

Appendix 13:
Vegetation Management Plan
Vegetated Buffer



Joint Permit Application Package
Albany Port District Commission

**Port of Albany
Expansion Project**

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Albany Port District Commission

106 Smith Boulevard

Albany, NY 12202

Vegetation Management Plan

for Vegetated Buffer at the

Marmen-Welcon Offshore Wind Tower Manufacturing Plant

May 12, 2022

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1. INTRODUCTION

This document represents the Vegetation Management Plan (“VMP” or “the Plan”) for the proposed vegetated buffer at the project site in Beacon Island. The Albany Port District Commission (APDC) proposed the development of an 81.6 acre site zoned as heavy industrial and located in the Town of Bethlehem. The site will be converted into an active port terminal with specialized infrastructure capable of supporting a new manufacturing operation that will produce the tower components of wind turbines for renewable energy developments.

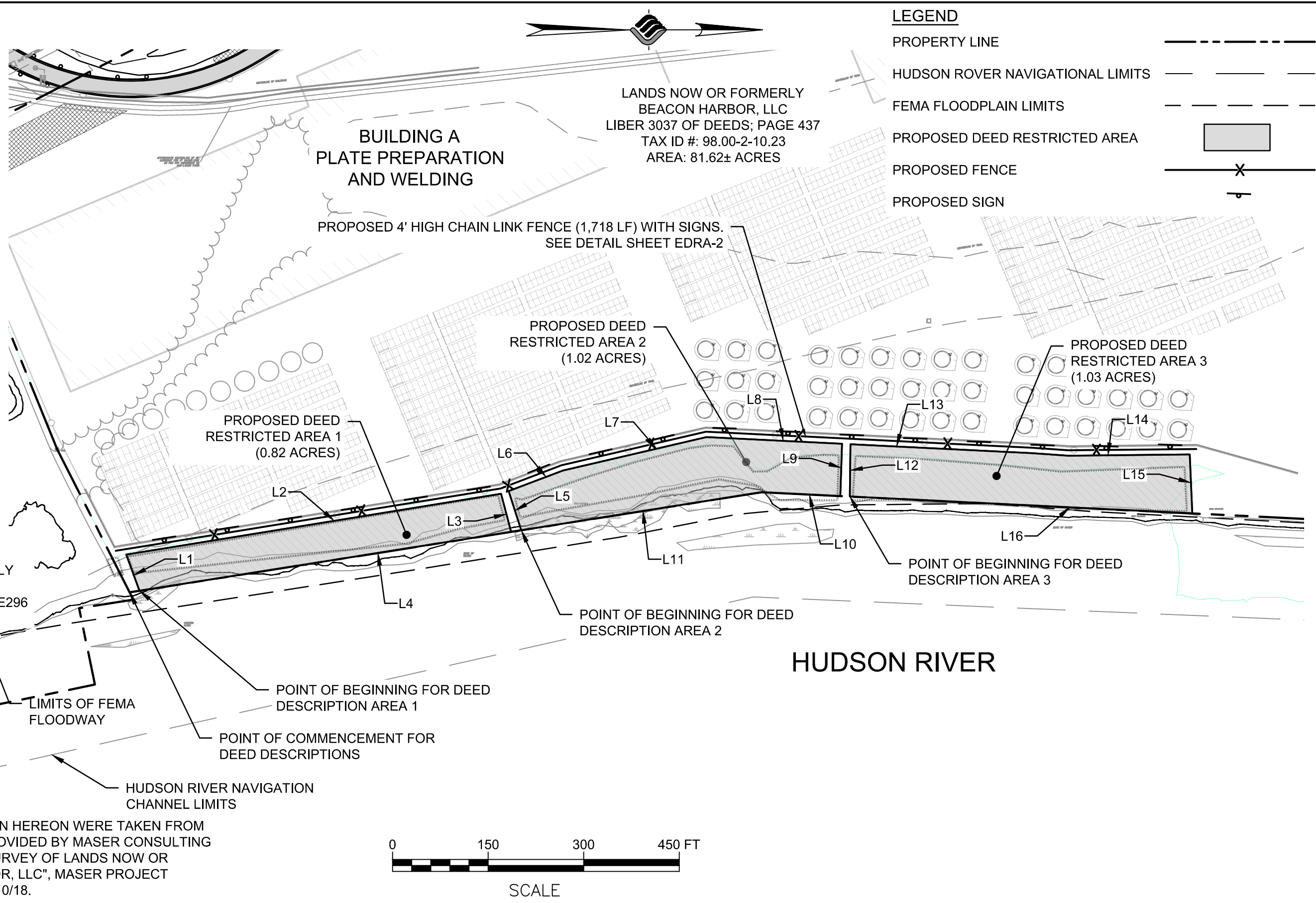
As requested by the State Historic Preservation Office (SHPO), New York State Department of Environmental Conservation (NYSDEC) and U.S. Army Corps of Engineers (USACE) as part of the consultation (21PR04693) with Section 106 of the National Historic Preservation Act (NHPA) under permit cases DEC # 4-0122-00322/00002 and NAN-2021-00948-UDA, the Project design incorporated a 2.87-acre buffer with existing vegetation containing approximately 1.85 acres of mature trees and low laying shrubs. This buffer area shall be maintained in natural state along the Hudson riverfront, which is outside the proposed wharf area. The purpose of the vegetated buffer is to serve as a visual screen of the project to reduce visual impacts to the Papscaenee Island Historic District.

