018
  - Washington Street (Route 85) at Route 85C/Technology Drive
  - Granger Boulevard (Route 20) at South Bolton Street (Route 85)

According to the MassDOT Road Safety Audit (RSA) database, an RSA was conducted for the East Main Street (Route 20) at Stevens Street. Lincoln Street intersection. The study concluded that no fatalities were reported over the five-year period. Nonetheless, a transportation improvement program was developed to address potential safety issues associated with proximity to HSIP cluster areas , the program recommends:

- The driveways will be placed under STOP-sign (Manual on Uniform Traffic Control Devices (MUTCD) R1-1) control, with a painted STOP-bar included.

- All signs and other pavement markings to be installed within the Project site shall conform to the applicable standards of the current MUTCD.

- Snow windrows within sight triangle areas of the Project site driveway will be promptly removed where such accumulations would impede sight lines.

- In order to encourage safe and efficient flow of traffic to and from the site, should any landscaping or signage along the site frontage or the site driveway be proposed or requested by others, these features will be no higher than 24 inches or be set back sufficiently from the edge of the roadways so as not to inhibit the available sightlines. The existing vegetation on the north site of the driveway will be trimmed or removed to provide an unobstructed sight line for vehicles exiting the Project driveway.

Climate Change

As noted in the ENF Certificate, based on the 60-year useful life identified for the project and the self-assessed criticality of the waste transfer station, the MA Climate Resilience Design Standards Tool (the "MA Resilience Design Tool") recommended a planning horizon of 2070 and a return period associated with a 50-year (2% chance) storm event when designing the facility for the extreme precipitation climate parameter.

As required by the Scope, the DEIR includes a detailed stormwater report, stating that the proposed facility's stormwater infrastructure will be sized to reduce peak discharges for the anticipated 50-year, 9.5 inch, 24-hour storm event for the year 2070, as reflected by the useful life of the facility. Conceptual stormwater design was modeled with HydroCAD ® Stormwater Modeling Software for the current 2-, 10-, 25-, and 100-year 24-hour storm events to evaluate anticipated basin sizing required to support the proposed facility layout. According to the DEIR, the stormwater management system, which is designed to convey and attenuate peak runoff rates up to the current 100-year storm event (7.88 inches) would be resilient to the future (2070) 50-year storm event. Additionally, it notes that the resiliency of the proposed structures is based on comparisons of the elevation of structures to FEMA's 100-year Base Flood Elevation in the site area. According to the DEIR, the 100-year flood plain appears to be mapped in the vicinity of the Assabet River. The boundary of the floodplain is slightly more than 500 feet from the Transfer Station and Recycling Building. Based on the FEMA flood maps, this Base Flood Elevation (BFE) in this portion of the Assabet River floodplain is elevation 196 (NAVD 88), which is 10 feet lower than the proposed trailer pit floor elevation of 206, which is the lowest floor elevation of the building. The tipping floor and Recyclables Processing area has a proposed floor elevation of 218 feet, which is 22 feet above the 100-year BFE. The DEIR concludes that the elevation of the Transfer Station and Recycling Building, as well as the elevations of the scale house and attendant's booth (approximately 214 feet in elevation) are anticipated to be resilient to future climate conditions.

Greenhouse Gas Emissions

As required by the ENF Scope, the DEIR includes a GHG emissions analysis as well proposed mitigation measures to reduce emissions. According to the DEIR, the EPA's WARM model estimates that for each ton of recyclables diverted from landfills and recycled, 2.89 tons of GHG are saved. The project plans to support an increase in capacity for handling C&D waste. Specifically, the quantity of C&D waste that will be processed at the proposed facility is expected to represent 200 tpd of the 850 tpd capacity. Compared to current C&D waste handling at the existing Transfer Station (approximately 35 tpd), the proposed facility is expected to handle approximately 165 tpd of additional C&D material (200 tpd of C&D at the proposed facility vs, 35 tpd at existing). With the assumption that 15% of C&D waste is recovered for reuse at a C&D processing facility, the increased daily quantity of recycled C&D material at the proposed facility in comparison to the existing facility is approximately 25 tpd (165 tpd x 15%). Based on the EPA's WARM GHG reduction rate of 2.89 tons saved for every ton of C&D material recycled, the project estimates that the increased GHG reduction associated with the throughput capacity at the proposed facility would be approximately 70 tpd (25 tpd of C&D waste recycled x 2.89 tons GHG saved per recycled ton).

Stationary Sources

According to the DEIR, most of the building consists of unconditioned space where MSW, C&D, and recyclables are processed. Adjacent to this unconditioned space is an approximately 2,000 sf office/administration space, which is small enough to fall into the range to opt-out of GHG

quantification. The building will be constructed to comply with the Stretch Code requirements, and the office areas will be heated and cooled by electric heat pumps and domestic hot water will be provided by heat pump hot water heaters. The DEIR notes that consistent with correspondence between the Proponent, MEPA and the Department of Energy Resources (DOER), the proposed project design will minimize and mitigate GHG impacts to the extent feasible and no quantitative analysis is required. The Proponent requests an opt-out from GHG modeling pursuant to the MEPA GHG policy. For the office/administrative areas, the Proponent plans to commit to the following:

- High performing envelope for conditioned office spaces;
- 100% electric heat pump space heating and cooling and;
- Electric domestic hot water heating via air source heat pumps;

In addition, the Proponent plans to also provide the following measures for Energy Code Compliance:

- Roofs to be constructed PV-ready;
- Installed electric vehicle (EV) charging and readiness per Stretch Energy Code

Comments from DOER indicate that Hudson is a Stretch Code Town. As an above-code GHG measure, DOER recommends improving air infiltration limits and electric air source heat pump space and water heating, with no use of gas. As comments indicate that the project commitments to energy efficiency in conditioned spaces are consistent with these best practices, I hereby grant the request to opt out of GHG modeling for the office component of the project.

The DEIR states that upon project completion, a self-certification will be submitted to the MEPA office, prepared in accordance with the GHG policy. The purpose of the certification will be to demonstrate how the GHG mitigation measures were incorporated into the building and will illustrate the scale of GHG reduction from a Baseline case.

Mobile Sources / Air Quality

According to the DEIR, the Proponent anticipates that air quality impacts will result from some increases in vehicular traffic, particularly diesel trucks. As noted above, the DEIR included a mesoscale analysis which quantified NOx, VOC, PM2.5, and DPM under 2024 Existing, 2031 No-Build, and 2031 Build and 2031 Build with Mitigation scenarios, utilizing the EPA's MOVES4 Mobile Source Emission Factor Model and following the MassDEP Guidelines for Performing Mesoscale Analysis of Indirect Sources. The results of the air quality impacts are discussed above (in the Environmental Justice section). The mesoscale analysis also calculated the project-related mobile source CO2 emissions. As compared to 2024 Existing Conditions, total GHG emissions under the 2031 No Build Condition will decrease from 12,865 tpy to 11,350 tpy. As compared to 2031 No Build, emissions under the 2031 Build Condition will increase from 11,350 tpy to 11,505 (an increase of 155 tpy), but still remain under Existing Conditions.

Construction Period

As noted in the ENF Scope, the Proponent was encouraged to require that its contractors use construction equipment with engine manufactured to Tier 4 federal emission standards, or to select project contractors that have installed retrofit emission control devices or vehicles that use

alternative fuels to reduce emissions of volatile organic compounds (VOCs), carbon monoxide (CO) and particulate matter (PM) from diesel-powered equipment. Off-road vehicles are required to use ultra low sulfur diesel fuel (ULSD). The DEIR states that the project's construction contractor will use after-engine emission controls such as diesel oxidation catalysts or diesel particulate filters on construction vehicle and use Ultra Low Sulfur Diesel fuel in off-road engines. Additionally, the Proponent plans to maintain a list of the engines, their emission tiers, and if applicable, the best available control technology installed on each piece of equipment used in the operation of the facility.

SCOPE

General

The FEIR should follow Section 11.07 of the MEPA regulations for outline and content and provide the information and analyses required in this Scope. It should clearly demonstrate that the Proponent has sought to avoid, minimize and mitigate Damage to the Environment to the maximum extent practicable.

Project Description and Permitting

The FEIR should describe the project and identify any changes since the filing of the DEIR. It should include updated site plans for existing and post-development conditions at a legible scale, which clearly identify buildings, public areas, impervious areas, and stormwater and utility infrastructure. It should identify and describe state, federal and local permitting and review requirements associated with the project and provide an update on the status of each of these pending actions. The FEIR should include a description and analysis of applicable statutory and regulatory standards and requirements, and a discussion of the project's consistency with those standards. MEPA.1 MEPA.2

The information and analyses identified in this Scope should be addressed within the main body of the FEIR and not in appendices. In general, appendices should be used only to provide raw data, such as drainage calculations, traffic counts, capacity analyses and energy modelling, that is otherwise adequately summarized with text, tables and figures within the main body of the FEIR. Information provided in appendices should be indexed with page numbers and separated by tabs, or, if provided in electronic format, include links to individual sections. Any references in the FEIR to materials provided in an appendix should include specific page numbers to facilitate review.

Environmental Justice / Public Health

As discussed in the Baseline Conditions and Project Impacts Section, two EJ communities in Marlborough where 5 to 10% of inbound packer/roll-off trucks will extend and semi-trailer truck routes are expected to border are identified as having elevated percentiles of proximity to RMPs (3213.02-2 and 3214-2), proximity to hazardous waste sites (3214-2), and lifetime cancer risk from air toxins (3214-2). Moreover, the DPH EJ tool and EPA EJScreen identifies these same communities has having elevated rates of Low Birth Weight (census tract 3214) and elevated risk of lead exposure (3213), indicating existing health vulnerabilities in these communities. In addition, 94% of semi-trailer traffic (40 additional trucks per day) were identified as passing through EJ block groups in Hudson before preferred truck Routes 2 and 3 diverge in different directions. Together with existing traffic, total semi-

trailer truck trips through these neighborhoods could be as high as 110 trips per day.[6] While the anticipated (incremental) increase in air pollutants for the traffic study radius appears modest (0.00126 tpy for VOCs, 0.0080 tpy for NOx, and 0.003 tpy for DPM)), the cumulative impact of additional air pollution on EJ neighborhoods could be concerning when coupled with the existing health/environmental conditions outlined above and inequitable distribution of truck traffic. The FEIR should present supplemental analysis to address these issues, as described below.

While the DPH EJ tool did not identify asthma rates for the Town of Hudson to be elevated above statewide rates, the DPH EJ tool only estimates asthma rates by municipality and thus has limited capacity to report neighborhood level asthma conditions. Given that 94% of semi-trailer truck trips will pass through EJ populations directly adjacent to the project site, the FEIR should take additional steps to survey public health conditions in those areas. Specifically, the Proponent should utilize Massachusetts Department of Environmental Protection (MassDEP) Cumulative Impact Analysis (CIA) methods[7] to analyze asthma prevalence at a finer scale via pediatric asthma prevalence for k-8 schools. The data for pediatric asthma prevalence can be downloaded on the MassDEP CIA website (Indicator Data for Cumulative Impact Analysis) and all pre-kindergarten to twelfth grade (PK-12) public schools can be viewed on the online MassDEP CIA Mapping Tool.[8] These data should be provided for all schools servicing the three Hudson EJ neighborhoods (3222-1, 3223-3 and 3224-2), and should report any rates that are above the statewide average. MEPA.3

The FEIR should provide a narrative discussion of air impacts on those EJ neighborhoods in in Marlborough (3214-2, 3215-1, 3215-2, 3215-3, 3215-4, 3213.01-1, 3213.02-1, 3213.01-3, and 3213.02-2) where truck traffic will extend, including the level of current traffic extending through those neighborhoods based on publicly available data and the anticipated increase in traffic at nearby intersections. Additionally, the FEIR should further evaluate the environmental conditions in Marlborough census tracts 3213.02-2 and 3214-2 to determine if elevated percentiles of proximity to RMP sites and hazardous waste sources contributes to degraded air quality, and potentially contribute to elevated lifetime cancer risk from air toxins. MEPA.4 MEPA.5

The FEIR should consider additional mitigation measures to address the increase in diesel emissions in EJ neighborhoods, including tree planting, road barriers for sound/emissions, and public health contributions in collaboration with local community centers or health centers. The FEIR should update any commitments related to mitigating air impacts. MEPA.6

Land Alteration / Stormwater

The FEIR should clarify the extent of impervious surface increase associated with the project. As noted above, the project increased the total amount of pavement within the RDOA and other surroundings areas from 5.3 to 7 acres between filings. The FEIR should provide detailed information regarding the total amount of new land alteration for the project and including an analysis of the land MEPA.7 MEPA.8

[6] Total semi-trailer truck trips were estimated by assuming total existing trips have the same ratio of packer/roll-off trips and semi-trailer trips as estimated expanded trips (approximately 10% of new trips are semi-trailer trips). Thus, 74 existing trips were assumed to be semi-trailer truck trips. 74 existing trips was added to 44 new trips and then multiplied by the percentages of semi-trailers traveling on Main Street (94%).

[7] MassDEP recently finalized regulations related to a CIA framework for certain air permits. The regulations and associated guidance are available here: https://www.mass.gov/info-details/cumulative-impact-analysis-in-air-quality-permitting.

[8] MassDEP CIA Mapping Tool

cover types to be altered. The FEIR should consider additional mitigation measures to combat stormwater, including Low Impact Development (LID) features, grass swales, and other potential methods for redirecting stormwater. MEPA.8

Solid Waste

As discussed above, the Transfer Station will accept commercial loads of both municipal solid waste (MSW) and unprocessed construction and demolition (C&D) debris. In addition to the building's MSW and C&D material transfer operations, approximately one-third of the building's total footprint will be dedicated to sorting and baling of household recyclable materials. The DEIR required confirmation that the project only requires minor modification and explain the reasons for this level of permitting. As mentioned above, MassDEP comments note that because the project includes an increase to the permitted tonnage limits at the facility, the Proponent will be required to obtain a minor modification to the existing Site Assignment from the Town in accordance with 310 CMR 16.22. This information should be included in the FEIR. Additionally, The FEIR should include information indicating the outbound loads of C&D that will be delivered, and if delivered to an out-of-state processing facility(ies), then provide documentation that the facility(ies) conforms to MassDEP MPS performance criteria, in accordance with MassDEP comments. MEPA.9

Climate Change

The FEIR should describe the extent of on-site tree clearing and efforts to be made to mitigate these impacts. In addition, the FEIR should clarify the amount and type of vegetation that will be cleared (i.e., mature trees, scrub shrub, etc.). The FEIR should provide a comprehensive evaluation of all measures to reduce the impacts associated with tree removal and increase in impervious areas, including planting additional trees (both on and offsite), protecting forested/open land through a Conservation Restriction or other means, and implementing LID stormwater management methods in areas such as the employee parking lot. MEPA.10

The FEIR should discuss whether the project design will be resilient to future heat conditions and should consult the recommended methodologies in the RMAT Tool as appropriate to assess future conditions on a site-specific basis. The FEIR should demonstrate that all feasible measures will be taken to maximize opportunities for LID strategies, landscaping, and tree planting. As mentioned above, the FEIR should include information on the extent of tree removal and indicate whether any areas proposed for tree clearing are located within 500 feet of a "hot spot" based on present-day land surface temperature indices available through the Resilient MA Climate Change Projections Dashboard (indices are specific to each regional planning area (RPA)).[9] As noted above, to the extent any EJ populations are located within such "hot spots," the project should propose mitigation to offset the effects of tree removal. Mitigation could take the form of permanent land/forest preservation or tree plantings in the affected neighborhoods. MEPA.11 MEPA.12 MEPA.13

[9] See https://resilientma-mapcenter-mass-eoeea.hub.arcgis.com. As explained in the dashboard, a statewide Land Surface Temperature (LST) Index was created by combining estimates of surface temperature from days in 2018, 2019, and 2020 where the high air temperature exceeded 70 degrees Fahrenheit. Hot spots are areas with the 5% highest LST Index values within each RPA region.

