# DUNN MINE AND C&D FACILITY
# PERMIT RENEWAL AND MSE BERM MODIFICATION
# FULL ENVIRONMENTAL ASSESSMENT FORM

**Prepared For:**

**S.A. DUNN LANDFILL & COMPANY, LLC**
**209 PARTITION STREET EXTENSION**
**RENSSELAER, NEW YORK 12144**

**Prepared By:**

**CIVIL & ENVIRONMENTAL ENGINEERING,**
**LANDSCAPE ARCHITECTURE AND LAND SURVEYING, PLLC**
**31 BELLOWS ROAD**
**RAYNHAM, MASSACHUSETTS 02767**

**CEE Project 182-442**

**JANUARY 2022**

# TABLE OF CONTENTS



## FIGURES



## APPENDICES

# 1.0 PROJECT BACKGROUND

## 1.1 PROJECT DESCRIPTION

The Dunn Mine and Construction & Demolition Debris (C&D) facility is located in Rensselaer and North Greenbush, New York. It is owned and operated by S.A. Dunn & Company, LLC (S.A. Dunn). The facility is currently permitted to operate under a permit initially issued by the New York State Department of Environmental Conservation (NYSDEC) on July 20, 2012, and renewed on September 9, 2016, with a stated expiration date of July 20, 2022 (Permit DEC #4-3899-00006/00006). Civil & Environmental Engineers, Landscape Architects, and Land Surveyors, PLLC, (CEE) has prepared this Full Environmental Assessment Form (EAF, Appendix A) for the facility's permit renewal application and for the proposed modification to construct a mechanically stabilized earthen (MSE) berm on the northern and eastern boundary of the site.

The current permit encompasses both the mining and C&D disposal activities at the site. Initial permitting for the landfill site was prepared by C.T. Male Associates, P.C. and included a Draft Environmental Impact Statement accepted by NYSDEC on January 9, 2012, a Final Environmental Impact Statement dated May 2012, and a solid waste permit application, including engineering drawings, dated October 2010, last revised December 2011. Subsequent to receiving approval for construction of the facility, the construction-phasing plan as presented in the initial permit application was revised and a minor modification was prepared by Sanborn, Head and Associates in May 2014. NYSDEC approved the permit revisions, and construction of the site began in late summer 2014. The first phase of construction was approved by NYSDEC in early 2015, and waste placement activities began in January of 2015. Subsequently, Civil & Environmental Engineering, Landscape Architecture and Land Surveying, PLCC (CEE) prepared a permit modification to revise the landfill construction sequencing that was approved in September 2015. In 2016 the facility applied for a modification that included increasing the facility footprint area to include additional mining and waste disposal area of approximately 4.8 acres in the southwestern area of the site. This modification resulted in an additional land disturbance area of approximately 3.9 acres. In October 2019, a NYSDEC initiated permit was issued pertaining to daily cover, install an enhanced active gas collection system, and establish and maintain an odor complaint reporting system. A Full Environmental Assessment Form was prepared by CEE to address the additional area of land disturbance, along with a Part 360 Permit Application, and Mining Permit Modification. In August 2021, S.A. Dunn submitted a Mined Land Permit Reclamation Permit renewal application which will be processed with its Part 360 Solid Waste Management Facility renewal application.

In connection with the permit renewal and as required under the June 2019 Consent Order (R4-2019-0409-24) entered between S.A. Dunn and NYSDEC, the facility is seeking approval to construct a MSE berm on the northerly and easterly side of the site(MSE Berm), which will result in a reduction of the overall waste disposal footprint. The proposed revision will decrease the total waste footprint by 1.2 acres and will not increase the maximum permitted elevation of the site above the maximum permitted elevation. The proposed berm will also increase the setback distance from the northern property line. The elevation of the current permitted northern perimeter berm is at approximately the same elevation as existing grade, whereas the proposed MSE Berm will be approximately 40 to 60 feet above existing grade, resulting in visual screening of the landfill operations from the surrounding properties. There will be no increase in the permitted airspace and if fact, the proposed modification results in an airspace reduction of approximately 220,000 cubic yards.

There are no proposed changes to the waste acceptance rate, or other permitted mining or C&D disposal operational conditions.

Unless otherwise indicated, this EAF therefore applies only to construction of the MSE Berm. The area of the proposed berm is 5.2 acres, which includes the geogrid embedment length, the top width of 50 feet, including the swale, access road, and planting area (where applicable), the side slopes of the proposed berm, as well as the stormwater management swale at the toe of the berm and the North Infiltration Basin. Although the North Infiltration Basis has already been approved and permitted, it will be built during MSE Berm construction and has therefore been included in the project area acreage, as shown on Figure 2. The berm area is located within the area addressed by the original 2012 FEIS. A permit application form is included in Appendix A.

The original permitted facility, which encompassed approximately 68 acres, was previously reviewed under the State Environmental Quality Act (SEQR) in 2012 and subsequently reviewed under SEQR in 2016 to incorporate an additional 4.8 acres of mining and waste disposal area. It is expected that this project will not result in additional impacts beyond those contemplated with the permit application. The original Final Scope associated with the original DEIS in 2012 for the facility included:

- Part 360 Solid Waste Management Plan Regulations
- Mined Land Use Regulations
- Traffic
- Noise
- Cultural Resources
- Stormwater
- Groundwater
- Wetlands
- Visual Resources
- Odor
- Air Quality

These items were also reviewed during SEQR review of the full EAF prepared for the footprint modification in 2016. A discussion of each of these items is provided in the following sections. As noted below, the proposed project will continue to be designed, constructed, and operated in accordance with the existing permits such that the project will not result in additional adverse impacts.

## 1.2 PART 360 SOLID WASTE MANAGEMENT PLAN REGULATIONS

The facility has been and will continue to be designed, constructed, and operated in accordance with 6 NYCRR Part 360 regulations. A Part 360 permit application for the additional footprint area has been submitted for approval that included an Engineering Report and Plans, an Operations and Maintenance Plan, Technical Specifications, and a Construction Quality Assurance/Quality Control Manual that document how the design, construction, and operations of the facility modification will maintain compliance with Part 360 regulations.

## 1.3 MINED LAND USE REGULATIONS

A mining modification permit application has been submitted to incorporate the proposed MSE Berm construction in the Mining Reclamation Plan. Otherwise the sand and gravel mine operations will continue in accordance with the existing Mined Land Reclamation Permit.

## 1.4 TRAFFIC

A traffic study was prepared and submitted with the 2012 FEIS for the facility, and traffic impacts from the facility were previously reviewed under SEQR. Based upon this review, the current permit conditions for the facility allow for generation of up to 100 truck trips (round trip) per day. There are no proposed changes to this condition; therefore, there will not be additional adverse impacts associated with traffic. No increase in truck traffic would be permitted to accommodate construction of the MSE Berm.

## 1.5 NOISE

The noise impacts from the facility were previously reviewed under SEQR. The currently existing operations at the site will continue as currently permitted and reviewed, including the same usage of the same type of equipment for construction of the MSE Berm, which should generate similar levels of noise. These activities would take place within the previously approved facility footprint. Therefore, the proposed project is not expected to result in an increase in noise.

## 1.6 CULTURAL RESOURCES

A cultural study was prepared and submitted with the 2012 FEIS for the facility, which included the MSE Berm area, and cultural impacts from the facility were previously reviewed under SEQR. The potential for impact of this project to have an effect on potentially significant cultural resources has been evaluated by Columbia Heritage, LTD, who determined that the potential for impact is low. MSE Berm construction will take place within the permitted facility footprint. The approximate area that will be under construction has been already disturbed by historical mining operations, which date back more than 100 years.

## 1.7 STORMWATER

The proposed stormwater management system for the facility was previously reviewed under SEQR. There will be no increase to the peak discharge off-site. The facility currently operates and will continue to operate in accordance with a site specific Stormwater Pollution Prevention Plan (SWPPP), which has been updated to include the proposed MSE Berm, in accordance with NYSDEC State Pollution Discharge Elimination System (SPDES) Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (GP-0-17-001). The SWPPP will be reviewed and updated at the frequencies specified by the permit, as well as when there are

significant changes to the stormwater management system. The proposed stormwater management system is fully described in the Part 360 permit application and revisions will be made to the SWPPP to incorporate additional discharge points as they are constructed.

## 1.8 GROUNDWATER

The facility was previously subject to SEQR review and the proposed MSE Berm will not affect the permitted conditions regarding groundwater management as this application includes a reduction in overall waste disposal footprint.

## 1.9 WETLANDS

The facility was previously reviewed under SEQR in 2012 and there are no changes in impacts to wetlands associated with the proposed modification. A wetland delineation was done on the project site by the U.S Army Corps of Engineers and it was determined that four (4) small wetlands and four (4) streams located at the southern portion of the site. The proposed MSE Berm is not located within the southern area where wetland areas were delineated.

## 1.10 VISUAL RESOURCES

The visual impacts of the facility were previously reviewed under SEQR. The proposed MSE Berm will not result in an increase in the peak elevation of the landfill. The proposed MSE Berm will be higher in elevation than the currently permitted berm, which will result in improved visual screening of the daily operations of the landfill from the adjacent school property and other surrounding properties as compared to the current permitted conditions. A Visual Resource Assessment Report was prepared by Saratoga Associates and is included as Appendix E. The report concludes that the proposed MSE Berm will not cause a diminishment of the public enjoyment and appreciation of any scenic or historic resource, or one that impairs the character or quality of such a place.

## 1.11 ODOR

The odor impacts associated with the facility were previously reviewed under SEQR. The proposed MSE Berm will not result in an increase of odor on the site.

## 1.12 AIR QUALITY

The air quality impacts of the facility were previously reviewed under SEQR. The proposed project will continue to be operated in accordance with best management practices to control the potential for impacts to air quality. Since the operations will remain the same, there will not be an increase in adverse impacts to air quality.

## 1.13 SUMMARY

As noted above, the facility was previously reviewed under SEQR. There are no proposed changes to mining and C&D disposal operations, and thus no additional adverse impacts, associated with the permit renewal and modification beyond those already contemplated during the initial review. The MSE Berm will improve visual screening at the northern end of the property and otherwise is also not expected to generate additional adverse impacts. The facility will continue to operate in accordance with current protocols to reduce the potential for nuisances.

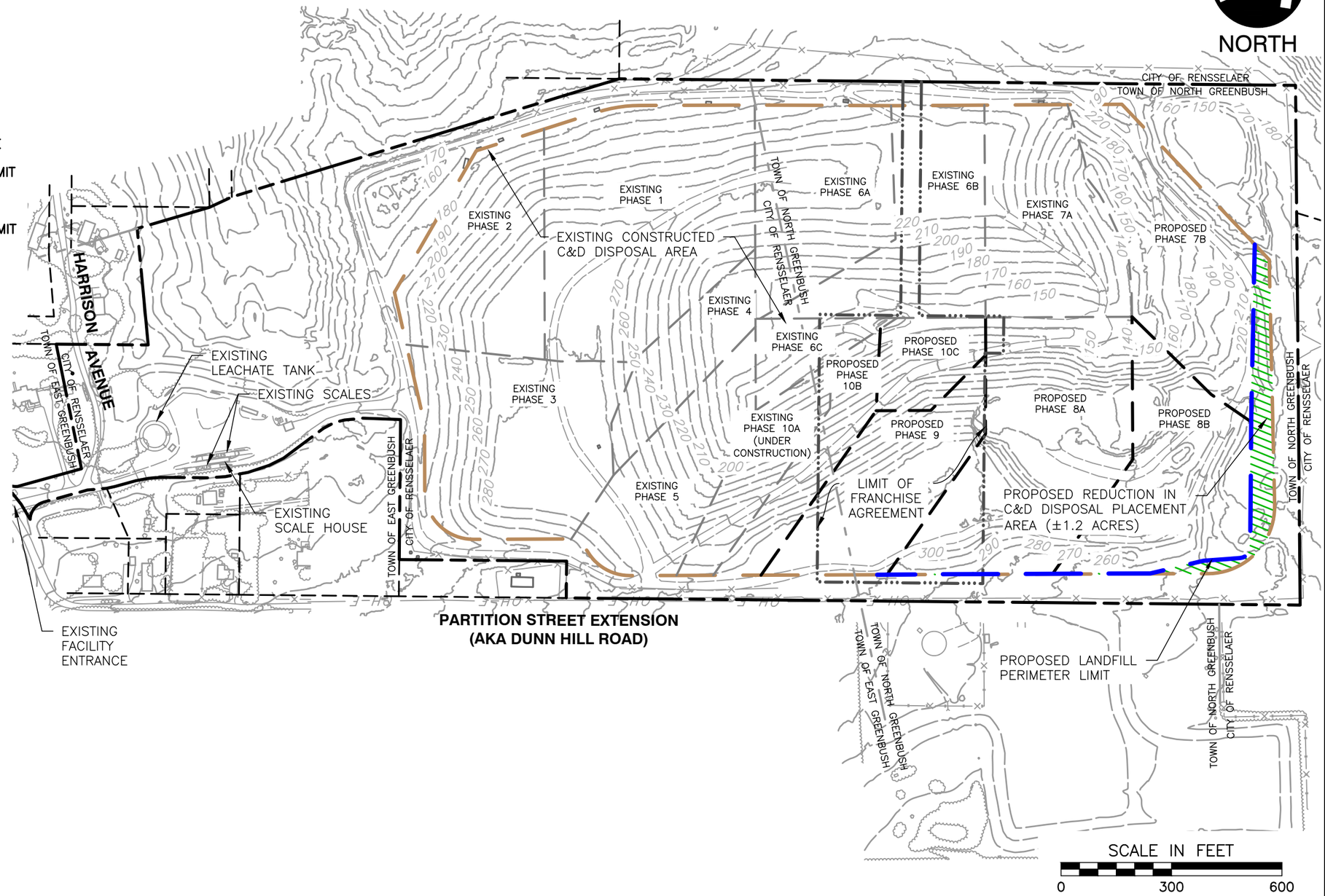
The completed EAF form for the permit renewal and proposed MSE Berm modification is attached in Appendix A, and additional discussion supporting the EAF has been provided in Appendix B. Additional reference information is presented in Appendices C through E. Detailed information regarding the current measures S.A. Dunn is currently implementing to mitigate off-site impacts, as well as recent sampling and monitoring results from NYSDEC and other parties, is included in Appendix F. These measures will continue to be followed. Visual reference information is illustrated in Figures 1 through 3.

## FIGURES

- Figure 1 – Revised C&D Disposal Area
- Figure 2 – MSEh Berm Disturbed Area
- Figure 3 – Site Vicinity Plan

## LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING FENCE
- EXISTING PAVED ROAD
- EXISTING UNPAVED ROAD
- EXISTING TREE LINE
- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- PERMITTED LANDFILL PERIMETER LIMIT
- EXISTING LANDFILL PHASE LIMIT
- PROPOSED LANDFILL PERIMETER LIMIT
- PROPOSED LANDFILL PHASE LIMIT
- PROPOSED REDUCTION IN C&D DISPOSAL FOOTPRINT AREA (± 1.2 ACRES)




REFERENCE NOTES:

1. EXISTING TOPOGRAPHY WAS COMPILED BY SOUTHERN RESOURCES MAPPING CORPORATION USING PHOTOGRAMMETRIC METHODS FROM PHOTOGRAPHY DATED MARCH 16, 2021, AND SUPPLEMENTED WITH TOPOGRAPHY FROM OCTOBER 10, 2020 AND NOVEMBER 4, 2020. SURVEY CONTROL DATA WAS PROVIDED BY WASTE CONNECTIONS, INC.

2. PROPERTY LINE INFORMATION WAS TAKEN FROM A PLAN TITLED "ATLA/ASCM LAND TITLE BOUNDARY SURVEY, LANDS OF KELLY AND DUNN TO BE CONVEYED TO S.A. DUNN & COMPANY, LLC," PREPARED AND SEALED BY WILLIAM N. CURRAN, AND UPDATED AS NECESSARY BASED ON AVAILABLE TITLE INFORMATION.


**Civil & Environmental Engineering, Landscape Architecture and Land Surveying, PLLC**

31 Bellows Road
Raynham, MA 02767


MSE BERM MODIFICATION
DUNN MINE AND C&D FACILITY
S.A. DUNN & COMPANY, LLC
RENSSELAER, NEW YORK

REVISED C&D DISPOSAL AREA

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DRAWN BY: | TLG | CHECKED BY: | EMW | APPROVED BY: | AJK | FIGURE NO.: | 1 |
| DATE: | JANUARY 2022 | DWG SCALE: | 1"=300' | PROJECT NO: | 182-442 | | |

## LEGEND

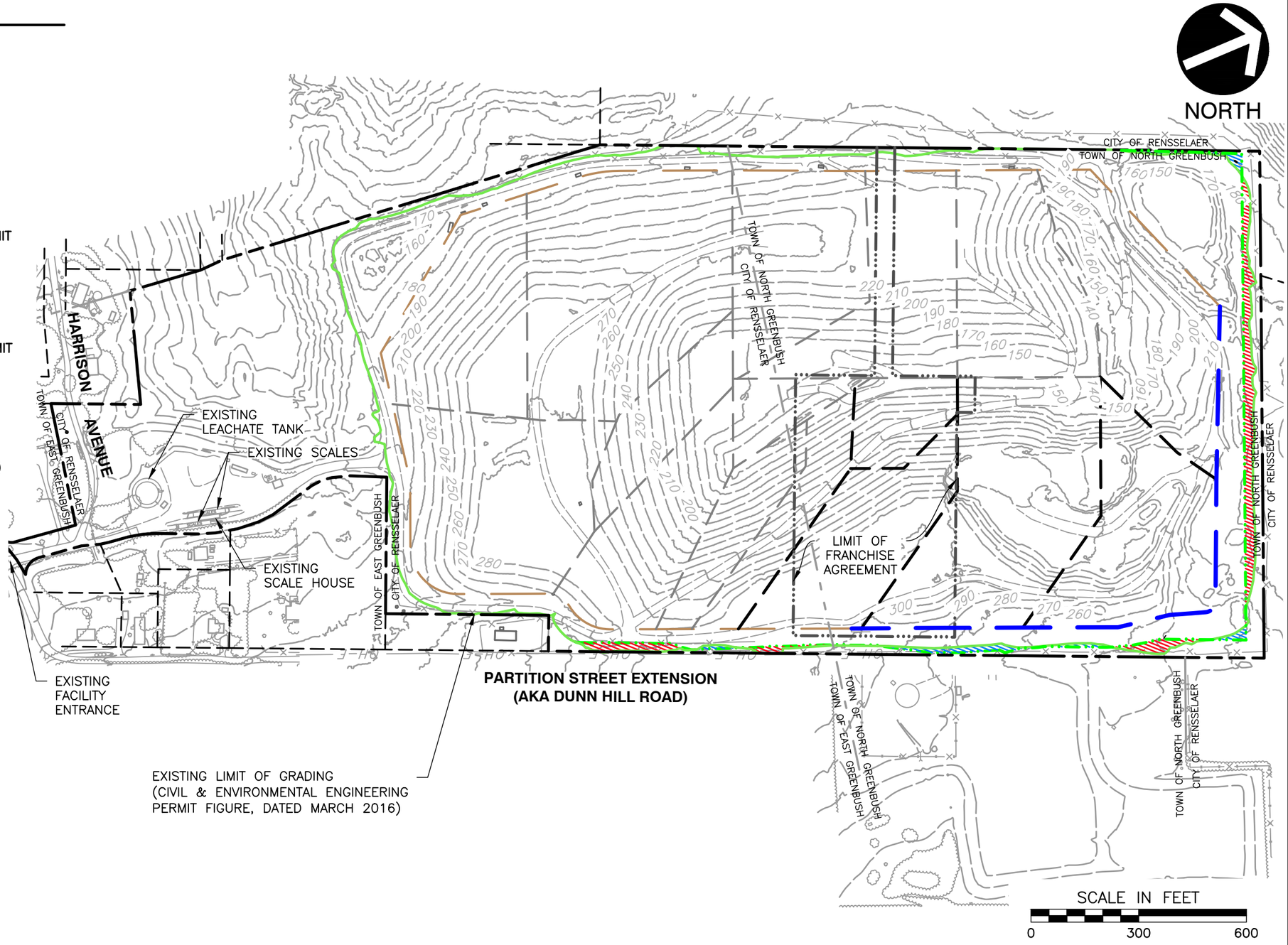
- EXISTING MAJOR CONTOUR
- EXISTING FENCE
- EXISTING PAVED ROAD
- EXISTING UNPAVED ROAD
- EXISTING TREE LINE
- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- PERMITTED LANDFILL PERIMETER LIMIT
- EXISTING LIMIT OF GRADING
- EXISTING LANDFILL PHASE LIMIT
- PROPOSED LIMIT OF GRADING
- PROPOSED LANDFILL PERIMETER LIMIT
- PROPOSED LANDFILL PHASE LIMIT
- PROPOSED LIMIT OF ADDITIONAL DISTURBED AREA (0.27± ACRES)
- PROPOSED LIMIT OF REDUCTION IN DISTURBED AREA (0.93± ACRES)

NOTE:

1. NET DISTURBED AREA IS REDUCED BY APPROXIMATELY 0.66 ACRES.

REFERENCE NOTES:

1. EXISTING TOPOGRAPHY WAS COMPILED BY SOUTHERN RESOURCES MAPPING CORPORATION USING PHOTOGRAMMETRIC METHODS FROM PHOTOGRAPHY DATED MARCH 16, 2021, AND SUPPLEMENTED WITH TOPOGRAPHY FROM OCTOBER 10, 2020 AND NOVEMBER 4, 2020. SURVEY CONTROL DATA WAS PROVIDED BY WASTE CONNECTIONS, INC.
2. PROPERTY LINE INFORMATION WAS TAKEN FROM A PLAN TITLED "ATLA/ASCM LAND TITLE BOUNDARY SURVEY, LANDS OF KELLY AND DUNN TO BE CONVEYED TO S.A. DUNN & COMPANY, LLC," PREPARED AND SEALED BY WILLIAM N. CURRAN, AND UPDATED AS NECESSARY BASED ON AVAILABLE TITLE INFORMATION.
3. THE EXISTING LIMIT OF GRADING WAS TAKEN FROM A FIGURE TITLED "ADDITIONAL DISTURBED AREA" PREPARED BY CIVIL & ENVIRONMENTAL ENGINEERING, LANDSCAPE ARCHITECTURE AND LAND SURVEYING PLLC, DATED MARCH, 2016.




| | |
|---|---|
| **Civil & Environmental Engineering, Landscape Architecture and Land Surveying, PLLC**<br>31 Bellows Road<br>Raynham, MA 02767 | MSE BERM MODIFICATION<br>DUNN MINE AND C&D FACILITY<br>S.A. DUNN & COMPANY, LLC<br>RENSSELAER, NEW YORK<br>DISTURBED AREA |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DRAWN BY: | TLG | CHECKED BY: | EMW | APPROVED BY: | AJK | FIGURE NO.: | 2 |
| DATE: | JANUARY 2022 | DWG SCALE: | 1"=300' | PROJECT NO: | 182-442 | | |

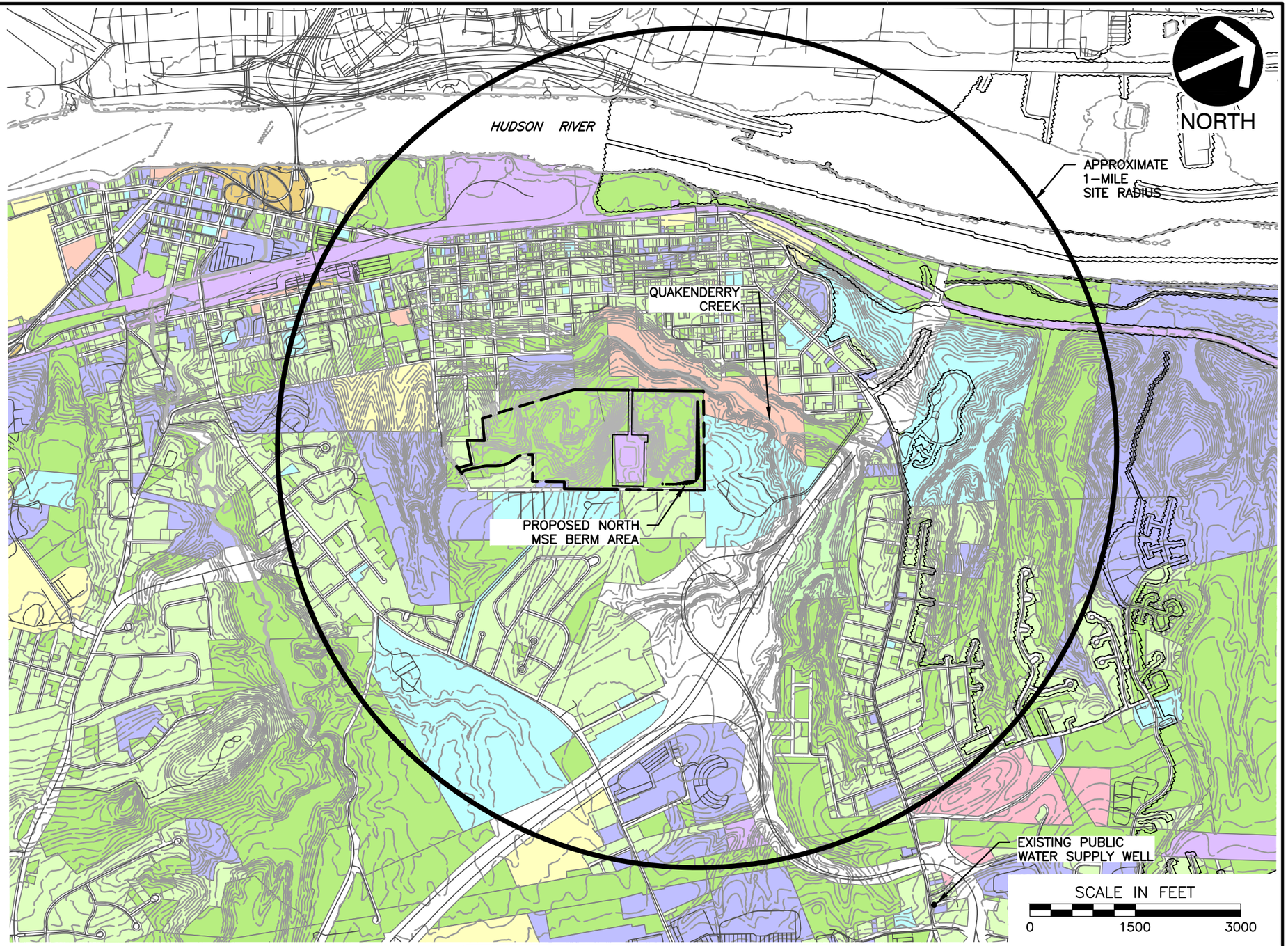
P:\2018\182-442\-CADD\Dwg\SW16-EAF Figures\182442-SW16-EAF-Figure 2-North MSE Disturbed Figure.dwg{FIGURE 2} LS:(1/12/2022 - tgarani) - LP: 1/12/2022 9:05 AM

LEGEND:

- EXISTING 10–FOOT CONTOUR
- PROPERTY BOUNDARY
- 1–MILE SITE RADIUS
- EXISTING PAVED ROAD
- EXISTING WATER BODIES
- AGRICULTURAL ZONE
- COMMERCIAL ZONE
- COMMUNITY SERVICES ZONE
- INDUSTRIAL ZONE
- PUBLIC SERVICES ZONE
- RECREATION & ENTERTAINMENT ZONE
- RESIDENTIAL ZONE
- VACANT LAND ZONE
- WILD, FORESTED, CONSERVATION LAND ZONE
- PUBLIC/PRIVATE WATER SUPPLY WELL (SEE NOTE 3)

NOTES:

1. VECTOR DATA FROM OPEN STREETMAP INCLUDING ROADS, AND WATER FEATURES FOR WORLDWIDE LOCATIONS. ACCESS RASTER DATA FROM BINGMAP; GLOBAL, 90 METER SRTM TERRAIN DATA; AND US DEPARTMENT OF AGRICULTURE DATA AT 10 METER RESOLUTION.
2. ZONING/LANDUSE, AND WELL INFORMATION WERE TAKEN FROM NEW YORK GIS DATABASE.
3. THERE ARE NO PUBLIC/PRIVATE WELLS WITHIN 1–MILE OF THE PROPOSED AREA OF MODIFICATION.