1.1. Description of Vegetated Buffer and Existing Vegetation

The proposed vegetated buffer has an estimated area of 1.85 acres and lies within a proposed deed restricted area of 2.87 acres. The Restrictive Deed Covenant will apply to the entire 2.87 acres as shown in **Figure 1 – Proposed Deed Restricted Area Boundary Map** (sheet EDRA-1). The existing trees within the vegetated buffer are to remain in natural state.

The majority of this area consists of a dense forest similar to a “dredge spoil forest” which is found on highly-disturbed sites along the Hudson River in Albany and Rensselaer County. This forest classification is not officially listed in the Ecological Communities of New York State (Edinger 2002). Wooded areas are dominated by Eastern cottonwood (*Populus deltoides*), box elder (*Acer negundo*), and American elm (*Ulmus americana*). Other species such as Buckthorn (*Rhamnus cathartica*) can be observed, including invasive plants such as garlic mustard (*Alliaria petiolata*), oriental bittersweet (*Celastrus orbiculatus*), and Japanese barberry (*Berberis thunbergii*).

| Line Table | | |
|------------|--------|---------------|
| Line # | Length | Bearing |
| L1 | 60.54 | S69° 57' 09"W |
| L2 | 595.80 | N9° 12' 12"W |
| L3 | 61.79 | N75° 08' 31"E |
| L4 | 590.50 | S9° 00' 24"E |
| L5 | 64.55 | S72° 08' 16"W |
| L6 | 91.29 | N20° 50' 16"W |
| L7 | 231.23 | N13° 06' 06"W |
| L8 | 212.92 | N2° 49' 50"E |
| L9 | 82.15 | S88° 05' 46"E |
| L10 | 123.57 | S2° 49' 18"W |
| L11 | 381.95 | S9° 00' 24"E |
| L12 | 82.20 | N89° 19' 08"W |
| L13 | 285.70 | N2° 49' 50"E |
| L14 | 190.40 | N0° 33' 06"W |
| L15 | 92.58 | N87° 36' 32"E |
| L16 | 538.01 | S2° 49' 18"W |



NOTE: PROPERTY LINES SHOWN HEREON WERE TAKEN FROM A BOUNDARY SURVEY MAP PROVIDED BY MASER CONSULTING P.C., ENTITLED, "BOUNDARY SURVEY OF LANDS NOW OR FORMERLY OF BEACON HARBOR, LLC", MASER PROJECT NUMBER 18001376A DATED 07/10/18.