Mitigation and Draft Section 61 Findings

The FEIR should include a comprehensive list of all commitments made by the Proponent to avoid, minimize and mitigate the impacts of the project to EJ populations. The FEIR should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation. The list of commitments should be provided in a tabular format organized by subject matter (traffic, solid waste, GHG, EJ, etc.) and identify the Agency Action or Permit associated with each category of impact. The FEIR should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing, either tying mitigation commitments to overall project square footage/phase or environmental impact thresholds, to ensure that adequate measures are in place to mitigate impacts associated with each development phase. Draft Section 61 Findings should be separately included for each Agency Action to be taken on the project. MEPA.14

Response to Comments

The FEIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the FEIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended, and shall not be construed, to enlarge the Scope of the FEIR beyond what has been expressly identified in this certificate. MEPA.15

Circulation

The Proponent should circulate the FEIR to each Person or Agency who previously commented on the DEIR, each Agency from which the project will seek Permits, Land Transfers or Financial Assistance, and to any other Agency or Person identified in the Scope. The Proponent may circulate copies of the FEIR to commenters other than Agencies in a digital format (e.g., CD-ROM, USB drive) or post to an online website. However, the Proponent should make available a reasonable number of hard copies to accommodate those without convenient access to a computer to be distributed upon request on a first come, first served basis. A copy of the FEIR should be made available for review at the Boston Public Library Chinatown and South Boston branches and other appropriate Boston Public Library branches.

May 17, 2024
Date

Rebecca L. Tepper

Comments received:

04/23/2024 J. Ahearn
04/24/2024 K. Cunnigham
05/07/2024 Massachusetts Department of Environmental Protection (MassDEP)
05/08/2024 M. McCormack
05/08/2024 J. Caravalho

05/10/2024 J. and S. Lalli
05/10/2024 N. Puia
05/10/2024 Department of Energy Resources (DOER)

RLT/AM/am

SECRETARY'S CERTIFICATE ON THE DEIR

MEPA.1 **The FEIR should describe the project and identify any changes since the filing of the DEIR. It should include updated site plans for existing and post-development conditions at a legible scale, which clearly identify buildings, public areas, impervious areas, and stormwater and utility infrastructure.**

The Project is described in Section 1.2 of the FEIR and changes since the DEIR was filed are summarized in Section 1.3.

MEPA.2 **[The FEIR] should identify and describe state, federal and local permitting and review requirements associated with the project and provide an update on the status of each of these pending actions. The FEIR should include a description and analysis of applicable statutory and regulatory standards and requirements, and a discussion of the project's consistency with those standards.**

Table 1-1 in Chapter 1 of the FEIR summarizes state, federal, and local permitting and review requirements. The Proponent intends to pursue these permits at the conclusion of the MEPA process.

MEPA.3 **Given that 94% of semi-trailer truck trips will pass through EJ populations directly adjacent to the project site, the FEIR should take additional steps to survey public health conditions in those areas. Specifically, the Proponent should utilize Massachusetts Department of Environmental Protection (MassDEP) Cumulative Impact Analysis (CIA) methods to analyze asthma prevalence at a finer scale via pediatric asthma prevalence for k-8 schools. The data for pediatric asthma prevalence can be downloaded on the MassDEP CIA website (Indicator Data for Cumulative Impact Analysis) and all pre-kindergarten to twelfth grade (PK-12) public schools can be viewed on the online MassDEP CIA Mapping Tool.**

The Project is not subject to the new MassDEP Cumulative Impact Analysis (CIA) requirements as the Project does not require an air permit. Nevertheless, the MassDEP Indicator Data for Cumulative Impact Analysis was used to assess the prevalence of asthma in PK-12 schools near EJ areas and the Project Site. The results showed slightly elevated prevalence compared to state levels, except for the school located next to the Project Site on Cox Street, which shows no elevated prevalence. Results are presented and discussed in Section 2.4 of the FEIR.

MEPA.4 **The FEIR should provide a narrative discussion of air impacts on those EJ neighborhoods in Marlborough (3214-2, 3215-1, 3215-2, 3215-3, 3215-4, 3213.01-1, 3213.02-1, 3213.01-3, and 3213.02-2) where truck traffic will extend, including the level of current traffic extending through those neighborhoods based on publicly available data and the anticipated increase in traffic at nearby intersections.**

A narrative discussion of the truck routes and impact to EJ communities in Marlborough is provided in Section 2.3. Also, the air quality analysis in Chapter 3 of the DEIR discusses air quality impacts. Briefly, at the worst-case intersection (i.e., the intersection with the highest Project-related emissions), minimal air quality impacts are expected when compared to similar projects. These impacts would not exceed health-based air quality standards.

MEPA.5 **Additionally, the FEIR should further evaluate the environmental conditions in Marlborough census tracts 3213.02-2 and 3214-2 to determine if elevated percentiles of proximity to RMP sites and hazardous waste sources contributes to degraded air quality, and potentially contribute to elevated lifetime cancer risk from air toxins.**

Results from EJ Screen are discussed in Section 2.4.2. The section notes that proximity indicators such as being near facilities subject to RMP or hazardous waste sites are only proxies of potential exposures, but this does not mean that there are actual exposures to any toxic materials. On the other hand, indicators of air quality including concentrations of PM2.5, ozone and diesel PM are more relevant for determining if air quality is degraded in the area. All of these more direct indicators are below the 80th percentile, which is consistent with the air quality findings for the area within a 5-mile radius of the site.

MEPA.6 **The FEIR should consider additional mitigation measures to address the increase in diesel emissions in EJ neighborhoods, including tree planting, road barriers for sound/emissions, and public health contributions in collaboration with local community centers or health centers. The FEIR should update any commitments related to mitigating air impacts.**

Mitigation of construction-related air quality impacts are discussed in Section 2.5 along with additional mitigation measures to improve air quality. Since the DEIR, the Proponent has committed to providing a monetary donation to the Town for tree planting which will act as a mitigation measure for the Project and benefit the Town including its EJ neighborhoods and populations.

MEPA.7 **The FEIR should clarify the extent of impervious surface increase associated with the project. As noted above, the project increased the total amount of pavement within the RDOA and other surroundings areas from 5.3 to 7 acres between filings.**

The Project is expected to increase impervious surface by 8.2 acres and is described in Section 4.2 of the FEIR.

MEPA.8 **The FEIR should provide detailed information regarding the total amount of new land alteration for the project and including an analysis of the land cover types to be altered. The FEIR should consider additional mitigation measures to combat stormwater, including Low Impact Development (LID) features, grass swales, and other potential methods for redirecting stormwater.**

The Project's estimated land alteration is addressed in Section 4.3 of the FEIR; LID features are discussed in Section 4.4 of the FEIR.

MEPA.9 **MassDEP comments note that because the project includes an increase to the permitted tonnage limits at the facility, the Proponent will be required to obtain a minor modification to the existing Site Assignment from the Town in accordance with 310 CMR 16.22. This information should be included in the FEIR. Additionally, The FEIR should include information indicating the outbound loads of C&D that will be delivered, and if delivered to an out-of-state processing facility(ies), then provide documentation that the facility(ies) conforms to MassDEP MPS performance criteria, in accordance with MassDEP comments.**

Section 3.5 of the FEIR addresses the requirement to obtain a minor modification to the existing site assignment and the anticipated timing for that activity. Section 3.3 of the FEIR provides information indicating where the outbound loads of C&D will be delivered and confirms that the destination facility conforms to MassDEP MPS performance criteria.

MEPA.10 **The FEIR should describe the extent of on-site tree clearing and efforts to be made to mitigate these impacts. In addition, the FEIR should clarify the amount and type of vegetation that will be cleared (i.e., mature trees, scrub shrub, etc.). The FEIR should provide a comprehensive evaluation of all measures to reduce the impacts associated with tree removal and increase in impervious areas, including planting additional trees (both on and offsite), protecting forested/open land through a Conservation Restriction or other means, and implementing LID stormwater management methods in areas such as the employee parking lot.**

Section 5.2 of the FEIR addresses the extent of on-site tree clearing and efforts that will be made to mitigate these impacts, including the implementation of LID stormwater management methods. The LID stormwater management measures proposed for the Project are addressed in Section 4.4 of the FEIR.

MEPA.11 **The FEIR should discuss whether the project design will be resilient to future heat conditions and should consult the recommended methodologies in the RMAT Tool as appropriate to assess future conditions on a site-specific basis.**

The Project's resiliency to future heat conditions is addressed in Section 5.3 of the FEIR. Following recommended practices from the RMAT tool, the Project's design will include efforts to retain existing trees on Site and planting shade trees and/or shrubs in grassed island areas where feasible to reduce the heat island effect; this will help to reduce this localized climate effect on the Site both now and in the future.

MEPA.12 **The FEIR should demonstrate that all feasible measures will be taken to maximize opportunities for LID strategies, landscaping, and tree planting. As mentioned above, the FEIR should include information on the extent of tree removal and indicate whether any areas proposed for tree clearing are located within 500 feet of a "hot spot" based on present-day land surface temperature indices available through the Resilient MA Climate Change Projections Dashboard (indices are specific to each regional planning area (RPA)).**

Section 4.4 of the FEIR discusses LID strategies that the Project will utilize including. grassed swales, grassed buffer areas, permeable pavers, and bioretention basins.

Analysis of 'hot spots' near the Site using the Resilient MA tool showed that while the nearest such area is located approximately 100 feet from tree clearing activities it is not located in or within one mile of an EJ area. Because the heat effect being discussed here is localized, this condition is expected to be contained to the immediate area of the Site and will not adversely impact nearby EJ communities.

As described in Sections 4.4 and 5.2, all feasible measures will be taken to maximize opportunities for LID strategies, landscaping, and tree planting to reduce the impacts of proposed tree removal and the associated increase in impervious area.

MEPA.13 **As noted above, to the extent any EJ populations are located within such "hot spots," the project should propose mitigation to offset the effects of tree removal. Mitigation could take the form of permanent land/forest preservation or tree plantings in the affected neighborhoods.**

As part of the evaluation of the Project's resiliency to future heat conditions, "hot spot" areas within 500 feet of the proposed limits of the tree clearing area were identified using present-day land surface temperature indices available through the Resilient MA Climate Change Projections Dashboard. As shown on Figure 5-2, the Resilient MA tool showed that an existing hot spot is located in the center of the municipal complex adjacent to the Project Site and approximately 100 feet from the proposed tree clearing area for the Project.

This area is not located in an EJ community and the closest hot spot to the Site that is located within an EJ community is approximately 0.9 miles away from tree removal activities. To the extent possible, existing trees will be preserved along portions of the southern and eastern property boundaries of the Project Site, as described in Section 5.2; additionally, because the effects of hot spots are localized, the impacts of tree clearing on the Site would be limited to the Project Site and would not exacerbate any existing hot spot conditions that may be mapped within nearby EJ communities. However, the Proponent is committed to working the Town of Hudson through a monetary donation to plant additional trees to provide the benefits that shade trees offer to the community.

MEPA.14 **The FEIR should include a comprehensive list of all commitments made by the Proponent to avoid, minimize and mitigate the impacts of the project to EJ populations. The FEIR should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation.**

Table 6-1 of the FEIR provides a summary of the Project's mitigation commitments.

MEPA.15 **The FEIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the FEIR should include direct responses to comments to the extent that they are within MEPA jurisdiction.**

A copy of the DEIR Certificate and a copy of each comment letter is included in this FEIR, responses to commenters are provided in this Chapter of the FEIR.

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Central Regional Office • 8 New Bond Street, Worcester MA 01606 • 508-792-7650

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Bonnie Heiple
Commissioner

May 7, 2024

Secretary Rebecca Tepper
Executive Office of Environmental Affairs
100 Cambridge Street, 9th Floor
Boston, MA 02114

Attention: MEPA Unit – Amina Miliani

Re: Draft Environmental Impact Report (DEIR)
Hudson Solid Waste Transfer Station
Hudson
EEA #16568

Dear Secretary Tepper,

The Massachusetts Department of Environmental Protection's ("MassDEP") Central Regional Office has reviewed the DEIR for the Hudson Solid Waste Transfer Station (the "Project"). B-P Trucking, Inc. (the "Proponent") is proposing to relocate and expand the existing solid waste transfer station located at 300 Cox Street on 72 acres of land owned by the Town of Hudson (the "Town"). The current facility is 8,286 square feet (sf), is permitted to accept 350 TPD of solid waste (municipal solid waste, construction and demolition waste, and bulky waste) and is located 350 feet from the road. The new transfer station will be 53,000 sf, will accept 850 tons per day (TPD) of solid waste and recyclables, and will be 1,800 feet from the street. The Project will be serviced by municipal water and sewer.

The Project is under MEPA review because it meets or exceeds the following review thresholds:

- 301 CMR 11.03(1)(b)(2) - Creation of five or more acres of impervious area;
- 301 CMR 11.03(9)(b)(i) - New Capacity or Expansion in Capacity for combustion or disposal of any quantity of solid waste, or storage, treatment or processing of 50 or more tpd of solid waste, unless the Project is exempt from site assignment requirements.

The Project requires the following State Agency Permits:

- MassDEP Superseding Order of Conditions (if a local Order of Conditions is appealed);
- MassDEP Authorization to Construct Permit for Large Handling Facility (SW 05);
- MassDEP Authorization to Operate Permit for Large Handling Facility (SW 06);

On February 11, 1987, the Town Board of Health filed an Environmental Notification Form (ENF) for the Hudson Solid Waste Transfer Station Project at this location (EEA #6415). The Secretary of Environmental Affairs (the "Secretary") issued a Certificate on the ENF for the Project on March 3, 1987, stating no EIR was required. On December 23, 2000, the Proponent filed an ENF for the Hudson Transfer Station and Recycling Project at this location (EEA #12391). The Secretary issued a Certificate on the ENF on January 1, 2001, stating no EIR was required.

On August 10, 2022, the ENF for the Project was published in the Environmental Monitor. The Secretary issued a Certificate on the ENF on September 9, 2022, stating an EIR was required.

MassDEP offers the following comments:

Solid Waste

The Proponent plans to relocate the existing transfer station operations toward the interior of the existing 72-acre site by constructing a new 47,000 square foot transfer station building permitted to accept 850 tons per day of solid waste, an increase of 500 tons per day to the existing facility's permitted capacity.

The 72-acre Project parcel is owned by the Town and was site assigned for use as a solid waste transfer station facility by the Board of Health on January 7, 1986, pursuant to 310 CMR 16.00, the *Site Assignment Regulations for Solid Waste Facilities*. Because the Project includes an increase to the permitted tonnage limits at the facility, the Proponent will be required to obtain a minor modification to the existing Site Assignment from the Town in accordance with 310 CMR 16.22.

The Proponent should describe the respective volumes of MSW, C&D materials, and recyclable materials. The Proponent should provide information that demonstrates that the building's material handling footprint is sufficiently sized to support the expected volume of materials to be received. MassDEP anticipates the permitting of the Project to include a condition limiting the TPD of inbound recyclables based on the capacity limitations of the building. DEP.1

The Proponent states that the operations at the proposed facility will comply with the *Minimum Performance Standard (MPS) for Construction and Demolition Handling Facilities to Comply with MassDEP's Waste Ban Regulations and Waste Ban Compliance Plans* by ensuring that waste ban items, including clean gypsum wallboard and zero-tolerance items, will be removed from the incoming C&D loads to the greatest extent possible when manual separation can be safely performed, and the remaining C&D material will then be transferred to an MPS-compliant facility(s) for further processing. The Proponent should indicate where the outbound loads of C&D will be delivered, and if delivered to an out-of-state processing facility(ies), then provide documentation that the facility(ies) conforms to MassDEP MPS performance criteria. DEP.2

The DEIR states that the sanitary sewer service for the office/administration space will tie to the Hudson municipal sewer system and the wastewater from the floor drain system will be directed through an oil/water DEP.3

separator, commonly referred to as an MDC trap, and then into a pre-cast concrete holding tank (tight tank) for storage. Section 314 CMR 18.05(1) states in relevant part – "*No facility may use a holding tank to accumulate or store on-site generated or off-site generated industrial wastewater prior to shipping for off-site treatment or disposal if it is or becomes feasible to discharge the industrial wastewater to a sewer system*." MassDEP will not permit a holding tank for the industrial wastewater from the Project given the presence of the sewer connection on the site. DEP.3

The DEIR describes the dust control and odor control misting system that will be installed in the proposed building. The Proponent states that during the winter months (generally from December through March) the system will be deactivated as necessary to prevent freezing in the misting system lines. The Proponent should discuss measures that will be employed to actively control dust and odors within the building continuously through the year. DEP.4

The Proponent should consider building ventilation and air filtration in the roof or building side to control odors and fugitive dust emission in addition to wet spray applications during the winter months. DEP.5

Wetlands

The Project includes work within wetland buffer zone, so a Notice of Intent (NOI) is required to be filed with the Hudson Conservation Commission (the "Commission"). The Commission will review the NOI and MassDEP may provide comments as part of the File Number Issuance Notification Letter. DEP.6

MassDEP appreciates the opportunity to comment on the Project. If you have any questions regarding these comments, please do not hesitate to contact JoAnne Kasper-Dunne, Central Regional Office MEPA Coordinator, at (508) 767-2716.

