CASE 25-T-0241
SPECIFICATIONS FOR THE DEVELOPMENT OF
ENVIRONMENTAL MANAGEMENT AND CONSTRUCTION PLAN

1. Section A of the Environmental Management and Construction Plan (EM&CP) shall include a narrative addressing the location of the route, description and statement of objectives, techniques, procedures, requirements, and impacts avoidance, minimization, and mitigation. A table of contents will be included for the EM&CP and each section, appendix or exhibit containing ten or more pages.

2. Section B of the EM&CP shall include the project's plans and profiles, details, sections and design drawings, and maps. Each drawing or figure shall be clearly titled, numbered, and dated to its version. Department of Public Service (DPS) Staff will be provided access to drawings maintained in a construction management database by the Certificate Holder. All final design drawings and figures are to be stamped and signed by a Professional Engineer.

3. Section C of the EM&CP shall include additional plans and appendices required by the Certificate or otherwise proposed by the Certificate Holder.

4. If any particular requirement of the EM&CP requirements is not applicable, not provided, inconsistent with the conditions of the Certificate, or otherwise not addressed, so indicate and include supporting justification.

A. Description and statement of objectives, techniques, procedures and requirements - Section A of the EM&CP shall include a narrative addressing the location of the route; description and statement of objectives, techniques, procedures and requirements; and impacts avoidance, minimization, and mitigation. A table of contents will be included for the EM&CP, as well as each section, appendix or exhibit containing ten or more pages. The textual portion of the EM&CP shall include, but need not be limited to, all of the following information:

(1) *Facility Location and Description:*

i. Describe the location and limits of the project's Temporary ROW, Limits of Disturbance (LOD), and Permanent ROW, and explain the need for any additional property or access rights. Describe how the final facility design and location addresses any concerns raised by any Federal, State, or local agencies, and other stakeholders. Provide a rationale for the inclusion of any mid-span splice locations proposed.

(2) *Vegetation Clearing and Disposal Methods:*

i. Describe the methods and rationale for the type and manner of cutting and disposition or disposal methods and locations for cut vegetation.

ii. Detail measures that will be employed to avoid damage to desirable vegetation, rare, threatened and endangered (RTE) species, important screening trees, and hedgerows.

iii. Describe any landowner agreements for retention of timber or other cut vegetation.

iv. Describe methods of compliance with 6 NYCRR Part 192 – Forest Insect and Disease Control, applicable New York State Department of Environmental Conservation (NYSDEC) quarantine orders, and New York State Department of Agriculture and Markets (NYSAGM) regulations.

(3) *Soil, Sediment, and Stone Handling:*

i. Describe the methods and rationale for contaminated soils testing, as applicable, including field observations for visual or olfactory indicators of contamination, and laboratory analysis.

ii. Provide disposal locations for excess materials.

iii. Describe any landowner agreements or commercial facility agreements to receive such materials.

1. Where testing confirms the presence of hazardous material, provide confirmation that the facility is licensed to accept such material.

iv. Describe methods of compliance with 6 NYCRR Part 360-366 and applicable New York State Department of Environmental Conservation (NYSDEC), New York State Department of Agriculture and Markets (NYSAGM) and any other federal state or local requirements.

(4) *Wetlands, Streams, and Other Waterbodies:*

i. Develop a summary table of wetlands, streams and other waterbodies within the project's Temporary Right-of-Way (ROW):

1. For each stream and other waterbody, provide a table summarizing the following:
   a. Municipality;
   b. Facility location (mileposts);
   c. GPS coordinates;
   d. Stream name;
   e. Field/Map identification name;
   f. Stream flow designation (perennial, intermittent, or ephemeral);
   g. NYSDEC stream classification;
   h. Water index number;
   i. Fishery type; and
   j. Crossing method and length.
2. For each Freshwater Wetland within the project LOD, provide a table summarizing the following:
   a. Municipality;
   b. Facility location (milepost);
   c. GPS coordinates;
   d. Wetland field designation;
   e. NYSDEC and NWI Cowardin classification code;
   f. Wetland cover type;
   g. Wetland functions and values;
   h. Crossing method and length;
   i. Amount of excavation;
   j. Amount and source of fill (if applicable);
   k. Proposed structures located within wetland and regulated Adjacent Area;
   l. Total area (square feet and acres) of temporary and permanent disturbance in wetland and regulated Adjacent Area; and
   m. Total area (square feet and acres) of conversion of Forested and Scrub-Shrub Wetlands.
3. For each Tidal Wetland within the project LOD, provide a table summarizing following:
   a. Municipality;
   b. Facility location (milepost);

c. GPS coordinates;
d. Wetland type;
e. Crossing method and length;
f. Amount of excavation;
g. Amount and source of fill (if applicable);
h. Proposed structures located within wetland and regulated Adjacent Area;
i. Total area (square feet and acres) of temporary and permanent disturbance in wetland and regulated Adjacent Area; and
j. Existing and proposed lot coverage.