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK

PROPOSED DEED RESTRICTED AREA
BOUNDARY MAP

| | |
|----------|------------|
| SCALE: | 1"=150' |
| DRAWN: | LDW |
| CHECKED: | AJF |
| DESIGN: | JES |
| PROJECT: | 18641.00 |
| DATE: | 05/02/2022 |

2. VEGETATED BUFFER MANAGEMENT PRACTICES

The following management practices will be implemented for the designated vegetated buffer. Activities will primarily focus on protection against disturbance and limited maintenance activities such as pruning. The Port of Albany will provide a deed restriction over the vegetative buffer as shown on **Figure 1 – Proposed Deed Restricted Area Boundary Map** (sheet DRA-1). Once the deed restriction document is executed, the VMP will be attached to the document. The deed restriction serves as the protective overlay to preserve this vegetated buffer area for the life of this project as defined in the Declaration of Restrictive Covenants made on May 2022 by the APDC for the property with tax ID number 98.00-2-10.23.

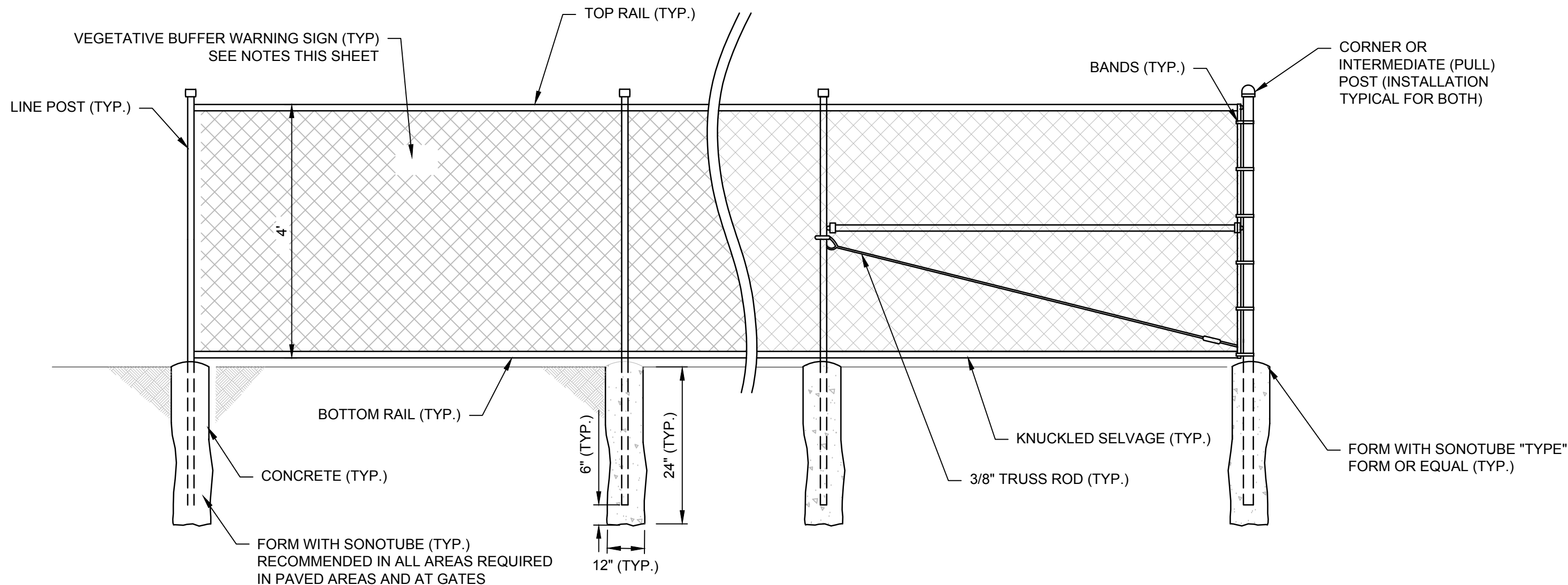
2.1. Pre Construction

- The general contractor and tenant(s) in connection with the operation of the Port of Albany Expansion Project will comply with the deed restrictions, VMP and permit conditions from USACE and New York Department of Environmental Conservation (NYSDEC) issued for this project.
- All contract documents will state that "no disturbance will be permitted within the fenced area". Location of proposed fence and restricted areas are shown on **Figure 1 – Proposed Deed Restricted Area Boundary Map** (drawing EDRA-1).
- During the pre-construction meeting, the VMP will be discussed with the general contractor.
- A pre-construction tree survey will be conducted, within 30 days of the finalization of the VMP, establishing baseline conditions and identifying the species, height, diameter at breast height (DBH), and health of trees within the existing vegetated buffer. Data gathered will be summarized in a technical report. The pre-construction survey will be performed by a qualified professional (e.g., Certified Arborist, Botanist, Biologist or Ecologist). Copy of the pre-construction tree survey will be submitted to USACE, NYSDEC, SHPO, THPO and Town of Bethlehem. Report is expected to be submitted within 45 days after field work is completed.
- Protective permanent 4-foot fence with permanent signage reading "Buffer Area – Do Not Disturb" will be installed. The area inside the protective permanent fence will be protected during construction and operational phases. See **Figure 2 for 4-Foot Galvanized Chain Link Fence Detail** (drawing EDRA-2).
- The vegetative buffer will have permanent signage affixed to the protective fence, every 100-linear foot of fencing that faces the proposed developed. Signage size should be a minimum 8"X11" size each, plastic laminated, aluminum (preferably) or otherwise waterproofed as available, stating:

"Buffer Area – Do Not Disturb"