Very truly yours,

Mary Jude Pigsley
Regional Director

cc: Commissioner's Office, MassDEP

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP.1 **The Proponent should describe the respective volumes of MSW, C&D materials, and recyclable materials. The Proponent should provide information that demonstrates that the building's material handling footprint is sufficiently sized to support the expected volume of materials to be received. MassDEP anticipates the permitting of the Project to include a condition limiting the TPD of inbound recyclables based on the capacity limitations of the building.**

Section 3.2 of the FEIR describes the volumes of MSW, C&D materials, and recyclable materials that will be received at the proposed facility. Section 3.2 also provides a detailed discussion demonstrating that the building's material handling footprint is sufficiently sized to support the volume of materials to be received.

DEP.2 **The Proponent should indicate where the outbound loads of C&D will be delivered, and if delivered to an out-of-state processing facility(ies), then provide documentation that the facility(ies) conforms to MassDEP MPS performance criteria.**

Section 3.3 of the FEIR provides information indicating where the outbound loads of C&D will be delivered and confirms that the destination facility conforms to MassDEP MPS performance criteria.

DEP.3 **The DEIR states that the sanitary sewer service for the office/administration space will tie to the Hudson municipal sewer system and the wastewater from the floor drain system will be directed through an oil/water separator, commonly referred to as an MDC trap, and then into a pre-cast concrete holding tank (tight tank) for storage. Section 314 CMR 18.05(1) states in relevant part – "No facility may use a holding tank to accumulate or store on-site generated or off-site generated industrial wastewater prior to shipping for off-site treatment or disposal if it is or becomes feasible to discharge the industrial wastewater to a sewer system." MassDEP will not permit a holding tank for the industrial wastewater from the Project given the presence of the sewer connection on the site.**

Industrial wastewater generated from the building's floor drain system, after having been conveyed through an MDC trap, will tie to the Hudson municipal sewer system.

DEP.4 **The Proponent should discuss measures that will be employed to actively control dust and odors within the building continuously through the year.**

The building's proposed odor and dust control system is described in Section 3.4.1 of the FEIR. The system will be installed with auto drain lines at the low point in the hydraulic feed lines. These will drain the pumps and feed lines to prevent freezing, allowing the system to operate throughout the year.

DEP.5 **The Proponent should consider building ventilation and air filtration in the roof or building side to control odors and fugitive dust emission in addition to wet spray applications during the winter months.**

The building's ventilation system will be designed to account for considerations such as odor and dust control, as well as management of emissions from mobile equipment operating on the tipping floor. Air filtration options and ventilation needs, including the location of ventilation components such as air intake louvers and exhaust fans, will be identified as part of the mechanical system design for the building.

DEP.6 **The Project includes work within wetland buffer zone, so a Notice of Intent (NOI) is required to be filed with the Hudson Conservation Commission (the "Commission"). The Commission will review the NOI and MassDEP may provide comments as part of the File Number Issuance Notification Letter.**

The Proponent will submit the required filing(s) after the MEPA process has concluded.

]

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF
ENERGY AND ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENERGY RESOURCES
100 CAMBRIDGE ST., SUITE 1020
BOSTON, MA 02114
Telephone: 617-626-7300
Facsimile: 617-727-0030

Maura Healey
Governor

Kim Driscoll
Lt. Governor

Rebecca Tepper
Secretary

Elizabeth Mahony
Commissioner

14 May 2024

Rebecca Tepper, Secretary
Executive Office of Energy & Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02114
Attn: MEPA Unit

RE: Hudson Solid Waste Transfer Station & Recycling Factory, Hudson, MA, DEIR #16586

cc: Jo Ann Bodemer, Director of Energy Efficiency, Department of Energy Resources
Elizabeth Mahony, Commissioner, Department of Energy Resources

Dear Secretary Tepper:

We've reviewed the Draft Environmental Impact Report (DEIR) for the proposed project. The project includes a 3,000 SF conditioned office space, adjoining a 53,000 SF unconditioned transfer station building. There will be 25 new parking spaces.

Executive Summary

Hudson is a Stretch Code town. Accordingly, code minimum is Massachusetts Stretch Energy Code (IECC 2021 with MA and Stretch Code Amendments). More information can be found here: Stretch Energy Code FAQ.

As an above-code GHG mitigation measure, we recommend improved air infiltration limits (Option 8 of Section C406) and electric air source heat pump space and water heating. There should be no use of gas. DOER.1

Sincerely,
Massachusetts Department of Energy Resources

Becca Edson
Decarbonization Architect

Paul F. Ormond, P.E.
Energy Efficiency Engineer

DEPARTMENT OF ENERGY RESOURCES

DOER.1 **As an above-code GHG mitigation measure, we recommend improved air infiltration limits (Option 8 of Section C406) and electric air source heat pump space and water heating. There should be no use of gas.**

The Proponent will continue to investigate measures to reduce the energy required to heat and cool conditioned spaces. The Project has no proposed use of natural gas.

7.2 Questions from the Public

Miliani, Amina (EEA)

From: Ahearn, Jeff <Jeff.Ahearn@fmr.com>
Sent: Tuesday, April 23, 2024 12:55 PM
To: Miliani, Amina (EEA)
Subject: Hudson Recycling Center / BP

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Amina,

I'm taking this opportunity to give feedback regarding the upcoming BP expansion at the Hudson Recycling Center

For however many years BP has been running the current center, it has been an eyesore, disgusting, smelly, you name it

Their personnel have been nothing but rude and unhelpful each and every time I have used them, without exception

I have read countless posts on social media regarding the above and our town will not address it, and now they want to reward this company, BP, with a huge contract to more than double our already poorly run system

I was also approached by a member of our Select Board with regard to the issue, and did not hear back

I'd just like to send my two cents, please don't allow this to happen

Thank you

Jeff Ahearn

6 Merritt Drive
Hudson, MA 01749

gusburnz@gmail.com

May 8, 2024

Amina Miliani
MEPA Analyst
amina.miliani@mass.gov

Amina,

The attached is a comment upon the “Hudson Solid Waste Station” Draft Environmental Impact Report (DEIR) submitted to MEPA by Epsilon Associates on behalf of B-P Trucking under MEPA EEA #16586. Please include this as a Public Comment for the Project.

Regards,
James Carvalho
3D Autumn Drive
Hudson, MA 01749
jbcarvalho@verizon.net

Hudson Solid Waste Station EEA #16586

https://www.communityadvocate.com/2023/07/27/plans-for-hudson-transfer-station-call-for-doubling-capacity/

The question is why?

On April 13th my neighbor Mike posted this on a facebook local group page:
"*Please look at the town website for information on the expansion of the transfer station on Cox Street. B-P Trucking, who runs the station, wants to more than double it's capacity. The question is why*?"

Indeed. With little online research I found that what he said was true. An article in our local newspaper, the Community Advocate, confirmed it. Further research at the MEPA Monitor reveals that this project is currently under review by MEPA, the"Hudson Solid Waste Station". MEPA Monitor Projects Under Review shows a Draft Environmental Impact Report (DEIR) submitted to MEPA by Epsilon Associates on behalf of B-P Trucking. The Project is being tracked under MEPA EEA #16586.

This expansion of the Hudson Solid Waste Station requires MassDEP approval. The DEIR submitted by Epsilon, an impressive document, presents the case in favor of approving this expansion for B-P Trucking at the site in Hudson. The DEIR declares that the expansion is allowed at the proposed location in Hudson and that it is needed.

I believe that most of the citizens of Hudson are unaware that the proposed new Transfer Station off Cox is not a modernization of the current transfer station certified for a capacity of 350 tons per day but in fact a massive expansion in which B-P trucking is requesting certification for handling 850 tons of solid waste per day, a massive expansion. MEPA deserves additional views of the impact of this project from the perspective of citizens of Hudson to inform the MassDEP decision to approve, disapprove or approve with reasonable limitations and conditions. Public awareness of this project has been limited to date. But, now is the time for the citizens of Hudson to provide their view of the project. I will share some of my recent research on this project in the following pages. It is my hope that others will also.

How did we get here?

My research indicates, and the Secretary's ENF certificate confirms, Hudson transitioned from a sanitary landill (off Gates Pond Road) to the solid waste transfer station model beginning sometime around 1988 and began operating in 1996. B-P Trucking has been operating the Hudson Solid Waste Transfer Station off Cox Street on town owned land since 1999, a 25 year service to the town of Hudson. The current Transfer Station building is in poor shape. Our former fire chief reported that there have been fires at the site in the past. The resident drop of area could use a lot of improvement. The transfer station is set back 350 feet from Cox Street near the Mulready Elementary School. It is long past time for improved operation of the Hudson Transfer Station. However, expansion which will increase the current 350 tons of solid waste per day to 850 tons per day is not necessary in order to improve the transfer station operation for Hudson's current and projected transfer station needs.

At the November 14, 2020 Special Town Meeting, of the legal voters of the Town of Hudson, duly called and warned, and held outside at Hudson High School parking lot, **Saturday, November 14th** at 12PM with a quorum present (Board of Selectmen voted in accordance with Chapter 92 of the Acts of 2020, section 7, to reduce its required quorum of 150 to 70 registered voters for this Special Town Meeting) and under **Article 17** of the Warrant calling said meeting, which was

ARTICLE 17 Transfer Station Leasing Contract
To see if the Town will vote to authorize the Board of Health with the approval of the Board of Selectmen to enter into any lease for the operation for the Town transfer station for a term not to exceed twenty (20) years, or take any other action relative thereto.

THE FOLLOWING ACTION WAS TAKEN:

UNANIMOUSLY VOTED to adopt the subject matter of this article to authorize the Board of Health with the approval of the Board of Selectmen to enter into any lease for the operation for the Town transfer station for a term not to exceed twenty (20) years.

I was at that Special Town Meeting. As presented this was a reasonable request to allow the Board of Selectmen, now Select Board, to negotiate a new lease for the town owned property where the transfer station is located. I do not recall any mention that this new lease would entail the expansion from 350 ton/day capacity to 850 ton/day. Noted that “enter into any lease” bestowed trust that the Board of Selectmen would execute this lease to the benefit of the town.

At the December 16, 2021 Select Board meeting, the Board approved a 20 year lease to B-P Trucking 4-1-0. This 35 page rental agreement https://tinyurl.com/3xr5h4tm mostly consisting of rental boiler plate with little “rules of the tenancy”. The lease contains few specifics of operation excepting - “will not...constitute a nuisance, public or private”, “B-P to construct and operate a Solid Waste Transfer Station for the purposes of managing the municipal solid waste generated within the Town of Hudson.” This lease included rental consideration of $120/year, 33 cents per day. There were no provisions in the lease establishing limitations of solid waste to be handled by B-P at this location. There is reference to a Solid Waste Management Agreement (SWMA), however, that is not part of the lease. The trust bestowed upon the Hudson Select Board at that November, 2020 Town Meeting was extended to B-P Trucking by this rental agreement.

The current situation:

The terms of the rental agreement allows B-P to operate a solid waste transfer station at the Cox Street, Hudson location without any limitations on capacity and so B-P Trucking is planning on an 850 ton/day solid waster transfer station. Page 34 of the DEIR accounts for the projected increase of 500 tons/day (TPD) of solid waste.

1) reserve if other locations are not available 100 TPB
2) additional capacity for third party customers 250 TPB
3) additional capacity for construction and demolition 150 TPD

This increase is NOT beneficial to Hudson. In fact, at a zoom presentation B-P disclosed that currently the Hudson Transfer Station handles solid waste not only from Hudson but also Wayland, Sudbury, Berlin, Bolton and other communities. The solid waste generated from Hudson alone is roughly 60 tons/day with the remaining coming from these other communities.

The Hudson Protective Zoning Bylaws does not permit "as of right" the operation of a transfer station in the IA industrial zone where the current Hudson transfer station is located.
https://www.townofhudson.org/sites/g/files/vyhlif3281/f/uploads/zoning_booklet_with_updates_sent_to_ags_office_final_4.10.24_1.pdf page 125
https://www.townofhudson.org/sites/g/files/vyhlif3281/f/uploads/nov._2023_map_and_overlay_districts_2.pdf page 1
This would appear to be a pre-existing non-conforming use of the property. The Hudson Zoning Bylaws provides for pre-existing properties (page 17). "*5.1.6 Nonconforming Structures The Zoning Board of Appeals may grant a special permit to reconstruct, extend, alter, or change a nonconforming structure in accordance with this Section only if it determines that such reconstruction, extension, alteration, or change shall not be substantially more detrimental than the existing nonconforming structure to the neighborhood.* " This would appear to have the project come under the jurisdiction of the Hudson Zoning Board of Appeals. But, I am not a land law expert. This needs further investigation. DEIR question P.8 indicates ZBA approval is not required. Otherwise, Hudson zoning approval comes under the jurisdiction of the Hudson Planning Board. The Hudson Planning Board has little ability under the Hudson Zoning Bylaws to disapprove this project if it conforms to the Zoning Bylaws. In effect, the Hudson Planning Board may 1) approve or 2) approve with "reasonable conditions". And, in effect, the expectation is that if B-P feels that the "reasonable conditions" are unreasonable they will appeal to Land Court and overturn these conditions.

Hudson, it appears, pending clarification of the jurisdiction of the Hudson ZBA, by virtue of the lease agreement and the Hudson Protective Zoning Bylaws, has ceded it's ability to disapprove this project. Therefore, it appears, disapproval by MassDEP to expand the Hudson Transfer Station from 350 TPB to 850 TPB remains the only significant limitation on this project.

The currently permitted 350 tons/day (TPD) capacity at the Hudson Transfer Station already characterizes Hudson as LGTRAN, a large transfer station. The proposed increase to 850 TPD will make Hudson a super LGTRAN facility, a regional solid waste hub, with a capacity matched by only 10 LGTRAN facilities in the whole state.
https://www.mass.gov/doc/list-of-active-handling-facilities-in-massachusetts-june-2023/download

III. Summary of Handling Facilities

Active Handling Facililties by DEP Region

Count of Classifications	*DEP Region* Central	Northeast	Southeast	Western	*Totals*
LGTRAN - Large Transfer Station	10	10	11	8	39
SMTRAN - Small Transfer Station	32	18	51	80	181
CDLG - Large C&D Processing Facility	6	2	7	1	16
CDSM - Small C&D Processing Facility	0	0	0	0	0
LGHNDL - Large Handling Facility	2	1	6	0	9
SMHNDL - Small Handling Facility	1	0	4	0	5
CMPOST - Site Assigned Compost Facility	0	0	1	0	1
All Handling Facility Classifications	51	31	80	89	251
Sum of Annual Tons					
Annual Tons for all Handling Facilities	1,684,082	1,166,211	3,176,291	816,987	6,843,571

The impact of this expanded capacity at the Hudson Transfer Station will be a benefit to the greater community but will impact the Town. The improvements for Hudson drop-off facilities do not justify the 500 TPD expansion. A modernized transfer station at the currently permitted 350 TPD level would provide equivalent benefit to Hudson.

DEIR P.1 is not answered? What is the Hudson benefit to justify the 500 TPD expansion?

What can be done?

Few people in Hudson are even aware of this project and it's potential impact to the Town. Secretary Tepper must not issue certification for the expansion of the Hudson Transfer Station from 350 TPD to 850 TPD based upon this DEIR. Further public input from citizens of Hudson is needed.

MEPA should enact a "Special Review Procedure" or other procedural steps, to extend the Public Comment date beyond 5/10/24 to allow more time for public input.

MEPA should required a formal Public Benefit Determination of this proposed expansion for Hudson.

I believe MEPA can require a Final Environmental Impact Report (FEIR) before certification at 850 TPD is approved. This will allow more time for public input. Please confirm that an FEIR on this project is required.