ii. Provide a narrative description of construction activities within wetlands, State-regulated wetland Adjacent Areas, streams and other waterbodies that includes:

1. A description of the measures to be taken to protect stream bank stability, stream habitat, and water quality including:
   a. Crossing techniques;
   b. Crossing structure types;
   c. Timing restrictions for in-stream work;
   d. Stream bed and bank restoration measures;
   e. Vegetation restoration measures; and
   f. Any site-specific measures to minimize impacts, protect resources, and manage facility construction.
2. A description of all activities that will occur within wetlands or State-regulated Adjacent Areas. Describe how impacts to wetlands, State-regulated adjacent areas, associated drainage patterns, and wetland functions will be avoided and minimized. For State-regulated wetlands and adjacent area this requires an assurance that the proposed activities are consistent with the weighing standards set forth in 6 NYCRR 663.5(e) and (f) and standards for issuance of permits set forth in 6 NYCRR 661.9.
3. A statement that, where new temporary and permanent access roads are to be constructed through wetlands, a layer of geotextile fabric or equivalent underlayment shall be used.
4. A statement that, in the event that construction results in an alteration to wetland hydrology, the breach must be immediately sealed, and no further

activity may take place until DPS and NYSDEC staff are notified and a remediation plan to restore the wetland and prevent future dewatering of the wetland has been agreed upon by DPS and NYSDEC.

5. Measures to minimize soil compaction, including the use of temporary matting, low weight to surface area equipment, or constructing when soils are frozen.
6. Measures and details demonstrating how work areas will be isolated from flowing streams and standing water in wetlands, including the use of water handling methods such as sandbags, cofferdam, piping and pumping. The details shall include a discussion of:
    a. Management of waters accumulated in the isolated work area to ensure settling and filtering of solids and sediments before water is returned to a wetland or waterbody;
    b. Restoration measures for the isolated work area in streams including the complete removal of the temporary measures, reestablishment of pre-construction contours, and stabilization and seeding immediately following the completion of work; and
    c. The manner by which low flow conditions will be maintained and water depths and velocities similar to undisturbed upstream and downstream reaches will be preserved so that the movement of native aquatic organisms is sustained;
7. Measures to minimize impacts to fish and wildlife during construction, including actions to prevent entrapment of fish and wildlife in the work area and, if entrapment occurs, actions to timely and safely move the animals to appropriate undisturbed locations outside the work area.
8. Procedures for the removal of all excess fill materials to upland areas at least 50 feet from waterbodies and outside of the State-regulated Adjacent Area, including protocols for documentation of such removal.

(5) *Wetland & Waterbody Restoration:*

i. Include the following measures and details:

1. Restoration of pre-construction site conditions and stabilization of disturbed wetlands and waterbodies, as site conditions and facility design allow, within 48 hours or as soon as practicable after completion of construction, not to exceed seven (7) days.
2. Restoration of disturbed streams as follows:
    a. Stabilization of stream banks above ordinary high-water elevation with natural fiber matting, seeded with appropriate perennial native riparian species, and mulched with straw, or other required stabilization measures, within two (2) days of final grading;
    b. Unless otherwise designed as part of a site-specific grading plan stamped by a professional engineer and developed in consultation with NYSDEC and DPS Staff, streams must be equal in width, depth, gradient, length, and character as the pre- existing conditions and tie in smoothly to the profile of the stream channel upstream and downstream of the project area. The planform of any stream must not be changed; and
    c. Woody stream bank vegetation must be replaced with ROW compatible native plantings as site conditions and facility design allow.
3. Plans for revegetation of disturbed wetlands and State-regulated Adjacent Areas with native plants. Appropriate native wetland species mixes must be described.
4. Plans for monitoring of restoration areas until an 80% cover of native plant species with the appropriate wetland indicator status has been reestablished over all portions of the restored area.

(6) *Stream Crossings:*

i. Bridges shall be utilized for each new permanent protected stream crossing and shall span the stream bed and banks. Detailed description of all proposed stream crossing locations and methods, with reference to the Stream Crossing Plan, plans, details, profile, etc.

ii. If a bridge is not practicable for a new permanent stream crossing, an alternatives analysis must be provided, including written justification for why a bridge is not practicable.

iii. For stream channels with slopes greater than 3%, an open bottom culvert must be used, unless otherwise agreed upon by DPS Staff and NYSDEC. All culverts shall be designed to:

1. Contain native streambed substrate or equivalent;
2. Be a minimum width of 1.25 times the width of the stream bed. The stream bed is measured bank to bank at the ordinary high-water level or edges of terrestrial, rooted vegetation;
3. Include a slope that remains consistent with the slope of the upstream and downstream channel; and
4. Facilitate downstream and upstream passage of aquatic organisms.

iv. For any proposed culverts, protocols for maintaining adequate function, including plans for maintenance, repair, and replacement.