2.2. During Construction

- Protective permanent fence with permanent signage reading "Buffer Area – Do Not Disturb" will be maintained during construction activities.
- No construction materials (e.g., tools, excavated soil, liquids, substances, equipment etc.) are to enter, be placed or dumped, even temporarily, inside this fenced buffer area.
- No grading or fill will occur within the Deed Restricted Area.
- No construction vehicles will be stored within Deed Restricted Area.



LINE SECTION

PULL OR CORNER SECTION

NOTES:

1. ALL FENCING TO COMPLY WITH NYSDOT STANDARDS SHEET 607
2. SIGNS SHALL BE AFFIXED TO THE FENCE EVERY 100'.
3. EACH 8"X11" METAL SIGN WILL STATE "BUFFER AREA - DO NOT DISTURB".

4' GALVANIZED CHAIN LINK FENCE

N.T.S.



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

ALBANY PORT DISTRICT COMMISSION
 ALBANY, NEW YORK
 PROPOSED DEED RESTRICTED AREA
 BOUNDARY MAP

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- Once construction is completed, an inspection of the area will be performed by a qualified professional and a subsequent report will be issued to APDC and submitted to NYSDEC and USACE.
- Utility easements or right-of-ways are excluded from the vegetated buffer to allow for construction of drainage features, site infrastructure and maintenance. See **Figure 1 – Proposed Deed Restricted Area Boundary Map** (sheet DRA-1). This will remain in place for construction and maintenance purposes.

2.3. Post Construction

- Protective permanent fence with permanent signage reading “Buffer Area – Do Not Disturb” will be maintained during the operational phase. Location of protective fence is shown on **Figure 1 – Proposed Deed Restricted Area Boundary Map** (sheet DRA-1). See **Figure 2 for 4-Foot Galvanized Chain Link Fence Detail** (drawing EDRA-2). Signage size will be maintained at every 100-linear foot of fencing that faces the proposed developed. The signage should be replaced as needed with minimum 8”X11” size each, plastic laminated, aluminum (preferably) or otherwise waterproofed as available, stating:

“Buffer Area – Do Not Disturb”

- Annual surveys will be performed by a qualified professional for the life of this project. Survey should be conducted between late Spring and early Summer. This will include identifying the species, height, DBH, and health of trees within the existing vegetated buffer. Data gathered will be summarized in a technical report and provided to NYSDEC, USACE, Town of Bethlehem, SHPO and THPO within 45 days after field work completion. If no changes are detected during the first two (2) annual surveys, the frequency of the annual surveys can be adjusted in coordination with NYSDEC, USACE and Town of Bethlehem.
- Utility easements or right-of- ways are excluded from the vegetated buffer. **Figure 1 – Proposed Deed Restricted Area Boundary Map** (sheet DRA-1). These consists of narrow paths for construction and maintenance purposes.