"MassDEP's mission is to protect and enhance the Commonwealth's natural resources - air, water, and land - to provide for the health, safety, and welfare of all people, and to ensure a clean and safe environment for future generations."
https://www.mass.gov/orgs/massachusetts-department-of-environmental-protection

Peer Review of Vanasse & Associates Traffic Impact Analysis (TIA)

Vanasse & Associates has conducted an impressive and extensive analysis of the traffic impact resulting from the proposed Hudson Hudson Solid Waste Transfer Station and Recycling Facility for this DEIR. A peer review of the materials prepared for the proposed Hudson Transfer Station is nonetheless needed. The purpose of the review is to ensure that the traffic analysis conforms to industry standards, to confirm that the traffic study methods are appropriate for the setting, and to ensure that the recommendations and proposed mitigation adequately address potential project impacts. review of the methodology and assumptions used in the TIA Based on the analysis provided in the TIA, the surrounding roadways and intersections have capacity to handle the increase in traffic volumes, but it is unclear whether the proposed mitigation will be adequate to maintain the same or better traffic operations as before the Project. JC.1

Will MEPA require a peer review of the Vanasse & Associates Transportation study?

Trust but Verify On-going Traffic Measurements:

The proponent must conduct subsequent traffic measurements commencing approximately 6 months after the new transfer station is operational and continuing for 2 years. The results of these additional traffic measurements must be available to the Town of Hudson and the public as a report on the internet. In case the actual measured traffic volumes exceed the TIA estimated levels by more than 10%, B-P Trucking must implement additional mitigation to address the actual measured levels of traffic.

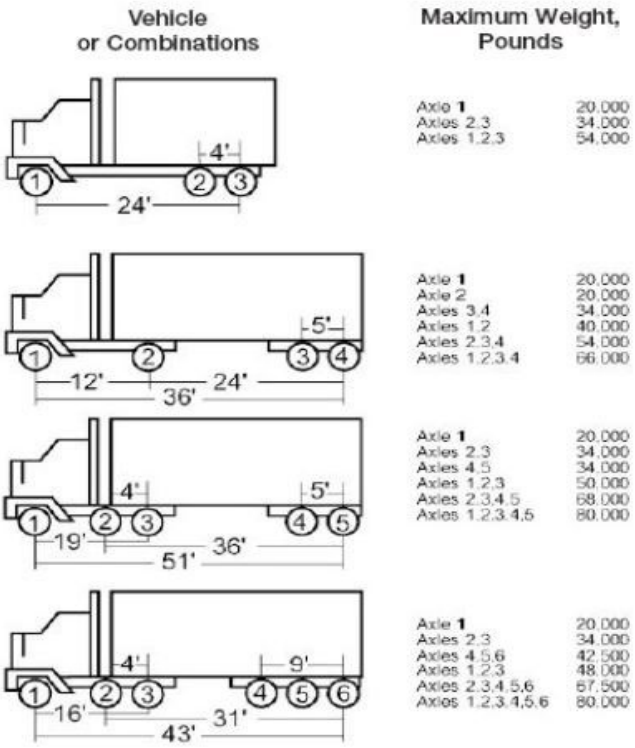
Will B-P Trucking commit to an on-going traffic monitoring of the new transfer station? JC.2

Pavement Impact Analysis/Long Term Pavement Maintenance:

As part of the trip generation calculation for the new and greatly expanded capacity at the Hudson Transfer Station, there needs to be an analysis of the distribution of truck and tractor trailer trips by anticipated gross weight. JC.3

"Engineers estimate that a fully loaded truck--a five-axle rig weighing 80,000 pounds, the interstate maximum (WB-65) *--causes more damage to a highway than 5,000 cars. Some road planners say that the toll is even higher, that it would take close to 10,000 cars to equal the damage caused by one heavy truck.*

Pavement designed to last 20 years wears out in seven."
In order to correctly evaluate the long term pavement analysis of Hudson's roads to/from the new Hudson Transfer Station it is important to know not only the number of added trips but also the gross weight and truck vehicle configuration of these trips.
http://tinyurl.com/5vckdwpa
https://tinyurl.com/46rh3dz7



The AASHO Road Test was a multiyear experiment conducted by the American Association of State Highway Officials (AASHO). This experiment developed a methodology for predicting the impact of heavy trucks vs passenger automobiles upon roadways known as the Generalized Fourth Power Law

$$\left(\frac{W_1}{W_2}\right)^4$$

It's a rule of thumb for comparing the amount of pavement damage caused by vehicles with different weights, in terms of axle loads: In the equation, W1 is the weight of an axle on vehicle 1, which we would compare to W2, the weight of an axle on vehicle 2.
https://en.wikipedia.org/wiki/Fourth_power_law

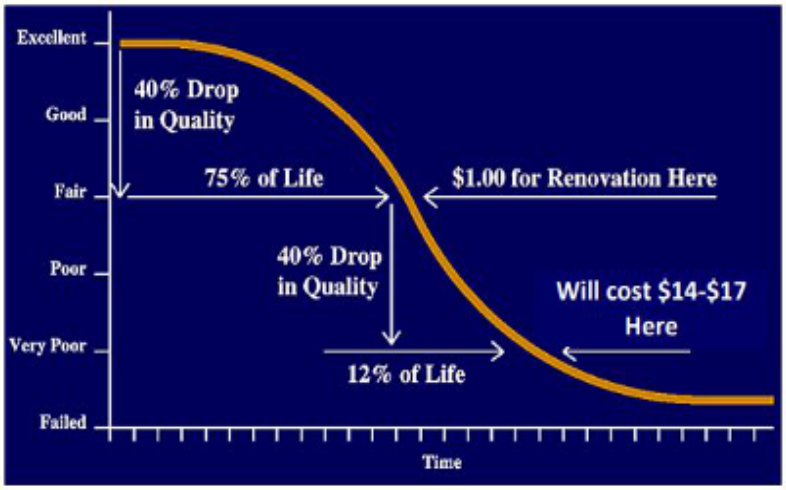
Step 1 would be an evaluation of the current Pavement Condition Index (PCI) of the roadways to/from the current Hudson Transfer Station. The PCI is a numerical index between 0 and 100, which is used to indicate the general condition of a pavement section. The condition of Cox Street by the current transfer station should be excellent since it is currently being milled and faved. The PCI is widely used to measure the performance of road infrastructure and their required level of service. This needs a manual survey of the existing pavement for all proposed truck routes, including borings of the pavement, to American Society for Testing and Materials standards (ASTM D6433 - 20) by professional transportation civil engineering experts.
https://en.wikipedia.org/wiki/Pavement_condition_index

Step 2 would be to use the current PCI and the gross weight pavement trip estimates to perform pavement deterioration modeling in order to predict the impact on roadway maintenance resulting from the trip generation to/from the property. Larger volumes of traffic and heavier vehicles such as trucks are correlated with faster pavement degradation.
https://en.wikipedia.org/wiki/Pavement_performance_modeling

With the increased traffic resulting from this transfer station expansion and new travel routes are established it must be confirmed that Hudson roadways meet Mass DOT Standards.
https://www.mass.gov/doc/2020-standard-specifications-for-highways-and-bridges/download

These steps are needed to inform the Hudson Department of Public Works (DPW) managerial approach to roadway deterioration and the added cost for roadway maintenance for the taxpayers of Hudson. Hudson DPW has a long term maintenance strategy. The DPW needs to know if more frequent maintenance is needed and plan for the associated cost. Referencing the 2017 Hudson Pavement Management Study, if maintenance is not done on schedule, later correction can be very expensive.

Figure 1 Typical Pavement Deterioration Curve



Will B-P Trucking commit to provide a pavement impact analysis for this project?

Vector Arithmetic:

P.12 **How will the new facility avoid and minimize rodents?**

A vector control program, conducted by a professional exterminating service, will be in-place at the proposed facility. The exterminating service will conduct routine inspections, set and collect trap stations, and advise the Proponent on housekeeping activities aimed at improving vector control as needed.

Mice and rats are primary carriers of disease and fleas. Diseases can be contracted through contact with rodents, rodent droppings, rodent urine. Hantavirus Pulmonary Syndrome (HPS) can be caused by contact with rodent urine, droppings.

https://www.epa.gov/ipm/rodents-and-schools

Rodent
Photo Credit: USDA

Rodents tend to seek shelter in colder weather. Due to the proximity of the new transfer station to the Mulready School, rodents may seek there a warm heated indoor environment for winter. If rodents can gain a foothold in a facility as sizable as the Mulready Elementary School, an infestation poses a serious health risk to students.

Will B-P Trucking extend their exterminating service protection to include the Mulready Elementary School, at no cost to the Town of Hudson? JC.4

There may be snow on the roof, but there's fire....:

P.13 **How much material will be stored onsite overnight?**

As part of normal facility operations, storage of material within the building will occur overnight and would be loaded into trailers the following operating day. In general, the quantity of material in the building is not expected to exceed one day's worth of permitted capacity. Other overnight storage would occur when needed for holding full trailers before transporting them off-site. Under normal operations, this temporary full vehicle layover would typically not exceed 24 hours, except for trailers filled towards the end of a Friday and requiring storage until the following Monday.

This answer in the ENF regarding onsite overnight storage indicates that fully loaded semi-trailers may be left overnight, over the weekend, during the winter. Snow is going to accumulate on the roofs of these trucks and this will represent a safety concern to others on Hudson roadways or beyond if that snow isn't removed before the truck exits the new transfer station driveway.

Falling snow builds up on packer trucks and roll-off trucks as well if stored overnight at the property or even during travel to the transfer station in winter.

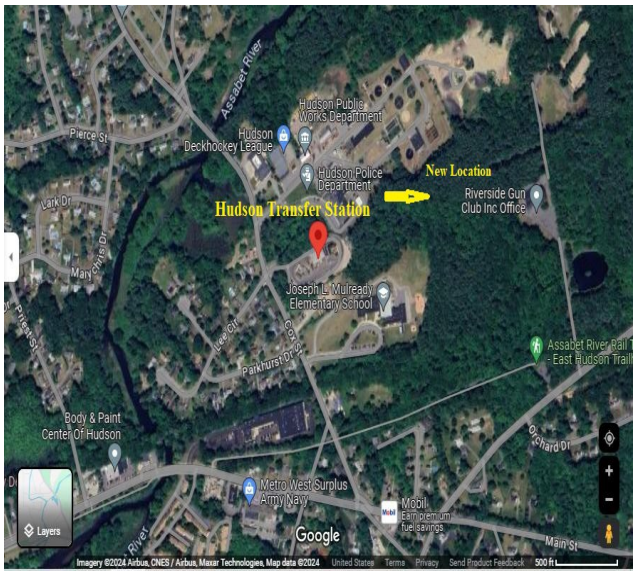
Snow and ice dislodged from a moving vehicle can cause injury and property damage. Semi-trailer drivers must make all reasonable efforts to remove accumulated ice or snow from the roof of their trailer. Removing snow and ice from the roof of a semi-trailer can be dangerous to the driver. If ice from a vehicle hurts or kills someone, the driver will wind up in civil court and could wind up facing criminal charges. Massachusetts law Chapter 85, Section 36, which covers unsecured loads can lead to a civil violation which carries fines of up to $200. Chapter 90, Section 24, which covers reckless or negligent operation of a motor vehicle can lead to a criminal citation.

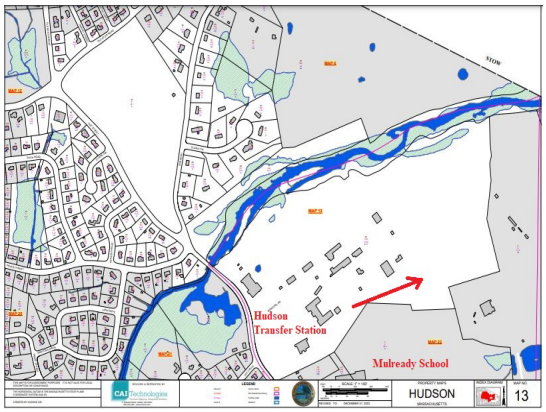
Trucks leaving the transfer station with ice and snow on the truck roof is a danger to vehicles following on Hudson roads and on the highway. B-P Trucking needs to include provisions for safe truck snow removal located near a snow storage area. One method of removal is an automated snow removal fixture, safe travel for trucks, safe removal for drivers who would otherwise have to climb to the top of the truck to remove the snow.

JC.5

What provisions will B-P trucking provide in the new transfer station design to incorporate safe removal of snow and ice on the top of trucks before exiting the transfer station driveway?

Is Hudson the right site?





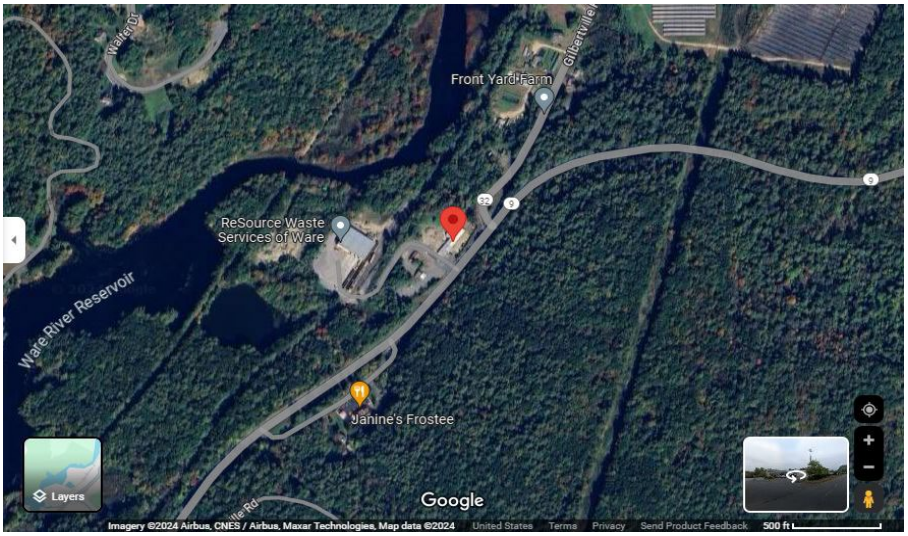
Assessors Map 13

As these maps indicate the current Hudson Transfer Station is located in close proximity to not only the Mulready Elementary School but also by many residential properties both west and north. Relocating the transfer station further into the rear of the property from Cox Street would be an improvement, provide more separation from the neighbors. But, the capacity increased from 350 TPD to 850 TPD proposed will work against this improvement. It will put stress upon the neighboring Hudson Rod and Gun Club at the new location.

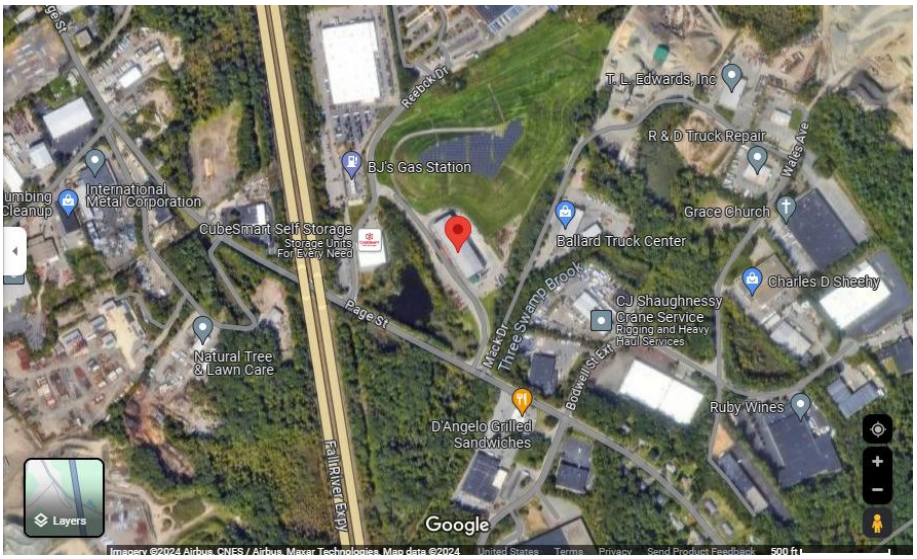
MassDEP has a Master File of Active Handling Facilities throughout Massachusetts. https://www.mass.gov/doc/list-of-active-handling-facilities-in-massachusetts-june-2023/download The Hudson Transfer Station, at the currently permitted 350 TPD, is already listed as LGTRAN (Large Transfer Station), one of only 39 in the state, only 10 in central Mass. Fewer of the transfer stations in the state reach the level of the proposed 850 TPD capacity.