(7) *Agricultural Areas:*

i. Describe programs, policies, and procedures to mitigate agricultural impacts such as soil compaction.

ii. Explain how construction plans either avoid or minimize crop production losses and impacts to vulnerable soils, including lands in active agricultural production and with particular consideration of lands located within NYS Certified Agricultural Districts and containing Mineral Soil Groups 1-4.

iii. Indicate specific techniques and references to appropriate agricultural protection measures recommended by NYSAGM.

iv. Describe measures for repair of any inadvertent damages to surface or sub-surface drainage features.

(8) *Sensitive Land Uses:*

i. Describe the sensitive land uses (e.g., hospitals, emergency services, sanctuaries, schools, residential areas, parks/recreational areas, local businesses, etc.) that may be affected by construction of the facility, or by construction-related traffic, and

specify measures to minimize the impacts on these land uses.

(9) *Cultural and Scenic Resources:*

i. Describe the cultural and scenic resources that may be affected by construction of the facility or by construction-related traffic and specify measures to minimize impacts on these resources. For any areas where the Certificate Holder could not obtain access permissions prior to application filing, provide:
   1. Copies of completed Phase IB, Phase II and Phase III studies, if applicable;
   2. A description and documentation of the Certificate Holder's consultation with OPRHP, local historic preservation groups, and Consulting Indigenous Nations related to such studies; and
   3. Final OPRHP effect or impact determination letter(s) for any applicable areas.

(10) *Access Roads, Lay-down Areas and Workpads:*

i. Discuss the proposed access to the project ROW, including the areas where temporary or permanent access is required; the nature of access improvements based on natural features, equipment constraints, and vehicles to be used for construction and maintenance; and the duration of access needs through restoration and the maintenance of the facility.

ii. Discuss the types of access which will be used and the rationale for employing that type of access, including consideration of:
   1. Temporary installations;
   2. Permanent installations;
   3. Use of existing roads, driveways, farm lanes, rail beds, etc., and a description of any improvements required to meet applicable standards or otherwise needed for construction of the project; and
   4. Other proposed access.

iii. Indicate the associated drainage and erosion control features to be used for access road construction and maintenance.

iv. Indicate the type(s) of stream crossing method to be used in conjunction with temporary and permanent

access road construction, including rationale for each proposed crossing method.

v. All diagrams and specifications should include material type and size to be placed in streams and at stream approaches.

vi. If access and workpad areas cannot be limited to upland areas, provide justification for any access and workpad areas which are proposed to be located in a wetland, stream or waterbody.

vii. Indicate any required temporary or permanent grading associated with accesses roads, work areas and any other grade alterations.

(11) *Construction Noise:*

i. Specify procedures to be followed to minimize noise impacts related to ROW clearing, and construction and operation of the Facility.

ii. Describe notifications and noise impact avoidance and minimization measures to be implemented for potentially impacted sensitive sound receptors during extended work hours, as defined in the Certificate.

iii. Indicate the types of major equipment to be used in construction or Facility operation; sound levels at which that equipment operates; days of the week and hours of the day during which that equipment will normally be operated; any exceptions to these schedules; and any measures to be taken to reduce audible noise levels caused by either construction equipment or Facility operation.

(12) *Ecological and Environmentally Sensitive Sites:*

i. Indicate the procedures that were followed to identify ecological and environmental resources and specify the measures that will be taken to avoid and minimize impacts to these resources. Include any survey reports or other reports prepared to identify and analyze such sites.

ii. Provide a list of all RTE plant or animal species potentially located within the facility corridor and any other areas where construction-related activities may occur.

iii. Describe methods for training contractors and other on-site personnel on identifying those RTE species

indicated as potentially located within the facility corridor, or evidence of the presence of those species.

iv. Describe measures that will be taken in the event that RTE species are known to exist in the project area or are otherwise observed, including avoidance and minimization measures that will be implemented.

v. Provide an updated list of protected native plant species, including confirmation of the locations of protected native plants listed in 6 NYCRR 193.3 that have been previously observed to occur within the facility corridor.

(13) *Invasive Species:*

i. Summarize the invasive species known to exist within the facility corridor based on publicly available information or the results of pre-construction invasive species surveys.

ii. Summarize the methods that will be used to minimize the spread and prevent the introduction of invasives species during construction of the project.

iii. Describe measures to be taken if project activities are observed to cause a spread of invasives species.

iv. Where applicable, provide cross references to the project's Invasive Species Management Plan.

(14) *Herbicides:*

i. Specify the locations where herbicides are to be applied. Provide a general discussion of the site conditions (e.g., land use, target and non-target vegetation species composition, height, and density) and the choice of herbicide, formulation, application method, and timing.

ii. Confirm that all herbicides that will be used have valid registrations under applicable State and federal laws and regulations.

iii. Describe the procedures that will be followed during application to protect non-target vegetation, streams, wetlands, potable waters and other water bodies, and residential areas and recreational users on or near the ROW.

(15) *Fugitive Dust Control:*

i. Specify appropriate measures that will be used to minimize fugitive dust and airborne debris from construction activity.