**Civil & Environmental Engineering, Landscape Architecture and Land Surveying, PLLC**

31 Bellows Road
Raynham, MA 02767


MSE BERM MODIFICATION
DUNN MINE AND C&D FACILITY
S.A. DUNN & COMPANY, LLC
RENSSELAER, NEW YORK

SITE VICINITY PLAN

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DRAWN BY: | KFH | CHECKED BY: | CSD | APPROVED BY: | AJK | FIGURE NO.: | 3 |
| DATE: | MAY 2021 | DWG SCALE: | 1"=1500 | PROJECT NO: | 182-442 | | |

P:\2018\182-442\-CADD\Dwg\SW16-EAF Figures\182442-SW16-EAF-Figure 3-Site Vicinity Figure.dwg[11X17] LS:(12/28/2021 - ewillson) - LP: 1/12/2022 9:03 AM

## APPENDIX A

- Full Environmental Assessment Form – Part 1

*Full Environmental Assessment Form*
*Part 1 - Project and Setting*

## Instructions for Completing Part 1

**Part 1 is to be completed by the applicant or project sponsor.** Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

### A. Project and Applicant/Sponsor Information.

| | | |
|---|---|---|
| Name of Action or Project:<br>MSE Berm Modification | | |
| Project Location (describe, and attach a general location map):<br>209 Partition Street Extension, Renesselaer, NY 12144 | | |
| Brief Description of Proposed Action (include purpose or need):<br>The Dunn Mine and C&D Facility is an existing mine and construction and demolition debris (C&D) landfill located in Rensselaer, New York. S.A. Dunn would like to obtain approval from NYSDEC to modify the footprint to incorporate a mechanically stabilized earthen (MSE) berm on the north side of the site. The berm will increase the setback distance from the north property line and will be higher in elevation than the current permitted berm elevation which will provide visual screening from landfill operations for the adjacent property. The proposed revision will decrease the total waste footprint and will not increase the maximum permitted elevation of the site above that which is already permitted. There will be no increase in C&D disposal volume as a result of this project. | | |
| Name of Applicant/Sponsor:<br>S.A Dunn & Company, LLC | Telephone: (518) 650-6106<br>E-Mail: | |
| Address: 209 Partition Street Extension | | |
| City/PO: Rensselaer | State: | Zip Code: |
| Project Contact (if not same as sponsor; give name and title/role):<br>Curt Taylor, Region Engineer | Telephone: (518) 650-6106<br>E-Mail: Curtis.Taylor@wasteconnections.com | |
| Address:<br>209 Partition Street Extension | | |
| City/PO:<br>Rensselaer | State:<br>NY | Zip Code:<br>12144 |
| Property Owner (if not same as sponsor): | Telephone:<br>E-Mail: | |
| Address: | | |
| City/PO: | State: | Zip Code: |

**B. Government Approvals**

| **B. Government Approvals, Funding, or Sponsorship.** ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.) | | |
|---|---|---|
| **Government Entity** | **If Yes: Identify Agency and Approval(s) Required** | **Application Date (Actual or projected)** |
| a. City Counsel, Town Board, or Village Board of Trustees ☐Yes☑No | | |
| b. City, Town or Village Planning Board or Commission ☐Yes☑No | | |
| c. City, Town or Village Zoning Board of Appeals ☐Yes☑No | | |
| d. Other local agencies ☐Yes☑No | | |
| e. County agencies ☐Yes☑No | | |
| f. Regional agencies ☐Yes☑No | | |
| g. State agencies ☑Yes☐No | NYSDEC- NYSDEC Part 360 Permit, MSGP, Mining Permit | January 2022 |
| h. Federal agencies ☐Yes☑No | | |

i. Coastal Resources.
*i.* Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes☑No

*ii.* Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☑Yes☐No

*iii.* Is the project site within a Coastal Erosion Hazard Area? ☐Yes☑No

**C. Planning and Zoning**

**C.1. Planning and zoning actions.**

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

**C.2. Adopted land use plans.**

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☐Yes☑No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☑Yes☐No

If Yes, identify the plan(s):

Remediaton Sites:442042

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes☑No

If Yes, identify the plan(s):

**C.3. Zoning**

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Industrial (I-2)

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
*i.* What is the proposed new zoning for the site? _____

**C.4. Existing community services.**

a. In what school district is the project site located? Rensselaer/North Greenbush

b. What police or other public protection forces serve the project site?
Rensselaer/North Greenbush

c. Which fire protection and emergency medical services serve the project site?
Rensselaer/North Greenbush

d. What parks serve the project site?
This project does not create any demand for park use.

**D. Project Details**

**D.1. Proposed and Potential Development**

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? The general nature of the proposed action is to incorporate a mechanically stabilized earthen (MSE) berm on the north side of the site.

b. a. Total acreage of the site of the proposed action? 5[illegible] acres
b. Total acreage to be physically disturbed? 5.2 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 90.4 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
*i.* If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
*i.* Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

*ii.* Is a cluster/conservation layout proposed? ☐ Yes ☐ No
*iii.* Number of lots proposed? _____
*iv.* Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☑ Yes ☐ No
*i.* If No, anticipated period of construction: _____ months
*ii.* If Yes:
- Total number of phases anticipated 2
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

Initial construction of the MSE Berm will begin after construction of Phases 10A, 10B, 10C, 9, and 8A with the installation of Phase 8B of the C&D Facility and will be completed during construction of Phase 7B during the following construction season.

f. Does the project include new residential uses? ☐Yes ☑No

If Yes, show numbers of units proposed.

| | One Family | Two Family | Three Family | Multiple Family (four or more) |
|---|---|---|---|---|
| Initial Phase | | | | |
| At completion of all phases | | | | |

g. Does the proposed action include new non-residential construction (including expansions)? ☐Yes ☑No

If Yes,

*i.* Total number of structures _____

*ii.* Dimensions (in feet) of largest proposed structure: _____height; _____width; and _____ length

*iii.* Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐Yes ☑No

If Yes,

*i.* Purpose of the impoundment: Proposed North Infiltration Basin will be excavated to provide stormwater containment. It is not an impoundment.

*ii.* If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐Other specify:

_____

*iii.* If other than water, identify the type of impounded/contained liquids and their source.

_____

*iv.* Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

*v.* Dimensions of the proposed dam or impounding structure: _____ height; _____ length

*vi.* Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

_____

**D.2. Project Operations**

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐Yes ☑No

If Yes:

*i.* What is the purpose of the excavation or dredging? _____

*ii.* How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

*iii.* Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

_____

_____

iv. Will there be onsite dewatering or processing of excavated materials? ☐Yes ☐No

If yes, describe. _____

_____

*v.* What is the total area to be dredged or excavated? _____acres

*vi.* What is the maximum area to be worked at any one time? _____ acres

*vii.* What would be the maximum depth of excavation or dredging? _____ feet

*viii.* Will the excavation require blasting? ☐Yes ☐No

*ix.* Summarize site reclamation goals and plan: _____

_____

_____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐Yes ☑No

If Yes:

*i.* Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

_____

*ii.* Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

_____

_____

_____

_____

*iii.* Will the proposed action cause or result in disturbance to bottom sediments? ☐Yes ☐No

If Yes, describe: _____

*iv.* Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☐No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____

_____

- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

*v.* Describe any proposed reclamation/mitigation following disturbance: _____

_____

c. Will the proposed action use, or create a new demand for water? ☐Yes ☑No

If Yes:

*i.* Total anticipated water usage/demand per day: _____ gallons/day

*ii.* Will the proposed action obtain water from an existing public water supply? ☐Yes ☐No

If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? ☐Yes ☐No
- Is the project site in the existing district? ☐Yes ☐No
- Is expansion of the district needed? ☐Yes ☐No
- Do existing lines serve the project site? ☐Yes ☐No

*iii.* Will line extension within an existing district be necessary to supply the project? ☐Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

_____

- Source(s) of supply for the district: _____

*iv.* Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☐No

If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

*v.* If a public water supply will not be used, describe plans to provide water supply for the project: _____

_____

*vi.* If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☐Yes ☑No

If Yes:

*i.* Total anticipated liquid waste generation per day: _____ gallons/day

*ii.* Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

_____

_____

*iii.* Will the proposed action use any existing public wastewater treatment facilities? ☐Yes ☐No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐Yes ☐No
- Is the project site in the existing district? ☐Yes ☐No
- Is expansion of the district needed? ☐Yes ☐No

- Do existing sewer lines serve the project site? ☐Yes☐No
- Will a line extension within an existing district be necessary to serve the project? ☐Yes☐No

  If Yes:
  - Describe extensions or capacity expansions proposed to serve this project: _____

*iv.* Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes☐No

If Yes:
- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

*v.* If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

*vi.* Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes☐No

If Yes:

*i.* How much impervious surface will the project create in relation to total size of project parcel?

1 Square feet or _____ acres (impervious surface)

1 Square feet or _____ acres (parcel size)

*ii.* Describe types of new point sources. Swales, culverts, basin outlet pipe

*iii.* Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

North Infiltration Basin

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐Yes☑No

*iv.* Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐Yes☑No

If Yes, identify:

*i.* Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

*ii.* Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

*iii.* Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes☑No

If Yes:

*i.* Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes☐No

*ii.* In addition to emissions as calculated in the application, the project will generate:
- _____Tons/year (short tons) of Carbon Dioxide ($CO_2$)
- _____Tons/year (short tons) of Nitrous Oxide ($N_2O$)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride ($SF_6$)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

*i.* Estimate methane generation in tons/year (metric): _____

*ii.* Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

*i.* When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

*ii.* For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

*iii.* Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

*iv.* Does the proposed action include any shared use parking? ☐Yes ☐No

*v.* If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

*vi.* Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

*vii* Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

*viii.* Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☑No

If Yes:

*i.* Estimate annual electricity demand during operation of the proposed action: _____

*ii.* Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

*iii.* Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

*i.* During Construction:

- Monday - Friday: 6:30 am - 5:30 pm
- Saturday: 8:00 am - 4:00 pm
- Sunday: Closed
- Holidays: Closed

*ii.* During Operations:

- Monday - Friday: 6:30 am - 5:30 pm (daily cover operations complete by 6:30 pm)
- Saturday: Closed
- Sunday: Closed
- Holidays: Closed

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☐ Yes ☑ No

If yes:

*i.* Provide details including sources, time of day and duration:

*ii.* Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☐ No

Describe:

n. Will the proposed action have outdoor lighting? ☐ Yes ☑ No

If yes:

*i.* Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

*ii.* Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☐ No

Describe:

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

*i.* Product(s) to be stored

*ii.* Volume(s) _____ per unit time _____ (e.g., month, year)

*iii.* Generally, describe the proposed storage facilities:

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

*i.* Describe proposed treatment(s):

*ii.* Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐ No

If Yes:

*i.* Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: <1 tons per ~3-6 months/phase (unit of time)
- Operation : _____ tons per _____ (unit of time)

*ii.* Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction:
- Operation:

*iii.* Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: Waste geosynthetics from construction will be disposed of in on-site C&D landfill
- Operation:

s. Does the proposed action include construction or modification of a solid waste management facility? ☑ Yes ☐ No

If Yes:

*i.* Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): C&D Disposal

*ii.* Anticipated rate of disposal/processing:

- N/A Tons/month, if transfer or other non-combustion/thermal treatment, or
- N/A Tons/hour, if combustion or thermal treatment

*iii.* If landfill, anticipated site life: 17 years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

*i.* Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

*ii.* Generally describe processes or activities involving hazardous wastes or constituents: _____

*iii.* Specify amount to be handled or generated _____ tons/month

*iv.* Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

*v.* Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☑ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

There will be no hazardous waste associated with this project

## E. Site and Setting of Proposed Action

### E.1. Land uses on and surrounding the project site

a. Existing land uses.

*i.* Check all uses that occur on, adjoining and near the project site.

☐ Urban ☑ Industrial ☑ Commercial ☑ Residential (suburban) ☑ Rural (non-farm)
☑ Forest ☑ Agriculture ☐ Aquatic ☑ Other (specify): Cemetery and Schools

*ii.* If mix of uses, generally describe:

The proposed project site is surrounded by the areas listed above as well as schools and a cemetery.

b. Land uses and covertypes on the project site.

| Land use or Covertype | Current Acreage | Acreage After Project Completion | Change (Acres +/-) |
|---|---|---|---|
| • Roads, buildings, and other paved or impervious surfaces | | | |
| • Forested | 2 | 0 | -2 |
| • Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural) | | | |
| • Agricultural (includes active orchards, field, greenhouse etc.) | | | |
| • Surface water features (lakes, ponds, streams, rivers, etc.) | 0.75 | 2.48(North Infiltration Basin) | 1.73 |
| • Wetlands (freshwater or tidal) | | | |
| • Non-vegetated (bare rock, earth or fill) | 2.57 | 0 | -2.57 |
| • Other Describe: Vegated MSE Berm with gravel road | 0.0 | 3.5 | 3.5 |

c. Is the project site presently used by members of the community for public recreation? ☐Yes ☑No

*i.* If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑Yes ☐No

If Yes,

*i.* Identify Facilities:

Rennselaer Junior/Senior High School is located approximately 650 feet northeast of the MSE Berm.

e. Does the project site contain an existing dam? ☐Yes ☑No

If Yes:

*i.* Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

*ii.* Dam's existing hazard classification: _____

*iii.* Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☑Yes ☐No

If Yes:

*i.* Has the facility been formally closed? ☐Yes ☑No

- If yes, cite sources/documentation: _____

*ii.* Describe the location of the project site relative to the boundaries of the solid waste management facility:

The proposed project site is an existing C&D Disposal facility.

*iii.* Describe any development constraints due to the prior solid waste activities: _____

Their are no development constraints.

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐Yes ☑No

If Yes:

*i.* Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☑Yes ☐No

If Yes:

*i.* Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☑Yes ☐No

☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____

☑ Yes – Environmental Site Remediation database — Provide DEC ID number(s): 442042

☐ Neither database

*ii.* If site has been subject of RCRA corrective activities, describe control measures: _____

*iii.* Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☑Yes ☐No

If yes, provide DEC ID number(s): 442042

*iv.* If yes to (i), (ii) or (iii) above, describe current status of site(s):

442042-active cleanup proposed for summer 2015 and has been since classified as "C" for complete. Refer to Appendix B and D for additional information.

v. Is the project site subject to an institutional control limiting property uses? ☐Yes ☑No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐Yes ☑No
- Explain: _____

**E.2. Natural Resources On or Near Project Site**

a. What is the average depth to bedrock on the project site? 200 feet

b. Are there bedrock outcroppings on the project site? ☐Yes ☑No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site:

| | |
|---|---|
| Fredon Silt Loam | 23.9 % |
| Hoosic Gravelly Sandy Loam | 63.1 % |
| Windsor Loamy Sand | 13.0 % |

d. What is the average depth to the water table on the project site? Average: 130-170 feet

e. Drainage status of project site soils:

| | | |
|---|---|---|
| ☑ | Well Drained: | 13.0 % of site |
| ☑ | Moderately Well Drained: | 63.1 % of site |
| ☑ | Poorly Drained | 23.9 % of site |

f. Approximate proportion of proposed action site with slopes:

| | | |
|---|---|---|
| ☑ | 0-10%: | [redacted] % of site |
| ☑ | 10-15%: | [redacted] % of site |
| ☑ | 15% or greater: | [redacted] % of site |

g. Are there any unique geologic features on the project site? ☐Yes ☑No
If Yes, describe: _____

h. Surface water features.

*i.* Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐Yes ☑No

*ii.* Do any wetlands or other waterbodies adjoin the project site? ☑Yes ☐No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

*iii.* Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑Yes ☐No

*iv.* For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name Quackenderry Creek Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

*v.* Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐Yes ☑No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐Yes ☑No

j. Is the project site in the 100-year Floodplain? ☐Yes ☑No

k. Is the project site in the 500-year Floodplain? ☐Yes ☑No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐Yes ☑No
If Yes:

*i.* Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:

| | | |
|---|---|---|
| Rats | Mice | Chipmunks |
| Squirrels | Snakes | Birds |
| Raccoons | Ducks | Opossum |

n. Does the project site contain a designated significant natural community? ☐Yes ☑No

If Yes:

*i.* Describe the habitat/community (composition, function, and basis for designation): _____

*ii.* Source(s) of description or evaluation: _____

*iii.* Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐Yes ☑No

If Yes:

*i.* Species and listing (endangered or threatened): _____

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐Yes ☑No

If Yes:

*i.* Species and listing: _____

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐Yes ☑No

If yes, give a brief description of how the proposed action may affect that use: _____

**E.3. Designated Public Resources On or Near Project Site**

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐Yes ☑No

If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐Yes ☑No

*i.* If Yes: acreage(s) on project site? _____

*ii.* Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☑No

If Yes:

*i.* Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

*ii.* Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☑No

If Yes:

*i.* CEA name: _____

*ii.* Basis for designation: _____

*iii.* Designating agency and date: _____

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐ Yes ☑ No

If Yes:

*i.* Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

*ii.* Name: _____

*iii.* Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

*i.* Describe possible resource(s): _____

*ii.* Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

*i.* Identify resource: Revolutionary Trail and Hudson River

*ii.* Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Refer to Appendix B and D

*iii.* Distance between project and resource: Refer to Appendix B miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

*i.* Identify the name of the river and its designation: _____

*ii.* Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

**F. Additional Information**

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

**G. Verification**

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Curt Taylor Date 1/13/2022

Signature _____ Title REGION ENGINEER

PRINT FORM

## APPENDIX B

- Additional Information Supporting the EAF

## ADDITIONAL INFORMATION SUPPORTING THE EAF

## B. GOVERNMENT APPROVALS, FUNDING, OR SPONSORSHIP

B.c. *City Council, Town or Village Zoning Board of Appeals*

The proposed MSE Berm area is located within property owned by S.A Dunn Company, LLC. The zoning map is included in Appendix D which shows that the zoning in the proposed project area is "Industrial (1-2)" which permits uses of the land as quarries, pits, filling and excavating; therefore there is not a need for zoning or use variances.

B.g. *State Agencies*

The proposed MSE Berm will require NYSDEC approval of a Mined Land Use Permit, Part 360 Solid Waste permit, and Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (GP-0-17-001). Concurrently, the facility is renewing the existing Mined Land Use Permit and Part 360 Solid Waste permit.

B.i. *Coastal Resources*

ii. As noted in the EAF Mapper Summary Report (Appendix C), dated January 7, 2021, the proposed project is located in a community with an approved Local Waterfront Revitalization Program. However, this project does not involve any disturbance within the waterfront area.

## C. PLANNING AND ZONING

C.2 Adopted land use plans

*C.2.b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?)?*

Yes, Remediation Site: 442042 – Rensselaer Wyck Target Range – Clean up started in the summer of 2015 and by the following year, the site was completed. Refer to Appendix D for more information.

C.3 Zoning

*C.3.a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance?*
*If Yes, what is the zoning classification(s) including any applicable overlay district?*
The proposed project area is located on property owned by S.A Dunn & Company LLC which has an adopted zoning law or ordinance. The City of Rensselaer zoning map dated June 2012 (Appendix D) classifies the C&D area as Industrial (1-2) which is an area where quarries, pits, filling and excavating are permitted.

*C.3.b. Is the use permitted or allowed by a special or conditional use permit?*
The proposed MSE Berm area permit modification requires approval by NYSDEC.

## D. PROJECT DETAILS

D.1 Proposed and potential development

*D.1.a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)?*
The general nature of the proposed action is construction of a mechanically stabilized earthen (MSE) berm on the northern and eastern side of the site.

*D.1.b. Total acreage to be physically disturbed*
The proposed project encompasses 5.2 acres which includes the reinforced berm geogrid embedment length, berm top width, including drainage swale, road, and planting area (where applicable). The project area also includes the North Infiltration Basin which is already approved and permitted but will be constructed concurrent with the MSE Berm. Refer to Figure 2 for limits of the project area.

*D.1.c. Is the proposed action an expansion of an existing project or use?*
No, the proposed action is not an expansion to the site. The proposed MSE Berm will provide additional visual screening.

*D.1.e. Will proposed action be constructed in multiple phases?*
Yes, the proposed action will be constructed in multiple phases. Initial construction of the MSE Berm will begin prior to installation of Phase 8B of the C&D Facility and will be completed during construction of Phase 7B during the following construction season.

D.2 Project operations

*D.2.f.i. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations?*
The proposed MSE Berm will not result in one or more sources of air emissions.

*D.2.g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit?*
The proposed action does not require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit.

*D.2.j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services?*
Under the current permit from NYSDEC, the site is permitted to generate up to 100 truck round trips per day. There are no proposed changes to this permit condition to facilitate the MSE Berm project; therefore, there will be no changes to the traffic impacts.

*D.2.m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both?*
The construction of the MSE Berm will not result in changes to the expected noise levels.

*D.2.n. Will the proposed action have outdoor lighting?*
No, the proposed action does not include any plans for outdoor lighting.

*D.2.o. Does the proposed action have the potential to produce odors for more than one hour per day?*
No, the proposed project is construction of a MSE Berm, which will not generate odors. The berm construction will not increase the amount of waste placed in the C&D disposal area; therefore, the potential for odor production remains the same as current operations and the site will continue to implement odor control procedures in compliance with the Facility Manual.

*D.2.s. Does the proposed action include construction or modification of a solid waste management facility?*

The construction of the MSE Berm does not change the type of management or handling of waste, nor result in any increase to the rate of disposal or anticipated site life, but it is anticipated to reduce the waste disposal site life by approximately four months.

## E. SITE AND SETTING OF PROPOSED ACTION

E.1 Land uses on and surrounding the project site

*E.1.d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site?*

Appendix D includes an aerial photograph of the Site and Rensselaer Junior/Senior High School, which is located approximately 653 feet northeast. The MSE Berm will provide additional visual screening from site operations at the school property.

*E.1.f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property, which is now, or was at one time, used as a solid waste management facility?*

The project site is currently a C&D disposal facility. There are no development constraints for the proposed MSE Berm.

*E.1.h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?*

According to the Environmental Site Remediation Database Search Details (Appendix D), a former target range that is identified by the Environmental Site Remediation Database Search as a potential hazardous waste site (site code: 442042) is located approximately 1,210 feet from the site. The location is a class "C" facility, indicating that it has been satisfactorily completed under a remedial program. Further information about the Rensselaer Wyck Target Range can be found in the attached Environmental Site Remediation Database Search Details in Appendix D.

E.2 Natural Resources On or Near the Project Site

*E.2.a. What is the average depth to bedrock on the project site?*

Depth to bedrock on the Project site is approximately 198 feet below the ground surface.

*E.2.c. Predominant soil type(s) present on project site*

The Web Soil Survey Soil Map (Appendix D) illustrates predominant soil types present on the additional disturbance area. Based on this information, the soils in the area of the proposed action are Fredon Silt loam (23.9%), Hoosic Gravelly Sandy Loam (63.1%) and Windsor Loamy Sand (13.0%).

*E.2.d. What is the average depth to the water table on the project site?*

The depth to groundwater is approximately 130 to 170 feet below grade.

*E.2.e. Drainage status of project site soils:*

The Web Soil Survey Soil Map for the project area (Appendix D) provides the engineering properties of the predominant soil types present on the site. Using the Web Soil Survey Map Engineering Properties descriptions, the soils within the site are approximately 13.0% excessively drained, 63.1% somewhat excessively drained) and 23.9% poorly drained.

*E.2.f. Approximate proportion of proposed action site with slopes:*

CEE estimates the approximate proportion of the existing grade with 0-10% side slopes 39% of site, 10-15% to cover 11% of the site and 15% or greater to cover 50% of site.

*E.2.h. Surface water features.*

*ii. Do any wetlands or other waterbodies adjoin the project site?*

The facility was previously reviewed under SEQR 2012 and there are no changes in impacts to wetlands associated with the proposed modification. A wetland delineation was done on the project site by the U.S. Army Corps of Engineers and it was determined that four (4) small wetlands and four (4) streams located at the southern portion of the site. The berm is not located within previously delineated wetland areas.

*E.2.i, j, k. Is the project site in a designated Floodway?*
*Is the project site in the 100 year Floodplain?*
*Is the project site in the 500 year Floodplain?*

The NEPAssist flood hazard zone map (Appendix D) does not show the berm area within a designated floodway, 100-year floodplain, or 500-year floodplain. The nearest floodway/floodplain is associated with the Hudson River, which is approximately 4,700 feet west of the MSE Berm.

*E.2.m. Identify the predominant wildlife species that occupy or use the project site:*
According to the New York State wildlife website, predominant wildlife species that may occupy or use the Site are snakes, mice, rats, chipmunks, birds, ducks, squirrels, raccoons, and opossum.

*E.2.n. Does the project site contain a designated significant natural community?*
The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates that the Site does not to contain a designated significant natural community.

*E.2.o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species?*
The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates that the site does not contain any species of plant or animal that is listed by the federal government or as endangered or threatened and does not contain any areas identified as habitat for an endangered or threatened species.

*E.2.p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern?*
The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates the project site does not contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern.

E.3 Designated Public Resources On or Near Project Site

*E.3.a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304?*
The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates that the project site is not located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304.

*E.3.b. Are agricultural lands consisting of highly productive soils present?*
The Web Soil Survey Soil Map for the site (Appendix D) provides the engineering properties of the predominant soil types present on the project site. The predominant soil types are described as a Hoosic gravelly sandy loam, Windsor loamy sand, and Fredon silt loam, which are not designated as an agricultural land consisting of highly productive soils.

*E.3.c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark?*

The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates that the project site does not contain, partially contain, and is not substantially contiguous to a registered National Natural Landmark.

*E.3.d. Is the project site located in or does it adjoin a state listed Critical Environmental Area?*

The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates the project area is not located in or adjacent to a state listed Critical Environmental Area.

*E.3.e Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?*

The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates that mapping of National or State Register of Historic Places within the project area is incomplete. A study was prepared and submitted with the 2012 FEIS for the facility, and cultural impacts from the facility were previously reviewed under SEQR. The potential for impact of this project to have an effect on an archaeological site had been determined to be low.

*E.3.f Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?*

The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates that the proposed site is adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory. A study was prepared and submitted with the 2012 FEIS for the facility, and cultural impacts from the facility were previously reviewed under SEQR. The potential for impact of this project to have an effect on potentially significant cultural resources has been evaluated by Columbia Heritage, LTD, who determined that the potential for impact is low. The approximate area that will be under construction has been already disturbed by historical mining operations, which date back more than 100 years.

*E.3.h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?*

The links and information provided in the New York State Department of Environmental Conservation website identified two publically accessible federal, state, or local scenic or aesthetic resources within 5 miles of the MSE Berm. The City of Rensselaer Local Water front Revitalization Program identifies the land adjacent to the Hudson River as a "waterfront revitalization area" which nearest point to the MSE Berm is approximately 0.76 miles. The NYS DOT Scenic Byways identifies the revolutionary Trail as a "scenic byway" ending in Albany NY, approximately on the corner of Dove St. and Washington Ave., which is approximately 1.70 miles from the MSE Berm. Refer to the "Publically Accessible Federal, State, or Local Scenic or Aesthetic Resources" table, map and supporting documents in Appendix D for specific information.

| **Local Scenic or Aesthetic Resources within 5 miles of Project Site** | | | | | |
|---|---|---|---|---|---|
| Name | Description | Distance From Project Site (miles) | Approximate Location | City | Source |
| Hudson River | Waterfront Revitalization Area | 0.76 | Forbes Ave. | Rensselaer | The City of Rensselaer Waterfront Revitalization Program |
| Revolutionary Trail | Scenic Byway | 1.70 | Dove St. / Washington Ave. | Albany | NYS DOT Scenic Byways |

*E.3.i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?*

The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates that the project area is not located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666.