Compare the siting of this proposed super LGTRAN transfer station to some others:

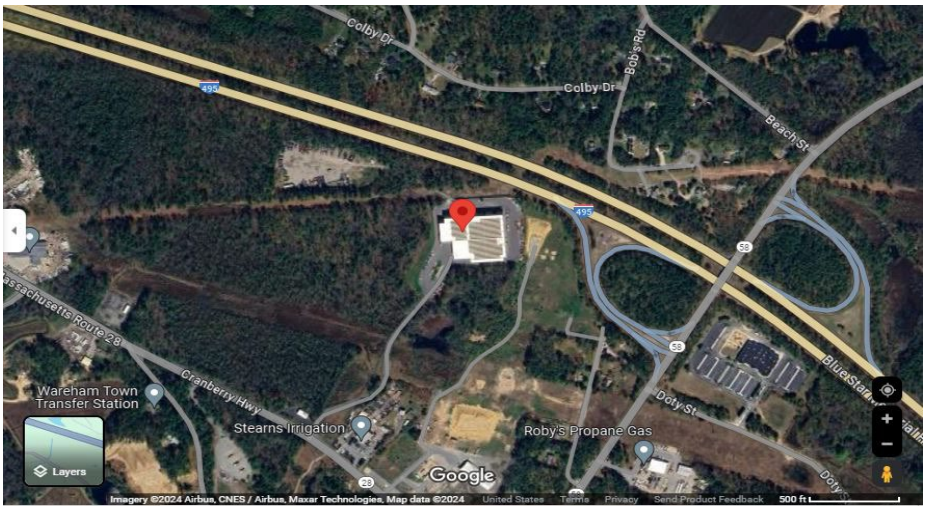
Devens Recycling Center, 45 Independence Drive – 1500 TPD



Resource Ware, 198 East Street, Ware – 750 TPD

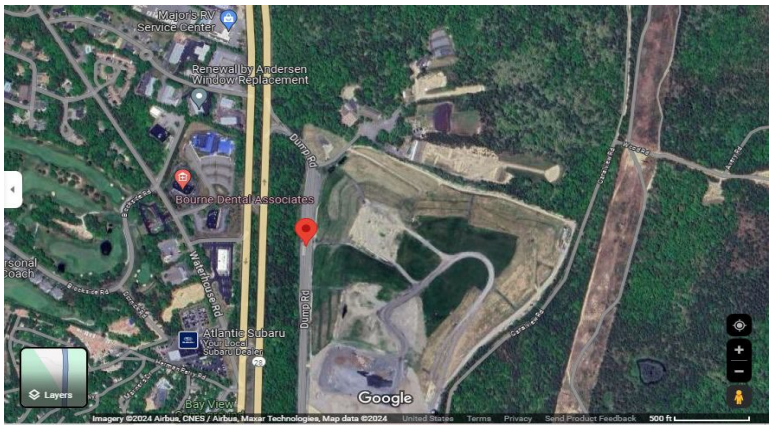


Stoughton Recycling Technologies, Stoughton – 800 TPD



New Bedford Waste, Rochester – 890 TPD

Southbridge Recycling, Southbridge – 940 TPD



Bourne Transfer Station – 825 TPD

These examples illustrate that other LGTRAN super large transfer stations are located in rural or industrial locations with little residential property or schools nearby. Hudson appears to already be an exception. When evaluating the requested 850 TPD permit, further consideration must be given to the impact on the Mulready Elementary School and the homes nearby.

Noted that in the town of Stoughton a proposed recycling center much lower in scope was not permitted because that location was to be in the neighborhood of the O'Connel Middle School. https://www.boston25news.com/news/residents-concerned-new-recycling-plant-may-increase-traffic-near-schools/725790344/

A large transfer station in Holbrook appears to have failed to get approval over traffic concerns. https://www.wickedlocal.com/story/journal-sun/2018/07/24/neighbors-again-protest-transfer-station/11390419007/

Does MEPA consider the Cox Street, Hudson, with residential property and an elementary school the right neighborhood for permitting an 850 TPD super LGTRAN transfer station?.

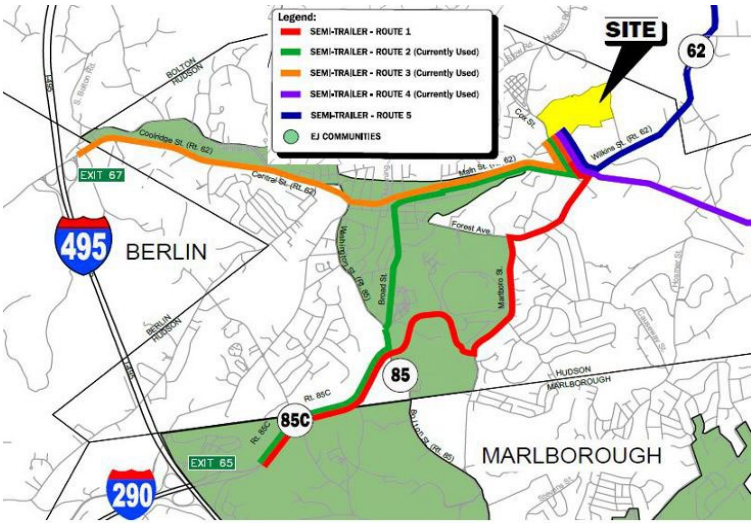
What about Reed Road, Hudson?

The DEIR includes proponent answers to questions originally raised during the ENF stage of the MEPA process. The question "will Reed Road be used?".

P.17 **What are the proposed trucking routes and will Reed Road be used?**

The proposed trucking routes are shown on Figure 7-8, provided in Chapter 7. As is the current case, the Proponent may use its collection vehicles to provide service to customers that are located on and within the Reed Road development area. The Proponent's semi-trailers will not use Reed Road.

That answer, is incomplete.



Page 108 of the DEIR shows a map of semi-trailer truck routes in the study. New semi-trailer Route 1 includes Forest Avenue-Marlboro Street-Reed Road-Technology Drive to travel to/from the New Hudson Transfer Station on Cox Street and the Route 85C connector to Route 290/495. That new route, if used, will utilize Reed Road. Vanasse & Associates goes into detail documenting the tight turns at intersections and concludes that Route 1 is not suitable for semi-trailer traffic.

CONCLUSIONS

Based upon VAI's route analysis, we have concluded that Routes 1 and 5 are not suitable for use by semi-trailer trucks. In all the studied intersections along Route 1, it was found that if semi-trailers were to use this route they would, at various locations, obstruct adjacent lanes at the start of their turns, encroach on opposing lanes at the end of their turns, and/or affect adjacent curbs or sidewalks during the turning process. While it is technically possible to navigate this route, it is important to emphasize that, from a safety standpoint, we strongly discourage its use. Given the identified weight restrictions along Route 5, this alternative route also does not offer a feasible solution for accommodating the semi-trailer traffic.

The answer in the DEIR indicates that the proponent's semi-trailers will not use Route 1. This answer does not indicate whether 3rd party semi-trailers who frequent the new transfer station will utilize this route.

Further, the answer says packer trucks servicing the solid waste pickup of customers along this route will, of necessity, travel these roads. But, it does not say anything about B-P trucks from other communities using Route 1 for heavy packer and rolloff trucks. At the public zoom call on April 27 B-P Trucking indicated that each of it's trucks include GPS tracking, allowing B-P to monitor the travel of their trucks, to establish permissible routes to be used and to initiate corrective action if drivers violate those routes. The expectation is that B-P Trucking will restrict all of it's own trucks from Route 1 excepting for local solid waste pickup as a condition of certification approval. However, this answer does not indicate that 3rd party packer and rolloff trucks will not use Route 1. The massive expansion of the certification of this new transfer station, as indicated in the DEIR, will increase truck traffic in Hudson. I live in an over 55 development off Reed Road. Big trucks use Reed Road all the time.

Vanasse and Associates needs to provide more specific expectations for the use of Route 1 for the proposed transfer station and it's impact on local traffic. JC.6

Development of the former Intel property off Reed Road will also impact traffic on Route 1 when that is approved. MEPA project EEA #16585 proposed redevelopment of this property. The DEIR for this project detailed the potential traffic impact of full development. Although this project was withdrawn, the projections in EEA #16585 should be incorporated into the evaluation of the traffic impact on Reed Road on Route 1.

Will B-P Trucking provide a detailed Traffic Impact Analysis of proposed Route 1 incorporating the previous impact analysis from EEA #16585 75 Reed Road redevelopment?

Project Driveway:

7.6.1.1 Project Access

Access to the Project site will be provided via one new driveway onto Cox Street. The following recommendations are offered with respect to the design and operation of the Project site driveway:

- The driveway should be placed under STOP-sign *(Manual on Uniform Traffic Control Devices (MUTCD)[15] R1-1)* control, with a painted STOP-bar included.

23 Code of Federal Regulations (CFR), Part 655, Subpart F

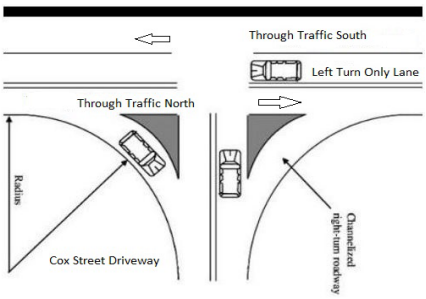
What signage is recommended for the transfer station driveway area?

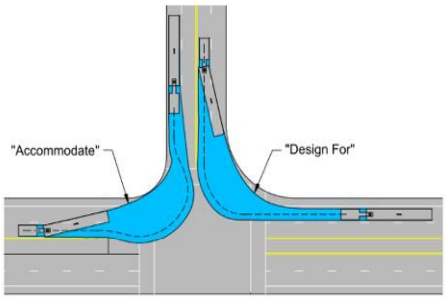
JC.7

The Vanasse and Associates traffic report in the DEIR recommends STOP-sign control at the new transfer station driveway on Cox Street. Expectation is that this means a 3-way STOP, north and south on Cox Street and at the project driveway. Since the new transfer station will require a new driveway the MUTD criteria Warrant 7, crash experience, can't be measured because it will take years to accumulate statistically significant data on this new intersection with the much higher truck traffic. In part the Vanasse and Associates recommendation must have been based upon their extensive experience analyzing similar intersections with similar traffic flow.

One of the MUTD "warrants", Warrant 8, seems to address the physical characteristics of the road location. The traffic increase at this driveway will be packer, roll-off truck and semi-trailers. Semi-trailers will not be allowed southbound on Cox Street. A channelized right turn northbound to accomodate semi-trailers may have merit and should be considered. Vanasse and Associates needs to be asked to include their professional review the option of the widening of Cox Street at the project driveway to include a southbound dedicated left turn lane as part of their Transportation report. Widening "designed for" the way large trucks actually turn as opposed to be able to "accomodate" turns which encroach upon other lanes. Potentially this widening study will show improved the level of service and safety of the new intersection with much less cost than installing signalized control (traffic lights) at this intersection. Widening in this case would be done on the Hudson owned side of Cox Street and would thus not involve any "taking" of residential property. In case widening of Cox Street at this location has significan merit it should become a mandatory condition for approval of the expanded capacity of the proposed transfer station for the convenience and safety of drivers using this section of Cox Street and the Town of Hudson must agree.

Dedicated left-turn only lane (at 75 Reed Road)



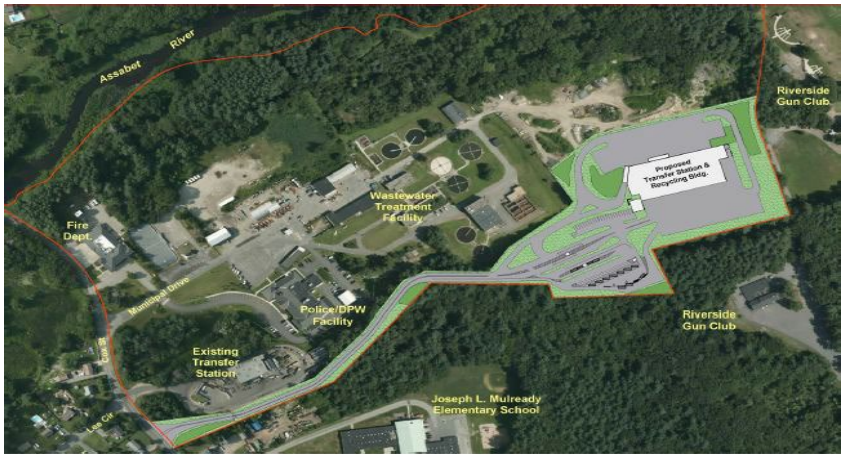


Will B-P Trucking engage with the Town of Hudson to recommend widening of Cox Street at the project driveway to incorporate a dedicated left-turn only lane for southbound access? JC.8

Trust But Verify Air Quality, PM2.5:

"*Background concentrations were obtained from the closest available monitoring stations to the Project Site. The next closest monitor, in Worcester (16 miles west) was used.*"

"*Air quality in the vicinity of the Project Site is generally good, with all local background concentrations found to be well below the NAAQS.*" DEIR page 60



Theoretically, operation of the expanded transfer station will have no air quality health impact in the vicinity of the Project Site. However, the health of elementary school children at the Mulready Elementary School is not a theoretical. The lungs of young children in K through 4th grade are still developing. Those lungs get exposed to the ambient air during recess. The NIH shows a strong correlation between $PM_{2.5}$ pollution and child respiratory tract diseases.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5445216/

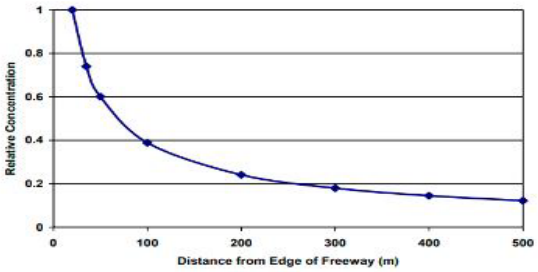
A greatly expanded number of diesel trucks will pass by the Mulready Elementary School on the project roadway. The DEIR indicates that a typical time for trucks between entering and leaving the driveway will be about 15 minutes. At peak times there may be queuing and delays. The proponent will attempt to have trucks operate in accordance with the Massachusetts 5 minute idling law. (Mass. General Laws, chapter 90 sec. 16A) Signs will be displayed, employees will be trained but

as we have seen elsewhere there may be little enforcement. Good NAAQS PM2.5 levels in Worcester 12 miles away will be of little comfort for parents of Mulready Elementary School children.

Fortunately modern technology has made available low cost air quality measurement equipment. Air quality measurement devices are made by PurpleAir of Draper, Utah and others. These sensors use laser particle counters to count the number of particles by particle sizes 0.3, 0.5, 1, 2.5, 5, and 10 µm, and use the count data to calculate mass concentrations of $PM_{1.0,}$ $PM_{2.5}$, and PM_{10}. The PurpleAir PA-II is an air quality sensor that measures real-time $PM_{2.5}$ concentrations for residential, commercial, or industrial use. Built-in WiFi enables the air quality measurement device to transmit it's data to a smart phone. The SD edition includes an onboard SD logger to record and store data without a WiFi connection.

A condition of certificate approval must include a requirement to establish an air quality monitoring program at the new transfer station. Air quality readings need to be electronically available, periodically, to the Hudson Board of Health and the general public, on the B-P Trucking Hudson website or an appropriate social media page. Measurements which exceed the NAAQS PM2.5 recommended levels need to be communicated immediately to the Hudson Board of Health and the Mulready Elementary School administration. Air quality measurement devices should be installed as close as reasonable to the Mulready Elementary School. Alternately the devices could be located near the point source of maximum PM2.5 pollution such as near the 2,000 sq ft office and administration building but with the same NAAQS standard. B-P Trucking must commit to mediation to restore air quality to recommended levels if air quality measurements are found to exceed NAAQS standards.