(16) *Terrestrial Blasting:*

i. Describe and identify on maps the proposed locations of blasting, including a characterization of the subsurface conditions at each proposed blast site and provide an explanation for why other, mechanical excavation methods are not feasible.
   1. Identify any nearby receptors that may be adversely affected by blasting operations and describe any pre-blast surveys completed and/or planned.
   2. Provide the results of any geotechnical investigations completed at proposed blasting locations.

(17) *Environmental Supervision:*

i. Describe protocols for supervising demolition, vegetation clearing, use of herbicides, construction, and site restoration activities to ensure minimization of environmental impact and compliance with the environmental protection provisions specified by the Certificate.

ii. Specify the titles and qualifications of personnel proposed to be responsible for ensuring minimization of environmental impact throughout the demolition, clearing, construction, and restoration phases, and for enforcing compliance with environmental protection provisions of the Certificate, Stormwater Pollution Prevention Plan (SWPPP), and the EM&CP. Indicate the amount of time each supervisor is expected to devote to the project.

iii. Specify responsibilities for personnel monitoring all construction activities, such as clearing, sensitive resource protection, site compliance, EM&CP change notices, etc.

iv. Explain how all environmental protection provisions will be incorporated into contractual specifications and communicated to those employees or contractors engaged in demolition, clearing, construction, and restoration.

v. Describe the procedures to "stop work" in the event of a Certificate violation.

vi. Identify the Certificate Holder's designated contact, including 24/7 emergency phone number, for assuring overall compliance with Certificate conditions.

(18) *Clean-up and Restoration:*

i. Describe the Certificate Holder's program for ROW clean-up and restoration, including:

1. Removal of any temporary roads; restoration of lay-down or staging areas; the finish grading of any scarified or rutted areas; and the removal of waste, scrap metals, surplus or extraneous materials or equipment used.
2. Plans, standards, and a schedule for the restoration of vegetative cover, including, but not limited to, specifications to address:
   a. Design standards for ground cover, including:
      i. Species mixes and application rates by site;
      ii. Site preparation requirements (soil amendments, stone removal, subsoil treatment, or drainage measures, etc.); and
      iii. Acceptable final cover percentage by cover type.
   b. Planting installation specifications and follow-up responsibilities.
   c. A schedule or projected dates of any seeding and/or planting.
   d. Plans to prevent unauthorized access to and along the ROW.
3. Roadway and Guiderail restoration (if not addressed elsewhere).
4. Plans for post-construction site restoration inspections and reporting.
5. Name, office, and title of person(s) responsible for project site restoration.

(19) *Visual Impact Mitigation:*

i. Provide a proposal to address visual mitigation for impacts including but not limited to road crossings, adjacent property owners, and visually sensitive areas including visually sensitive historic properties.

ii. Discuss the use of existing vegetation or proposed landscape plantings as screening, earthwork, or site-specific requisites to provide the maximum extent of visual mitigation of facility components practicable.

iii. Provide plant lists comprised of appropriate native plants based on site characteristics and a reconnaissance of the native plants found within the facility corridor.

iv. Provide details comprised of landscape plans and specifications and an inspection and maintenance program for the life of the project, including plans for replacement of plantings where such visual screenings have failed.

(20) *Real Property:*

i. Provide an attestation that all real property and access rights necessary for construction of the applicable phase or segment of the project have been obtained.

1. If applicable, copies of approved occupancy rights for any railway properties, including all design and construction plans, and a copy of all specifications and engineering computations for the proposed occupancy.
2. If applicable, copies of crossing agreements with owners of railroad tracks or beds crossed by the project, including all design and construction plans, and all specifications and engineering computations, for the proposed crossings.

(21) *ROW Encroachment Plan:*

i. Provide detailed plans for identifying and resolving potential encroachments to the existing and proposed ROW.

ii. Provide justification for any proposed acquisition, removal, or relocation of any buildings or structures.

(22) *Safety and Security*:

i. Describe plans to prevent unauthorized access to and along the ROW, including but not limited to:

1. Posting signs at the edges of the project ROW in those locations where the ROW intersects public roads;

2. Performing outreach to educate and inform the public concerning the risks and impacts of unauthorized access;
3. Consulting with local law enforcement officials in an effort to prevent future trespassing;
4. Identifying construction and material details of gates, berms and landscaping if any; and
5. Conducting a post-construction assessment of the project, in consultation with DPS Staff, to provide a final determination of locations of any gates, berms and landscaping.

(23) *Electric and Magnetic Fields*:

i. Provide a certification from a Professional Engineer licensed by the State of New York stating that, if constructed in accordance with the final design plans, the Transmission facility will comply with the applicable electric and magnetic field ("EMF") standards, established by the Commission in Opinion No. 78-13 (issued on June 19, 1978), and the Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities (issued on September 11, 1990).