## APPENDIX C

- EAF Mapper Summary Report (January 7, 2022)

# EAF Mapper Summary Report

Friday, January 7, 2022 12:07 PM


**Disclaimer:** The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.


| | |
|---|---|
| B.i.i [Coastal or Waterfront Area] | No |
| B.i.ii [Local Waterfront Revitalization Area] | Yes |
| C.2.b. [Special Planning District] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h [DEC Spills or Remediation Site - Potential Contamination History] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.i [DEC Spills or Remediation Site - Listed] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.iii [Within 2,000' of DEC Remediation Site] | Yes |
| E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID] | 442042 |
| E.2.g [Unique Geologic Features] | No |
| E.2.h.i [Surface Water Features] | No |
| E.2.h.ii [Surface Water Features] | Yes |
| E.2.h.iii [Surface Water Features] | Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook. |
| E.2.h.v [Impaired Water Bodies] | No |
| E.2.i. [Floodway] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.2.j. [100 Year Floodplain] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.2.k. [500 Year Floodplain] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.2.l. [Aquifers] | No |

| | |
|---|---|
| E.2.n. [Natural Communities] | No |
| E.2.o. [Endangered or Threatened Species] | No |
| E.2.p. [Rare Plants or Animals] | No |
| E.3.a. [Agricultural District] | No |
| E.3.c. [National Natural Landmark] | No |
| E.3.d [Critical Environmental Area] | No |
| E.3.e. [National or State Register of Historic Places or State Eligible Sites] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.3.f. [Archeological Sites] | Yes |
| E.3.i. [Designated River Corridor] | No |

## APPENDIX D

- Environmental Site Remediation Database Search Details 442042
- Final Zoning Map 2012
- Rensselaer Zoning Bylaws Excerpt
- Google Earth Aerial View and Distance to School
- Web Soil Survey Soil Map
- Web Soil Survey Drainage Class
- Web Soil Survey Engineering Properties
- NEPAssist Floodplain Map
- Map – Local Scenic or Aesthetic Resources within 5 miles
- Table – Local Scenic or Aesthetic Resources within 5 miles
- The City of Rensselaer Local Waterfront Revitalization Program
- Revolutionary Byway

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

# Environmental Site Remediation Database Search Details

## Site Record

### Administrative Information

**Site Name:** Rensselaer Wyck Target Range
**Site Code:** 442042
**Program:** State Superfund Program
Classification: C
**EPA ID Number:**

### Location

**DEC Region:** 4
**Address:** 10th Street
**City:**Rensselaer Zip: 12144
**County:**Rensselaer
**Latitude:** 42.655949812
**Longitude:** -73.724138648
**Site Type:**
**Estimated Size:** 2.5 Acres

### Site Owner(s) and Operator(s)

**Current Owner Name:** City of Rensselaer
**Current Owner(s) Address:** 62 Washington Street, Room 2
Rensselaer,NY, 12144

### Site Description

Location: The Non-Department of Defense owned, Non-Operational Defense Site (NDNODS) known as "NDNODS Rensselaer Wyck Target Range" is a former Army National Guard small arms range located in the City of Rensselaer, NY. The target range occupied an 11-acre section of a 60-acre undeveloped woodland parcel known to the City of Rensselaer residents as ¿the Hollow.¿ The Hollow consists of steep wooded ridges on either side of the Quackenderry Creek and the vegetated valley through which the creek flows. The steep terrain provided a natural backstop for bullets. The line of fire was from SE to NW. A concrete

bunker, which served as the target-mounting location for the range, remains at the foot of a steep, earthen embankment (Bunker Hill) on the northern end of the Hollow parcel. The portion of the former range which had been considered by DEC to be a potential inactive hazardous waste disposal site (the Site) is the 2.5 acre area centered on the former target berm, bunker and natural backstop. Current Zoning/Uses: The Site and surrounding woodland parcels are owned by the city of Rensselaer and zoned as playground and residential vacant land. The property is currently used by residents for passive recreation and bird watching, and by community members operating unregulated All-Terrain Vehicles (ATVs). Some residents also use the partially-developed trails in the Hollow to access Van Rensselaer Drive, which is the entry road for the Rensselaer City School District High School. The intended future use of the property is as a city park and wildlife corridor. Historic Uses: The site was used by the New York Army National Guard as the Rensselaerwyck Target or Rifle Range from approximately 1894 to 1938. The property comprising the target range and Hollow was transferred to the City of Rensselaer in 1959 from the State of New York. In a September 2011 Preliminary Assessment (PA), the Army National Guard defined the area of concern as a MRS (Munitions Response Site), noting that the target berm and shelter were still present. The target berm was approximately six feet wide by eight feet deep and 120 feet long. The berm was located in the eastern portion of the MRS boundary. Additionally, the team observed a shelter that was 30 feet long and 10 feet wide. The direction of fire was to the northeast with a target berm located in front of a natural backstop. Potential munitions used were small arms (.22, .30, .38 and .45 caliber). The site was deemed a low priority for remediation by the Guard. The City of Rensselaer received a $200,000 Brownfields grant from USEPA in 2013 to clean up the metals contaminated soils (primarily lead and copper) and support community outreach. Implementation of the clean-up project was completed in June 2016.

## Site Environmental Assessment

Army National Guard Assessment: - No MEC (Munitions and Explosives of Concern) were observed during the Army National Guard's field work in 2011. A munitions debris (MD) item, a.30 caliber bullet, was observed during sample collection. - Four biased surface soil, two biased sediment, two ambient surface soil, and one ambient sediment sample were collected and analyzed for antimony, copper, and lead during the 2,941 meters (1.83 miles) of visual survey completed. - The maximum detected copper concentrations slightly exceeded the calculated background and human health screening values. New York State Department of Environmental Conservation (NYSDEC)/NY State Department of Health (NYSDOH) noted that for lead, three of the soil samples had concentrations of lead that were above 300 mg/kg,

close to the 400 mg/kg Soil Cleanup Objective. This site is in a park setting where exposures are likely (evidence of people using area) and also adjacent to a school. Therefore, the 2.5 acre portion of NDNODS Rensselaer Wyck Target Range MRS was recommended by the National Guard (with State concurrence) for a Remedial Investigation/Feasibility Study for MC (Munitions Constituents). Remedial Activities: The city of Rensselaer entered into a Cooperative Agreement with the EPA to enter EPA's Brownfield Cleanup Program (BCP)in 2013. Rensselaer contracted with ARCADIS to oversee all environmental activities at the site. The selected remedy was to remediate all lead and copper contaminated soils to NYS Part 375 Restricted Residential Soil Cleanup Objectives (RRSCOs)and to develop the site and surrounding property into a city park known as "the Hollow. DEC and DOH concurred with the selected remedy in August 2015 and remedial construction began in September 2015. By May 2016, remediation (soil removal) was complete and site restoration was underway. All excavated soil (~500 tons) was disposed of as non-hazardous waste at Albany's Rapp Road landfill. By way of email dated 7/14/16, ARCADIS confirmed that all site work is complete. The final engineering report (dated December 2016) was accepted by DEC and DOH in March 2017.

## Site Health Assessment

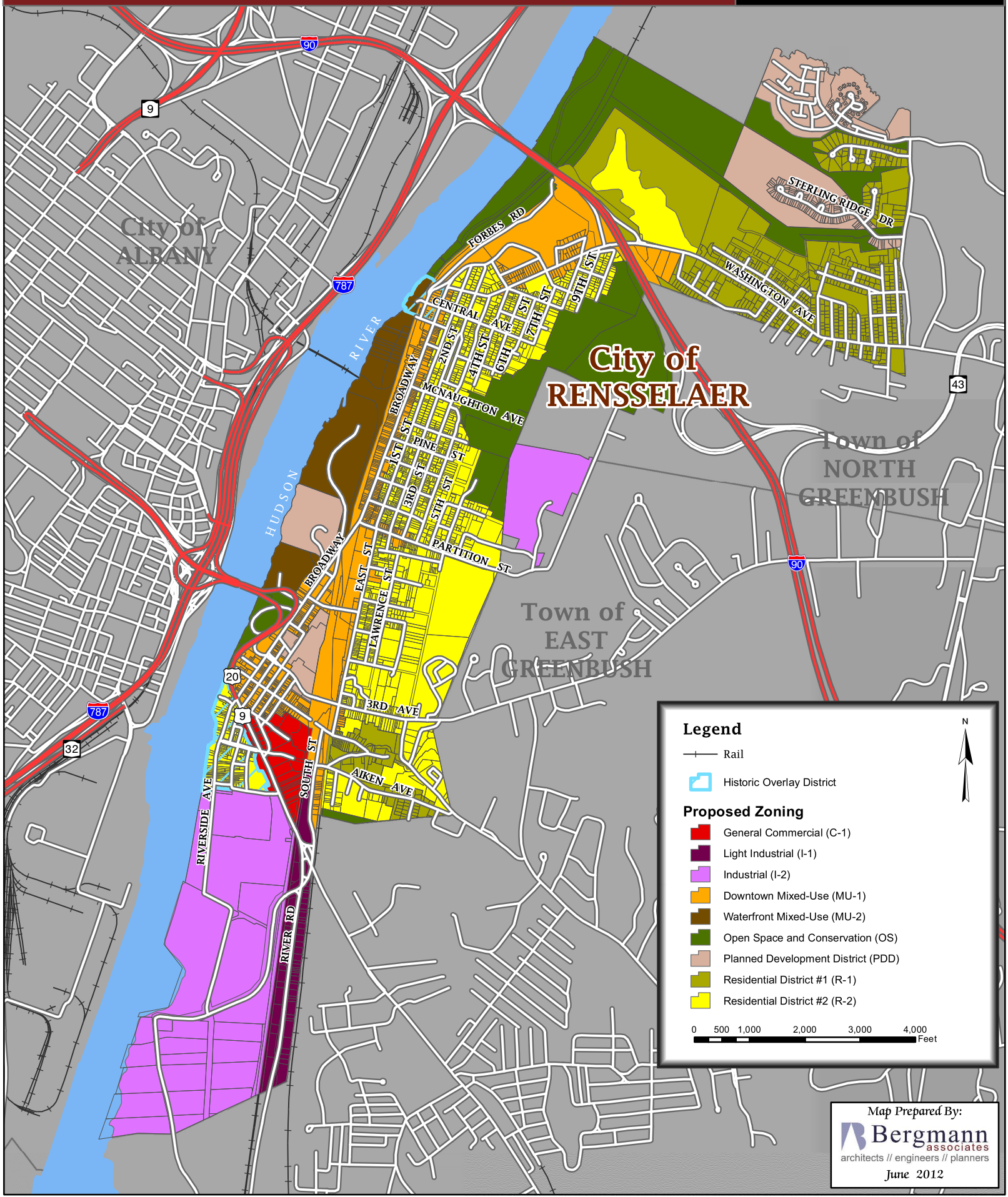
As information for this site becomes available, it will be reviewed by the NYSDOH to determine if site contamination presents public health exposure concerns.

For more Information: E-mail Us

Refine This Search

# City of RENSSELAER
## Zoning Update 2012

# Zoning





Map Prepared By:
Bergmann associates
architects // engineers // planners


June 2012

## §179-18. I-2 Industrial.

A. Purpose and intent. The purpose of the Industrial District (I-2) is to provide for areas where industrial uses have historically been concentrated and will be continued into the future. Industrial operations, which are largely tied to the City's southern waterfront, must respect adjacent transitional areas through the incorporation of buffers, design guidelines, and compliance with performance standards as set forth elsewhere in this chapter.

B. Permitted Uses.

The following uses are permitted in the I-2 District:

(1) Animal Hospital;
(2) Building, Accessory;
(3) Building, Office;
(4) Cultural Use Facility or Museum;
(5) Greenhouse, Commercial;
(6) Manufacturing, Light;
(7) Manufacturing Operations;
(8) Motor Vehicle Service Stations;
(9) Open Space;
(10) Personal Storage Facility;
(11) Place of Worship;
(12) Quarries and Pits;
(13) Filling and Excavating;
(14) Restaurant; and
(15) Warehouse, Wholesale or Distribution Center.

C. Uses requiring a special use permit. Certain uses require a special use permit from the Planning Commission, subject to the requirements of §179-24.

The following uses are allowed as special permit uses in the I-2 District:

(1) Adult Use;
(2) Drive-In Facility;
(3) Parking Garage; and
(4) Telecommunication Facility or Tower(s).

D. Prohibited uses. Uses that are not expressly permitted in this section are prohibited.

E. Lot size. Please see the City of Rensselaer Bulk and Use Table, §179-19. Uses not listed in the Bulk and Use Table are not subject to lot size requirements.

F. Setbacks. Please see the City of Rensselaer Bulk and Use Table, §179-19. Uses not listed in the Bulk and Use Table are not subject to setback requirements.

G. Impervious surface coverage. Please see the City of Rensselaer Bulk and Use Table, §179-19. Uses not listed in the Bulk and Use Table are not subject to impervious surface regulations.

H. Height limitations. Please see the City of Rensselaer Bulk and Use Table, §179-19. Uses not listed in the Bulk and Use Table are not subject to height requirements.

I. Off-street parking requirements. Please see the City of Rensselaer Bulk and Use Table, §179-19. Uses not listed in the Bulk and Use Table are not subject to off-street parking requirements. In addition, all uses permitted in this district are subject to the additional parking and loading requirements set forth in §179-55 of this chapter.

J. Supplementary regulations. Uses are subject to the requirements specified elsewhere in these regulations including, but not limited to, Regulations Applicable to All Zoning Districts in accordance with Article III, Site Plan Review and Approval in accordance with Article VI, and Subdivision of Land, if applicable, in accordance with Article VII.

K. Signs. Please refer to §179-IV.

Distance From MSE Berm to Local School


73° 43' 41" W
73° 43' 18" W
42° 39' 12" N
42° 39' 1" N
604260
604310
604360
604410
604460
604510
604560
604610
604660
604710
604760
4723110
4723060
4723010
4722960
4722910
4722860
4722810
HoB
FrA
WnB
HoB
Partition St Ext
Soil Map may not be valid at this scale.
Map Scale: 1:2,340 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 30 60 120 180
Feet
0 100 200 400 600
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

## MAP LEGEND

**Area of Interest (AOI)**

Area of Interest (AOI)

**Soils**

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

**Special Point Features**

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

**Water Features**

Streams and Canals

**Transportation**

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

**Background**

Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rensselaer County, New York
Survey Area Data: Version 15, Sep 3, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 1, 2014—Sep 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| FrA | Fredon silt loam, 0 to 4 percent slopes | 0.9 | 23.9% |
| HoB | Hoosic gravelly sandy loam, 3 to 8 percent slopes | 2.5 | 63.1% |
| WnB | Windsor loamy sand, 3 to 8 percent slopes | 0.5 | 13.0% |
| **Totals for Area of Interest** | | **3.9** | **100.0%** |


73° 43' 41" W
73° 43' 18" W
42° 39' 12" N
42° 39' 1" N
604260
604310
604360
604410
604460
604510
604560
604610
604660
604710
604760
4723110
4723060
4723010
4722960
4722910
4722860
4722810
HoB
FrA
WnB
HoB
Partition St Ext
Soil Map may not be valid at this scale.
Map Scale: 1:2,340 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 30 60 120 180
Feet
0 100 200 400 600
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

## MAP LEGEND

**Area of Interest (AOI)**

Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

**Soil Rating Lines**

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

**Soil Rating Points**

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

**Water Features**

- Streams and Canals

**Transportation**

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**

- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rensselaer County, New York
Survey Area Data: Version 15, Sep 3, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 1, 2014—Sep 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Drainage Class

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| FrA | Fredon silt loam, 0 to 4 percent slopes | Poorly drained | 0.9 | 23.9% |
| HoB | Hoosic gravelly sandy loam, 3 to 8 percent slopes | Somewhat excessively drained | 2.5 | 63.1% |
| WnB | Windsor loamy sand, 3 to 8 percent slopes | Excessively drained | 0.5 | 13.0% |
| **Totals for Area of Interest** | | | **3.9** | **100.0%** |

## Description

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."

## Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff: None Specified*

*Tie-break Rule:* Higher

# Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

*Hydrologic soil group* is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

*Group A.* Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

*Group B.* Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

*Group C.* Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

*Group D.* Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

*Depth* to the upper and lower boundaries of each layer is indicated.

*Texture* is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

*Classification* of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

*Percentage of rock fragments* larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

*Percentage (of soil particles) passing designated sieves* is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

*Liquid limit* and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

# Report—Engineering Properties

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

| Engineering Properties–Rensselaer County, New York | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Map unit symbol and soil name | Pct. of map unit | Hydrologic group | Depth | USDA texture | Classification | | Pct Fragments | | Percentage passing sieve number— | | | | Liquid limit | Plasticity index |
| | | | | | Unified | AASHTO | >10 inches | 3-10 inches | 4 | 10 | 40 | 200 | | |
| | | | *In* | | | | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* |
| FrA—Fredon silt loam, 0 to 4 percent slopes | | | | | | | | | | | | | | |
| Fredon, poorly drained | 50 | B/D | 0-8 | Silt loam | CL, ML, SC, SM, CL-ML | A-2, A-4 | 0- 0- 0 | 0- 0- 2 | 75-95-95 | 60-92-92 | 40-85-90 | 25-70-80 | 20-25-30 | NP-5-10 |
| | | | 8-23 | Loam, sandy loam, gravelly silt loam | CL, GC, ML, SM, CL-ML | A-1, A-2, A-4 | 0- 0- 0 | 0- 0- 2 | 75-85-95 | 60-75-92 | 35-65-90 | 15-55-80 | 20-25-30 | NP-5-10 |
| | | | 23-60 | Stratified very gravelly sand to loamy fine sand, sand | GM, GP, GW, GW-GM, SW-SM | A-1, A-2 | 0- 0- 0 | 0- 0- 5 | 45-95-95 | 25-92-92 | 10-50-60 | 0- 5- 35 | — | NP |
| Fredon, somewhat poorly drained | 35 | B/D | 0-8 | Silt loam | CL, ML, SC, SM, CL-ML | A-2, A-4 | 0- 0- 0 | 0- 0- 2 | 75-95-95 | 60-92-92 | 40-85-90 | 25-70-80 | 20-25-30 | NP-5-10 |
| | | | 8-23 | Loam, sandy loam, gravelly silt loam | CL, GC, ML, SM, CL-ML | A-1, A-2, A-4 | 0- 0- 0 | 0- 0- 2 | 75-85-95 | 60-75-92 | 35-65-90 | 15-55-80 | 20-25-30 | NP-5-10 |
| | | | 23-60 | Stratified very gravelly sand to loamy fine sand, sand | GM, GP, GW, GW-GM, SW-SM | A-1, A-2 | 0- 0- 0 | 0- 0- 5 | 45-95-95 | 25-92-92 | 10-50-60 | 0- 5- 35 | — | NP |

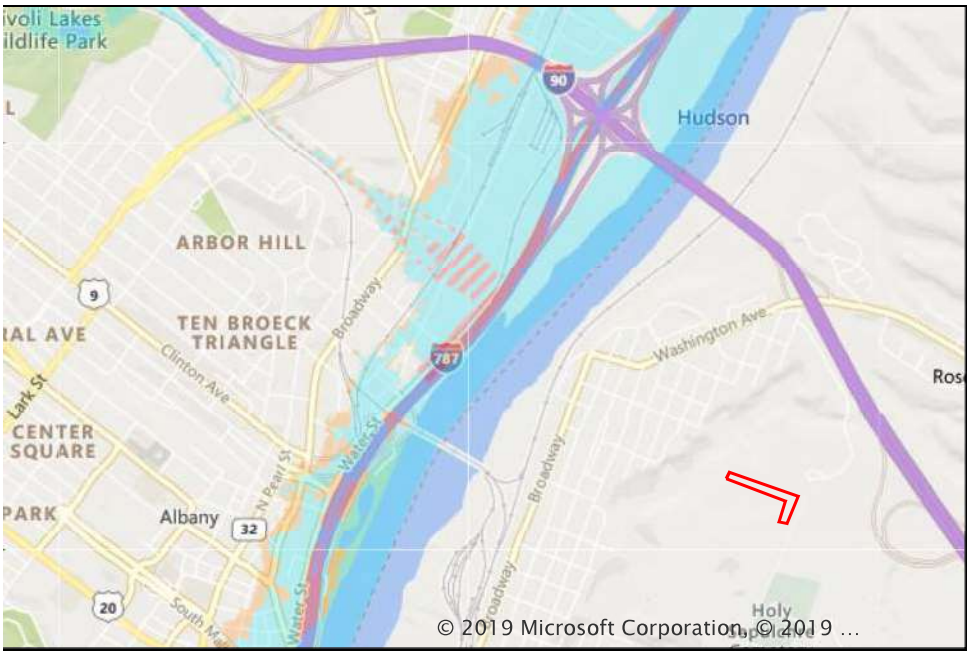
| Engineering Properties–Rensselaer County, New York | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Map unit symbol and soil name | Pct. of map unit | Hydrologic group | Depth | USDA texture | Classification | | Pct Fragments | | Percentage passing sieve number— | | | | Liquid limit | Plasticity index |
| | | | | | Unified | AASHTO | >10 inches | 3-10 inches | 4 | 10 | 40 | 200 | | |
| | | | *In* | | | | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* |
| HoB—Hoosic gravelly sandy loam, 3 to 8 percent slopes | | | | | | | | | | | | | | |
| Hoosic | 85 | A | 0-9 | Gravelly sandy loam | SM, ML, GM | A-1, A-2, A-4 | 0- 0- 0 | 0- 5- 10 | 50-70-90 | 35-60-75 | 15-35-70 | 10-20-60 | 30-38-45 | 2-6 -10 |
| | | | 9-23 | Gravelly sandy loam, very gravelly sandy loam, gravelly loam | GM, SM, SP-SM, SC-SM | A-1, A-2, A-4 | 0- 0- 0 | 0- 8- 10 | 50-65-90 | 35-50-75 | 15-30-65 | 10-20-50 | 20-25-30 | 2-5 -8 |
| | | | 23-60 | Very gravelly sand, very gravelly loamy sand | GM, SM, GP | A-1 | 0- 0- 0 | 0- 8- 15 | 40-50-70 | 25-35-50 | 10-15-30 | 0- 2- 15 | — | NP |

| Engineering Properties–Rensselaer County, New York | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Map unit symbol and soil name | Pct. of map unit | Hydrologic group | Depth | USDA texture | Classification | | Pct Fragments | | Percentage passing sieve number— | | | | Liquid limit | Plasticity index |
| | | | | | Unified | AASHTO | >10 inches | 3-10 inches | 4 | 10 | 40 | 200 | | |
| | | | *In* | | | | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* |
| WnB—Windsor loamy sand, 3 to 8 percent slopes | | | | | | | | | | | | | | |
| Windsor, loamy sand | 85 | A | 0-1 | Slightly decomposed plant material, highly decomposed plant material, moderately decomposed plant material | PT | A-8 | 0- 0- 0 | 0- 0- 0 | — | — | — | — | — | — |
| | | | 1-3 | Loamy sand, loamy fine sand, fine sand, sand | SP-SM, SW-SM, SM | A-2-4 | 0- 0- 0 | 0- 0- 0 | 85-100-100 | 70-100-100 | 50-83-100 | 12-25-37 | 0-0 -30 | NP-0 -2 |
| | | | 3-25 | Loamy sand, loamy fine sand, fine sand, sand, coarse sand, loamy coarse sand | SW-SM, SP-SM, SM | A-3, A-2-4 | 0- 0- 0 | 0- 0- 0 | 86-100-100 | 72-100-100 | 45-75-98 | 10-22-36 | 0-0 -23 | NP-0 -4 |
| | | | 25-65 | Loamy fine sand, fine sand, sand, loamy sand, coarse sand, gravelly coarse sand | SW, SP, SM, SP-SM, SW-SM | A-3, A-1-b, A-2-4 | 0- 0- 0 | 0- 0- 0 | 81-100-100 | 63-100-100 | 40-78-100 | 4-12- 33 | 0-0 -20 | NP-0 -4 |

## Data Source Information

Soil Survey Area: Rensselaer County, New York
Survey Area Data: Version 15, Sep 3, 2018

## Map



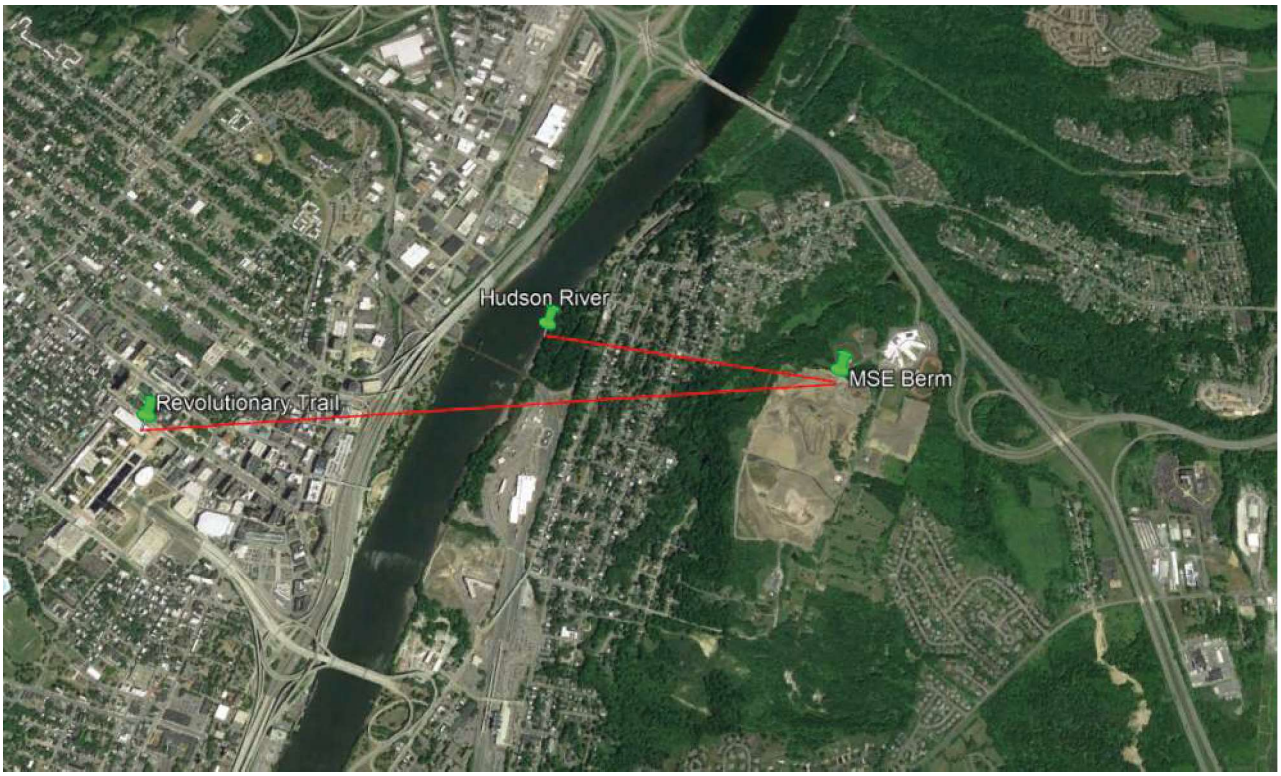

**Geographic coordinates:**

LINE
(42.652921,-73.726386,42.653198,-73.726182,42.652219,-73.722502,42.651130,-73.723146,42.651241,-73.723575,42.652038,-73.723167,42.652929,-73.726418,42.652937,-73.726407)
with buffer 0.5 miles

Note: The information in the following reports is based on publicly available databases and web services. The National Report uses nationally available datasets and the State Reports use datasets available through the EPA Regions. Click on the hyperlinked question to view the data source and associated metadata.

Error occurred when calling analysis web service.