How Separation from Diesel Pollution Source Reduces PM2.5 Concentration



This chart predicts $PM_{2.5}$ will dissipate to about 15% intensity by 500 feet, prevailing winds nothwithstanding**.**
http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/chapter-2---air-quality-issues-regarding-land-use.pdf

Will B-P Trucking commit to on-going air quality measurements at the transfer station in the vicinity of the Mulready Elementary School? JC.9

Unconditioned Work Area, Equipment, Emergency Power – Mass 2050 Zero Emissions Goal:

The Massachusetts' Clean Energy and Climate Plan calls for a 33% Green House Gas reduction by 2025 and 50% by 2030 with zero emissions by 2050 within the expected useful life of this proposed facility. We can not continue to be permitting new facilities dependent on fossil fuels.

"*3.5 Stationary Sources of Air Pollution*
Stationary sources of air pollution are typically units that combust fuel. No stationary sources that require air plan approval or ERP certification are planned as part of the Project." DEIR page 68

https://bptrucking.com/for-your-business/transfer-station-and-disposal-services/

The DEIR states that no stationary sources are "planned" for the work area. Excessive temperatures both hot and cold can represent a health hazard to B-P employees. With respect to cold temperatures B-P needs to state absolutely that if winter heating in the transfer station 51,000 square foot work area is ever required that the energy source for that heating will be electrical, will not utilize the burning fossil fuels which will contribute GHG air pollution and electrical panel capacity for winter heater installation will be incorporated into the facilty wiring. Furthermore B-P should state that as matter of policy that there will be no natural gas connection to the facility.

https://gethevi.com/equipment

B-P Trucking needs to commit to a future transition to zero emissions operating equipment within the 51,000 square foot work building to eventually replace the current diesel powered equipment. To that end the electrical power distribution panel for the facility must include electrical wiring for 440V 3 phase power sufficient for a 50 or 100 amp fast EV charger for this zero emissions operating equipment.

If emergency backup power for the facility is required, the backup generator needs to be electrical. Battery storage is a technology that enables power system operators and utilities to store energy for later use. A Battery Energy Storage System (BESS) is an electrochemical device that charges (or collects energy) from a power plant and then discharges that energy at a later time to provide electricity when needed. BESS backup is lower emissions, does not add dangerous $PM_{2.5}$ particulate pollution, lower maintenance, lower noise, does not require local storage of flammable fuel. The site plan must have a designated pad areas for a future battery energy storage system (BESS) https://www.nrel.gov/docs/fy19osti/74426.pdf

For diesel operation of work area equipment and emergency power generation the onsite storage of the fuel used must stored outside, away from the buildings. Fuel must be periodically purged, 6 to 12 months, if not used. Refill of tanks must be done with care to prevent overfill and the resulting flammable liquid spill. Storage of flammable fuel is always a risk. The use of diesel fuel at the new transfer station needs to be eliminated as soon as possible.

For the 25 employee and visitor parking area, according the Commercial Construction Specialized Stretch Energy Code (effective 7/1/2024), 20% of employee parking spaces will be EV Ready (ESVE Level 2 infrastructure has been installed and is made ready for electric vehicle charging, EV charger installed or with 208/240V 40A NEMA plug or capped junction box). 100% of employee parking spaces need to be EV Capable (EVSE Level 2 basic level of infrastructure is installed, conduit to the utility room with a pull rope to accommodate wiring for future electric vehicles).

The construction of this new state of the art solid waste transfer station needs to be designed now for a 50+ year life-cycle environmentally conscious, safe and efficient, facility which compliments the Town's Energy Reduction Plan (ERP) consistent with the Town's Green Community Designation and the Massachusetts net-zero Green House Gas (GHG) economy of 2050 . Municipally owned, Hudson Light and Power is already 89% carbon free, and improving yearly, with one of, or the lowest, electric rates in Massachusetts.

JC.10

What specific steps will B-P commit to which will reduce the use of fossil fuels onsite?

Rear Load Packer Truck

Semi-trailer truck

Roll-off Truck

Coming soon (in much larger numbers) to a neighborhood near you

https://www.youtube.com/watch?v=3qisu9NF1_0

JAMES CARVALHO

JC.1 **Based on the analysis provided in the TIA, the surrounding roadways and intersections have capacity to handle the increase in traffic volumes, but it is unclear whether the proposed mitigation will be adequate to maintain the same or better traffic operations as before the Project.**

The transportation analysis provided in the DEIR indicated that the intersections could accommodate the increase in traffic with delay increases that are limited to 7 seconds or less in most locations. The exception is at the Transfer Station driveway intersection with Cox Street where delay increases by 11.4 seconds. Improvements have been identified to address traffic circulation in the study area. No other improvements are shown to be necessary due to the Project impact.

JC.2 **The proponent must conduct subsequent traffic measurements commencing approximately 6 months after the new transfer station is operational and continuing for 2 years. The results of these additional traffic measurements must be available to the Town of Hudson and the public as a report on the internet. In case the actual measured traffic volumes exceed the TIA estimated levels by more than 10%, B-P Trucking must implement additional mitigation to address the actual measured levels of traffic. Will B-P Trucking commit to an ongoing traffic monitoring of the new transfer station?**

The trip generation projections for the project, as presented in the study, are likely conservative. The projected trip ratios were adjusted to reflect the highest month conditions (Month of May). Additionally, the analysis merges the facility's peak projections with those of the adjacent roads. For instance, the typical weekday afternoon peak hour for adjacent roads usually occurs between 4:00 PM and 6:00 PM. In contrast, the critical traffic activities for the existing facility peak around midday, between 12:00 PM and 2:00 PM, when adjacent roads are not typically burdened with heavy traffic volumes.

The Proponent is not aware of any requirement to conduct additional traffic monitoring, however in order to monitor the proposed facility's daily trip generation, the facility's scale data, which measures daily truck loads, can be used. This data can help track the number of trips and identify the peak periods of trips generated by the proposed transfer station.

JC.3 **Pavement Impact Analysis/Long Term Pavement Maintenance. "…there needs to be an analysis of the distribution of truck and tractor trailer trips by anticipated gross weight." In order to correctly evaluate the long-term pavement analysis of Hudson's roads to/from the new Hudson Transfer Station it is important to know not only the number of added trips but also the gross weight and truck vehicle configuration of these trips... Will B-P Trucking commit to provide a pavement impact analysis for this project?**

A pavement impact analysis is conducted when the existing pavement structure shows evidence of failure due to truck traffic. No such damage was identified within the study area. It is important to note that the section of Cox Street between Main Street and the Fire Station north of the Site was repaved by the Town in the summer of 2024. The repaving project included surface milling, a new asphalt overlay, and restriping, which will improve any pavement deterioration along Cox Street.

JC.4 **Rodents tend to seek shelter in colder weather. Due to the proximity of the new transfer station to the Mulready School, rodents may seek there a warm heated indoor environment for winter. If rodents can gain a foothold in a facility as sizable as the Mulready Elementary School, an infestation poses a serious health risk to students. Will B-P Trucking extend their exterminating service protection to include the Mulready Elementary School, at no cost to the Town of Hudson?**

In a historical context, the operation of the existing transfer station has not presented a rodent issue at the Mulready School, which is located approximately 360 feet from the existing transfer station building. Operational practices at the existing facility provide protection against such an occurrence, which includes a combination of both waste handling procedures, as well as an ongoing vector control program. As described in the DEIR, these vector control activities will be implemented at the new facility, where the proposed building will be located more than 1,100 feet from the school. Based on these considerations, it is not the Proponent's intent to extend exterminating services beyond the limits of its own operations.

JC.5 **Trucks leaving the transfer station with ice and snow on the truck roof is a danger to vehicles following on Hudson roads and on the highway. B-P Trucking needs to include provisions for safe truck snow removal located near a snow storage area. One method of removal is an automated snow removal fixture, safe travel for trucks, safe removal for drivers who would otherwise have to climb to the top of the truck to remove the snow. What provisions will B-P trucking provide in the new transfer station design to incorporate safe removal of snow and ice on the top of trucks before exiting the transfer station driveway?**

As part of the proposed facility operations, B-P will include an automated snow scraper system that will allow snow to be removed safely from the top of the semi-trailers before they leave the site. It should be noted that the system would not be needed for packer trucks and roll-off trucks as these vehicles will not be stored at the facility and therefore will not be subject to snow accumulation at the Site.

JC.6 **The answer in the DEIR indicates that the proponent's semi-trailers will not use Route 1. This answer does not indicate whether 3rd party semi-trailers who frequent the new transfer station will utilize this route…. The expectation is that B-P Trucking will restrict all of its own trucks from Route 1 excepting for local solid waste pickup as a condition of certification approval. However, this answer does not indicate that 3rd party packer**

and rolloff trucks will not use Route 1…Will B-P Trucking provide a detailed Traffic Impact Analysis of proposed Route 1 incorporating the previous impact analysis from EEA #16585 75 Reed Road redevelopment?

To dispel any confusion, please note that semi-trailers will not be delivering solid waste to the proposed facility. As is the case with the existing transfer station operations, the semi-trailers are used solely to transport solid waste from the facility for final disposal (for MSW) or processing (for C&D material). With respect to routes used, the semi-trailers, whether those owned and operated by B-P or those owned and operated by independent transportation companies, are directly responsible to B-P to follow the designated semi-trailer routes. As such, B-P will have authority to require all semi-trailers to not use Route 1 (refer to Figure 7-7 of the DEIR for depiction of semi-trailer haul routes evaluated as part of the transportation study). With respect to third-party customers visiting the proposed facility with packer trucks, roll-off trucks, and smaller vehicles, B-P will have no control over the routes these customers choose to take, just as they have no control over the routes the third-party customers take when visiting the existing transfer station. However, B-P's own collection vehicles will not use Route 1 to visit the proposed facility, except to the extent that they may need to use segments of the route to service customers.

Lastly, the Amazon project application (EEA #16585) has been withdrawn. Should that project or any other proposal for that site come forward, the proponent for that project will be required to prepare a new traffic study, which would need to incorporate traffic projections for both the proposed transfer station and the 75 Reed Road development.

JC.7 **What signage is recommended for the transfer station driveway area? The Vanasse and Associates traffic report in the DEIR recommends STOP-sign control at the new transfer station driveway on Cox Street. Expectation is that this means a 3-way STOP, north and south on Cox Street and at the project driveway.?**

Cox Street is projected to maintain free-flow conditions, and no alterations are recommended as part of the traffic study. The implementation of a stop sign is only recommended at the proposed transfer station driveway approach to Cox Street.

JC.8 **Vanasse and Associates needs to be asked to include their professional review the option of the widening of Cox Street at the project driveway to include a southbound dedicated left turn lane as part of their Transportation report. Will B-P Trucking engage with the Town of Hudson to recommend widening of Cox Street at the project driveway to incorporate a dedicated left-turn only lane for southbound access?**

An auxiliary turn lane (left- and right-turn lanes) warrants analysis was conducted for the Cox Street approach to the proposed transfer station driveway in accordance with the methodology and procedures outlined in NCHRP Report 457 published by the National

Cooperative Highway Research Program (NCHRP). The analysis indicated that exclusive left-turn and right-turn lanes are not warranted during peak periods under future build conditions.

In addition, widening Cox Street to provide a turn lane would encourage higher speed as southbound through traffic would be able to bypass turning traffic without reducing their speed. A vehicle waiting in a potential left-turn lane could create potential "blind spots" for vehicles exiting the proposed transfer station driveway. There is also a potential for concern if the left-turn lane extends back to Lee Circle, which could result in issues for cars exiting Lee Circle and needing to cross two lanes to turn left, or with trucks temporarily blocking the street. This would decrease the safety of the intersection.

JC.9 Will B-P Trucking commit to on-going air quality measurements at the transfer station in the vicinity of the Mulready Elementary School?

The Proponent examined and presented the expected emissions associated with the Project in Chapter 3 of the DEIR. Emissions associated with the Project's trucks are not expected to impact air quality in the vicinity of the Site. In Chapter 2 of this FEIR, the Proponent examined and presented health data related to the populations of schools in the nearby area. These data show that the schools in the area, including Mulready Elementary School, are lower than state averages which corresponds to the findings based on air monitor data that air quality in the area is generally good.

JC.10 What specific steps will B-P commit to which will reduce the use of fossil fuels onsite?

The Project is committed to construction which maximizes electrification of the building systems. The conditioned offices spaces will be heated and cooled using electric heat pumps and hot water will be heated with electricity. Natural gas connections to the Site are not proposed.

The Project will also include electric vehicle charging readiness to provide power to zero tail pipe emission vehicles.

MEPA Public Comment Document

MEPA EEA #16586 (Project Number)

Hudson Solid Waste Station Draft Environmental Impact Report (DEIR)

I am a 19-year resident of Hudson, MA, and I would like to register my objection to the proposed expansion of the Hudson Solid Waste Station. The expansion of this station is being done on land owned by the Town of Hudson and leased to the applicant, B-P Trucking. At a Town meeting in 2020, they were granted a 20-year lease on this property. However, the Town warrant article made no mention of this proposed expansion of the facility from 350 tons a day to 850 tons a day. It was assumed by those of us at the meeting that this was simply a renewal of the lease for the current Transfer Station. In point of fact, the lease document specifically states that this facility is to handle "municipal solid waste generated in the Town of Hudson". Clearly, this is already being violated with the current station not to mention the expanded station.

The current Transfer Station is rated to handle 350 tons of solid waste per day. The Town of Hudson generates approximately 60 tons of solid waste per day. Therefore, we are already seeing truck traffic from communities surrounding Hudson, such as Bolton, Stow, Berlin, etc. It is proposed to expand this station by building a new facility set further back on the lot to handle 850 tons per day. This will make it one of the "super facilities" in the State of Massachusetts.

This facility is currently sited in the approximate geographic center of the Town of Hudson. It is adjacent to the Mulready Elementary School. The proposed expansion will add over 400 additional diesel truck trips per day, traversing the Town of Hudson. It is noted in the draft Environmental Impact Report that the "preferred truck route" utilizes Cox St, Forest Ave., Marlboro St., Reed Rd., and Technology Dr. to access Interstate 495. This preferred route passes not only the Mulready Elementary School but also the elementary school on Forest Avenue as well as the day care center on Forest Ave., the day care center at the intersection of Forest Ave. and Marlboro St., and the day care center on Reed Rd. It not only passes through a residential section of town, but also passes two over-55 developments. This increased diesel truck traffic will contribute greatly to pollution of diesel particulates in the town which we are already aware can adversely affect the health of the population in general, but particularly young children and senior citizens. MM.1

As you might recall in the not too distant past, there was an application by the Portman Company to redevelopment the former Intel property at 75 Reed Rd. This property has now been purchased by National Development Corporation to be redeveloped into an industrial/distribution facility. When the Portman Co. wanted to develop the property into a

1.2 million square foot distribution facility operating 24/7/365, they estimated the daily additional truck trips in the range of 600 per day. Portman decided to withdraw their proposal and their Draft Environmental Impact Report. It is my understanding that National Development is proposing a smaller scale redevelopment with multiple buildings, yet still involving distribution and warehousing. So how many additional trips will be generated by this facility? Most likely, anywhere between 200 and 400 daily trips feeding into Technology Dr., the "preferred route" for the Transfer Station truck trips of over 400 per day. This ends up being a totally untenable situation.

I am requesting that the Mass. Environmental Protection Agency protect us from the effects of increased air pollution, noise pollution, and public safety issues that the expansion proposed by B-P Trucking will bring to the Town of Hudson. This proposal has been flying under the radar in this town for over two years. Many citizens, if not most citizens, are not aware of this proposed expansion of the Transfer Station. As I stated previously, when the new rental agreement was approved, there was absolutely no mention of any sort of expansion of the site. I feel at a minimum that the public comment period be extended so that additional citizen input can be obtained. What I would really request is that expansion be stopped as not being in the best interest of the citizens of the Town of Hudson, nor in the best interest of the Commonwealth of Massachusetts.

Michael T. McCormack
1F Rotherham Way
Hudson, MA 01749-2867
mocrown@verizon.net

MICHAEL MCCORMACK

MM.1 **It is noted in the draft Environmental Impact Report that the "preferred truck route" utilizes Cox St, Forest Ave., Marlboro St., Reed Rd., and Technology Dr. to access Interstate 495. This preferred route passes not only the Mulready Elementary School but also the elementary school on Forest Avenue as well as the day care center on Forest Ave., the day care center at the intersection of Forest Ave. and Marlboro St., and the day care center on Reed Rd. It not only passes through a residential section of town, but also passes two over-55 developments. This increased diesel truck traffic will contribute greatly to pollution of diesel particulates in the town which we are already aware can adversely affect the health of the population in general, but particularly young children and senior citizens.**

To dispel any confusion, please note that Route 1, shown on Figure 7-7 of the DEIR, is not a "preferred truck route" for semi-trailers, nor is that phrase used in the DEIR. When evaluating semi-trailer routes for the proposed Project, several pathways utilizing likely combinations of roadways to access Route I-495 were analyzed. Based on this analysis, Route 1—following Cox Street, Forest Avenue, Marlboro Street, Reed Road, Technology Drive, and Route 85C to Exit 65 of I-495 and I-290—was considered not suitable for use by semi-trailers. Therefore, this route was removed from consideration for use and will not serve as a semi-trailer haul route.