(24) *In-Water Facilities:*

i. For construction of in-water facilities, the EM&CP shall include:
   1. Details and manufacturers' specifications for any equipment that will be used for installation of the cable and associated facilities.
   2. A detailed description of the following construction practices for installation (as applicable):
      a. Any site preparation activities along the installation route, including but not limited to, as applicable: pre-lay grapnel run, boulder removal/relocation, marine debris removal, unexploded ordinances (UXO) clearance, removal of existing infrastructure, pre-installation surveys, pre-sweeping, pre-lay mattress installation, utility crossing preparation, and/or pre-trenching, etc. Include a narrative and maps indicating the locations at which each method is expected to be employed.

b. Installation methods, including but not limited to: mechanical cutter, mechanical plow (which may include a jetting system), jet sled, jet trencher, vertical injector, hydraulic/suction hopper dredging, mechanical dredging, and/or mass flow excavator. Include a narrative and maps indicating the locations at which each method is expected to be employed.
c. The location(s) of any HDD exit pit(s).
d. Transition methods for HDD to in-water cable.
e. Cable pulling and splicing plans, including details associated with any proposed installation of spare conduits within the in-water ROW.
f. Cable-laying methods including barge positioning and midline buoys, if necessary.
g. How the use of anchoring, if any, during construction and maintenance activities will avoid and/or minimize impacts to sensitive benthic habitats, Recognized Ecological Complexes, historic and archeological resources, and impacts to existing buried assets.
h. The parameters for the use of anchors and spuds, the limits of the anchoring corridor, and identification of discrete "No Anchor" areas, in the event anchoring is ultimately required.
i. Measures that will be employed to minimize sediment disturbance caused by anchoring during construction.
j. How the proposed construction equipment and methods avoid and/or minimize impacts related to the in-water environment, and why the proposed construction equipment and methods are most suitable for construction of the facility. At minimum, the EM&CP shall address the following:
    i. How the equipment first avoids, and if avoidance is not possible, minimizes impacts related to the sediment surface, shading, and submerged aquatic vegetation (SAV);

ii. How the chosen equipment is the minimum size practicable to conduct the work;
iii. Why the equipment is most suitable for the site, including the equipment's ability to handle ice loads; wind and erosion; tidal flux; and existing uses, grades, and bathymetry;
iv. Why the equipment is suitable for the duration required to construct the Project;
v. Provides a safe work area and how it reduces human safety hazards.

k. Details on the area and duration of any temporary in-water closures needed during project installation activities, including HDD and cable laying, and a description of how these areas have been minimized to the maximum extent practicable.
l. Details on how mariners, including commercial, recreational, for-hire (charter) fishermen, and other recreational boaters, will be alerted to the presence of the in-water work area, including any Private Aids to Navigation that may be required in State waters, and identification of activities that will be the subject of United States Coast Guard's Local Notice to Mariners.

3. A description of cable burial techniques and adjustments along the marine route, including:
   a. A detailed graphical representation of anticipated minimum and maximum achievable burial depths based on sediment conditions at regular intervals that are appropriate for the scale of the project;
   b. A written evaluation of the likelihood of achieving target burial depths based on the results of the study; and
   c. A quantitative analysis of risks to the cable and coastal users along the marine route.
4. A written evaluation of the efficacy of alternative cable protection measures that may be required along the in-water route, and justification for why the selected cable protection method is preferred at each site. The analysis shall:

a. Include, to the extent available, technical documentation from cable protection manufacturers.
b. Evaluate a range of cable protection measures, including but not limited to concrete mattresses with taper edges, crushed rock, and rock bags or other appropriate protection method(s), with respect to their ability to maintain overtrawlability, minimize shifting over time, and avoid creating a discernable berm on the sediment surface.

5. A narrative discussion of any limiting factors to completing construction as proposed in the project schedule including but not limited to availability of any required vessel(s), equipment, material, specialized personnel, etc.

B. EM&CP Plan and Profile Drawings and Maps - Section B of the EM&CP shall include the project's plans and profiles, details, sections and design drawings, and maps. Each drawing or figure shall be clearly titled, numbered, and dated to its version. All design drawings and figures are to be stamped and signed by a licensed Professional Engineer and shall reflect the final design of the facility.

(1) *Plan View Requirements:* Plan drawings at a legible common engineering scale (recommended at a scale minimum 1 inch = 200 feet) showing or otherwise including:

i. A drawing index and drawing index (key) map.
ii. A legend identifying existing and proposed features shown on the plans.
iii. Contour lines at a minimum of 5-foot intervals. Where contours are based on recently completed on-site surveys, contours shall be taken at two-foot intervals, completed by a licensed surveyor, and referenced to the National Geodetic Vertical Datum (NGVD) or North American Vertical Datum of 1988 (NAVD88).
iv. Station numbering (stationing) along the centerline of proposed electric line(s) which shall be continuous along the entire length of the cable.