Local Scenic or Aesthetic Resources within 5 miles



| Publically Accessible Federal, State, or Local Scenic or Aesthetic Resources | | | | | |
|---|---|---|---|---|---|
| **Name** | **Description** | **Distance from Proposed Site (miles)** | **Approximate Location** | **City** | **Source** |
| Hudson River | Waterfront revitalization Area | 0.76 | Forbes Ave. | Rensselaer | The City of Rensselaer Local Waterfront Revitalization Program |
| Revolutionary Trail | Scenic Byway | 1.70 | Dove St. / Washington Ave. | Albany | NYS DOT Scenic Byways |

The State's Coastal Management Program has established statewide coastal boundaries in accordance with the requirements of the Coastal Zone Management Act of 1972, as amended, and its subsequently-issued rules and regulations. This previously-designated waterfront revitalization area boundary for the City has been reviewed and reaffirmed during the Local Waterfront Revitalization Program planning process.

Specifically, as illustrated on Figure 1, the inland coastal area boundary in Rensselaer generally follows the landward (eastern) edge of the right-of-way of the Conrail tracks, which extend from south to north throughout the City. This boundary has been selected for several of its characteristics: (1) being generally coincident with the 100-year flood hazard area boundary; (2) being the point at which the land begins to slope upward from the level Hudson River plain; and (3) further being a distinct land use boundary between commercial/industrial uses on the River (seaward) side of the tracks and more residential uses on the landward side. Where the limit of the 100-year flood extends landward (generally easterly) of the right-of-way of the tracks, the waterfront revitalization area boundary instead follows the 100-year flood boundary. The boundary makes one detour from this course to encompass the historic district in Bath.

The seaward boundary of Rensselaer's coastal area is coincident with the City's legal jurisdiction. The Rensselaer City Charter (1915) specifically defines the City's legal jurisdiction as coincident with the westernmost boundary of Rensselaer County; this boundary assumedly is the approximate centerline of the Hudson River.

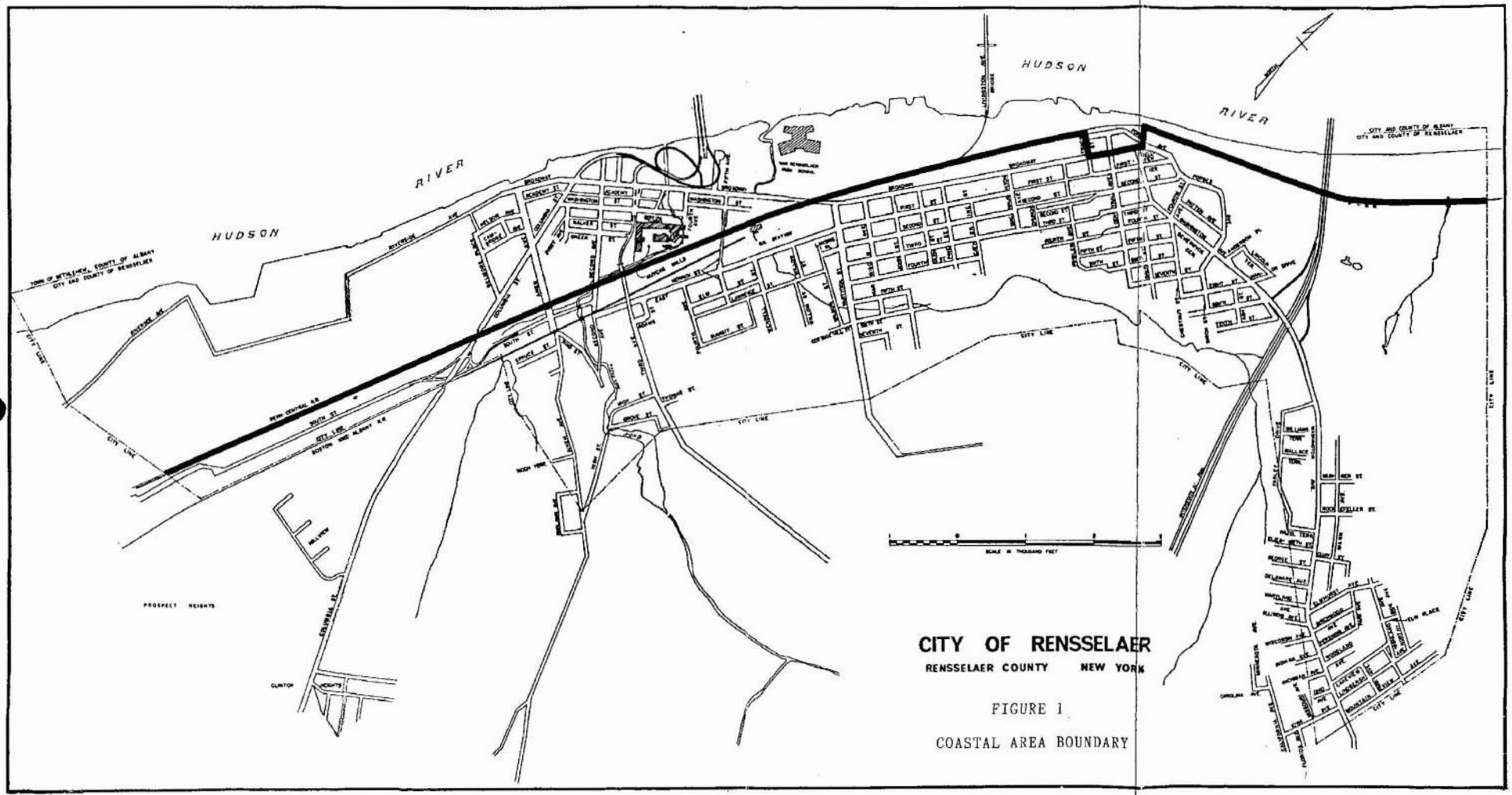



FIGURE 1

COASTAL AREA BOUNDARY


Byways Home
Lists of NYS Byways
Map
Byways Program
Building Your Byway
Organizers
Contact Us

## The Revolutionary Trail

The Revolutionary Trail runs east-west between the state capital of Albany and the shores of the Great Lake Ontario. As it traverses scenic valleys and woodlands, the route offers exceptional museums, historic sites, hiking, picnicking and cycling. Adirondack lakes and Lake Ontario accommodate all kinds of water sports, including fishing, boating, and swimming.


**Themes:** Historic,Scenic, Recreational

**Length:**158 miles

**Region:** Great Lakes/Central

**Connects:** Port Ontario and Albany

**Information:** Mohawk Valley Heritage Corridor Commission (MVHCC) (518) 673-1045

**Corridor Management Plan:**

- Pages 001-050
- Pages 051-100
- Pages 101-150
- Pages 151-200
- Pages 201-226

**Web**

A-Z Index | Legal Disclaimer | Privacy

Web Accessibility | Employee Login

**Language Assistance**

언어 지원 | Èd nan Lang | Assistenza Linguistica

Языковая поддержка | Asistencia de idioma | 语言援助

Language Assistance Disclaimer

**Contact**

Divisions/Bureaus | Feedback | Pothole Reporting

Regional Offices

CONNECT WITH US

FACEBOOK TWITTER YOUTUBE RSS FEED

REGISTER TO VOTE

Sign up online or download and mail in your application REGISTER NOW

## APPENDIX E

- Visual Resource Assessment Report

SARATOGA ASSOCIATES

# VISUAL RESOURCE ASSESSMENT

## NORTH BERM MODIFICATION
## DUNN MINE AND C&D FACILITY
## TOWN OF NORTH GREENBUSH, NEW YORK

Prepared for:
S.A. Dunn & Company
315 Partition Street
Rensselaer, New York 12144

June, 15 2021

Landscape Architects, Architects,
Engineers and Planners, P.C.

## INTRODUCTION

S.A. Dunn & Company is proposing modification of the existing S.A Dunn C&D Landfill (NYSDEC Facility 4-3899-00006/00001) ("Existing Facility"). The proposed project, known as the North Berm Modification (or the "Project"), includes modifying the northern perimeter berm to include a mechanically stabilized earthen (MSE) berm.

The purpose of the proposed MSE berm is to provide an improved visual barrier to mine operations and to reclamation land-use solid waste operations as compared to the currently approved land-use plans ("Existing Facility)". With the North Berm in place, Facility operations would not be seen from the areas north of the Facility except at the final stages of reclamation. Without the North Berm (i.e., operations consistent with the approved Existing Facility), direct line-of-sight views of Facility operations would exist for a longer duration.

The North Berm Modification will reduce the currently approved C&D filling area by approximately 1.2 acres and total land disturbance will be reduced by 0.66 acres. The proposed MSE Berm will not substantially change the final reclamation plan as the MSE berm is to be incorporated into the design of the reclamation land-use landfill. The maximum elevation of the Existing Facility (currently approved landfill at completion) is 324 feet above mean sea level (amsl). The proposed North Berm Modification will maintain this currently approved maximum elevation of 324 feet amsl, however the final grading along and immediately adjacent to the berm are proposed to change which may alter the visual characteristic of the Existing Facility. Additional details about the Project can be found in the Part 360 Permit Application.

This report compares degree of visibility and visual character of the Existing Facility (currently approved landfill at completion) with the proposed North Berm Modification (at completion). The process follows basic New York State Department of Environmental Conservation's ("NYSDEC") Program Policy on Assessing and Mitigating Visual Impact (DEP-00-02 [revised 12/13/2019) ("DEC Visual Policy") criteria for evaluating visual impact.

## VIEWSHED ANALYSIS

Viewshed mapping identifies the geographic area within which there is a relatively high probability that some portion of the Project could be visible. A viewshed map illustrating the area of theoretical visibility of the Project considering the screening effect of existing topography, woodland vegetation and buildings is provided as Figure A1 in Appendix A.

Global Mapper v.20 GIS software was used to generate the viewshed area based on publicly available topographic and digital orthophoto datasets. Topographic data was derived from 2-meter resolution digital elevation models (DEM) acquired from the New York State GIS Clearinghouse.[1] Using Global Mapper's viewshed analysis tool, the Project's location and height were input and a conservative offset of six feet was applied to account for the observer's eye level. The resulting viewshed identifies grid cells with a direct line-of-sight to Project high points.

For comparative purposes, individual viewshed overlays were prepared illustrating the potential viewshed areas of the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion).

The viewshed maps were calculated based on potential visibility of multiple control points. Control points were placed at the topographical crest (i.e., 324 feet amsl), as well as along the "military crest" (e.g, outward edge of landform top just below the topographic crest) of the Existing Facility and proposed North Berm contours. 42 control points each were used to represent high point elevations of these two development scenarios. The resulting composite viewshed maps identify the geographic area where some portion of the Project is theoretically visible.

The screening effect of existing vegetation and built structures was incorporated by conservatively allocating 50 feet in vertical height to woodland areas and 35 feet to building footprints (e.g., the height of a typical 2 story structure) for low-rise structures and 75 feet for high-rise buildings in downtown Albany. Existing woodland vegetation and building footprints were manually digitized from 1 and ½-foot resolution digital ortho-photographs (2017) acquired from NYS Orthos On-line.[2] Woodland areas and building footprints were removed from the viewshed result to account for areas located within structures or densely wooded cover.

The viewshed maps are not meant to gauge how much of the proposed Facility would be visible above intervening landform or vegetation (e.g., 100%, 50%, 10% etc. of Facility height), but

[1] https://orthos.dhses.ny.gov/
[2] https://orthos.dhses.ny.gov/

rather identify the geographic area within which there is a relatively high probability (theoretical visibility) that some portion of the Existing Facility (at completion of currently approved operations) and the North Berm Modification (at completion) would be visible.

Distance Limit – Viewshed mapping was developed incrementally by digitizing existing vegetation and buildings outward from the Project site and periodically recalculating the viewshed result to identify the distance limit where Project visibility no longer occurs. Due to dense urban development in the Cities of Albany and Rensselaer, and significant woodland vegetation in outlying areas, viewshed analysis demonstrates that theoretical Project visibility is largely limited to within a radius of approximately three miles. Therefore, the study distance for aesthetic resource analysis is limited to a the three-mile radius from the central highpoint of the Northern Berm Modification. Beyond this distance Project visibility will be rare.

Viewshed Interpretation - Table 1 indicates the degree of theoretical visibility illustrated on the viewshed maps within the 5-mile radius study area.

**Table 1 – Viewshed Summary**

| | Acres | Percent of 3-Mile Study Area |
|---|---|---|
| Existing Facility (currently approved landfill at completion) | 492 | 2.72% |
| North Berm Modification (at completion) Development | 500 | 2.76% |

*Note: Calculations exclude the land area within the boundary of the Dunn Mine & C&D Facility.*

As illustrated in Figure A1, some portion of the Existing Facility is already visible, or will be theoretically visible upon completion of currently permitted operations, from approximately 2.72 percent of the three-mile study area. From these areas the Project does not represent a new visual impact, but rather a continuation of the existing approved visibility of Dunn Mine C&D Facility operations. As shown, the mapped areas of new visibility are virtually indistinguishable from the areas of existing approved visibility.

Upon completion of the proposed North Berm Modification, approximately 2.76 percent of the three-mile study area would be affected. This is an increase of approximately 0.04 percent (approximately 8 acres) of the three-mile study area. These areas are generally small geographic extensions of adjacent lands that are already affected by views of the Existing Facility. In newly affected areas, views will be limited to the upper portions of the North Berm Modification appearing low to the foreground tree line.

At a minimum, 97.2 percent of the study area will have no visibility of the Existing Facility or the proposed North Berm Modification.

## INVENTORY OF AESTHETIC RESOURCES

### Resources of Statewide Significance

The DEC Visual Policy defines an "aesthetically significant place" as a place formally designated and visited because of its beauty.[3] Aesthetically significant places are established by federal or state government pursuant to statutory authority, are a matter of public record and are not arbitrarily or subjectively determined. The DEC Visual Policy contains specific criteria defining places considered to be aesthetic resources of statewide significance. These places are high value sites including state parks, scenic roads, wild, scenic and recreational rivers, state forests, wildlife management areas, scenic areas of statewide significance, Heritage Areas, National Natural Landmarks, state or federally designated trails, properties or districts listed on the National Register of Historic Places, among others.

The DEC visual Policy notes "[n]ot all individual resources contained in the foregoing inventory of Aesthetic Resources were designated because of an associated aesthetic value or quality. Therefore, only those resources that have an aesthetic value associated with them should be considered as part of the assessment of the potential significance of the impact".[4]

Table 2 identifies places within the three -mile study area meeting this criterion. Inventoried places which were likely designated all, or in part, because of associated aesthetic value or quality and are within, or close to, the affected viewshed are highlighted in grey. These potentially impacted resources are evaluated in more detail below.

**Table 2 – Aesthetic Resource Inventory**

| Resource Name | Resource Type | Potential Project Visibility | Designated for aesthetic value or quality |
|---|---|---|---|
| Albany Urban Heritage Area | Urban Heritage Area | Yes | Yes |
| Revolutionary Trail | Scenic Byway | No | Yes |
| Mohawk Hudson Bike Trail (Empire State Trail) | State Bike Route | Yes | Yes |
| Madison Ave/Western Ave Bike Route | State Bike Route | No | Yes |
| Albany-Helderberg Hudson Rail Trail | State Bike Route | Yes | Yes |
| Broadway Bike Route | State Bike Route | No | Yes |
| Route 9J Bike Route | State Bike Route | No | Yes |
| Hudson River Valley Greenway - Corning Preserve Trail | Greenway Trail | Yes | Yes |
| Hudson River Valley Greenway - State Bike Route 9 | Greenway Trail | Yes | Yes |
| Rensselaer Riverfront Trail | Greenway Trail | No | Yes |

[3] DEC Visual Policy, p.15.
[4] Dec Visual Policy, p. 6-7.

**Table 2 – Aesthetic Resource Inventory**

| Resource Name | Resource Type | Potential Project Visibility | Designated for aesthetic value or quality |
|---|---|---|---|
| Papscanee Island Preserve Trail | Greenway Trail | No | Yes |
| Corning Preserve Boat Launch | Greenway Water Trail | No | Yes |
| Rensselaer Riverfront Park | Greenway Water Trail | No | Yes |
| Crailo | State Historic Site | No | Yes |
| Schuyler Mansion | State Historic Site | Yes | No |
| Abrams Building | Ntl Reg of Hist Places | No | No |
| Aiken House | Ntl Reg of Hist Places | No | No |
| Albany Academy | Ntl Reg of Hist Places | No | No |
| Albany City Hall | Ntl Reg of Hist Places | No | No |
| Albany Institute of History and Art | Ntl Reg of Hist Places | No | No |
| Albany Union Station | Ntl Reg of Hist Places | No | No |
| Arbor Hill Hist Dist--Ten Broeck Triangle | Ntl Reg of Hist Places | No | No |
| Arbor Hill Hist Dist--Ten Broeck Triangle (Boundary Inc) | Ntl Reg of Hist Places | No | No |
| Arnold, Benjamin Walworth, House and Carriage House | Ntl Reg of Hist Places | No | No |
| Beverwyck Manor | Ntl Reg of Hist Places | No | No |
| Broadway--Livingston Avenue Historic District | Ntl Reg of Hist Places | No | No |
| Buildings at 744, 746, 748, 750 Broadway | Ntl Reg of Hist Places | No | No |
| Cathedral of All Saints | Ntl Reg of Hist Places | No | No |
| Cathedral of the Immaculate Conception | Ntl Reg of Hist Places | No | No |
| Center Square/Hudson-Park Historic District | Ntl Reg of Hist Places | No | No |
| Cherry Hill | Ntl Reg of Hist Places | No | No |
| Church of the Holy Innocents | Ntl Reg of Hist Places | No | No |
| Clinton Avenue Historic District | Ntl Reg of Hist Places | No | No |
| Defreest Homestead | Ntl Reg of Hist Places | No | No |
| Delaware and Hudson Railroad Company Building | Ntl Reg of Hist Places | No | No |
| Downtown Albany Historic District | Ntl Reg of Hist Places | No | No |
| First Reformed Church | Ntl Reg of Hist Places | No | No |
| First Trust Company Building | Ntl Reg of Hist Places | No | No |
| Fort Crailo | Ntl Reg of Hist Places | No | No |
| Fort Orange Archeological Site | Ntl Reg of Hist Places | No | No |
| Fuller, Royal K., House | Ntl Reg of Hist Places | No | No |
| Hall, James, Office | Ntl Reg of Hist Places | No | No |
| Harmanus Bleecker Library | Ntl Reg of Hist Places | No | No |
| Henry--Remsen House | Ntl Reg of Hist Places | No | No |
| Hook and Ladder No. 4 | Ntl Reg of Hist Places | No | No |
| Jamestown Armory | Ntl Reg of Hist Places | No | No |
| Lafayette Park Historic | Ntl Reg of Hist Places | No | No |
| Lil's Diner | Ntl Reg of Hist Places | No | No |
| Mansion Historic District | Ntl Reg of Hist Places | No | No |
| Menands Manor | Ntl Reg of Hist Places | No | No |
| Mendelson, A., and Son Company Building | Ntl Reg of Hist Places | No | No |

**Table 2 – Aesthetic Resource Inventory**

| Resource Name | Resource Type | Potential Project Visibility | Designated for aesthetic value or quality |
|---|---|---|---|
| Merchant, Walter, House | Ntl Reg of Hist Places | No | No |
| Myers, Stephen and Harriet, House | Ntl Reg of Hist Places | No | No |
| New Scotland Avenue (Troop B) Armory | Ntl Reg of Hist Places | No | No |
| New York Executive Mansion | Ntl Reg of Hist Places | No | No |
| New York State Capitol | Ntl Reg of Hist Places | No | No |
| New York State Court of Appeals Building | Ntl Reg of Hist Places | No | No |
| New York State Department of Education Building | Ntl Reg of Hist Places | No | No |
| Nut Grove | Ntl Reg of Hist Places | No | No |
| Old Post Office | Ntl Reg of Hist Places | No | No |
| Palace Theatre | Ntl Reg of Hist Places | No | No |
| Pastures Historic District | Ntl Reg of Hist Places | No | No |
| Patroon Agent's House and Office | Ntl Reg of Hist Places | No | No |
| Quackenbush House | Ntl Reg of Hist Places | No | No |
| Quackenbush Pumping Station, Albany Water Works | Ntl Reg of Hist Places | No | No |
| Schuyler, Philip, Mansion | Ntl Reg of Hist Places | No | No |
| Sharpe Homestead and Cemetery | Ntl Reg of Hist Places | No | No |
| South End-Groesbeckville Historic District | Ntl Reg of Hist Places | No | No |
| St. Mary's Church | Ntl Reg of Hist Places | No | No |
| St. Peter's Church | Ntl Reg of Hist Places | No | No |
| Ten Broeck Mansion | Ntl Reg of Hist Places | No | No |
| United Traction Company Building | Ntl Reg of Hist Places | No | No |
| USS Slater (Destroyer Escort) | Ntl Reg of Hist Places | Yes | No |
| Van Alen, John Evert, House | Ntl Reg of Hist Places | No | No |
| Washington Avenue (Tenth Battalion) Armory | Ntl Reg of Hist Places | No | No |
| Washington Park Historic District | Ntl Reg of Hist Places | No | No |
| Young Men's Christian Association Building | Ntl Reg of Hist Places | No | No |

Summary of Affected Aesthetic Resources or Statewide Significance

Albany Urban Heritage Area - The Heritage Area system is a state-local partnership established to preserve, interpret, and promote special places in the State. The Albany Urban Heritage Area visitor center is located in the former Quackenbush Pumping Station at 25 Quackenbush Square in downtown Albany.

*Visual Character* - The Albany Urban Heritage Area encompasses much of downtown Albany area including the Broadway, Pearl Street, State Street and Washington Avenue commercial districts. This area is highly urban and is characterized by a mix of high-rise and low-rise buildings, parking lots and garages and heavily trafficked urban streets. The Heritage Area includes Washington and Lincoln Parks, the Empire State Plaza, the NYS Capitol building, Times

Union Center, Palace Theater, neighborhood shopping and entertainment districts, as well as multifamily residential neighborhoods. The downtown segment of the Heritage area may be considered to generally be of low to moderate visual quality. Areas of architectural interest, (i.e., State Capitol, Empire State Plaza, SUNY Plaza, etc.) offer enhanced visual quality.

The Heritage Area also includes the City of Albany Corning Preserve, a popular linear waterfront park and public greenspace on the west bank of the Hudson River. The Corning Preserve landscape is an attractive urban riverfront park setting with the Albany city skyline visually prominent to the west. Views to the east across the Hudson River to the City of Rensselaer include the open water of the Hudson River and a mix of wooded riverfront and low-rise urban development on the opposite shore. I-787 and other high traffic roadways paralleling Corning Preserve somewhat diminish the visual experience. River views from this portion of the Heritage Area may be considered to be of moderate to high visual quality.

*Viewer Characteristics* - The Albany Urban Heritage Area covers a broad urban area that is recognized for its historic, cultural, architectural, governmental and social importance to the State of New York. The downtown area is densely populated. Viewers include city residents, daily workers, shoppers, though travelers and other visitors with business interest in the city. For these viewer types the visual and cultural importance of the Heritage Area is indirect and generally of secondary consideration in their daily activities.

The district also attracts visitors who come to the area to specifically to experience the history and culture of the City. Viewers who visit the Heritage Area to take advantage of interpretive and social resources may be more sensitive to the aesthetic quality of the urban landscape than residents, workers, shoppers or through travelers who are within the boundaries of the Heritage Area for more utilitarian reasons.

*Project Visibility* – The Albany Urban Heritage Area visitor center is located within the downtown area. Outward views are fully enclosed by urban structures and the elevated section of I-787. The Existing Facility (currently approved landfill at completion) is not currently, nor will it not become visible from the visitor center. Similarly, the proposed North Berm Modification will not be visible from the visitor center.

Intermittent glimpses of the Existing Facility are found in isolated locations in the eastern portion of the downtown area through narrow view corridors between buildings and vegetation. Such views are not common. Views are found from the eastern edge of the Empire State Plaza - Plaza Level. Direct views also occur from upper story east facing windows in downtown buildings.

Figures B-1(a-c) include a photograph of the present visual condition (October 2020) and photo simulations illustrating the degree of visibility and visual character of the Existing Facility (currently approved landfill at completion) and proposed Northern Berm Modification (at completion) from the downtown portion of the Heritage Area as viewed from the steps of the NYS Museum at the Empire State Plaza. These photo simulations demonstrate that both the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) are visually similar and display no difference in the degree of visibility or aesthetic character as viewed from this location.

At present, the Existing Facility largely falls below the tree line on the eastern shore of the Hudson River as viewed from most locations along riverfront segment of the Albany Urban Heritage Area. The degree of Project visibility will slowly increase over time until currently approved operations reach the maximum permitted elevation (324 feet amsl). At completion, the Existing Facility will be visible at, or slightly above tree line from the waterfront segment of the Heritage Area between the Livingston Avenue railroad bridge and the Dunn Memorial Bridge. As the proposed North Berm Modification will maintain this currently approved maximum elevation, the proposed Project will be similarly visible from affected areas within along this section of the Heritage Area.

Figures B-2(a-c) include a photograph of the present visual condition (October 2020) and photo simulations illustrating the degree of visibility and visual character of the Existing Facility (currently approved landfill at completion) and proposed Northern Berm Modification (at completion) from the portion of the Heritage Area along the Hudson River waterfront. These photo simulations demonstrate that both the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) are visually similar and display no difference in the degree of visibility or aesthetic character as viewed from this location.

Empire State Trail/Hudson River Valley Greenway Trail (Corning Preserve Trail and Empire State Bike Route 9) – Segments of the Empire State Trail (Mohawk Hudson Bike Trail segment) and the Hudson River Valley Greenway Trail (Corning Preserve Trail and State Bike Route 9) are coterminous along the Hudson River waterfront in the City of Albany. The Hudson River Valley Greenway is a system of parks, trails, kayak/canoe routes, etc. along New York's Hudson River. The Empire State Trail is a 750-mile bike/hike trail network extending from Manhattan north to the Canadian border, and also from Buffalo to Albany.

These trails follow the west side of the Hudson River though the study area from Menands southward through the Corning Preserve. From the Corning Preserve, the trails cross the Dunn Memorial Bridge connecting to an on-road segment along 3rd Avenue in the City of Rensselaer.

At this point the Greenway Trail (State Bike Route 9) continues on-road southward along NY Rte. 9J. The Empire Trail continues on-road southeast along Rte. 151 through the Town of East Greenbush.

The Hudson River Valley Greenway Trail also includes on-water access for paddling opportunities. Boat launches at the Corning Preserve and Rensselaer Riverfront Park are designated Greenway Water Trail access points. The Project is not expected to be visible from either of these boat launches. The project is expected to be minimally visible, if at all, above shoreline vegetation from on-water vantage points.

*Visual Character* - The waterfront segment of the Empire State Trail/Greenway Trail (Corning Preserve Trail) takes advantage of scenic river views within the linear park setting of the Corning Preserve. The trail landscape is an attractive riverfront urban park setting with the Albany city skyline visually prominent to the west. Views to the east across the Hudson River to the City of Rensselaer include the open water of the river and a mix of wooded riverfront and low-rise urban development on the opposite shore. I-787 and other high traffic roadways paralleling the Corning Preserve somewhat diminish the visual experience. River views from this segment of the Empire State Trail/Greenway Trail (Corning Preserve Trail) may be considered to be of moderate to high visual quality.

The on-road trail segments (Empire State Trail and State Bike Route 9) pass over the high traffic Dunn Memorial Bridge. Sidewalk views from the bridge include the river below, the Albany City skyline, industrial uses in the Ports of Albany and Rensselaer and low-rise residential/commercial uses in the City of Rensselaer. Views from the bridge are filtered through a chain-link fence safety barrier. On-road segments in the City of Rensselaer pass through commercial, retail and industrial sections of the city. Views from the bridge and on-road segments are generally of low visual quality.

*Viewer Characteristics* – Empire State Trail/Greenway Trail users are typically recreational bicyclists, joggers, walkers or passive recreational park visitors. The visual quality of the landscape is typically an important part of the recreational experience.