The traffic study included an assessment of four other semi-trailer routes, three of which represent routes currently used in support of the existing transfer station operations. The three existing routes are recommended for continued use by semi-trailers in connection with the proposed facility. These routes, designated as Routes 2, 3, and 4, are shown on Figure 7-7 of the DEIR. With respect to third-party customers visiting the proposed facility with packer trucks, roll-off trucks, and smaller vehicles, B-P will have no control over the routes these customers choose to take, just as they have no control over the routes the third-party customers take when visiting the existing transfer station. However, B-P's own collection vehicles will not use Route 1 to visit the proposed facility, except to the extent that they may need to use segments of the route to service customers.

Miliani, Amina (EEA)

From: Susan & Joseph Lalli <lalli14@verizon.net>
Sent: Friday, May 10, 2024 11:49 PM
To: Miliani, Amina (EEA)
Subject: MEPA EEA #16586 Hudson Transfer Station

Follow Up Flag: Follow up
Flag Status: Flagged

May 10, 2024
Rebecca L. Tepper, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Dear Ms. Tepper:

We are residents of Hudson, MA, and would like to register our objection to the proposed expansion of the Hudson Solid Waste Station: **MEPA EEA #16586**

The expansion of this station is being done on land owned by the Town of Hudson and leased to the applicant, B-P Trucking. At a Town Meeting in 2020 (during the first year of the Pandemic), they were granted a 20-year lease on this property. However, the Town Warrant article made no mention of the proposed expansion of the facility from 350 tons a day to 850 tons a day and many in Town were and still are unaware of what Hudson will have to deal with if this project is approved.

The Town of Hudson **only** generates 60 tons of solid waste per day; yet this new facility will be able to handle 850

tons! Obviously, B-P plans to use this facility to create a "super facility" for Massachusetts in the middle of a residential area and adjacent to an elementary school. This is not the correct location for such a facility and thus it does not bode well for these "neighbors". Also, when this new facility is operating at the full capacity of 850 tons per day, the Project proposes **414 NEW** truck trips per day throughout Hudson which does not bode well for many residents of Hudson.

Our specific concerns are twofold:

1.This facility is located adjacent to the Mulready Elementary School.

We are very worried about the consequences of the poor air quality from the increased toxic trash at the facility and more importantly from the diesel fumes of all the trucks coming and going and idling and how it will affect the young Children who attend the Mulready Elementary School. For youngsters with asthma the poor air quality may exacerbate their condition and for any other young children whose lungs are still developing they may become at risk for asthma or other medical issues after being exposed to this poor air. SJL.1

We also cannot imagine the noise that the Mulready School will have to deal with from the use of truck back up alarms, trailers hitching up, public address systems and constant movement of tractor trailer dump trucks trucks. Not a very conducive environment for what young students need to concentrate during their school day.

We also are concerned for those residents who live in this area and will have to deal with the poor air quality and excess noise.

2) The proposed expansion of this facility will add 414 additional diesel truck trips per day, throughout the Town of Hudson. This increased diesel truck traffic will contribute greatly to pollution of diesel particulates in the town which can adversely affect the

health of the population in general, but particularly young children and senior citizens who are all in the path of the trucks travelling to and from the B-P Facility.

As indicated in the Draft Environmental Impact Report the "preferred truck route" includes Cox St, Forest Ave., Marlboro St., Reed Rd. and Technology Dr. to access Interstate 495/290. Trucks driving on this heavy residential route specifically need to drive by not only the Mulready Elementary School but also the Forest Avenue Elementary School, the Mary O'Malley CHAPS Academy Day Care Center on Forest Avenue and the Hudson Children's Center on Reed Road as well as the Intel Soccer Fields on Reed Road. Trucks will also need to drive by The Villages at Quail Run and the Westridge Condominiums both "over-55" communities on Reed Road. SJL.2

We are also troubled about the new traffic we and our neighbors here at Quail Run and Westridge will encounter from this facility. Entering/exiting Autumn Drive and Westridge Road from/to Reed Road is difficult now but will be even more challenging with 414 additional tractor trailer dump trucks. Getting through the intersection of Reed Road and Marlboro Street is very dangerous with just blinking yellow and red warning lights; we can't imagine getting through there safely with the extra proposed truck traffic. And traveling on Technology Drive will be dangerous with so many trucks. And what about potential congestion at the intersection of Technology Drive and Washington Street? And what if the traffic spills into downtown Hudson? The Town and its business community worked hard to turn Main Street into a favorable destination which will hopefully improve with the new armory project; but spillover tractor trailer and dump truck traffic may deter visitors who do not want to deal with that. SJL.3

As residents of Quail Run, we are anxious about our health, safety and overall well-being. We request that the Mass. Environmental Protection Agency protect all of us in the Town of Hudson from the

effects of increased air pollution, noise pollution, and public safety issues that the expansion proposed by this new B-P Facility will bring us.

Please say NO to this project.

Thank you for your consideration.

Sincerely,
Joseph and Susan Lalli
11F Autumn Drive
(Villages at Quail Run)
Hudson, MA

SUSAN AND JOSEPH LALLI

SJL.1 **We are very worried about the consequences of the poor air quality from the increased toxic trash at the facility and more importantly from the diesel fumes of all the trucks coming and going and idling and how it will affect the young Children who attend the Mulready Elementary School. For youngsters with asthma the poor air quality may exacerbate their condition and for any other young children whose lungs are still developing they may become at risk for asthma or other medical issues after being exposed to this poor air.**

The Proponent examined and presented the expected emissions associated with the Project in Chapter 3 of the DEIR. Emissions associated with the Project's trucks are not expected to impact air quality in the vicinity of the Site. In Chapter 2 of this FEIR, the Proponent reviewed health data related to the populations of schools in the nearby area. These data show that the schools in the area, including Mulready Elementary School are lower than state averages which corresponds to the findings based on air monitor data that air quality in the area is generally good. This is discussed in Chapter 2 of this FEIR.

SJL.2 **As indicated in the Draft Environmental Impact Report the "preferred truck route" includes Cox St, Forest Ave., Marlboro St., Reed Rd. and Technology Dr. to access Interstate 495/290. Trucks driving on this heavy residential route specifically need to drive by not only the Mulready Elementary School but also the Forest Avenue Elementary School, the Mary O'Malley CHAPS Academy Day Care Center on Forest Avenue and the Hudson Children's Center on Reed Road as well as the Intel Soccer Fields on Reed Road. Trucks will also need to drive by The Villages at Quail Run and the Westridge Condominiums both "over-55" communities on Reed Road.**

To dispel any confusion, please note that Route 1, shown on Figure 7-7 of the DEIR, is not a "preferred truck route" for semi-trailers, nor is that phrase used in the DEIR. When evaluating semi-trailer routes for the proposed Project, several pathways utilizing likely combinations of roadways to access Route I-495 were analyzed. Based on this analysis, Route 1—following Cox Street, Forest Avenue, Marlboro Street, Reed Road, Technology Drive, and Route 85C to Exit 65 of I-495 and I-290—was considered not suitable for use by semi-trailers. Therefore, this route was removed from consideration for use and will not serve as a semi-trailer haul route.

The traffic study included an assessment of four other semi-trailer routes, three of which represent routes currently used in support of the existing transfer station operations. The three existing routes are recommended for continued use by semi-trailers in connection with the proposed facility. These routes, designated as Routes 2, 3, and 4, are shown on Figure 7-7 of the DEIR. With respect to third-party customers visiting the proposed facility with packer trucks, roll-off trucks, and smaller vehicles, B-P will have no control over the routes these customers choose to take, just as they have no control over the routes the third-party customers take when visiting the existing transfer station. However, B-P's own collection vehicles will not use Route 1 to visit the proposed facility, except to the extent that they may need to use segments of the route to service customers.

SJL.3 **We are also troubled about the new traffic we and our neighbors here at Quail Run and Westridge will encounter from this facility. Entering/exiting Autumn Drive and Westridge Road from/to Reed Road is difficult now but will be even more challenging with 414 additional tractor trailer dump trucks.**

See response to comments SJL.2

Miliani, Amina (EEA)

From: Puia Nancy <njdpuia@gmail.com>
Sent: Friday, May 10, 2024 9:50 PM
To: Miliani, Amina (EEA)
Subject: EEA number 16586

Follow Up Flag: Follow up
Flag Status: Completed

Dear Ms. Miliani,
I writing to you as I found out about the oversized proposed Hudson Solid Waste Transfer Station.
It more than doubles the size of the present transfer station in Hudson and will be one of the biggest transfer stations in the whole state of Massachusetts.
It is being built to satisfy the needs of a trucking company to service other towns (not Hudson's needs) and it is being built in a neighborhood of family homes.
But my biggest worry is that this trash depot will be situated next to an elementary school. The small growing bodies of the students that attend that school will be subjected daily to the toxic fumes and air pollution of the additional 414 trash trucks driving by their school and around the corner on the trash depot road beside their school. Then they will continue to be subjected to the toxic air pollution spread from the many trucks parked at the transfer station and the piles of rubbish and garage dumped there. NP.1
Not to mention, the possible rat infestation that will result in the trash piles that will easily travel over to the school grounds. Air pollution and rodent infestation will definitely inflict health concerns on the school's playground. The expansion of the transfer station will make an already existing problem much worse.
The resulting truck traffic will also be detrimental to the students walking to school. A small body or a group of small bodies is no match for a extremely large trash truck and there will be a constant stream of trucks traveling through their neighborhood. No guarantee that these trucks will be able to stop in time for a child running across the street. NP.2
Please consider the health and safety problems this project will inflict on the town and reject their application.
Thank you.
Nancy D. Puia
6G Strawberry Lane
Hudson, MA 01749

NANCY PUIA

NP.1 **The small growing bodies of the students that attend that school will be subjected daily to the toxic fumes and air pollution of the additional 414 trash trucks driving by their school and around the corner on the trash depot road beside their school. Then they will continue to be subjected to the toxic air pollution spread from the many trucks parked at the transfer station and the piles of rubbish and garbage dumped there.**

As noted in the DEIR, at full operational capacity of 850 tons per day, the Project is expected to generate 414 new truck trips per day (207 trucks entering the facility and 207 trucks leaving). Of the 414 truck trips, 370 would be packer trips, roll-off trips, and those from smaller vehicles; 44 would be semi-trailer trips. When considering the future additional truck trips, they should be considered in the context of the findings of the Proponent's studies of future vehicle emissions. The Proponent examined and presented the expected emissions associated with the Project in Chapter 3 of the DEIR. Emissions associated with the Project's trucks are not expected to impact air quality in the vicinity of the Site. In Chapter 2 of this FEIR, the Proponent examined and presented health data related to the populations of schools in the nearby area. These data show that the schools in the area, including Mulready Elementary School, are lower than state averages which corresponds to the findings based on air monitor data that air quality in the area is generally good.

It should also be noted that the Project involves the relocation of the transfer station operations further from the school than is currently the case.

NP.2 **The resulting truck traffic will also be detrimental to the students walking to school. A small body or a group of small bodies is no match for an extremely large trash truck and there will be a constant stream of trucks traveling through their neighborhood.**

It should be noted that the Project represents the development of a new transfer station on an urban collector roadway in the same area as the existing transfer station, which presently generates vehicle truck traffic. However, the new transfer station will be located further away from the existing school and residential homes located along Cox Street. Further, there is an existing school zone along Cox Street in the vicinity of the Mulready School with flashing speed limit devices and expanded signage intended to raise awareness of the presence of school-related pedestrian and vehicle traffic.

Miliani, Amina (EEA)

From: Katie Cunningham <k8e.cunningham@gmail.com>
Sent: Wednesday, April 24, 2024 3:33 PM
To: Miliani, Amina (EEA)
Subject: EEA #16586

Follow Up Flag: Follow up
Flag Status: Flagged

Hello,
I am writing with regard to the MEPA review of the expanded/new transfer station in Hudson.

I'd like to ask you to consider that this site will be, as the current transfer station is, very close to a K-4 elementary school, as well as very close to an inter-town bike path as well as the Assabet River.

I am most concerned about the proximity to the elementary school, as the number of truck trips per day is estimated northwards of 400, which is a lot of exposure to diesel fuel for young kids, as well impacting these kids when they are at recess or participating in aftercare activities. My niece who attends this school can always tell when there are lots of trash drop offs because of the smell and the noise, which is pretty upsetting. I wouldn't want my time outside to be impacted in this way and it is unfair for kids who are attending school here and thus unable to choose a different time to be outside. KC.1

I am also concerned because very recently, a private business polluted a well with PFAS, which exposed everyone in town through the water supply and also incurred great expense to remedy.

Hudson's trash will be, per the DEIR, a very small fraction of what is handled at this facility. This project seems to only benefit BP trucking at the expense of our children, our environment, and our town.

I ask that you please register my desire for this project to be opposed.

KATIE CUNNINGHAM

KC.1 **I am most concerned about the proximity to the elementary school, as the number of truck trips per day is estimated northwards of 400, which is a lot of exposure to diesel fuel for young kids, as well impacting these kids when they are at recess or participating in aftercare activities.**

The Proponent examined and presented the expected emissions associated with the Project in Chapter 3 of the DEIR. Emissions associated with the Project's trucks are not expected to impact air quality in the vicinity of the Site. In Chapter 2 of this FEIR, the Proponent examined and presented health data related to the populations of schools in the nearby area. These data show that the schools in the area, including Mulready Elementary School, are lower than state averages which corresponds to the findings based on air monitor data that air quality in the area is generally good.

Appendix A

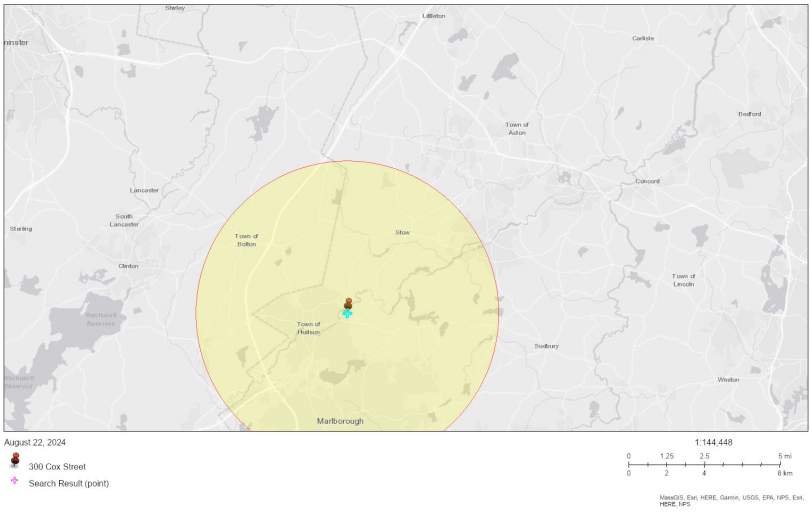
Environmental Justice

EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

300 Cox Street

5 miles Ring Centered at 42.397973,-71.542759
Population: 79,751
Area in square miles: 78.53



COMMUNITY INFORMATION

Low income: 18 percent	People of color: 27 percent	Less than high school education: 8 percent	Limited English households: 7 percent
Unemployment: 5 percent	Persons with disabilities: 11 percent	Male: 49 percent	Female: 51 percent
82 years Average life expectancy	N/A Per capita income	Number of households: 31,124	Owner occupied: 68 percent

BREAKDOWN BY RACE

White: 73%	Black: 2%	American Indian: 0%	Asian: 5%
Hawaiian/Pacific Islander: 0%	Other race: 3%	Two or more races: 7%	Hispanic: 11%

BREAKDOWN BY AGE

From Ages 1 to 4	6%
From Ages 1 to 18	22%
From Ages 18 and up	78%
From Ages 65 and up	16%

LIMITED ENGLISH SPEAKING BREAKDOWN

Speak Spanish	31%
Speak Other Indo-European Languages	57%
Speak Asian-Pacific Island Languages	9%
Speak Other Languages	2%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race.
Source: U.S. Census Bureau, American Community Survey (ACS) 2018-2022. Life expectancy data comes from the Centers for Disease Control.

LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	73%
Spanish	8%
French, Haitian, or Cajun	1%
Russian, Polish, or Other Slavic	1%
Other Indo-European	13%
Chinese (including Mandarin, Cantonese)	1%
Vietnamese	1%
Arabic	1%
Total Non-English	27%

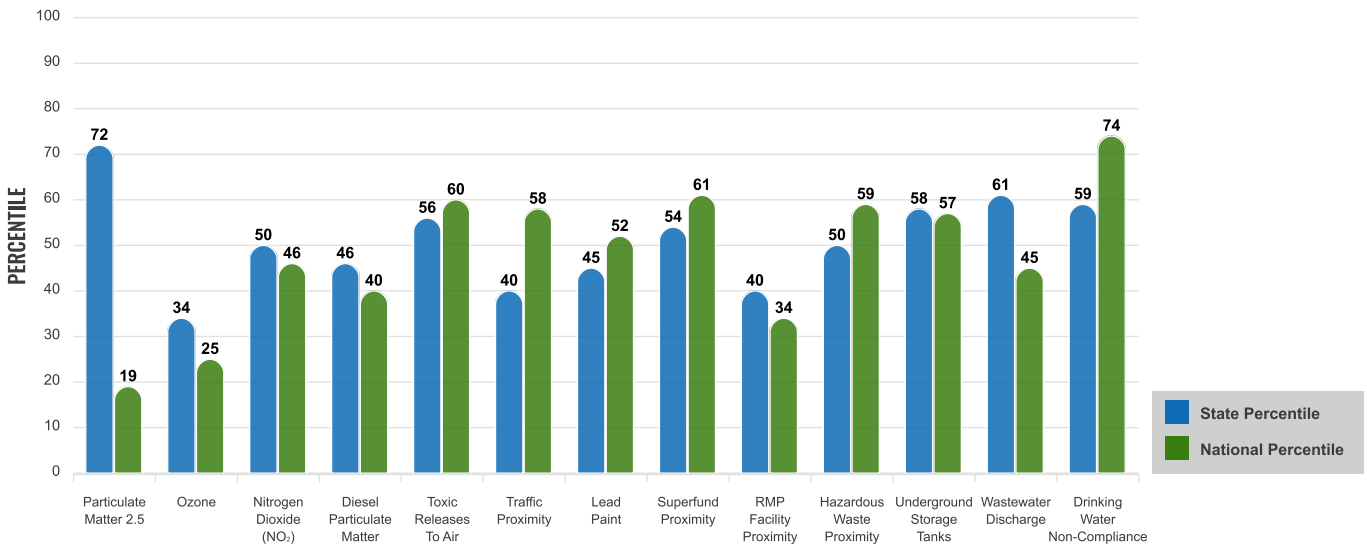
Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

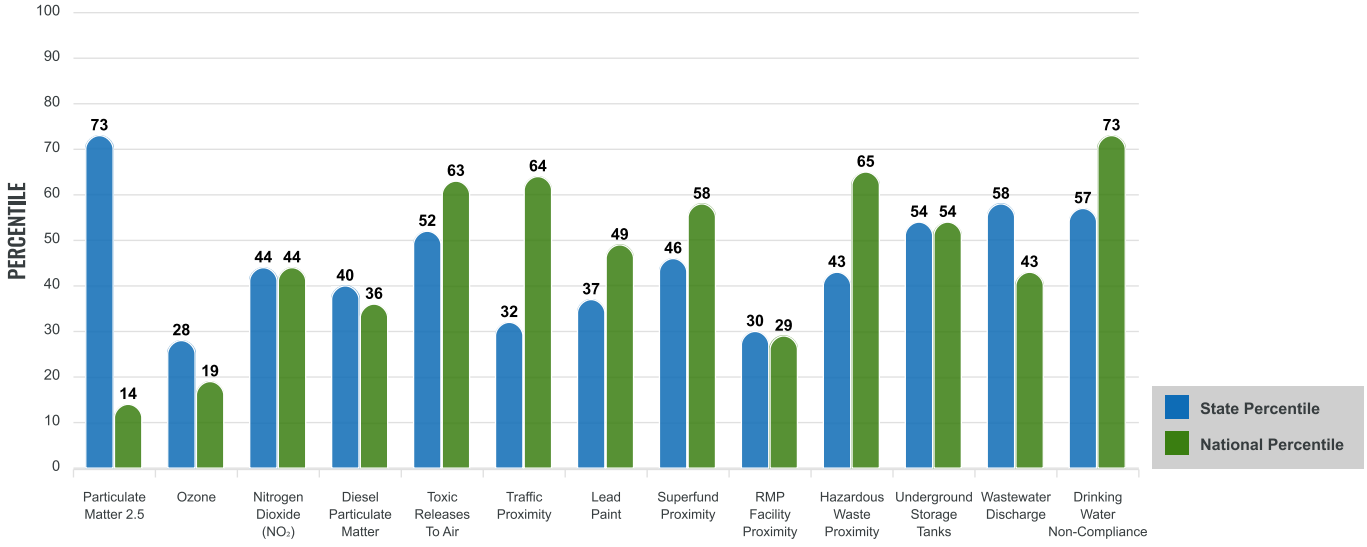
EJ INDEXES FOR THE SELECTED LOCATION



SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low income, percent persons with disabilities, percent less than high school education, percent limited English speaking, and percent low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



Report for 5 miles Ring Centered at 42.397973,-71.542759

Report produced August 22, 2024 using EJScreen Version 2.3

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
ENVIRONMENTAL BURDEN INDICATORS					
Particulate Matter 2.5 ($\mu g/m^3$)	6.83	6.52	73	8.45	15
Ozone (ppb)	55	56.7	23	61.8	22
Nitrogen Dioxide (NO_2) (ppbv)	7.1	8.8	37	7.8	45
Diesel Particulate Matter ($\mu g/m^3$)	0.127	0.176	35	0.191	38
Toxic Releases to Air (toxicity-weighted concentration)	2,200	2,800	48	4,600	74
Traffic Proximity (daily traffic count/distance to road)	2,100,000	6,100,000	26	1,700,000	73
Lead Paint (% Pre-1960 Housing)	0.32	0.51	28	0.3	60
Superfund Proximity (site count/km distance)	0.14	0.34	56	0.39	66
RMP Facility Proximity (facility count/km distance)	0.052	0.37	28	0.57	28
Hazardous Waste Proximity (facility count/km distance)	4.4	11	38	3.5	76
Underground Storage Tanks (count/km^2)	2.7	3.3	59	3.6	68
Wastewater Discharge (toxicity-weighted concentration/m distance)	49	760	59	700000	49
Drinking Water Non-Compliance (points)	0.99	3.2	60	2.2	77
SOCIOECONOMIC INDICATORS					
Demographic Index USA	0.86	N/A	N/A	1.34	35
Supplemental Demographic Index USA	1.22	N/A	N/A	1.64	30
Demographic Index State	1	1.19	54	N/A	N/A
Supplemental Demographic Index State	1.31	1.52	48	N/A	N/A
People of Color	27%	31%	55	40%	45
Low Income	18%	22%	52	30%	34
Unemployment Rate	5%	5%	61	6%	61
Limited English Speaking Households	7%	6%	71	5%	80
Less Than High School Education	8%	9%	62	11%	52
Under Age 5	6%	5%	70	5%	64
Over Age 64	16%	18%	49	18%	49

*Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	7
Water Dischargers	136
Air Pollution	54
Brownfields	6
Toxic Release Inventory	26

Other community features within defined area:

Schools	20
Hospitals	1
Places of Worship	25

Other environmental data:

Air Non-attainment	Yes
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	Yes
Selected location contains an EPA IRA disadvantaged community	Yes

Report for 5 miles Ring Centered at 42.397973,-71.542759

Report produced August 22, 2024 using EJScreen Version 2.3

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	16%	17%	26	20%	16
Heart Disease	4.7	5.2	35	5.8	30
Asthma	10.5	11.2	34	10.3	61
Cancer	7.2	6.9	52	6.4	65
Persons with Disabilities	10.7%	12.1%	44	13.7%	35

CLIMATE INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	9%	12%	54	12%	62
Wildfire Risk	2%	0%	99	14%	79

CRITICAL SERVICE GAPS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	6%	9%	45	13%	35
Lack of Health Insurance	3%	3%	69	9%	22
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access Burden	Yes	N/A	N/A	N/A	N/A
Food Desert	Yes	N/A	N/A	N/A	N/A

Report for 5 miles Ring Centered at 42.397973,-71.542759

Report produced August 22, 2024 using EJScreen Version 2.3

Statewide Environmental Justice Community Based Organizations

First Name	Last Name	Title	Phone	Email	Affiliation
Ben	Hellerstein	MA State Director	617-747-4368	ben@environmentmassachusetts.org	Environment Massachusetts
Cindy	Luppi	New England Director	617-338-8131 x208	cluppi@cleanwater.org	Clean Water Action
Deb	Pasternak	Director, MA Chapter	617-423-5775	deb.pasternak@sierraclub.org	Sierra Club MA
Elvis	Mendez	Organizing Director	508 904-5359	elvis@n2nma.org	Neighbor to Neighbor
Heather	Clish	Director of Conservation & Recreation Policy	(617) 523-0655	hclish@outdoors.org	Appalachian Mountain Club
Heidi	Ricci	Director of Policy	Not Provided	hricci@massaudubon.org	Mass Audubon
Julia	Blatt	Executive Director	(617) 714-4272	juliablatt@massriversalliance.org	Mass Rivers Alliance
Kelly	Boling	MA & RI State Director	(617) 367-6200	kelly.boling@tpl.org	The Trust for Public Land
Kerry	Bowie	Board President	Not Provided	kerry@msaadapartners.com	Browning the GreenSpace
Nancy	Goodman	Vice President for Policy	Not Provided	ngoodman@environmentalleague.org	Environmental League of MA
Pat	Stanton	Project Manager	Not Provided	pstanton@e4thefuture.org	E4TheFuture
Rob	Moir	Executive Director	Not Provided	rob@oceanriver.org	Ocean River Institute
Robb	Johnson	Executive Director	(978) 443-2233	robb@massland.org	Mass Land Trust Coalition
Sarah	Dooling	Executive Director	Not Provided	sarah@massclimateaction.net	Mass Climate Action Network (MCAN)
Staci	Rubin	Senior Attorney	617 350-0990	srubin@clf.org	Conservation Law Foundation
Sylvia	Broude	Executive Director	617 292-4821	sylvia@communityactionworks.org	Community Action Works
Tali	Smookler	Organizing Director	508 308-9261	tsmookler@uumassaction.org	Unitarian Universalist Mass Action Network
Winston	Vaughan	Director of Climate Solutions	Not Provided	wvaughan@hcwh.org	Healthcare without Harm

Indigenous Organizations					
First Name	**Last Name**	**Title**	**Phone**	**Email**	**Affiliation**
Alma	Gordon	President	Not Provided	tribalcouncil@chappaquiddick-wampanoag.org	Chappaquiddick Tribe of the Wampanoag Nation
Cheryll	Toney Holley	Chair	774-317-9138	crwritings@aol.com	Nipmuc Nation (Hassanamisco Nipmucs)
John	Peters, Jr.	Executive Director	617-573-1292	john.peters@mass.gov	Massachusetts Commission on Indian Affairs (MCIA)
Kenneth	White	Council Chairman	508-347-7829	acw1213@verizon.net	Chaubunagungamaug Nipmuck Indian Council
Melissa	Ferretti	Chair	(508) 304-5023	melissa@herringpondtribe.org	Herring Pond Wampanoag Tribe
Patricia	D. Rocker	Council Chair	Not Provided	rockerpatriciad@verizon.net	Chappaquiddick Tribe of the Wampanoag Nation, Whale Clan
Raquel	Halsey	Executive Director	(617) 232-0343	rhalsey@naicob.org	North American Indian Center of Boston
Cora	Pierce	Not Provided	Not Provided	Coradot@yahooe.com	Pocassett Wampanoag Tribe
Elizabth	Soloman	Not Provided	Not Provided	Solomon.Elizabeth.e@gmail.om	Massachusetts Tribe at Ponkapoag

Federally Recognized Tribes					
First	**Last**	**Title**	**Phone**	**Email**	**Affiliation**
Bettina	Washington	Tribal Historic Preservation Officer	508-560-9014	thpo@wampanoagtribe-nsn.gov	Wampanoag Tribe of Gay Head (Aquinnah)
Bonney	Hartley	Historic Preservation Manager	413-884-6048	bonney.hartley@mohican-nsn.gov	Stockbridge-Munsee Tribe
Brian	Weeden	Chair	774-413-0520	Brian.Weeden@mwtribe-nsn.gov	Mashpee Wampanoag Tribe

Appendix B

Circulation List

APPENDIX B CIRCULATION LIST

Rebecca L. Tepper, Secretary
Executive Office of Energy and
Environmental Affairs
Attn: MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114
MEPA@mass.gov

Department of Environmental Protection
Attn: Commissioner's Office/
MEPA Coordinator
One Winter Street
Boston, MA 02108
helena.boccadoro@mass.gov

Department of Environmental Protection
Central Region
Attn: MEPA Coordinator
8 New Bond Street
Worcester, MA 01606
Andrea.briggs@mass.gov
joanne.kasperdunne@mass.gov

Massachusetts Department of Transportation
Public/Private Development Unit
10 Park Plaza, Suite 4150
Boston, MA 02116
MassDOTPPDU@dot.state.ma.us

Massachusetts Department of Transportation
District #3
Attn: MEPA Coordinator
499 Plantation Parkway
Worcester, MA 1605
Kevin.R.Robenhymer@dot.state.ma.us
Eric.Nascimento@dot.state.ma.us

Massachusetts Historical Commission
The MA Archives Building
220 Morrissey Boulevard
Boston, MA 02125 (*Hard Copy*)

Metropolitan Area Planning Council
60 Temple Place, 6th Floor
Boston, MA 02111
mpillsbury@mapc.org
afelix@mapc.org
eweyant@mapc.org
etorres@mapc.org

MEPA Office
Attn: EEA EJ Director
100 Cambridge Street, Suite 900
Boston, MA 02144
MEPA-EJ@mass.gov

Department of Energy Resources
Attn: MEPA Coordinator
100 Cambridge Street, 10th Floor
Boston, MA 02114
paul.ormond@mass.gov

Natural Heritage and Endangered Species
Program
1 Rabbit Hill Road
Westborough, MA 01581
Melany.cheeseman@mass.gov
Emily.holt@mass.gov

The Sudbury, Assabet & Concord Wild & Scenic
River Stewardship Council
Emma Lord, Natural Resource Specialist
National Park Service
15 State Street
Boston, MA 02109
emma_lord@nps.gov

Town of Hudson Selectboard
78 Main Street
Hudson, MA 01749
jquinn@townofhudson.org

Hudson Planning & Community Development Department
78 Main Street
Hudson, MA 01749
kjohnson@townofhudson.org

Hudson Conservation Commission
78 Main St
Hudson, MA 01749
phelinek@townofhudson.org

Hudson Health Department
78 Main St
Hudson, MA 01749
m.blakely@townofhudson.org

Hudson Public Works
1 Municipal Dr
Hudson, MA 01749
sklotz@townofhudson.org

Hudson Public Library
3 Washington Street
Hudson, MA 01749
Ashanchez-himes@cwmars.org *(Hard Copy)*

Jeff Ahern
6 Merritt Drive
Hudson, MA 01749
gusburnz@gmail.com

Katie Cunningham
k8e.cunningham@gmail.com

James Carvalho
3D Autumn Drive
Hudson, MA 01749
jbcarvalho@verizon.net

Michael T. McCormack
1F Rotherham Way
Hudson, MA 01749-2867
mocrown@verizon.net

Joseph and Susan Lalli
11F Autumn Drive
(Villages at Quail Run)
Hudson, MA 01749
lalli14@verizon.net

Nancy D. Puia
6G Strawberry Lane
Hudson, MA 01749
njdpuia@gmail.com