v. Construction notes, including all appropriate information for the contractor.
vi. A table showing property owner information and associated parcel number, stationing, and type of easements.
vii. A table showing splice locations, methods, and associated stationing location.
viii. A table showing Co-located Infrastructure information, including owner information, station location of proposed crossings, and agreement status.
ix. The boundaries of any new, existing, and/or expanded ROW or road boundaries, and where conductors are to be constructed overhead, underground or in-water.
x. Areas contiguous to the ROW or street within which the Certificate Holders will obtain additional property rights.
xi. Host and adjacent property lines and associated landowner information.
xii. Locations of each proposed structure related to the major electric transmission facility.
xiii. Components of the major electric transmission facility complying with any applicable local setbacks, including fence, gate, down-guy anchor, any counterpoise required for the facility, conductors, insulators, location of mid-span splices, static wires, and any other components attached to facility structures.
xiv. Unique symbols distinguishing proposed and existing overhead and underground conductors.
xv. Proposed trenchless and in-water installation locations, including their approximate lengths.
xvi. On- and off-ROW temporary and permanent access roads, parking areas, lay-down areas and work pads, including an indication of provisions for upgrading any existing access.
xvii. Any required temporary or permanent grading associated with accesses roads, work areas and any other grade alterations.
xviii. Construction contract limit lines, property lines, designated floodways and flood-hazard area limits, buildings, sheds, relocated structures, and any plans for water service, sewage and waste disposal.

xix. Construction type, material, dimensions, and listing of any standards applied to construction of access roads.

xx. Limits of Disturbance for the proposed major electric transmission facility, including areas requiring temporary clearing needed for construction, including language referencing danger tree provisions/rights.

xxi. For existing utility and non-utility facilities that will be acquired or require removal or relocation, indicate methods of removal of existing facilities, and show the new locations, types and configurations of relocated facilities.

xxii. Location of the major electric transmission facility relative to nearby fence lines, roads, trails, railways, airfields, hedgerows, surface waters, wetlands, streams, other water bodies, significant and unique habitats, associated facilities, nearby buildings or structures, areas assessed to contain cultural resources, major antennas, areas of known or suspected contamination or hazardous materials, oil, gas, and potable water wells, and major utility infrastructure.

xxiii. The location and details of any proposed new or expanded switchyard, substation, converter station, or other terminal or associated utility or non-utility structure.

xxiv. Type(s) of outdoor lighting, including design features to avoid off-site illumination and minimize glare, and the color and finish of all structures.

xxv. The location and boundaries of any on- or off-ROW areas proposed to be used for fabrication, designated equipment parking, staging, access, lay-down, and conductor pulling.

xxvi. Any planned fencing, surface improvements, and screening of storage and staging areas.

xxvii. The location of any petroleum or chemical storage and secondary containment areas including those areas for fueling equipment and machinery.

xxviii. The locations for ready-mix concrete or flowable fill chute washout and any other cleaning activities.

xxix. Location of any proposed temporary concrete batch plant(s) related to facility construction.

xxx. Location of any proposed marshalling yards.

xxxi. Locations of all temporary and permanent stormwater management controls that are developed in accordance with the latest version of the New York State Stormwater Management Design Manual and required based on site-specific conditions or conditions of the Certificate. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice.

xxxii. Additional requirements for in-water cables:

1. Federal navigation channel locations;
2. Co-located infrastructure and crossing locations;
3. Bridges, piers, and other marine infrastructure;
4. Location of landfall and associated infrastructure (e.g., exit point, transition joint bay, etc.);
5. Defined bathymetry contours within the facility Siting corridor;
6. Splice locations;
7. Locations of known significant fish and wildlife habitat; RTE species or habitat; Recognized Ecological Complexes; cold-water corals; shellfish, and artificial reefs; and any other exclusion zones;
8. Locations of Federal Aids to Navigation (ATONs);
9. Locations of Unexploded Ordinances (UXOs);
10. Locations of proposed cable protection measures;
11. Anchorage areas and anchor avoidance areas;
12. Areas of any temporary in-water closures needed during HDD and in-water preparation or construction; and
13. Locations of any proposed sand wave leveling.

(2) *Vegetation Clearing and Disposal Plans:* Identify on the plan drawings:

i. Locations of sites requiring clearing of vegetation related to the facility, including areas to be temporarily utilized during construction and the geographic limits of such clearing including danger trees;

ii. Specific methods for the type and manner of cutting and disposition or disposal method for cut vegetation, including areas where property owners request specific methods;

iii. Methods for management of vegetation to be cut or removed at each site;

iv. Any geographical area bounded by distinctly different cover types requiring different cut-vegetation management methods including areas requiring distinctly different cut-vegetation methods due to site conditions such as land use differences, population density, habitat or site protection, soil or terrain conditions, fire hazards, or other factors; and

v. Location of any areas where specific vegetation protection measures will be employed and the details of those measures to avoid damage to specimen tree stands of desirable species, important screening trees, or hedgerows.

(3) *Stormwater Management and Erosion Controls: P*lan views shall show specific controls to divert stormwater, minimize erosion, and prevent sediment transport beyond the limits of the work area, in a manner that is consistent with the project SWPPP.