*Project Visibility* - At present, the Existing Facility largely falls below the tree line on the eastern shore of the Hudson River as viewed from most locations along riverfront segment of the Empire State Trail/Greenway Trail. The degree of Project visibility will increase over time as currently approved operations reach the maximum permitted elevation (324 feet amsl). At completion the Existing Facility will be visible at, or slightly above tree line from the waterfront segment of these trails between the Livingston Avenue bridge and the Dunn Memorial Bridge. As the proposed North Berm Modification will maintain this currently approved maximum

elevation, the proposed Project will be similarly visible from affected areas within along this section of the Empire State Trail/Greenway Trail.

Figures B-2(a-c) include a photograph of the present visual condition (October 2020) and photo simulations illustrating the degree of visibility and visual character of the Existing Facility (currently approved landfill at completion) and proposed Northern Berm Modification (at completion) from the waterfront segment of the Empire State Trail/Greenway Trail. These photo simulations demonstrate that both the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) are visually similar and display no difference in the degree of visibility or aesthetic character as viewed from this location.

From the Dunn Memorial Bridge the Existing Facility is visible above the tree line. This degree of Project visibility will slowly increase over time until currently approved operations reach the maximum permitted elevation (324 feet amsl). As the proposed North Berm Modification will maintain this currently approved maximum elevation, the proposed Project will be similarly visible from affected areas within along this section of the Empire State Trail/Greenway Trail.

Figures B-3(a-c) include a photograph of the present visual condition (October 2020) and photo simulations illustrating the degree of visibility and visual character of the Existing Facility (currently approved landfill at completion) and proposed Northern Berm Modification (at completion) from the on-road segment of the Empire State Trail/Greenway Trail on the Dunn Memorial Bridge. These photo simulations demonstrate that both the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) are visually similar and display no difference in the degree of visibility or aesthetic character as viewed from this location.

The Project will be fully screened from on-road trail segments in the City of Rensselaer.

Albany-Helderberg Hudson Rail Trail – The Albany Helderberg Rail Trail is a connector trail to the Empire State Trail system. A short on-street segment extends southward from the Corning Preserve along Broadway and South Pearl Street, connecting with the off-road segment trailhead on South Pearl Street near the Normanskill River.

*Visual Character* - South of the Corning Preserve the Albany Helderberg Rail Trail travels on-road along Broadway and South Pearl Street between an elevated section of I-787 and the Kenwood railyards. The visual character of this trail segment is urban industrial with low visual quality.

*Viewer Characteristics* – Albany Helderberg Rail Trail users are typically recreational bicyclists, joggers, walkers or passive recreational park visitors. The visual quality of the landscape is typically an important part of the recreational experience.

*Project Visibility* – The project will be minimally visible through existing buildings from a short segment of Broadway south of the Corning Preserve. Figures B-4(a-c) include a photograph of the present visual condition (October 2020) and photo simulations illustrating the degree of visibility and visual character of the Existing Facility (currently approved landfill at completion) and proposed Northern Berm Modification (at completion) from the on-road segment of the Albany Helderberg Rail Trail. The project will not be visible from off-road segments of the rail trail. These photo simulations demonstrate that both the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) are visually similar and display no difference in the degree of visibility or aesthetic character as viewed from this location.

Other Resources of Local Interest

Although not meeting the NYS DEC Visual Policy definition "aesthetically significant place", several other affected locations are included in order to assess project visibility from places of high viewership and/or direct Project visibility. These places include Holy Sepulchre Cemetery, Albany-Rensselaer Amtrak Station and Rensselaer Jr./Sr. High School.

Holy Sepulchre Cemetery – The Holy Sepulchre Cemetery is an informal greenspace located on Partition Street directly adjacent to the existing Dunn Mine C&D Facility. Viewers typically visit the cemetery to visit grave sites, although the cemetery is known for views of the Albany skyline.

At present, the Existing Facility is directly within the foreground view. This degree of Project visibility will slowly increase over time until currently approved operations reach the maximum permitted elevation (324 feet amsl). As the proposed North Berm Modification will maintain this currently approved maximum elevation, the proposed Project will be similarly visible from affected areas within along this section of the cemetery. Photo Simulations from this location are provided in Figures B-5(a-c). These photo simulations demonstrate that both the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) are visually similar and display no difference in the degree of visibility or aesthetic character as viewed from this location.

Albany Rensselaer Amtrak Station – The Albany-Rensselaer Amtrak Station, located on East Street in the City of Rensselaer, is the eight busiest station in the Amtrak system with over

800,000 passengers per year.[5] Although the rail trip south from Albany is known for its scenic views of the Hudson River, visitors to the Amtrak station typically have low sensitivity to its visual setting. The station is located within a mixed use residential and commercial district. The Amtrak railyard/maintenance facility is immediately adjacent to the station.

At present, the Existing Facility is screened by the existing foreground tree line. The Existing Facility (currently approved landfill) will become visible above the tree line over time until currently approved operations reach the maximum permitted elevation (324 feet amsl). Such visibility from the vicinity of the Amtrak Station is not prevalent. Views are limited to a portion of the Herrick Street bridge over the railroad tracks and a small section of the upper deck of the station's parking garage. As the proposed North Berm Modification will maintain this currently approved maximum elevation, the proposed Project will be similarly visible from this affected area. Photo Simulations from this location are provided in Figures B-6(a-c). These photo simulations demonstrate that both the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) are visually similar and display no difference in the degree of visibility or aesthetic character as viewed from this location.

Rensselaer Jr./Sr. High School – The Rensselaer Jr./Sr. High School campus is located on Van Rensselaer Drive directly adjacent to the existing Dunn Mine C&D Facility. The proposed MSE berm was specifically intended to provide an improved visual barrier from school grounds to mine operations and to reclamation land-use solid waste operations as compared to the currently approved land-use plans. With the North Berm in place, Facility operations would not be seen from the areas north of the Facility except at the final stages of reclamation. Without the North Berm (i.e., operations consistent with the approved Existing Facility), direct line-of-sight views of Facility operations would exist for a longer duration.

Viewers are typically students, parents, faculty, staff and other visitors to school grounds. While visitors to the school typically have a low sensitivity to the visual setting, the presence of the adjacent Existing Facility has been identified as a visual distraction. In a Notice of Incomplete Application from the NYS DEC dated September 11, 2019 related to a prior North Berm proposal, the Department commented "[a] narrative evaluation and line of sight profiles should be submitted for 1) the current hillside facing the school, 2) the capped landfill upon completion, and 3) when phase 8 is nearly full but not yet capped (i.e., worst-case scenario; when the waste is 80 feet higher than MSE berm. The evaluation should include simulated photos of the constructed berm including queued trucks, tipper, water cannon and bulldozers,

[5] https://en.wikipedia.org/wiki/Albany%E2%80%93Rensselaer_station

etc. that might be visible from the school. Several viewpoints should be considered, including the existing baseball field, 3rd floor windows, and top of bleachers at the track." [6]

Photo simulations of the requested scenarios are provided as Figures B-7(a-d), B-8(a-d), B-9(a-d). Line-of-sight profiles from the requested locations are provided as Figure C-1 in Appendix C.

## PHOTO SIMULATIONS

To illustrate how the Project will appear photo simulations were prepared from nine representative locations. Photo simulation locations are identified in Figure A1 – Photo Simulation Location/Viewshed Map – 3 Mile Radius.

For each location the photo simulation is provided to illustrate the present visual condition and degree of visibility and visual character of the Existing Facility (currently approved landfill at completion) and proposed Northern Berm Modification (at completion). Simulations for locations at Rensselaer Jr./Sr. High School also include Phase 8 operational conditions as specifically requested by NYSDEC.

Photo simulations were developed by superimposing a rendering of a three-dimensional digital terrain model of the Existing Facility (currently approved landfill at completion) and proposed North Berm Modification (at completion) into the base photograph taken from each corresponding visual receptor. The three-dimensional computer model was developed using *Autodesk Civil 3D* and *3D Studio Max Design*® software.

Simulated perspectives (camera views) were matched to the corresponding base photograph for each simulated view by replicating the precise coordinates of the field camera position (as recorded by handheld GPS) and the focal length of the camera lens used (e.g., 50mm). Precisely matching these parameters assures scale accuracy between the base photograph and the subsequent simulated view. The camera's elevation (Z) value is derived from digital elevation model (DEM) data plus the camera's height above ground level. The camera's target position was set to match the bearing of the corresponding existing condition photograph as recorded in the field. With the existing conditions photograph displayed as a "viewport background," and the viewport properties set to match the photograph's pixel dimensions, minor camera adjustments were made (horizontal and vertical positioning, and camera roll) to align the horizon in the background photograph with the corresponding features of the 3D model.

To verify the camera alignment, elements visible within the photograph (e.g., buildings, utility poles, regional terrain, etc.) were identified and digitized from digital orthophotos as needed. Each element was assigned a Z value based on DEM data and then imported into 3D Studio

[6] NYSDEC letter to Curt Taylor, S.A. Dunn & Company, September 11, 2019, p.3.

Max. A 3D terrain model was also created (using DEM data) to replicate the existing local topography. The digitized elements were then aligned with corresponding elements in the photograph by adjusting the camera target. If necessary, slight camera adjustments were made for accurate alignment. A daylight system was created matching the exact date and time of each baseline photograph to assure proper shading and shadowing of modeled elements.

Once the camera alignment was verified, a to-scale 3D digital terrain model of the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) was merged into the model space. The 3D model of the Project was constructed in sufficient detail to accurately convey visual character and reveal impacts. The scale, alignment, elevations and location of the visible elements of the Project are true to the conceptual design. Post-production editing (i.e., airbrush out portion of Project that falls below or behind foreground topography and vegetation) was completed using Adobe Photoshop software. The methodology accurately represents the location, height and visual character of the Project.

Photo simulations illustrating the visibility and visual character of the Project from affected vantage points are provided in Appendix B.

Visual Character of the Proposed Project

The proposed Project would result in a steep-sided meadowed landform that, although consistent in the pattern elements of form, line, color and texture with the visual character of the Existing Facility, is somewhat distinct from the natural topographic and vegetative patterns found in the study region. Consistent with the Existing Facility, when visible within the foreground distance zone (0 to 1/2 mile) the proposed Project may be a dominant or co-dominant visual element; clearly identifiable as a man-made landform within the context of the surrounding landscape. From middle ground viewing locations (½ mile to 3 miles) the landform low on the horizon will be viewed within the context to the regional landscape and be perceived as less visually distinct.

Consistent with visibility of the Existing Facility during the operational activities, periodically visible construction vehicles and relatively small areas of active land filling would create a contrast in color and texture with the vegetative patterns of the surrounding visible landscape. This contrast would be particularly noticeable from viewpoints located within the foreground distance zone (within ½ mile). With increasing distance visual elements tend to visually merge or join and colors and textures become more muted. When visible from middle ground viewing locations (1/2 to 3 miles) the landform is low to the horizon and viewed within the context to the regional landscape with visual distinctiveness increasingly reduced.

## SUMMARY AND CONCLUSIONS

The proposed North Berm Modification includes modifying the northern perimeter berm to include a mechanically stabilized earthen (MSE) berm. The MSE berm will provide an improved visual barrier from areas north and proximate to mine operations and to reclamation land-use solid waste operations as compared to the currently approved land-use plans. With the North Berm in place, Facility operations would not be seen from the areas north of the Facility except at the final stages of reclamation. Without the North Berm (i.e., operations consistent with the approved Existing Facility), direct line-of-sight views of Facility operations would exist for a longer duration.

The North Berm Modification will maintain the maximum elevation of the currently approved landfill (324 feet amsl). The North Berm Modification will remain within the footprint area of the currently approved landfill and will, in fact, reduce the affected footprint. Any visual difference between the Existing Facility and the proposed North Berm Modification is the result of modified final grading along and immediately adjacent to the berm.

Some portion of the Existing Facility is already visible, or will be theoretically visible upon completion of currently permitted operations, from approximately 2.72 percent of the three-mile study area. From these areas the Project does not represent a new visual impact, but rather a continuation of existing approved visibility of Dunn Mine C&D Facility operations. Upon completion of the proposed North Berm Modification, approximately 2.76 percent of the three-mile study area would be affected. This is an increase of approximately .04 percent (approximately 8 acres). These areas are generally small geographic extensions of adjacent lands that are already affected by views of the Existing Facility. In newly affected areas, views will be limited to the upper portions of the North Berm Modification appearing low to the foreground tree line. At a minimum, 97.4 percent of the study area will have no visibility of the Existing Facility or the proposed North Berm Modification.

At present, the Existing Facility largely falls below the tree line on the eastern shore of the Hudson River as viewed from most locations along the City of Albany waterfront. The degree of Project visibility from riverfront vantage points will slowly increase over time until currently approved operations reach the maximum permitted elevation (324 feet amsl). At completion, the Existing Facility will be visible at, or slightly above tree line from the waterfront between the Livingston Avenue railroad bridge and the Dunn Memorial Bridge. As the proposed North Berm Modification will maintain this currently approved maximum elevation, the proposed Project will be similarly visible from affected areas within along this section of the Heritage Area.

Intermittent glimpses of the Existing Facility are found in isolated locations in the eastern portion of downtown Albany through narrow view corridors between buildings and vegetation. Such views are not common. Direct views also occur from upper story east facing windows in downtown buildings.

The proposed North Berm Modification represents a continuation of the visibility of the approved Existing Facility operations. As such the visual patterns and composition of the proposed North Berm Modification will be substantially consistent with what is already seen and/or approved. In most areas, the effect of the proposed action on the surrounding landscape is negligible compared to the Existing Facility (at the end of currently permitted operations). Areas of new visibility are typically small geographic extensions of adjacent lands that are already affected by views of the Existing Facility. In such areas, the upper portions of the proposed Project will appear low to intervening tree line and similar in form, line color and texture with the local landscape.

Impact on Visual Resources of Statewide Significance – The Project will be directly visible from portions of the Albany Urban Heritage Area and short segments of the Empire State Trail and Hudson Valley Greenway Trail (Corning Preserve Trail and State Bike Route 9) along the City of Albany waterfront. These areas are currently affected (or will be affected at completion of the currently approved landfill). In all cases views of the currently approved landfill are low on the visible horizon. Because the proposed North Berm Modification will maintain the currently approved maximum elevation of 324 feet amsl, visibility of the proposed Project will be consistent with portions of the Facility already in view (or will be in view at the end of currently approved operations). From these affected areas the Project does not represent a new visual impact, but rather a continuation of existing visibility of currently approved Dunn Mine C&D Facility operations.

The NYSDEC Visual Policy states:

> *"Aesthetic impact occurs when there is a detrimental effect on the perceived beauty of a place or structure. Mere visibility a project should not be a threshold for decision making Instead a project, by virtue of its visibility, must clearly interfere with or reduce the public's enjoyment or appreciation of the appearance of a significant place or structure. "*[7] *Significant aesthetic impacts are those that may cause a diminishment of the public enjoyment and appreciation of an inventoried resource, or one that impairs the character or quality of such a place.*

[7] NYSDEC Visual Policy (DEP-00-2), p15.

*Proposed large facilities by themselves should not be a trigger for a declaration of significance."*[8]

In other words, the DEC Visual Policy recognizes that not everything that is visible rises to the level of an Aesthetic Impact, and not all Aesthetic Impacts rise to the level of a Significant Aesthetic Impact that may diminish public enjoyment of the resource.

When considered within the framework of the DEC Visual Policy's definition of "significant adverse visual impact", it is clear the proposed North Berm Modification will not cause a diminishment of the public enjoyment and appreciation of any scenic or historic resource, or one that impairs the character or quality of such a place. As such, the proposed Project will not result in any adverse visual impact.

Submitted by:

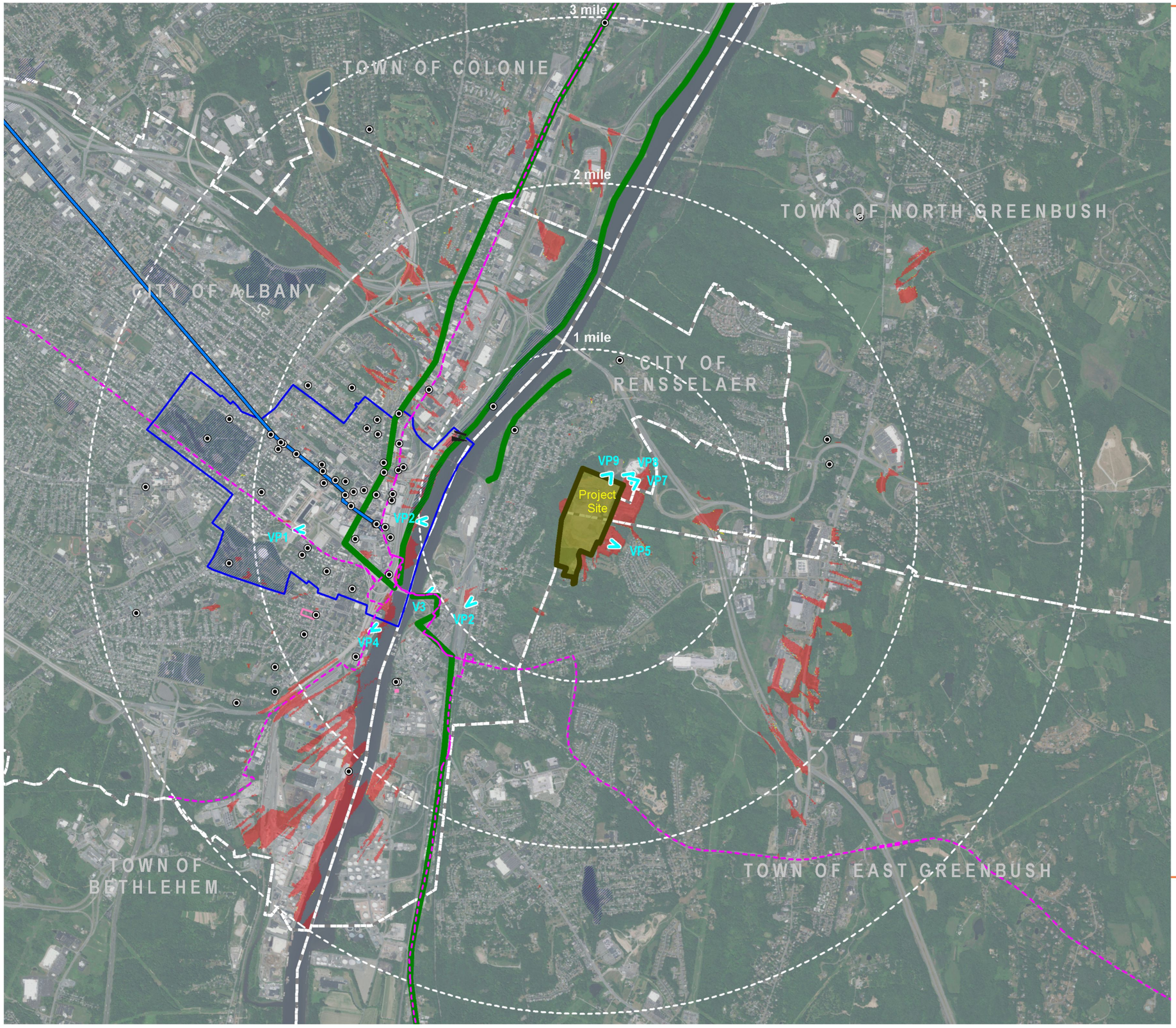
_____

Matthew W. Allen, RLA

[8] *Id.* p.5.

# APPENDIX A

# Viewshed Map




## LEGEND

Theoretical Visibility - Existing Facility & North Berm Modification

Theoretical Visibility - Northern Berm Modification
Note: The area of new visibility resulting from construction of the Northern Berm is approximately 8 acres (<0.1 percent of the total land area within the 3- mile study area). These areas are generally small geographic extensions of adjacent lands that are already affected by views of the Existing Facility. As such areas of increased visibility are virtually indistiguishable on this viewshed map.

### Viewshed Area Summary

| | Acres | Percent Cover |
|---|---|---|
| 3 mile Study Area | 18,094 | |
| Existing Facility | 492 | 2.72% |
| North Berm Modification | 500 | 2.76% |
| Additional Viewshed Area | 8 | 0.04% |

Note: Viewshed areas are not definitive. Viewshed mapping provides a general understanding of where the proposed project is theoretically visible based on regional topographic, forest and building cover data sources.

This viewshed map does not gauge how much of the Project would be visible above intervening landform or vegetation. the viewshed maps simply identifies the geographic area within which there is a relatively high probability (theoretical visibility) that some portion of the Existing Facility (at completion of currently approved operations) and the North Berm Modification (at completion) would be visible.

In almost all cases where project visibility is indicated views are limited to the upper portions of the Project landform appearing low to the foreground tree line. Refer to Appendix B for photo simulations illustrating the degree and character of Project visibility.

### Photo Locations

Photo Simulation

### Aesthetic Resources

- Albany Urban Heritage Area
- Municipal Recreation Area
- State Historic Site
- Designated Greenway Trail
- Revolutionary Trail Scenic Byway
- State Bike Route
- National Register of Historic Places Site
- State Boat Launch

1000 ft 3000 ft 5000 ft 7000 ft 9000 ft

*FIGURE A-1*
PHOTO SIMULATION LOCATION/VIEWSHED MAP - 3 MILE RADIUS

Visual Resource Assessment

**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

Blauvelt, Johannes

# APPENDIX B

# Photo Simulations

EXISTING CONDITION VIEW
VP1 - Albany Urban Heritage Area (Empire State Plaza)

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 55.4028" N |
| Time: | 4:06PM | | 73° 45' 40.2192" W |
| Focal Length: | 50 mm | Distance: | 8,480 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-1a*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER
VP1 - Albany Urban Heritage Area (Empire State Plaza)

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 55.4028" N |
| Time: | 4:06PM | | 73° 45' 40.2192" W |
| Focal Length: | 50 mm | Distance: | 8,480 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-1b*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - PROPOSED LANDFILL FINAL COVER
VP1 - Albany Urban Heritage Area (Empire State Plaza)

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 55.4028" N |
| Time: | 4:06PM | | 73° 45' 40.2192" W |
| Focal Length: | 50 mm | Distance: | 8,480 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-1c*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

EXISTING CONDITION VIEW
VP2 - Albany Urban Heritage Area/Empire State Trail/Hudson river Valley Greenway Trail (Corning Preserve) - City of Albany

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 57.9084" N |
| Time: | 3:03PM | | 73° 44' 48.0336" W |
| Focal Length: | 50 mm | Distance: | 4,570 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-2a*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER
VP2 - Albany Urban Heritage Area/Empire State Trail/Hudson river Valley Greenway Trail (Corning Preserve) - City of Albany

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 57.9084" N |
| Time: | 3:03PM | | 73° 44' 48.0336" W |
| Focal Length: | 50 mm | Distance: | 4,570 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-2b*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

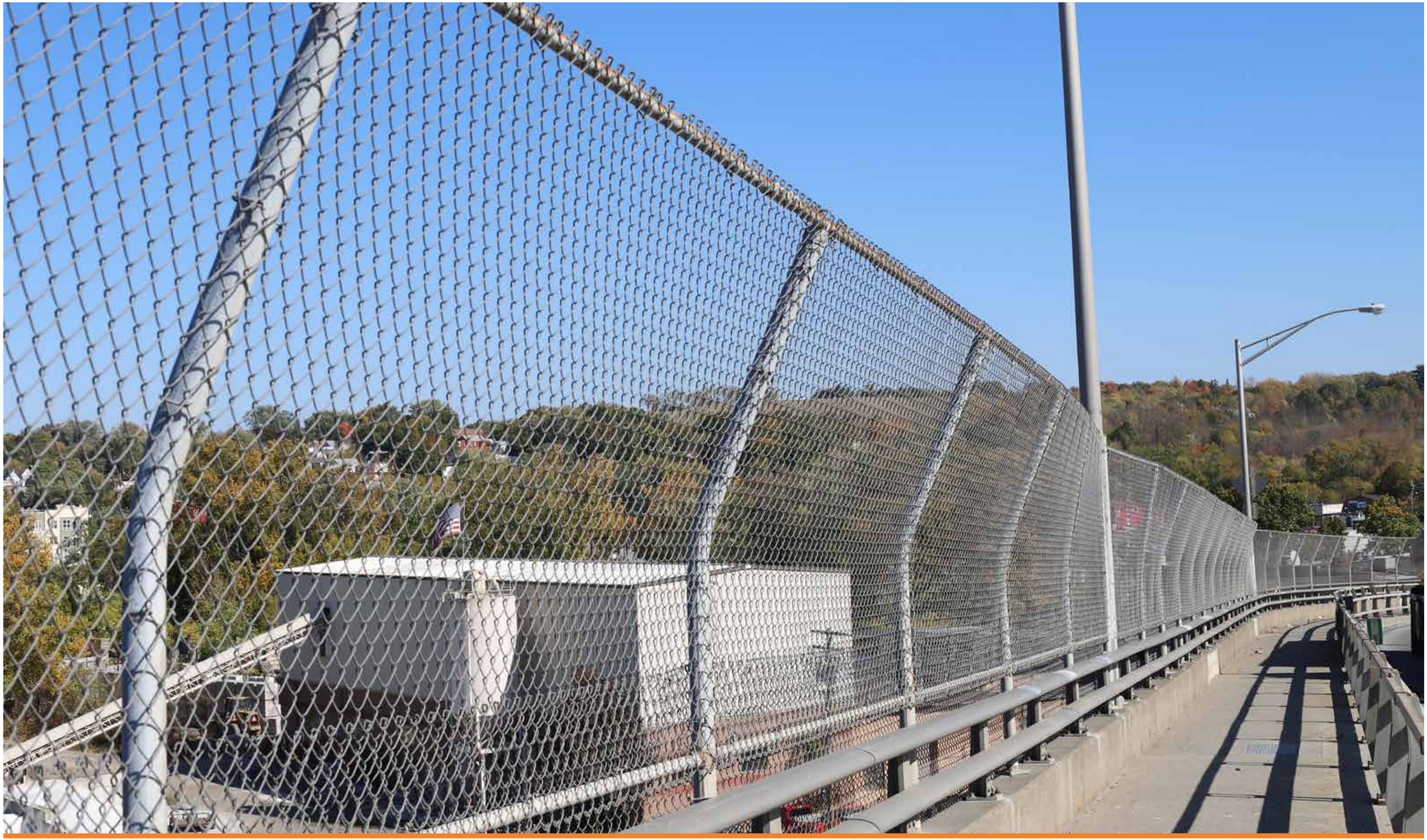
SIMULATED VIEW - PROPOSED LANDFILL FINAL COVER
VP2 - Albany Urban Heritage Area/Empire State Trail/Hudson river Valley Greenway Trail (Corning Preserve) - City of Albany

SARATOGA ASSOCIATES

| Photograph Information | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 57.9084" N |
| Time: | 3:03PM | | 73° 44' 48.0336" W |
| Focal Length: | 50 mm | Distance: | 4,570 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-2c*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY



EXISTING CONDITION VIEW
VP3 - Dunn Memorial Bridge (US Rte 20)

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 34.6344" N |
| Time: | 1:07PM | | 73° 44' 44.6964" W |
| Focal Length: | 50 mm | Distance: | 4,660 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-3a*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER
VP3 - Dunn Memorial Bridge (US Rte 20)

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 34.6344" N |
| Time: | 1:07PM | | 73° 44' 44.6964" W |
| Focal Length: | 50 mm | Distance: | 4,660 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-3b*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - PROPOSED LANDFILL FINAL COVER
VP4 - Dunn Memorial Bridge (US Rte 20)

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 34.6344" N |
| Time: | 1:07PM | | 73° 44' 44.6964" W |
| Focal Length: | 50 mm | Distance: | 4,660 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-3c*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY


EXISTING CONDITION VIEW
VP4 - Albany-Helderberg Bike Trail (Broadway) - City of Albany

SARATOGA ASSOCIATES

| Photograph Information | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 23.5248" N |
| Time: | 2:26PM | | 73° 45' 08.5536" W |
| Focal Length: | 50 mm | Distance: | 7,010 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-4a*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY


SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER
VP4 - Albany-Helderberg Bike Trail (Broadway) - City of Albany