2.3.1. Supplemental Buffer Planting

- If determined necessary by the qualified professional, supplemental plantings will be installed within the vegetated buffer. The supplemental plantings will consist of a combination of healthy native evergreen and/or native shrubs which are intended to establish a layered habitat, with the goal to maintain the baseline conditions of the vegetated visual buffer screen for the life of the project. If needed, dead or sick trees will be removed and replaced at a ratio of 1:1. New planted trees should have a minimum height of (six) feet, measured from the soil line/top of the pot to the top of the tree. Tree species for supplemental planting include:
 - Eastern cottonwood (*Populus deltoides*)
 - Box elder (*Acer negundo*)
 - American elm (*Ulmus americana*)
 - Red maple (*Acer rubrum*)
 - Eastern red cedar (*Juniperus virginiana*)
 - Bur Oak (*Quercus macrocarpa*)

- Swamp White Oak (*Quercus bicolor*)
- Other native tree/shrub species¹ recommended by NYSDEC or the qualified professional
- If determined necessary by the qualified professional, in order for the newly installed hardwood vegetation to establish, invasive plants and aggressive vines that can significantly impeding their growth would be removed. Means and methods will be defined by the qualified professional based on the invasive plants encountered during the supplemental planting.
- Best time for supplemental planting is late winter/early spring prior to buds opening, or late fall after the tree goes dormant but before the ground freezes.
- Staking for support is not usually necessary, unless directed by the qualified professional conducting the supplemental planting.
- New trees should be watered regularly until root systems establish, at least once a week barring rain and more frequently during hot weather.
 - When the soil is dry below the surface of the mulch, it is time to water. The right amount of water will depend on the site conditions and tree species.
 - Tree-gators can be considered as a watering method. Gators are a portable drip irrigation system that provides a slow release of water reducing the possibility of too little or too much water applied to newly planted trees.
- Remove surrounding grass.
- Apply organic mulch to the tree planting site to prevent new grass from growing and maintain soil moisture.
 - Keep at least 2-4" of mulch over the soil.
 - Keep mulch at least 4" from the base of the trunk of the tree.
 - Do not mound the mulch up against the trunk as this will damage the tree - it can lead to mold, pest damage, decay, or even death.
 - Create and maintain a berm of soil/mulch around the tree to retain water.
- Additional information for tree planting and maintenance guide can be found at: https://www.dec.ny.gov/docs/lands_forests_pdf/tftcalchecklist.pdf

2.3.2. Maintenance Procedures

- All management activities within the required buffer zone are to be the minimum necessary to allow the existing vegetation and supplemental plantings (if any) to mature in a natural and unmanaged growth habit.

¹ NYSDEC Native Tree and Shrubs: https://www.dec.ny.gov/docs/lands_forests_pdf/factnatives.pdf

Cornell University Woody Plants Database search as per site's characteristics: <http://woodyplants.cals.cornell.edu/plant/search>

2.3.2.1. Control of Invasive Species

- Annual visual inspections will take place by the qualified professional with an emphasis of control of invasive plants typical of the region.
- Plants which are identified to be removed are to be pulled out of the ground by hand or mechanically cut flush if they are too large to remove by hand.
- Additional information for managing invasive plants in riparian areas can be found at: https://www.dec.ny.gov/docs/lands_forests_pdf/tftismg17.pdf
- New York Invasive Species Information: <http://nyis.info/>

2.3.2.2. Mechanical Pruning

- Cutting, clipping or pruning of the vegetated buffer is only allowed (if recommended by the qualified professional) to remove diseased, broken, or fallen limbs which inhibit or prevent the natural growth of the buffer vegetation and compromise its natural state, or danger/hazard trees² that could harm persons or property.
- Pruning is not allowed for decorative or ornamental purposes.
- All pruning will be done by hand tools only. Cuts will be made in conformance with best horticultural practices (American National Standard for Tree Care Operations - Tree Shrub, And Other Woody Plant Maintenance).

² Standing tree that presents a hazard to employees due to conditions such as, but not limited to, deterioration or physical damage to the root system, trunk, stem or limbs, and the direction and lean of the tree.
Occupational Safety and Health Standards, Title 29 of the Code of Federal Regulations (CFR) Part 1910.266(c):
<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.266>