(4) *Wetlands, Waterbodies, and other Water Resources:* On the plan view, indicate:

i. Locations of wetlands, streams, and other water bodies.

ii. The name, water quality classification, location, and flow regime of all rivers, streams, and drainages within or adjacent to the facility ROW.

iii. The location and type of any wetland, delineated locations of wetland boundaries, and the extent of State-regulated wetland Adjacent Areas located within or adjacent to the facility ROW.

iv. The location of all potable water sources and the precautionary measures to be taken to protect each water source, including springs and wells on the facility ROW or within: (i) 100 feet of the ROW or access roads; (ii) 500 feet of horizontal directional drilling locations; or (iii) 1,000 feet of blasting operations.

v. The type(s) and location(s) of measures to be taken to protect wetlands and waterbodies.

vi. The stream and wetland crossing method(s), with reference to the applicable crossing method details/typicals.

vii. For each new crossing of a "protected stream" and/or "navigable waters of the state", and streams with species protected under 6 NYCRR Part 182, provide:
   1. Detailed plan, profile, and cross-sectional view plans;
   2. Drainage area and flow calculations to ensure that the design will safely pass the 1% annual (100-year return) chance storm event; and
   3. Location, quantity, and type of fill.

viii. Designated floodways or flood hazard areas to be traversed by the facility or access roads, or otherwise used for facility construction or the siting of associated facility components.

(5) *Agricultural Areas:* On the plan view, indicate:

i. Locations of sites under cultivation or in active agricultural use, including rotational pasture, pasture, hayland, and cropland.

ii. Locations of NYS certified Agricultural Districts and Mineral Soil Groups 1-4.

iii. Locations of any unique agricultural lands including maple sugarbushes, muckland and other organic farmland, and permanent irrigation systems, as well as areas used to produce specialty crops.

iv. Locations of vulnerable soils in agricultural areas that are sensitive to construction disturbance due to slope, soil wetness, and shallow depth to bedrock.

v. Location of all land and water management features, including subsurface drainage facilities, surface drainage, diversion terraces, buried water lines, and water supplies.

vi. Site-specific techniques to be implemented to minimize construction-related impacts to agricultural. resources.

(6) *Sensitive Land Uses and Resources:* Indicate the location and identification of sensitive land uses and resources that may be affected by construction of the facility or by construction-related traffic.

(7) *Cultural and Scenic Resources:* Indicate the locations of cultural and scenic resources and specify measures to minimize impacts to these resources.

(8) *Recreational:* Indicate the locations where recreational use areas would affect or be affected by the facility location, construction or other ROW preparation.

(9) *Noise Sensitive Sites:* Show the locations of noise-sensitive areas within and adjacent to the facility corridor.

(10) *Ecologically and Environmentally Sensitive Areas:*

i. Indicate the locations of any known culturally and environmentally sensitive sites within or adjacent to the facility ROW or along the general alignment of any access roads to be constructed, improved or maintained for the facility. Specify the measures that will be taken to protect these resources. Such areas shall be delineated and labeled as "Environmentally Sensitive Areas, No Access" on the plans.

ii. Protected native plants stands shall be identified in the plan view drawings, which shall note any such locations where the landowner has given permission for the removal of such protected native plants.

iii. Locations of construction fencing to restrict access to ecologically and environmentally sensitive areas during construction, including locations of protected native plants.

(11) *Invasive Species:* Identify the location(s) of invasive species known or identified within or adjacent to the facility ROW and measures to minimize the spread, expansion, and introduction of invasive species.

(12) *Herbicides:* On the plan view and in the construction notes, indicate areas where herbicides will not be used.

(13) *Profiles:* Profile View, at an appropriate scale, to be included with relevant plan sheet, showing or otherwise including:

i. The lowest conductor of an overhead design shall be shown in relation to the ground at the maximum permissible conductor temperature for which the line

is designed to operate (i.e., normally the short-time emergency loading temperature). If a lesser conductor temperature is used for the line profile, the maximum sag increase between the conductor temperature and the maximum conductor temperature shall be indicated for each ruling span.

ii. For underground project design, show relation of the facility to final surface grade, indicating design depth-of-cover.

iii. Existing surface grade (ground elevation) along the facility route.

iv. Stationing that matches the related plan view on that sheet. Stationing shall be continuous from beginning of the major electric transmission facility to its end.

v. All components of the facility and corresponding elevations shown above or below the existing surface grade.

vi. Existing utility or non-utility structures and related elevations within the ROW and indicate those to be removed or relocated.

vii. Include circuit arrangements where new structures will accommodate existing circuits, indicate methods of removal of existing facilities, and show the new locations, types and configurations of relocated facilities.

viii. Proposed trenchless installations and waterbody crossing locations, elevations of proposed cables, and direction of cable pull, including the approximate lengths of such routes.

(14) *In-Water Transmission facility Profiles:* For in-water cables, provide installation requirements shown on profiles, including related elevations, including:

i. Existing Surface Water Level.

ii. Present sediment surface.

iii. Proposed in-water route of major electric transmission facility shown at target burial depth.

iv. Federal navigation channel and proposed separation between the bottom of the channel and proposed target burial depth.

v. Co-located infrastructure and crossing locations.

vi. Locations of cable protection measures.

vii. Bridges, piers, and other marine infrastructure.
viii. Location of landfall and associated infrastructure.
ix. Splice locations.
x. Locations of ATONs.
xi. Anchorage areas and anchor avoidance areas.
xii. Locations of any proposed sand wave leveling.