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 23.5248" N |
| Time: | 2:26PM | | 73° 45' 08.5536" W |
| Focal Length: | 50 mm | Distance: | 7,010 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-4b*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY


SIMULATED VIEW - PROPOSED LANDFILL FINAL COVER
VP4 - Albany-Helderberg Bike Trail (Broadway) - City of Albany

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 23.5248" N |
| Time: | 2:26PM | | 73° 45' 08.5536" W |
| Focal Length: | 50 mm | Distance: | 7,010 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-4c*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

EXISTING CONDITION VIEW
VP5 - Holy Sepulchre Cemetery

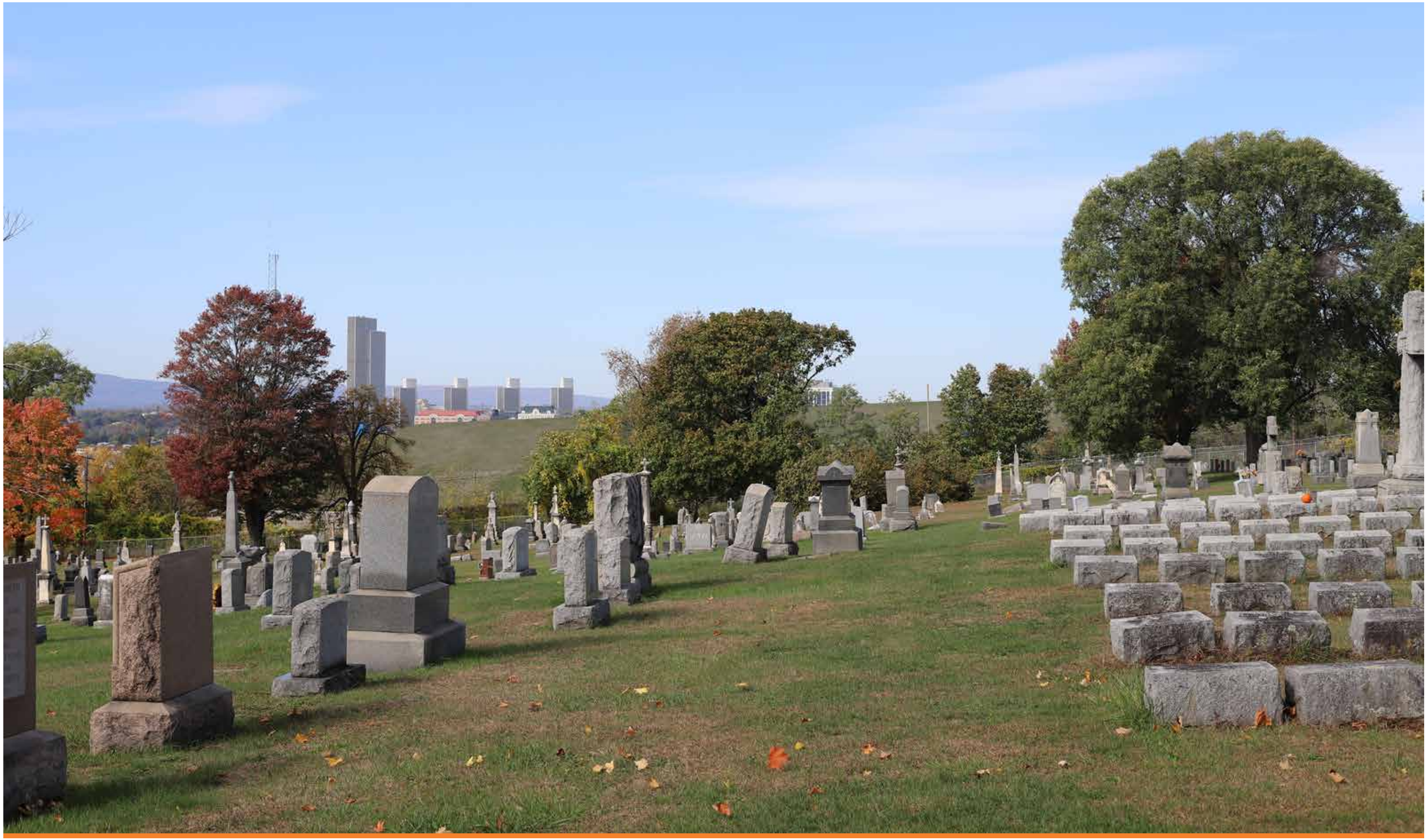
SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 49.2252" N |
| Time: | 11:17AM | | 73° 43' 22.1484" W |
| Focal Length: | 50 mm | Distance: | 660 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-5a*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY



SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER
VP5 - Holy Sepulchre Cemetery

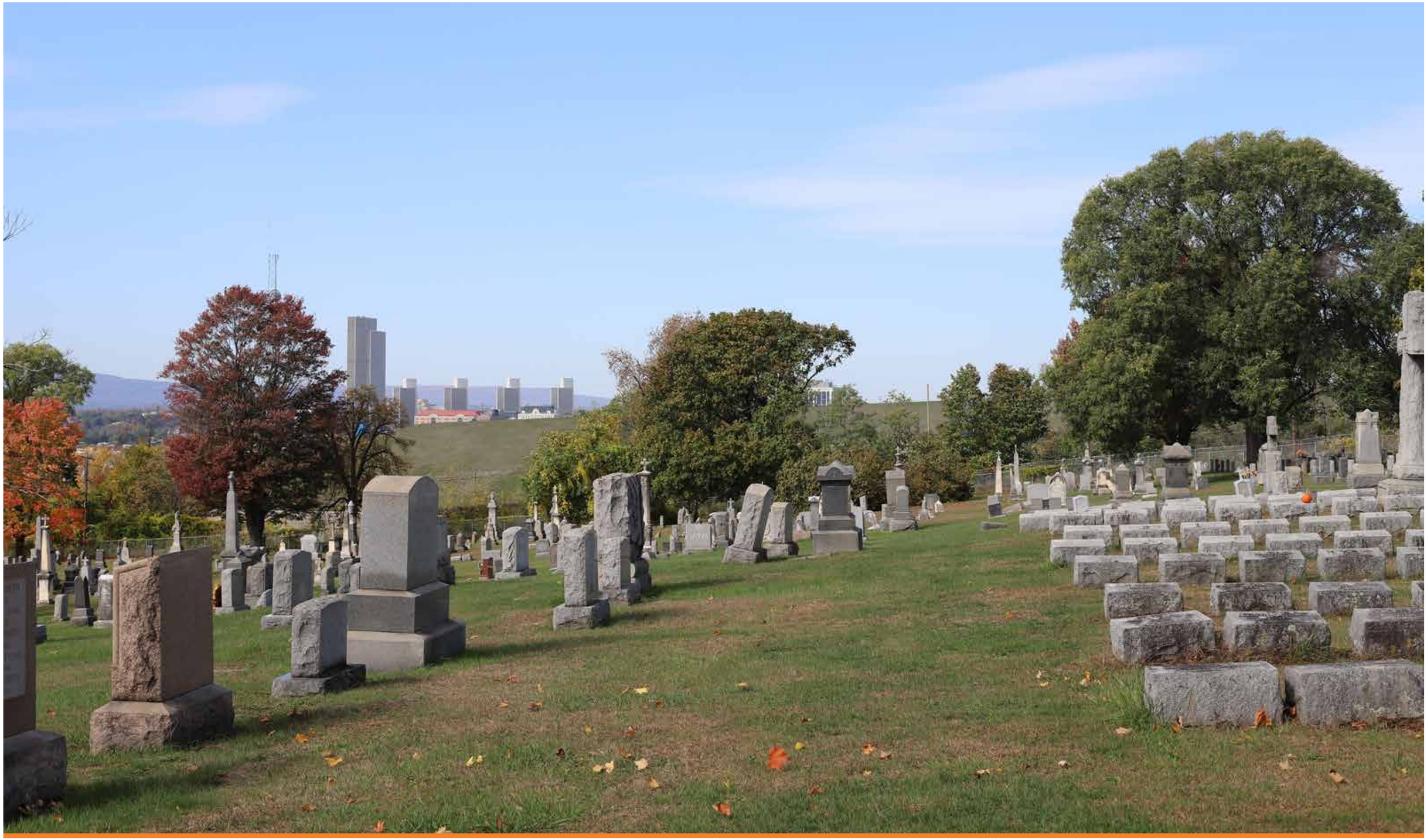
SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 49.2252" N |
| Time: | 11:17AM | | 73° 43' 22.1484" W |
| Focal Length: | 50 mm | Distance: | 660 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-5b*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY



SIMULATED VIEW - PROPOSED LANDFILL FINAL COVER
VP5 - Holy Sepulchre Cemetery

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 49.2252" N |
| Time: | 11:17AM | | 73° 43' 22.1484" W |
| Focal Length: | 50 mm | Distance: | 660 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-5c*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

EXISTING CONDITION VIEW
VP6 - Albany-Rensselaer Amtrak Station

SARATOGA ASSOCIATES

| Photograph Information | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 31.0128" N |
| Time: | 12:45PM | | 73° 44' 27.3624" W |
| Focal Length: | 50 mm | Distance: | 3,760 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-6a*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER
VP6 - Albany-Rensselaer Amtrak Station

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 31.0128" N |
| Time: | 12:45PM | | 73° 44' 27.3624" W |
| Focal Length: | 50 mm | Distance: | 3,760 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-6b*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - PROPOSED LANDFILL FINAL COVER
VP6 - Albany-Rensselaer Amtrak Station

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 15, 2020 | Photo Location: | 42° 38' 31.0128" N |
| Time: | 12:45PM | | 73° 44' 27.3624" W |
| Focal Length: | 50 mm | Distance: | 3,760 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-6c*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

EXISTING CONDITION VIEW
VP7 - Rensselaer High School Bleachers

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 03, 2019 | Photo Location: | 42° 39' 10.0000" N |
| Time: | 9:27AM | | 73° 43' 13.7000" W |
| Focal Length: | 24 mm | Distance: | 560 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-7a*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER
VP7 - Rensselaer High School Bleachers

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 03, 2019 | Photo Location: | 42° 39' 10.0000" N |
| Time: | 9:27AM | | 73° 43' 13.7000" W |
| Focal Length: | 24 mm | Distance: | 560 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-7b*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - PHASE 8 BERM CONSTRUCTION & LANDFILL OPERATION
VP7 - Rensselaer High School Bleachers

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 03, 2019 | Photo Location: | 42° 39' 10.0000" N |
| Time: | 9:27AM | | 73° 43' 13.7000" W |
| Focal Length: | 24 mm | Distance: | 560 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-7c*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - COMPLETED LANDFILL CONSTRUCTION
VP7 - Rensselaer High School Bleachers

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 03, 2019 | Photo Location: | 42° 39' 10.0000" N |
| Time: | 9:27AM | | 73° 43' 13.7000" W |
| Focal Length: | 24 mm | Distance: | 560 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-7d*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

EXISTING CONDITION VIEW
VP8 - Rensselaer High School Main Building

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 03, 2019 | Photo Location: | 42° 39' 12.2277" N |
| Time: | 9:12AM | | 73° 43' 15.9756" W |
| Focal Length: | 24 mm | Distance: | 520 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-8a*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER
VP8 - Rensselaer High School Main Building

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 03, 2019 | Photo Location: | 42° 39' 12.2277" N |
| Time: | 9:12AM | | 73° 43' 15.9756" W |
| Focal Length: | 24 mm | Distance: | 520 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-8b*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - PHASE 8 BERM CONSTRUCTION & LANDFILL OPERATION
VP8 - Rensselaer High School Main Building

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 03, 2019 | Photo Location: | 42° 39' 12.2277" N |
| Time: | 9:12AM | | 73° 43' 15.9756" W |
| Focal Length: | 24 mm | Distance: | 520 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-8c*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - COMPLETED LANDFILL CONSTRUCTION
VP8 - Rensselaer High School Main Building

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 03, 2019 | Photo Location: | 42° 39' 12.2277" N |
| Time: | 9:12AM | | 73° 43' 15.9756" W |
| Focal Length: | 24 mm | Distance: | 520 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-8d*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

EXISTING CONDITION VIEW
VP9 - Rensselaer High School Ball Field

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 03, 2019 | Photo Location: | 42° 39' 12.3000" N |
| Time: | 9:20AM | | 73° 43' 25.1000" W |
| Focal Length: | 24 mm | Distance: | 220 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-9a*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER
VP9 - Rensselaer High School Ball Field

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 03, 2019 | Photo Location: | 42° 39' 12.3000" N |
| Time: | 9:20AM | | 73° 43' 25.1000" W |
| Focal Length: | 24 mm | Distance: | 220 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-9b*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - PHASE 8 BERM CONSTRUCTION & LANDFILL OPERATION
VP9 - Rensselaer High School Ball Field

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 03, 2019 | Photo Location: | 42° 39' 12.3000" N |
| Time: | 9:20AM | | 73° 43' 25.1000" W |
| Focal Length: | 24 mm | Distance: | 220 Feet |
| Camera: | Canon EOS 6D MarkII | | |

*This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-9c*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

SIMULATED VIEW - COMPLETED LANDFILL CONSTRUCTION
VP9 - Rensselaer High School Ball Field

SARATOGA ASSOCIATES

Photograph Information

| | | | |
|---|---|---|---|
| Date: | October 03, 2019 | Photo Location: | 42° 39' 12.3000" N |
| Time: | 9:20AM | | 73° 43' 25.1000" W |
| Focal Length: | 24 mm | Distance: | 220 Feet |
| Camera: | Canon EOS 6D MarkII | | |

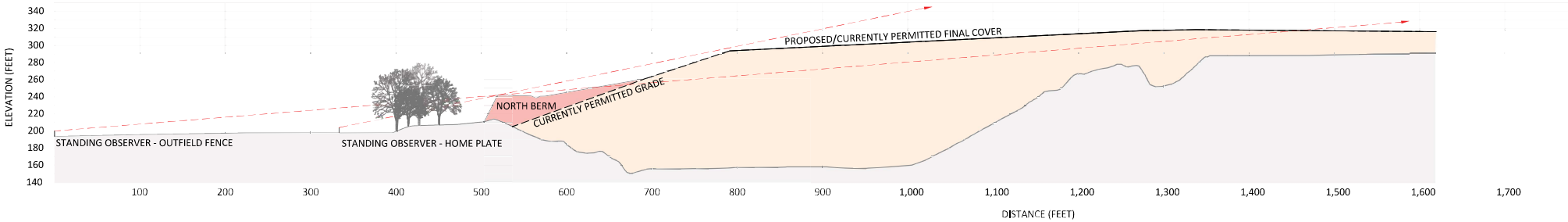
*This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.*

*FIGURE B-9d*
Visual Resource Assessment
**NORTH BERM MODIFICATION**
Dunn Mine C&D Facility
Rensselaer, NY

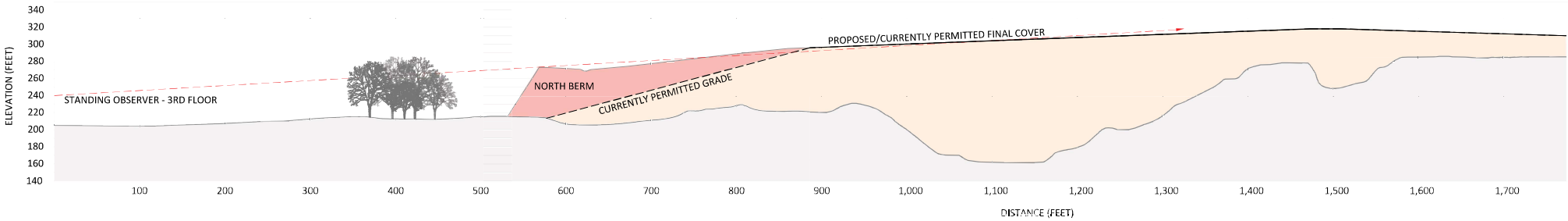
# APPENDIX C

# Rensselaer Jr./Sr. High School

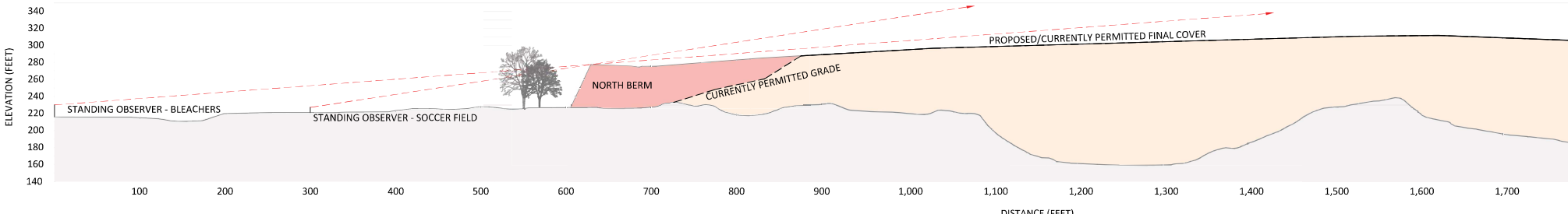
# Line-of-Sight Profiles




## Line-of-Sight A - Ball Field




## Line-of-Sight B - School Building



## APPENDIX F

- Current Mitigation of Off-site Impacts
    - Appendix F1: VOC and Particulate Sampling
    - Appendix F2: Lead Hazard Screening

# Dunn Mining and Construction & Demolition Debris Facility

## Appendix F to the EAF: Current Mitigation of Potential Offsite Impacts

### I. Overview of the Dunn Mining and Construction & Demolition Debris Facility

S.A. Dunn & Company, LLC (S.A. Dunn) owns and operates a sand and gravel mine and construction and demolition debris (C&D) disposal facility (Dunn Facility or Facility). The Facility, which spans about 90 acres, is located in the City of Rensselaer and the Town of North Greenbush, New York. Sand and gravel mining has occurred on the site since at least the late nineteenth century, and C&D disposal operations commenced in 2015. C&D disposal supports reclamation of the mine in accordance with State law.

### II. Mitigation of Potential Offsite Impacts

The Dunn Facility currently employs numerous means of controlling air emissions and dust and mitigating the potential for offsite impacts, and is subject to strict oversight by the New York State Department of Environmental Conservation (NYSDEC). These and other measures set forth in the Facility's permit and dust control plan are described below.

#### A. Requirements of the Current NYSDEC Permit

The Dunn Facility operates in accordance with a permit issued by NYSDEC under Article 23, Title 27, Mined Land Reclamation, and Article 27, Title 7, Solid Waste Management, of the Environmental Conservation Law (NYSDEC Permit #4-3899-00006). The permit imposes the following conditions on the Facility's operations:

- Only permitted C&D may be accepted at the Facility, including bricks, concrete and other masonry materials, soil and rock, wood, land clearing debris, wall coverings, plaster, drywall, plumbing fixtures, non-asbestos insulation, roofing shingles and other roof coverings, asphalt pavement, glass, plastics not containing other waste, electrical wiring, piping, metal. Materials not accepted for disposal include friable asbestos waste, municipal solid waste, electrical fixtures containing hazardous liquids such as fluorescent light ballasts or transformers, appliances, tires drums or other containers greater than ten gallons in size, fuel tanks or any other material not meeting the regulatory definition of construction and demolition debris. All waste loads are inspected to identify and reject unacceptable wastes.

- The Facility operates in accordance with agency-approved solid waste management and mine land reclamation plans.

- The Facility funds a full-time independent environmental monitor, who is hired and overseen by NYSDEC.

- Construction and operation of the Facility is limited to Monday through Friday from 6:30 am to 5:30 pm, excluding federal holidays.

- The Facility has a leachate collection system. Accumulated leachate is removed for proper treatment.

- The Facility has installed an enhanced gas collection and control system to control fugitive emissions of hydrogen sulfide ($H_2S$) and other landfill gases. The system is comprised of vertical gas collection wells in the waste mass, as well as gas collection from the leachate collection system. Gas is collected and sent to a permanent flare to destroy odorous gases. The system is adjusted and monitored to ensure continuous removal and destruction of landfill gases.

- The Facility has developed and implements a state-of-the-art dust control plan (described in further detail below).

- The Facility has established a 24-hour odor complaint telephone and email reporting hotline, and investigates all complaints received.

- The Facility is limited to 100 truck round trips per day for the purpose of mining activities, C&D disposal, and construction activities (except light duty or smaller trucks) or leachate hauling.

**B. Dust Control Plan**

In consultation with a nationally recognized dust control expert, the Dunn Facility has developed and implements an enhanced dust control plan that helps prevent and minimize fugitive dust and particulates. The dust control plan is being submitted with this permit renewal application. As a principle measure of dust control, the Facility places matting, hydromulch or other cover (e.g., stone, grass) on inactive areas. In excess of 75% of the Facility is protected in this manner, greatly minimizing the potential for dust creation. These cover systems are regularly inspected and maintained.

In addition to cover systems, S.A. Dunn implements the following dust control measures consistent with the Facility's permit and dust control plan:

- Internal speed limit of 10 miles per hour.

- Tire washing of outbound vehicles prior to exiting the site.

- Street sweeping on Partition Street twice daily, and on the internal paved roadways at the Facility.

- Use of water truck on internal paved and unpaved roads, as well as along a portion of Partition Street during dry conditions.

- Use of alternative, approved dust palliatives during freezing conditions when use of water for dust control is not feasible.

- Use of truck tipper sprayer and/or misting cannon during C&D disposal operations.

- Stabilization of exposed slopes.

- Installation of snow and/or sand fencing along the crest of the west-facing mine slope.

- Installation of litter control fencing around the perimeter of the facility, which also acts as a windbreak that can provide additional dust control.

- Installation of vegetative buffer along the southern perimeter of the Facility, and proposed installation of an elevating berm (with vegetative components) along the northern perimeter, which will provide additional visual and dust control.

- Regular design review and inspection of internal truck routes to minimize the potential for dust creation.

- High wind mitigation, such as reduced or temporary cessation of operations.

- Use of meteorological monitoring station to assist in identifying potential dust conditions (e.g., wind velocity) and necessity of implementing additional dust mitigation measures.

- Additional limitations on mining operations during seasonable high-wind periods, including in relation the open mine area, mine face height, and stock pile locations and size.

## III. Sampling and Air Monitoring Efforts

Under the Dunn Facility's current permit, dust control plan, and operations, S.A. Dunn effectively mitigates the potential for offsite impacts. Recent monitoring and sampling by state and city agencies and S.A. Dunn for hydrogen sulfide, particulates, lead, and per-and polyfluoroalkyl substances (PFAS) confirm the efficacy of these measures.

### A. Hydrogen Sulfide Monitoring

$H_2S$ is the primary odorous gas generated from the decomposition of organic matter, including organic components of C&D. New York State has established an ambient air quality standard for $H_2S$ of 0.010 parts per million (ppm), averaged over any one-hour period.

Beginning in 2019, NYSDEC has installed monitors called Acrulog samplers at several locations near the perimeter of the Dunn Facility (shown in the figure below) as a screening tool for detecting $H_2S$ odor episodes in the surrounding community.


The results of this monitoring for 2019, 2020, and 2021 (also summarized below) are reported on NYSDEC's website: https://www.dec.ny.gov/chemical/117071.html#Odor. According to NYSDEC, the monitors can register diesel exhaust and some common gases such as carbon monoxide, nitrogen oxides, and sulfur dioxide that can interfere with the accuracy of their results by increasing the apparent $H_2S$ concentration. Thus the readings are likely conservative and overestimate $H_2S$ from the Dunn Facility. The monitors are not used during colder periods as they do not function well in freezing conditions.

### 1. 2019 Results

From April to November 21, 2019, NYSDEC collected $H_2S$ measurements from five locations around the Dunn Facility. NYSDEC noted that the number of occurrences when $H_2S$ was even detected was very low. On only a few dates did the monitors measure $H_2S$ above 0.010 ppm for consecutive 10-minute readings. NYSDEC summarized its 2019 results as follows:

- Cemetery location: 0.29% (88 of 30,325 observations) of the readings detected $H_2S$, and the maximum 10-minute reading was 0.050 ppm.

- Soccer Field location: 0.31% (96 of 31,323 observations) of the readings detected $H_2S$, and the maximum 10-minute reading was 0.052 ppm.

- Baseball Field location: 0.86% (268 of 31,333 observations) of the readings detected $H_2S$ and the maximum 10-minute reading was 0.420 ppm.

- 9th Street location: 0.011% (2 of 18,141 observations) of the readings detected $H_2S$, and the maximum 10-minute reading was 0.003 ppm. On August 14, this monitor was moved to the Garden Place location.

- Garden Place location: 0.24% (28 of 11,850 observations) of the readings detected $H_2S$, and the maximum 10-minute reading was 0.009 ppm.

### 2. 2020 Results

From April 6, 2020, to October 28, 2020, NYSDEC collected $H_2S$ measurements from three locations around the Dunn Facility. NYSDEC explained that the number of occurrences and concentrations when $H_2S$ was detected—summarized below—continued to be very low:

- Soccer Field location: 2.0% (521 of 26,101 observations) of the readings detected $H_2S$ and the maximum 10-minute reading was 0.016 ppm.

- Baseball Field location: 3.5% (907 of 25,785 observations) of the readings detected $H_2S$ and the maximum 10-minute reading was 0.036 ppm.

- Cemetery location: 1.3% (288 of 22,468 observations) of the readings detected $H_2S$ and the maximum 10-minute reading was 0.128 ppm.

### 3. 2021 Results

On June 30, 2021, NYSDEC re-installed Acrulog samplers at three locations around the Dunn Facility. NYSDEC has reported data through August 30, 2021, and stated that the number of occurrences and concentrations when $H_2S$ was detected continued to be very low:

- Soccer Field location: 0.40% (35 of 8,728 observations) of the readings detected $H_2S$ and the maximum 10-minute reading was 0.031 ppm.

- Baseball Field location: 0.42% (37 of 8,740 observations) of the readings detected $H_2S$ and the maximum 10-minute reading was 0.039 ppm.

- Cemetery location: 0.04% (1 of 2,741 observations) of the readings detected $H_2S$ and the maximum 10-minute reading was 0.003 ppm.

Again, although very low to begin with, these reported results likely overestimate $H_2S$ from the Facility as the monitors can also register diesel exhaust and other common gases that can artificially increase the apparent $H_2S$ concentration.

## B. Dust, Particulate, and VOC Monitoring

In addition to regular visits to the Dunn Facility to inspect for potential dust releases, on July 27, 2019, NYSDEC began monitoring for offsite particulate concentrations at the Rensselaer City School to the north of the Facility. The monitor collects hourly measurements of particulate matter less than 10 microns in size ($PM_{10}$). The location of the $PM_{10}$ monitor is shown

in the figure above. The National Ambient Air Quality Standard (NAAQS) for $PM_{10}$ is 150 micrograms per cubic meter ($\mu g/m^3$) for a 24-hour average (daily).

Because particles in this size range are light enough to remain suspended, they can travel from upwind areas. Thus, a portion of the $PM_{10}$ measured reflects transport of particles from activities outside the area that are not related to the Dunn Facility. To determine local particulate concentrations, a comparison was made with particulate measurements collected at the Albany County Health Department (directly across the Hudson River from the Facility).

During 2019 and 2020, both monitors measured concentrations well below the NAAQS for $PM_{10}$. And the data collected to date at the Rensselaer City School show, with minor exceptions, $PM_{10}$ concentrations to be consistently lower than current measurements across the Hudson River in the City of Albany. This indicates that the Dunn Facility is not a significant source of local $PM_{10}$.

NYSDEC also conducted air sampling for volatile organic compounds (VOCs) from October 30, 2019, to January 16, 2020, and speciated analysis (for specific elemental components) of $PM_{10}$ from October 12, 2019, to December 8, 2019, on the roof of the Rensselaer City School. NYSDEC concluded that the VOC samples showed that the air quality at the school is typical of the general air quality for a suburban area; and the air concentrations for the $PM_{10}$ mass and associated elemental components were low and similar to measurements at an identical monitor in Loudonville, New York, during the same time period. According to NYSDEC, the sampling results do not appear to indicate that Facility operations are measurably increasing the levels of $PM_{10}$ and VOCs monitored at the school above levels measured at other NYSDEC monitors.

The results of the dust, particulate, and VOC monitoring are summarized on the NYSDEC website (https://www.dec.ny.gov/chemical/117071.html#Odor) and in an April 28, 2020 letter from the NYSDEC to the Rensselaer City School District. The April 28 letter can be found at https://cdn.wasteconnections.com/cms/sa-dunn-landfill/DEC_Dunn_Letter04-28-2020.PDF and is also included in Appendix B for convenience.

### C. Lead Testing

In April 2019, the Rensselaer Department of Health conducted a lead hazard screen at internal locations at the Rensselaer City School following U.S. EPA approved protocols. Exterior samples were also analyzed to reflect "worst-case" conditions. No lead was found in any of the samples, which were considered representative of other areas throughout the school property. The results of the lead hazard screen are included in Appendix C.

### D. PFAS Sampling

In response to community concerns, NYSDEC commissioned surface water sampling in the vicinity of the Dunn Facility, as well as on-site groundwater and leachate sampling, to test for PFAS and other contaminants. NYSDEC explains that its assessment is occurring in two phases: the first phase during wet conditions, and the second phase during dry conditions. The first sampling phase (wet conditions) was conducted in the spring and summer of 2021. NYSDEC planned to conduct the second sampling phase (dry conditions) in December 2021.

The surface water and groundwater sampled in the NYSDEC study do not serve as sources of drinking water. However, NYSDEC explains that when sampling surface water or groundwater, NYSDEC often uses the State's established Maximum Contaminant Levels (MCLs) for public drinking water systems to consider whether additional investigation is necessary. New York has MCLs of 10 parts per trillion (ppt) for perflurooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) for public drinking water systems.

According to NYSDEC, the MCL of 10 ppt for both PFOA and PFOS was not exceeded in any groundwater or surface water sample collected at or near the Dunn Facility. While NYSDEC's first phase of the investigation found low levels of PFAS in some nearby surface water and groundwater, these results did not support a direct link to the Dunn Facility as a contributor of PFAS or other off-site contamination. NYSDEC has not yet reported the result of its planned December 2021 sampling event. The PFAS sampling is summarized on the NYSDEC website: https://www.dec.ny.gov/chemical/117071.html#Odor.

S.A. Dunn also retained an outside consultant to conduct PFAS sampling in response to community concerns. In January 2021, samples were collected from groundwater monitoring wells and surface water monitoring locations. Those samples, which were analyzed by an independent and accredited lab, confirmed that S.A. Dunn is not contributing to any PFAS concentrations in groundwater or surface water. Detections of all PFAS compounds, including PFOA and PFOS, were well below the State's 10 ppt MCL, and in many cases were non-detectable, or otherwise consistent with background readings for PFAS found across New York State. Results can be found at https://cdn.wasteconnections.com/cms/sa-dunn-landfill/J179920-2UDSLevel2ReportFinalReport.pdf.

# APPENDIX F1

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

**Division of Air Resources**
625 Broadway, Albany, New York 12233-3250
P: (518) 402-8452 | F: (518) 402-9035
www.dec.ny.gov

April 28, 2020

Superintendent Joseph Kardash
Rensselaer City School District
25 Van Rensselaer Drive
Rensselaer, NY 12144

Dear Joe:

At your request, staff from the New York State Department of Environmental Conservation (DEC) conducted air sampling for volatile organic compounds (VOCs) and speciated analysis (for specific elemental components) of particulate matter (10 microns and less in size ($PM_{10}$)) on the roof of the elementary school. The results for the fourteen VOC samples, which were collected every sixth day from October 30, 2019 to January 16, 2020, show that the air quality at the school is typical of the general air quality for a suburban area. The air concentrations for the $PM_{10}$ mass and associated elemental components, which were collected from October 12, 2019 to December 8, 2019, were low and similar to measurements at an identical monitor in Loudonville during the same time period. In particular arsenic and lead air concentrations were also low and similar for the two locations. While landfill operations can have the potential to increase short-term particulate levels near the school, DEC actions to curtail this influence, particularly on windy days, may have helped to keep the $PM_{10}$ levels at the school similar to levels measured at the Loudonville monitor. These data collected do not appear to indicate that landfill operations were measurably increasing the levels of $PM_{10}$ and VOCs monitored at the school above levels measured at other DEC monitors.

***Details About the Sampling Results for Volatile Organic Compounds***
The volatile pollutants measured in the air samples represent chemicals that can be typically found in outdoor air, including in suburban communities. The list includes chemicals identified as hazardous air pollutants and toxic air contaminants by the EPA and DEC.

VOC sampling results were compared to DEC's short-term health-based guideline concentrations (SGCs). SGCs are used by the DEC to protect the general population from adverse exposure to toxic air contaminants for short-term exposure periods of one hour. We also compared the results to DEC's annual health-based guideline concentrations (AGCs). The AGCs and SGCs are set at levels below those that cause health effects. AGCs are used by the DEC to protect the general population from adverse health effects from long-term (lifetime) exposure to the toxic air contaminant. While these values are used for comparisons to ambient measurements taken over the course of an entire year, in this case we also compared the 24-hour sampling results

measured at your school to assess potential long-term exposure, assuming the limited samples collected are representative of long-term exposures.

None of the VOC results were above the SGC. The results for four VOCs were detected above the AGC: 1,2-dichloroethane, 1,3-butadiene, benzene, and carbon tetrachloride. These four VOCs are commonly detected above the AGC across the State, including in the rural areas of Whiteface Mountain and Pinnacle State Park.

The following VOCs were detected in the air samples we collected and also were reported as detected in the leachate at Dunn Landfill in the facility's solid waste annual report for 2018 or 2019: 1,2-dichloroethane, dichloromethane, benzene, ethylbenzene, toluene, trichloroethylene, trichlorofluoromethane, vinyl chloride, *m,p*-xylene, and *o*-xylene. All of these compounds were found at levels commonly found in outdoor air samples from other areas of the State.

More detailed information about the results can be found in the ***VOC Technical Notes*** section which describes the collection and analysis method used for the samples. We used the same methods to collect and analyze the school samples as we use in the network monitoring conducted across the State. Also included are the results for all VOCs detected and graphs of comparisons to the State monitoring network for the four VOCs which were found above the AGC.

***Details about the $PM_{10}$ Mass and Elemental Speciation Results***

Activities that create a lot of noticeable dust typically create $PM_{10}$ particles. Because some particles in this size range are light enough to remain suspended, they can travel from distant upwind areas so a portion of the $PM_{10}$ measured locally would reflect transport of particles from activities outside the area, and would therefore not be related to the Dunn Landfill. To determine if local particulate concentrations at the Rensselaer City School (RCS) were elevated compared to another location in the Capital District, DEC installed an identical monitor in Loudonville to collect samples to evaluate speciated elemental constituents in $PM_{10}$. The $PM_{10}$ samples were collected in a manner consistent with EPA's sampling guidelines and on the same 1-in-3 day, 24-hour sampling schedule as used in the State's monitoring network.

The results in Figure 1 show that the $PM_{10}$ concentrations were low and similar at both locations. Closer inspection shows that the results can vary substantially from day to day depending upon meteorological factors (e.g., wind speed and direction), traffic and other local factors, and there were a few days when concentrations were higher at either the RCS or Loudonville monitor. The results for both monitors were well below the daily average National Ambient Air Quality Standard (NAAQS) for $PM_{10}$ of 150 micrograms per cubic meter of air ($\mu g/m^3$).

More information about the $PM_{10}$ analysis and specific elemental results (including metals) can be found in the ***$PM_{10}$ Technical Notes*** section.

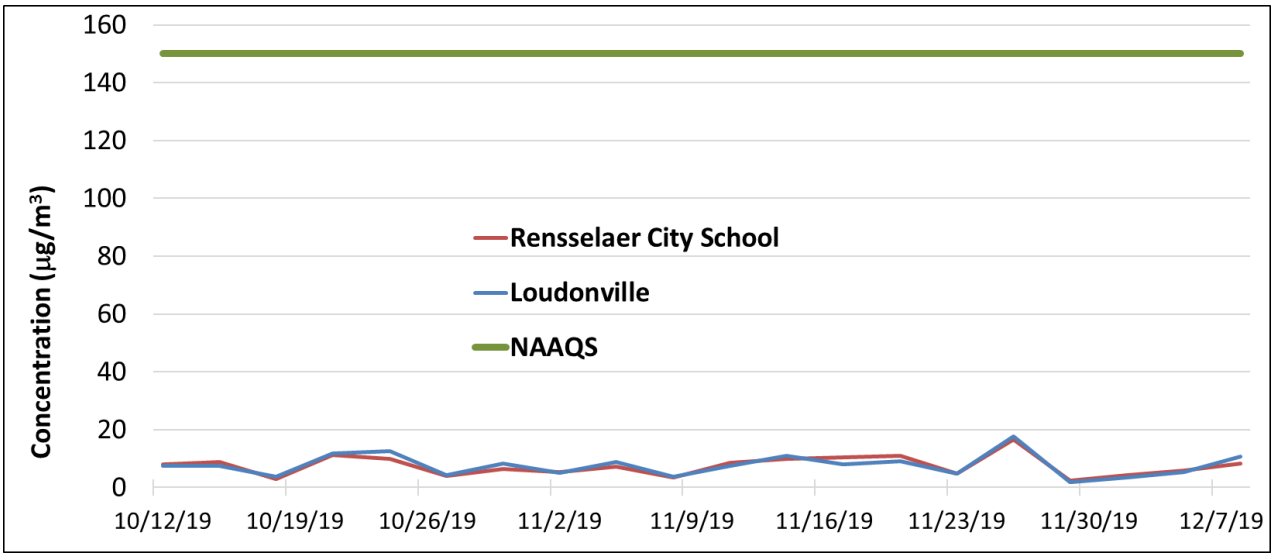



**Figure 1. $PM_{10}$ Concentrations compared to the NAAQS**

If you have any further questions, please don't hesitate to contact me at (518) 402-8452.

Sincerely,

Steven E. Flint, PE
Director, Division of Air Resources

c: Keith Goertz – DEC Region 4, Regional Director
Victoria Schmitt - DEC Region 4, Regional Engineer
Brian Maglienti - DEC Region 4, Engineer
Benjamin Potter - DEC Region 4, Regional Air Pollution Control Engineer
Gary Ginsberg – New York State Department of Health
Brian Lay - DEC
Dirk Felton - DEC
Margaret LaFarr – DEC
Tom Gentile - DEC
Randi Walker - DEC

## VOC Technical Notes

Monitoring instrument and analysis method

Air samples were collected for 24-hours using an evacuated pre-cleaned 6-liter stainless steel canister. The canisters were sent to DEC's Bureau of Air Quality Surveillance (BAQS) laboratory in Rensselaer, for analysis of 43 target compounds consistent with NYS Toxics Air Monitoring Network. The canister samples were analyzed using a modified version of EPA method TO-15. The analytical process is described as follows: air samples are taken from the canister at a controlled flow and temperature by an Entech Model 7100A pre-concentrator. The sample was injected into an Agilent gas chromatograph/mass spectrometer.

Results for all air toxics

Of the 43 target compounds analyzed, only 26 were detected. Tables 1 and 2 list all VOCs detected with associated SGCs and AGCs. None of the VOCs were found above the SGC. Four VOCs (1,2 dichloroethane, 1,3-butadiene, benzene, carbon tetrachloride) had at least one result above the AGC. These four VOCs are commonly found above the long-term guideline concentration in all areas of the State. Figure 2 illustrates how the concentrations for these four VOCs measured at the Rensselaer Public School were within the range found in other areas of the State. Two monitors have been designated as source collection. One is adjacent to a formerly active coke oven facility and the other is located on a large landfill and near chemical manufacturing, petroleum storage and refining facilities in New Jersey.

## Table 1. Air Sample Results for October 30, 2019 - December 5, 2019

| **Chemical** (all results in units of ppb) | **10/30/2019** | **11/5/2019** | **11/11/2019** | **11/17/2019** | **11/23/2019** | **11/29/2019** | **12/5/2019** | **Short-Term Health-Based Guideline Conc. (SGC) (ppb)** | **Long-Term Health-Based Guideline Conc. (AGC) (ppb)** |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | 0.021 | 0.0095 | 0.013 | 0.012 | 0.0077 | 0.0051 | 0.0097 | - - | 1.2 |
| 1,2-Dichloroethane | 0.016 | 0.014 | 0.015 | 0.017 | 0.015 | 0.015 | 0.018 | - - | 0.0093 |
| 1,2-Dichloropropane | nd | nd | nd | nd | nd | nd | 0.0045 | - - | 0.87 |
| 1,3,5-Trimethylbenzene | 0.0052 | nd | 0.0034 | 0.0032 | nd | nd | nd | - - | 59 |
| 1,3-Butadiene | 0.012 | nd | 0.013 | 0.019 | 0.0082 | nd | nd | - - | 0.015 |
| 1,4-Dichlorobenzene | nd | nd | nd | nd | nd | nd | nd | - - | 0.015 |
| Acrolein | 0.065 | 0.054 | 0.073 | 0.076 | 0.055 | 0.036 | 0.040 | 1.1 | 0.15 |
| Benzene | 0.10 | 0.082 | 0.12 | 0.14 | 0.094 | 0.085 | 0.12 | 400 | 0.04 |
| Bromomethane | 0.0071 | 0.0069 | 0.0074 | 0.0068 | 0.0076 | 0.0068 | 0.0075 | 1,000 | 1.3 |
| Carbon tetrachloride | 0.081 | 0.077 | 0.080 | 0.080 | 0.078 | 0.077 | 0.080 | 300 | 0.027 |
| Chlorobenzene | 0.013 | nd | nd | nd | nd | nd | nd | - - | 13 |
| Chloroethane | nd | nd | nd | nd | nd | nd | nd | - - | 3,800 |
| Chloroform | 0.019 | 0.017 | 0.021 | 0.021 | 0.016 | 0.016 | 0.017 | 31 | 3 |
| Chloromethane | 0.51 | 0.51 | 0.50 | 0.57 | 0.51 | 0.49 | 0.49 | 11,000 | 44 |
| Dichlorodifluoromethane | 0.51 | 0.49 | 0.50 | 0.49 | 0.50 | 0.48 | 0.48 | - - | 2,400 |
| Dichloromethane | 0.093 | 0.069 | 0.072 | 0.072 | 0.067 | 0.068 | 0.077 | 4,000 | 13 |
| Dichlorotetrafluoroethane | 0.016 | 0.015 | 0.017 | 0.016 | 0.016 | 0.015 | 0.015 | - - | 2,400 |
| Ethylbenzene | 0.025 | 0.012 | 0.017 | 0.017 | 0.011 | 0.009 | 0.016 | - - | 230 |
| *m,p*-Xylene | 0.061 | 0.027 | 0.040 | 0.038 | 0.021 | 0.017 | 0.033 | 5,100 | 23 |
| *o*-Xylene | 0.026 | 0.011 | 0.017 | 0.015 | 0.0099 | 0.0072 | 0.013 | 5,100 | 23 |
| Styrene | 0.0048 | nd | 0.0052 | 0.0044 | nd | nd | 0.0028 | 4,000 | 230 |
| Tetrachloroethylene | 0.015 | 0.0076 | 0.0067 | 0.0085 | 0.0052 | 0.0050 | 0.0070 | 44 | 0.59 |
| Toluene | 0.17 | 0.076 | 0.14 | 0.13 | 0.069 | 0.052 | 0.097 | 9,800 | 1,300 |
| Trichloroethylene | nd | nd | nd | nd | nd | nd | nd | 4 | 0.037 |
| Trichlorofluoromethane | 0.23 | 0.20 | 0.21 | 0.20 | 0.20 | 0.20 | 0.20 | 1,600 | 900 |
| Trichlorotrifluoroethane | 0.073 | 0.065 | 0.070 | 0.070 | 0.069 | 0.069 | 0.069 | 130,000 | 23,000 |

- - indicates no short-term health-based air concentration value has been developed for this chemical
nd - results are below analytical method detection limit

## Table 2. Air Sample Results for December 11, 2019 - January 16, 2020

| **Chemical** (all results in units of ppb) | **12/11/2019** | **12/17/2019** | **12/23/2019** | **12/29/2019** | **1/4/2020** | **1/10/2020** | **1/16/2020** | **Short-Term Health-Based Guideline Conc. (SGC) (ppb)** | **Long-Term Health-Based Guideline Conc. (AGC) (ppb)** |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | 0.0049 | 0.017 | 0.016 | 0.022 | 0.037 | 0.012 | 0.022 | - - | 1.2 |
| 1,2-Dichloroethane | 0.016 | 0.018 | 0.019 | 0.020 | 0.021 | 0.019 | 0.020 | - - | 0.0093 |
| 1,2-Dichloropropane | 0.0050 | nd | 0.0039 | 0.0039 | 0.0046 | 0.0045 | 0.0045 | - - | 0.87 |
| 1,3,5-Trimethylbenzene | nd | 0.0049 | 0.0031 | 0.0061 | 0.0099 | 0.0032 | 0.0064 | - - | 59 |
| 1,3-Butadiene | nd | 0.029 | 0.012 | 0.022 | 0.034 | 0.012 | 0.019 | - - | 0.015 |
| 1,4-Dichlorobenzene | nd | nd | nd | nd | 0.0036 | nd | nd | - - | 0.015 |
| Acrolein | 0.037 | 0.075 | 0.13 | 0.088 | 0.091 | 0.078 | 0.065 | 1.1 | 0.15 |
| Benzene | 0.094 | 0.20 | 0.30 | 0.19 | 0.28 | 0.15 | 0.20 | 400 | 0.04 |
| Bromomethane | 0.0071 | 0.0066 | 0.007 | 0.0074 | 0.0072 | 0.0077 | 0.007 | 1,000 | 1.3 |
| Carbon tetrachloride | 0.077 | 0.080 | 0.082 | 0.080 | 0.080 | 0.084 | 0.083 | 300 | 0.027 |
| Chlorobenzene | nd | nd | nd | nd | nd | nd | nd | - - | 13 |
| Chloroethane | nd | nd | nd | nd | 0.024 | nd | nd | - - | 3,800 |
| Chloroform | 0.016 | 0.019 | 0.020 | 0.022 | 0.023 | 0.018 | 0.020 | 31 | 3 |
| Chloromethane | 0.50 | 0.52 | 0.52 | 0.58 | 0.60 | 0.53 | 0.52 | 11,000 | 44 |
| Dichlorodifluoromethane | 0.48 | 0.49 | 0.51 | 0.49 | 0.51 | 0.50 | 0.52 | - - | 2,400 |
| Dichloromethane | 0.073 | 0.081 | 0.089 | 0.089 | 0.10 | 0.094 | 0.092 | 4,000 | 13 |
| Dichlorotetrafluoroethane | 0.015 | 0.015 | 0.016 | 0.016 | 0.016 | 0.017 | 0.016 | - - | 2,400 |
| Ethylbenzene | 0.010 | 0.025 | 0.035 | 0.030 | 0.050 | 0.018 | 0.033 | - - | 230 |
| *m,p*-Xylene | 0.018 | 0.055 | 0.060 | 0.067 | 0.118 | 0.036 | 0.074 | 5,100 | 23 |
| *o*-Xylene | 0.0078 | 0.021 | 0.026 | 0.031 | 0.047 | 0.015 | 0.028 | 5,100 | 23 |
| Styrene | nd | 0.0080 | nd | 0.0062 | 0.010 | 0.0037 | 0.0063 | 4,000 | 230 |
| Tetrachloroethylene | 0.0051 | 0.0092 | 0.012 | 0.0087 | 0.024 | 0.0098 | 0.012 | 44 | 0.59 |
| Toluene | 0.065 | 0.17 | 0.24 | 0.23 | 0.39 | 0.12 | 0.20 | 9,800 | 1,300 |
| Trichloroethylene | nd | nd | nd | 0.0034 | nd | nd | nd | 4 | 0.037 |
| Trichlorofluoromethane | 0.20 | 0.20 | 0.25 | 0.21 | 0.22 | 0.21 | 0.22 | 1,600 | 900 |
| Trichlorotrifluoroethane | 0.067 | 0.067 | 0.068 | 0.068 | 0.069 | 0.068 | 0.070 | 130,000 | 23,000 |

- - indicates no short-term health-based air concentration value has been developed for this chemical
nd - results are below analytical method detection limit


**Figure 2. Comparison with the State's Monitoring Network**

## $PM_{10}$ Technical Notes

Monitoring instrument and analysis method

The $PM_{10}$ measurements were collected with filters that were weighed and a mass concentration was determined. The elemental composition of the particles collected were determined by Energy Dispersive X-ray Fluorescence. The $PM_{10}$ samples collected in Loudonville, were collected with the same type of instrument on the same sampling schedule as samples collected at the Rensselaer City School, (RCS).

The full list of the 33 elements measured in the particle samples are show in Table 3. Most of these elements were found at very low concentrations, if at all. Elements considered crustal components (aluminum, calcium, iron, silicon and titanium) are often used as indicators of windblown dust. As illustrated in Figure ***3***3, the amount of windblown dust at both locations is very low and would contribute a small portion to the overall $PM_{10}$ concentrations at either location. Some of the differences in $PM_{10}$ concentrations between the two sites appear to be related to windblown dust.

**Table 3. Elements Measured in $PM_{10}$ Samples**

| Element Abbreviation | Element Name | Element Abbreviation | Element Name |
|---|---|---|---|
| Ag | Silver | Mn | Manganese |
| Al | Aluminum | Na | Sodium |
| As | Arsenic | Ni | Nickel |
| Ba | Barium | P | Phosphorous |
| Br | Beryllium | Pb | Lead |
| Ca | Calcium | Rb | Rubidium |
| Cd | Cadmium | S | Sulfur |
| Ce | Cerium | Sb | Antimony |
| Cl | Chlorine | Se | Selenium |
| Co | Cobalt | Si | Silicon |
| Cr | Chromium | Sn | Tin |
| Cs | Cesium | Sr | Strontium |
| Cu | Copper | Ti | Titanium |
| Fe | Iron | V | Vanadium |
| In | Indium | Zn | Zinc |
| K | Potassium | Zr | Zirconium |
| Mg | Magnesium | | |

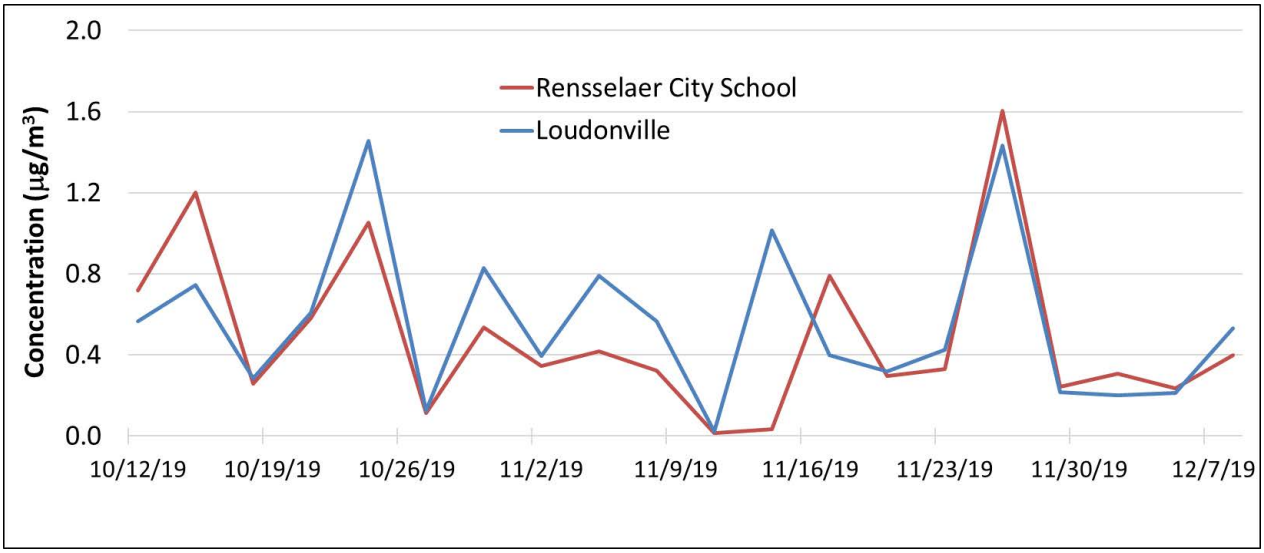



**Figure 3. Sum of the Crustal Elements (Al, Ca, Fe, Si, and Ti)**

Another local source that can be identified by elemental analysis is road salt. Elements associated with road salt include sodium, chloride and sometimes calcium. In Figure4, the common road salt elements have been added together. Road salt is often found in $PM_{10}$ measurements one or more days after a snowstorm when the roads are dry, and vehicles re-entrain salt from the road surface. It is apparent that the crustal element concentrations are low when the road salt concentrations are high. This is likely due to snow cover which prevents windblown dust from snow covered surfaces.

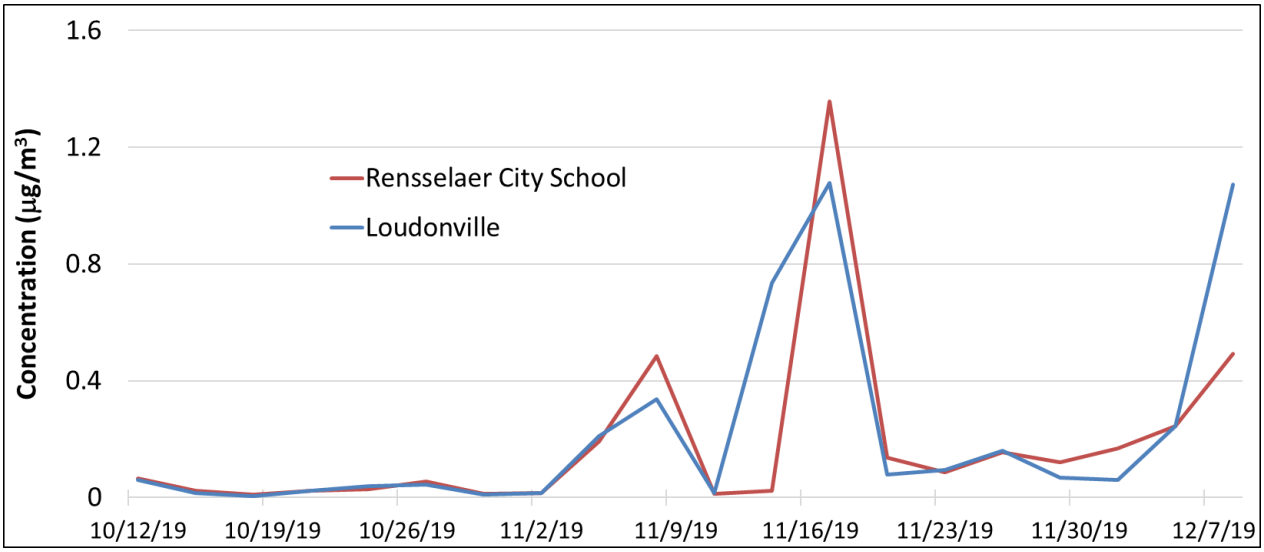



**Figure 4. Sum of the Road Salt Elements (Na, Cl)**

We looked at two elements particularly closely, arsenic and lead. The results for lead are similar for the two locations and well below the NAAQS as shown in Figure 5.

The results for arsenic, as shown in Figure 6, are slightly different for the two locations with RCS sometimes higher and lower than Loudonville. Arsenic is a natural element

found among the crustal elements and commonly detected in air samples such as the type of analysis conducted at the RCS. Since a NAAQS does not exist for arsenic, we compared the results to $PM_{10}$ measurements collected by a different method in the Bronx and Rochester for 2019. As shown in Table 4, the arsenic averages for the four sites are very similar, illustrating the ubiquitous nature of arsenic.

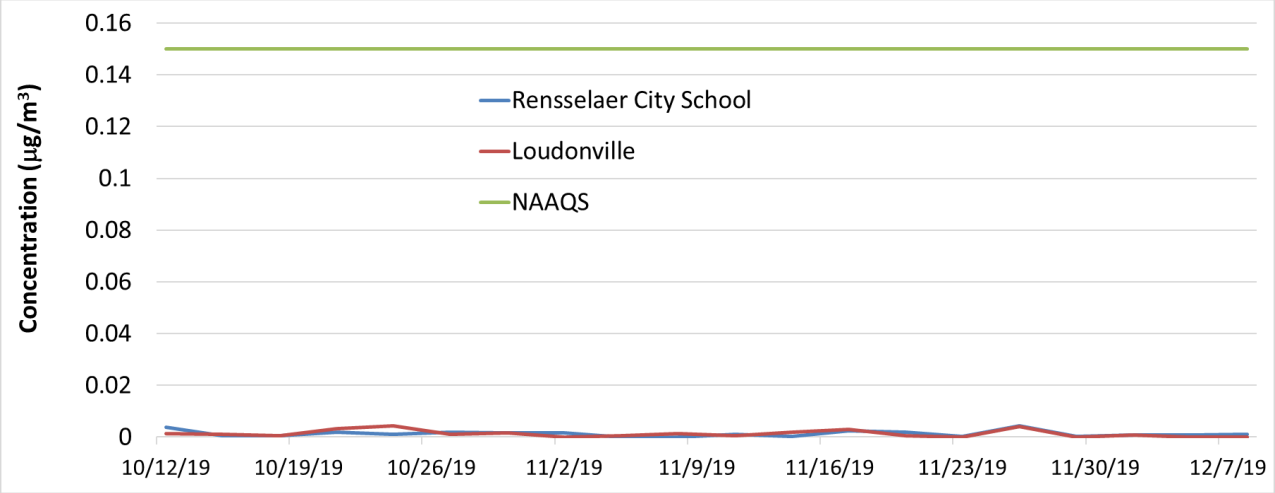



**Figure 5. Lead Concentrations compared to the NAAQS**

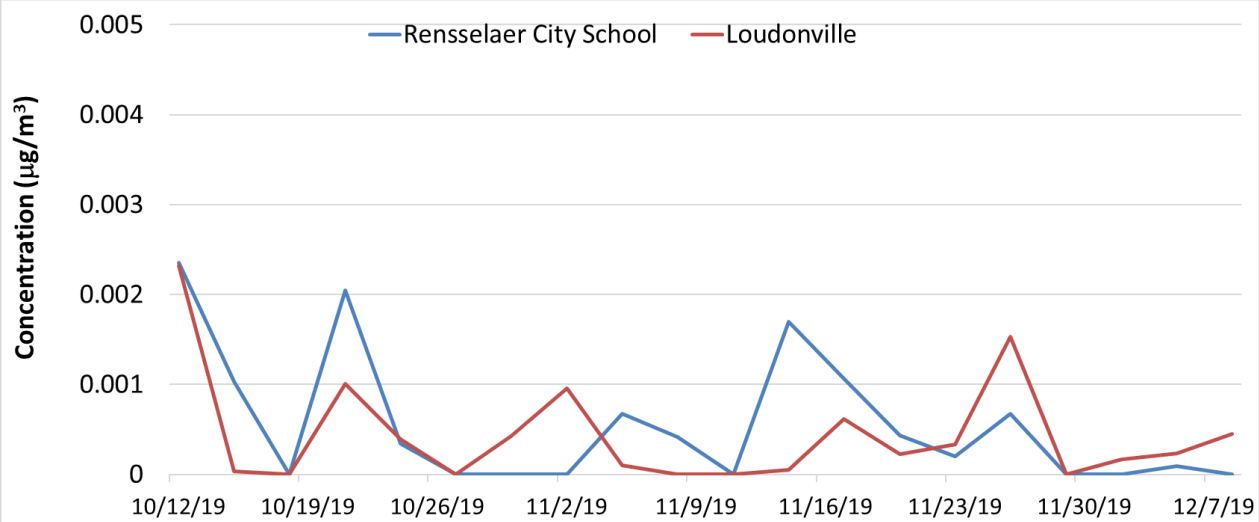



**Figure 6. Arsenic Concentrations**

**Table 4. Arsenic Concentrations**

| | Rensselaer City School | Loudonville | Bronx 2019 | Rochester 2019 |
|---|---|---|---|---|
| **Arsenic Average (µg/m³)** | 0.00055 | 0.00044 | 0.00041 | 0.00052 |

# APPENDIX F2

# RENSSELAER COUNTY DEPARTMENT of HEALTH

**Steven F. McLaughlin**
**County Executive**

**Mary Fran Wachunas**
**Public Health Director**

## Lead Hazard Screen

Prepared for:
Rensselaer City School District
25 Van Rensselaer Drive
Rensselaer, NY 12144

Rensselaer County Department of Health
1600 7th Avenue 2nd floor
Troy, NY 12180

EPA Firm License Number: LBP-2482-1

Date of Site Visit: April 18, 2019

Prepared by: Jennifer DeLorenzo
EPA Risk Assessor
Certification number: LBP-R-7845-1

Testing Laboratory:
Accurate Analytical Testing
30105 Beverly Road
Romulus, MI 48174

**Summary**

Dust is an important pathway to exposure of lead. Studies have shown that dust lead levels are the strongest predictor of children's blood lead levels compared with other variables (EPA 40 CFR part 745, Risk Assessor manual, p 5-3). Taking dust samples will confirm the presence or absence of lead in a building.

A lead hazard screen is done in buildings in good condition where the probability of finding lead is low. A screen employs more limited sampling and more sensitive hazard identification criteria. If a screen indicates that lead hazards are present, further testing would be required. (EPA 40 CFR part 745, Risk Assessor manual, Chapter 5-7).

This method of testing for the presence of lead dust was chosen for the interior of the school building. The school building was constructed in the late 2000's and therefore should not contain lead paint. Dust samples were collected per EPA sampling protocol outlined in EPA-W-04-022 (see attached). Interior sampling sites were chosen at all major entrances to the building. In addition, one pre-K classroom floor and one pre-K classroom window sill were chosen to test for the presence of lead in classrooms with the most vulnerable population (see attached diagram for sampling locations).

While there are no protocols for exterior dust sampling, exterior dust sampling sites were chosen to serve as surveillance testing to determine if further testing was required. Roof sample locations were tested to gather information on undisturbed locations. Also chosen were exterior window sills that do not get regularly cleaned. These locations were chosen as "worst case scenario" as they would have the largest build-up of dust. The final location was chosen on the playground. The top of the tunnel was sampled. This sample location was chosen because of the high contact area (see attached diagram for sampling locations). If lead is found in any of these locations, further testing would be required.

**Sampling Results**

Laboratory results indicate that there was no lead found at any of the sampling locations. The areas from which the samples were collected are representative of other areas throughout the property. Laboratory results are attached.

The results of this risk assessment are valid only for the date and time of the field visit. Conditions may change.

Respectfully submitted,

Jennifer DeLorenzo
Public Health Sanitarian
Rensselaer County Department of Health

30105 Beverly Road
Romulus, MI 48174
Ph: 734-629-8161; Fax: 734-629-8431

## Certfcate of Analysis : Lead In Dust Wipes by ASTM 1644-17 and EPA Method 7000B

**Client :** Rensselaer County DOH
1600 7th Ave
Troy, NY 12180
**Attn :** Deanna Miller **Email :** deanna.miller@rensco.com
**Phone :** 518-270-2640 **Fax :** 518-270-2638

**Client Project :** N-A

**Project Location :** N-A

**AAT Project :** 484181
**Sampling Date :** 04/18/2019
**Date Received :** 04/22/2019
**Date Analyzed :** 04/22/2019
**Date Reported :** 4/23/2019 6:00:00AM

| Lab Sample ID | Client Code | Sample Description | Length (inch) | Width (inch) | Area (Sq ft) | Total µg | Results Lead µg/ft2 |
|---|---|---|---|---|---|---|---|
| 4657948 | 2019JD009 | | 12 | 12 | 1.00 | <5 | <5.00 |
| 4657949 | 2019JD010 | | 12 | 12 | 1.00 | <5 | <5.00 |
| 4657950 | 2019JD011 | | 12 | 12 | 1.00 | <5 | <5.00 |
| 4657951 | 2019JD012 | | 12 | 12 | 1.00 | <5 | <5.00 |
| 4657952 | 2019JD013 | | 1 | 49 | 0.34 | <5 | <14.69 |
| 4657953 | 2019JD014 | | 1 | 29 | 0.20 | <5 | <24.83 |
| 4657954 | 2019JD015 | | 1 | 52 | 0.36 | <5 | <13.85 |
| 4657955 | 2019JD016 | | 12 | 12 | 1.00 | <5 | <5.00 |
| 4657956 | 2019JD017 | | 12 | 12 | 1.00 | <5 | <5.00 |
| 4657957 | 2019JD018 | | 12 | 12 | 1.00 | <5 | <5.00 |
| 4657958 | 2019JD019 | | 12 | 12 | 1.00 | <5 | <5.00 |
| 4657959 | 2019JD020 | | 12 | 12 | 1.00 | <5 | <5.00 |
| 4657960 | 2019JD021 | | 10 | 38 | 2.64 | <5 | <1.89 |
| 4657961 | 2019JD022 | | 12 | 12 | 1.00 | <5 | <5.00 |
| 4657962 | 2019JD023 | | 12 | 12 | 1.00 | <5 | <5.00 |
| 4657963 | 2019JD024 | | 12 | 12 | 1.00 | <5 | <5.00 |
| 4657964 | 2019JD025 | | 12 | 12 | 1.00 | <5 | <5.00 |
| 4657965 | 2019JD026 | | 12 | 12 | 1.00 | <5 | <5.00 |

ND = Not Detected, N/A = Not Available, RL = Reporting Limit, Analytical Reporting Limit is 5 ug/sample. For true values assume (2) significant figures.
AAT internal SOP S207. The method and batch QC are acceptable unless otherwise stated.
EPA Regulatory Limits: 40 ug/ft2 (Floors, Carpeted/Uncarpeted), 250 ug/ft2 (Window Sill/Stools), 400 ug/ft2 (Window Trough/Well/Ext Concrete Surfaces).
HUD Regulatory Limits: 10 ug/ft2 (Interior Floors), 40 ug/ft2 (Porch Floors), 100 ug/ft2 (Window Sills), 100 ug/ft2 (Window Troughs).
The laboratory operates in accord with ISO 17025 guidelines and holds limited scopes of accreditation under AIHA-LAP and NY State DOH ELAP programs. These results are submitted pursuant to AAT, LLC current terms and conditions of sale, including the company's standard warranty and limitation of liability. provisions. Analytical results relate to the samples as received by the lab. AAT will not assume any liability or responsibility for the manner in which the results are used or interpreted. All Quality control requirements for the samples this report contains have been met. AAT does not blank correct reported values. Sample data apply only to items analyzed. Reproduction of this document other than in its entirety is not authorized by AAT.

Lab ID # 100986

AIHA LAP- Lab ID #100986, NY State DOH ELAP -Lab ID #11864, State of Ohio- Lab ID # 10042

Date Printed: 04/23/2019 6:11AM AAT Project: 484181

| Lab Sample ID | Client Code | Sample Description | Length (inch) | Width (inch) | Area (Sq ft) | Total µg | Results Lead µg/ft2 |
|---|---|---|---|---|---|---|---|

Analyst Signature 

Elyse Bidle

ND = Not Detected, N/A = Not Available, RL = Reporting Limit, Analytical Reporting Limit is 5 ug/sample. For true values assume (2) significant figures.
AAT internal SOP S207. The method and batch QC are acceptable unless otherwise stated.
EPA Regulatory Limits: 40 ug/ft2 (Floors, Carpeted/Uncarpeted), 250 ug/ft2 (Window Sill/Stools), 400 ug/ft2 (Window Trough/Well/Ext Concrete Surfaces).
HUD Regulatory Limits: 10 ug/ft2 (Interior Floors), 40 ug/ft2 (Porch Floors), 100 ug/ft2 (Window Sills), 100 ug/ft2 (Window Troughs).
The laboratory operates in accord with ISO 17025 guidelines and holds limited scopes of accreditation under AIHA-LAP and NY State DOH ELAP programs. These results are submitted pursuant to AAT, LLC current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. Analytical results relate to the samples as received by the lab. AAT will not assume any liability or responsibility for the manner in which the results are used or interpreted. All Quality control requirements for the samples this report contains have been met. AAT does not blank correct reported values. Sample data apply only to items analyzed. Reproduction of this document other than in its entirety is not authorized by AAT.


AIHA LAP- Lab ID #100986, NY State DOH ELAP -Lab ID # 11864, State of Ohio- Lab ID # 10042

Date Printed: 04/23/2019 6:11AM AAT Project: 484181

| Sample ID # | Time | Location | Dimensions | Note |
|---|---|---|---|---|
| 2019-JD-009 | 1355 | High School wing roof | 12 X 12 | |
| -010 | 1400 | middle school wing roof | 12 X 12 | |
| -011 | 1405 | Elem School wing roof | 12 X 12 | |
| -012 | 1413 | Playground top of tube | 12 X 12 | |
| -013 | 1419 | elem wing entrance | 1 X 49 | |
| -014 | 1425 | middle school wing entrance | 1 X 29 | |
| -015 | 1428 | High School wing entrance | 1 X 52 | |
| -016 | 1430 | Blank | 12 X 12 | |
| -017 | 1433 | main entrance wt. Floor | 12 X 12 | |
| -018 | 1439 | middle School wing int entrance | 12 X 12 | |
| -019 | 1444 | elem wing entrance Floor | 12 X 12 | |
| -020 | 1447 | Rm 111 Floor | 12 X 12 | |
| -021 | 1450 | Rm 104 window sill | 10 X 36 | |
| -022 | 1454 | Elem main entrance Floor | 12 X 12 | |
| -023 | 1458 | Quester entrance Floor | 12 X 12 | |
| -024 | 1501 | High School wing entrance | 12 X 12 | |
| -025 | 1505 | Auditourm entrance Floor | 12 X 12 | |
| -026 | 1507 | Blank | 12 X 12 | |
| -027 | | | | |

30105 Beverly Road
Romulus, MI 48174
Ph: 734-629-8161; Fax: 734-629-8431

**To :** Rensselaer County DOH
1600 7th Ave
Troy, NY 12180

**Attn :** Deanna Miller

**Email :** deanna.miller@rensco.com
**Phone :** 518-270-2640

**Project Location :** N-A

**AAT Project :** 484181
**Client Project :** N-A
**Date Reported :** 4/23/2019 6:00:00AM

| Sample | Client Code | Analysis Requested | Completed | Analyst |
|---|---|---|---|---|
| 4657948 | 2019JD009 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657949 | 2019JD010 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657950 | 2019JD011 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657951 | 2019JD012 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657952 | 2019JD013 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657953 | 2019JD014 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657954 | 2019JD015 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657955 | 2019JD016 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657956 | 2019JD017 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657957 | 2019JD018 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657958 | 2019JD019 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657959 | 2019JD020 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657960 | 2019JD021 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657961 | 2019JD022 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657962 | 2019JD023 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657963 | 2019JD024 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657964 | 2019JD025 | Dust Wipe | 04/22/2019 | Elyse Bidle |
| 4657965 | 2019JD026 | Dust Wipe | 04/22/2019 | Elyse Bidle |

**Reviewed By** Quality Assurance Coordinator - Stephen Northcott



AIHA LAP- Lab ID #100986, NY State DOH ELAP -Lab ID #11864, State of Ohio- Lab ID # 10042

| Sample | Client Code | Analysis Requested | Completed | Analyst |
|---|---|---|---|---|

Please email results to me:

JDeLORENZO@Rensco.com

ACCURATE ENVIRONMENTAL TESTING
20165 BEVERLY RD.
ROMULUS MI 48174
(734) 699-LABS (5227)
FAX: (734) 699-5407
www.accurate-test.com

SUBMITTING COMPANY
Rensselaer County DOH
1600 7th Ave.
Troy, NY 12180

CONTACT INFORMATION
Office: Deanna Miller
Fax: 518-270-2640
Cell: 518-270-2638 (Fax)
Email: deanna.miller@rensco.co

PROJECT NUMBER
PROJECT ADDRESS
SAMPLING DATE: 4/18/19
SAMPLE START TIME: 13:45
SAMPLE END TIME: 15:15
RISK ASSESSOR: Jennifer DeLorenzo
PO #

REQUESTED ANALYSIS — LEAD
SINGLE WIPE DUST (X)
COMPOSITE SOIL ( )
PAINT CHIP | % By Wt. ( ) | mg/cm² ( )

Request Turnaround time (please check one)
SAME DAY ( ) 24 Hour (✓)
48 Hour ( ) 72 hours ( )
If no TAT is indicated, default is 72 hours

| CLIENT SAMPLE ID | DESCRIPTION | WS, WT, F | WIPE AREA (eg. 12in X 12in) |
|---|---|---|---|
| 2019JD009 | | | 12 X 12 |
| 2019JD010 | | | 12 X 12 |
| 2019JD011 | | | 12 X 12 |
| 2019JD012 | | | 12 X 12 |
| 2019JD013 | | | 1 X 49 |
| 2019JD014 | | | 1 X 29 |
| 2019JD015 | | | 1 X 52 |
| 2019JD016 | | | 12 X 12 |
| 2019JD017 | | | 12 X 12 |
| 2019JD018 | | | 12 X 12 |
| 2019JD019 | | | 12 X 12 |
| 2019JD020 | | | 12 X 12 |
| 2019JD021 | | | 10 X 58 |
| 2019JD022 | | | 12 X 12 |
| 2019JD023 | | | 12 X 12 |

CLIENT COMMENTS
Risk Assessor: Jennifer DeLorenzo
Samples shipped 18

SAMPLES RELINQUISHED BY
Jennifer DeLorenzo

SAMPLES RECEIVED BY

| Date | TIME | |
|---|---|---|
| | AM | PM |
| | AM | PM |
| | AM | PM |

F001E

By submitting samples to AAT, the client agrees to AAT's terms and conditions.

4/19/19 2502

Please email results to me:
JDELORENZO@RENSCO.COM


30105 BEVERLY RD.
ROMULUS MI 48174
(734) 699-LABS (5227)
FAX: (734) 699-5407
www.aatlab.com


[redacted]

SUBMITTING COMPANY
Rensselaer County DOH
1600 7th Ave.
Troy, NY 12180

CONTACT INFORMATION
Office: Deanna Miller
Fax: 518-270-2640
Cell: 518-270-2638 (Fax)
Email: deanna.miller@rensco.com

PROJECT NUMBER: _____
PROJECT ADDRESS: [redacted]
SAMPLING DATE: 4/18/19
SAMPLE START TIME: 13:45
SAMPLE END TIME: 15:15
RISK ASSESSOR: Jennifer Delorenzo
PO #: _____

REQUESTED ANALYSIS — LEAD
SINGLE WIPE DUST (X)
COMPOSITE SOIL ( )
PAINT CHIP | % By Wt. ( ) | mg/cm² ( )

Request Turnaround time (please check one)
SAME DAY ( ) 24 Hour (✓)
48 Hour ( ) 72 hours ( )
If no TAT is indicated, default is 72 hours

CLIENT: [redacted]

| SAMPLE ID | DESCRIPTION | WS, WT, F | WIPE AREA (sq. 12in X 12in) |
|---|---|---|---|
| 2019.15.024 | | | 12 X 12 |
| 2019.15.025 | | | 12 X 12 |
| 2019.15.026 | | | 12 X 12 |
| | | | X |
| | | | X |
| | | | X |
| | | | X |
| | | | X |
| | | | X |
| | | | X |
| | | | X |
| | | | X |
| | | | X |
| | | | X |
| | | | X |

CLIENT COMMENTS
Risk Assessor: Jennifer Delorenzo
Samples shipped

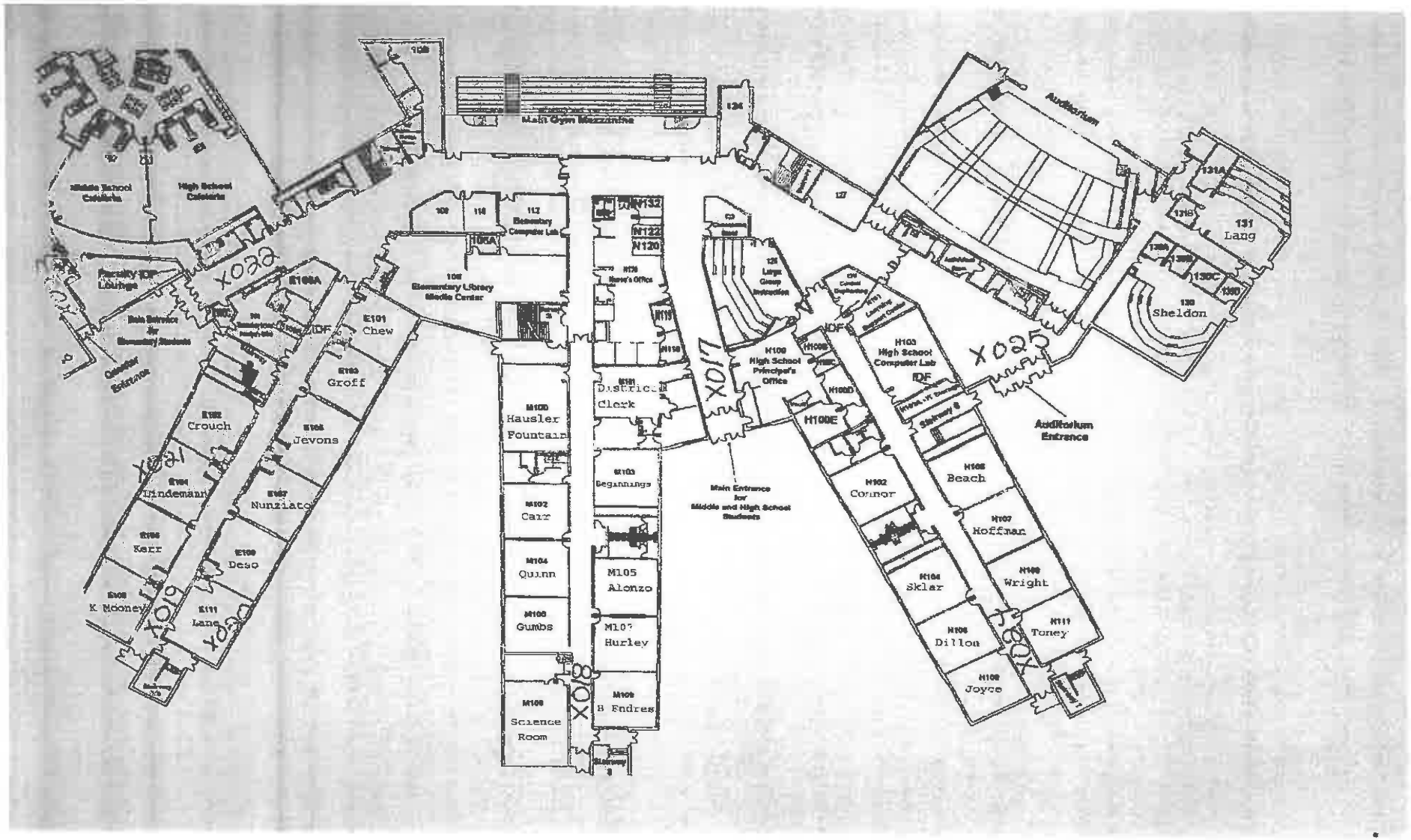
SAMPLES RELINQUISHED BY: Jennifer Delorenzo

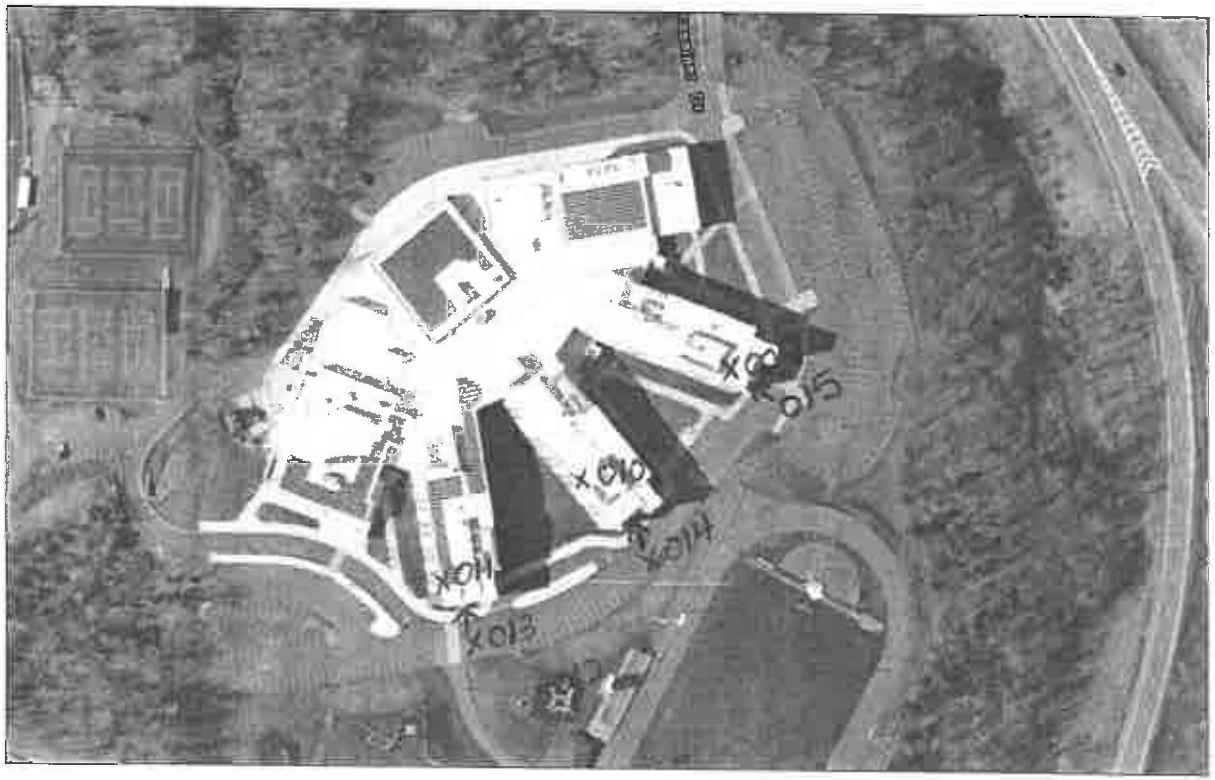
SAMPLES RECEIVED BY: [redacted]

| Date | TIME | |
|---|---|---|
| | AM | PM |
| | AM | PM |
| | AM | PM |

F001E

By submitting samples to AAT, the client agrees to AAT's terms and conditions.


Middle School Cafeteria
High School Cafeteria
Faculty IDF Lounge
Main Entrance for Elementary Students
Quinlan Entrance
Main Gym Mezzanine
Elementary Computer Lab
Elementary Library Media Center
Nurse's Office
Auditorium
Lang
Sheldon
Auditorium Entrance
High School Principal's Office
High School Computer Lab
IDF
Main Entrance for Middle and High School Students
Chew
Groff
Crouch
Jevons
Lindemann
Nunziato
Kerr
Deso
K Mooney
Lane
Hausler Fountain
District Clerk
Beginnings
Carr
Quinn
M105 Alonzo
Gumbs
Hurley
Science Room
B Endres
Connor
Beach
Hoffman
Sklar
Wright
Dillon
Toney
Joyce
X028
X027
X026
X025
X024
X023
X022
X021
X020
X019
X018
X017




1:2,257

0 0.0175 0.035 0.07 mi

0 0.03 0.06 0.12 km

Richard Elder 22-APR- 2019 @ 13:24:09

# United States Environmental Protection Agency

## This is to certify that

Jennifer B DeLorenzo

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Risk Assessor

## In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires January 27, 2020

LBP-R-7845-1

Certification #

December 19, 2016

Issued On

John Gorman, Chief

Pesticides & Toxic Substances Branch