(15) *Typical Details and Elevation Requirements:* Provide the following typical details and elevation requirements for the final facility design and construction:

i. Typical underground infrastructure section details with dimensions of proposed depth, trench width, level of cover, separation requirements between circuits/cables, clearing width limits for construction and operation of the facility, limits of disturbance, required permanent ROW, and a description of the cable installation processes.
ii. Details for typical tower foundations.
iii. Typical details of any proposed vaults, including vault dimensions, level of cover, clearing limits for construction and operation of the facility, and limits of disturbance for installation.
iv. Details for typical overhead electric transmission lines, including a profile of the centerlines at an exaggerated vertical scale and typical elevation views including height above grade and structure layouts.
v. Details for typical overhead structures, guy anchors, buildings, and any proposed equipment foundations including plan and section information. If multiple foundation designs are to be utilized for the facility, specify the foundation type at each location on the foundation plans, either listed in a table or indicated on corresponding plans.
vi. Typical detail drawings for switchyards, substation, converter stations other buildings and interconnection facilities, including fencing, gates, and station equipment and infrastructure, which shall include:
    1. the length, width, height, material of construction, color, and finish of all buildings, structures, conductors, insulators, and other fixed equipment; and

2. a ‘general arrangements’ drawing showing elevation mark pointers with reference to associated elevation views, including views of all components of the station.

vii. For each proposed permanent point of access or access type, a typical installation plan view, cross section, and side view with appropriate dimensions, including temporary and permanent widths, and identification of materials to be used along with corresponding material thickness.
   1. Provide diagrams and specifications (include plan and side views with appropriate typical dimensions) for each erosion control feature to be used for access roads.
   2. Provide diagrams and specifications (include plan and side view with appropriate dimensions) for each type of access road stream crossing method.

viii. Typical details of any other proposed access (e.g., helicopter or barge placement).

ix. Typical details of any proposed agricultural resource protection measures.

x. Manufacturer-provided information regarding the design, safety and testing information for associated components of the facility including but not limited to inverters, transformers, cables and conductors, circuit breaker, relay protection and communication system to be installed, or as related to the transmission facility for operation.

C. Additional Plans and Appendices – Section C of the EM&CP shall include additional plans and appendices required by the Certificate or otherwise proposed by the Certificate Holder. Examples of such plans and appendices include:

(1) *Quality Assurance and Control Plan.* A Quality Assurance and Control Plan, which shall include:

i. Job titles and qualifications necessary, demonstrating how the Certificate Holder will monitor and assure conformance of facility design, engineering and installation, including general concrete testing procedures with a plan outlining the monitoring and

testing of concrete procedures in conformance with and reference to all applicable codes and standards.

ii. The frequency with which the Quality Control Audits will be performed.

iii. Description of how the Certificate Holder will ensure that the transmission line structures and components it purchases conform to the specification for structures and components described in the EM&CP.

(2) *Emergency Response Plan.* Describe emergency response procedures for construction and operation of the facility.

(3) *Highway Work Plan.* A Highway Work Plan prepared in compliance with 17 NYCRR Part 131; NYSDOT Highway Design Manual Chapter 13 and its Appendices A – C; NYSDOT Highway Design Manual Chapter 5, Appendix A; NYSDOT Blue Book; and all other applicable permits and approvals, including NYSDOT Highway Work Permits and Use and Occupancy Permits.

(4) *Maintenance and Protection of Traffic Plan (Traffic Control Plan).* A Maintenance and Protection of Traffic (MPT) Plan to ensure safety and minimize potential delays to local traffic during construction, which shall describe, at a minimum, the following:

i. Maps and plans showing final haul routes developed in consultation with DPS Staff, county and municipal highway officials and local school districts. Final haul routes shall be accurately depicted in drawings submitted with the Traffic Control Plan.

ii. Copies of all necessary transportation Certificates from the affected State, County, and municipal agencies for such equipment and/or materials on such route. Such Certificates shall include but not be limited to: Highway Work Certificates to work within the ROW, Certificates to exceed posted weight limits, Highway Utility Certificates to construct facilities within ROW, Traffic Signal Certificates to work within ROW, Special Haul Certificates for oversize/overweight vehicles, and Divisible Load overweight Certificates.

iii. Copies of all necessary agreements with utility companies for raising or relocating overhead wires where necessary to accommodate the oversize/overweight delivery vehicles, if applicable.

iv. A copy of all road use and restoration agreements, if any, between the Certificate Holder and landowners, municipalities, or other entities, regarding repair of local roads damaged by heavy equipment, construction or maintenance activities during construction and operation of the facility.

v. Confirmation that:

1. Signage utilized at State highways shall comply with the New York State Department of Transportation ("NYSDOT") Manual of Uniform Traffic Control Devices;
2. Placement of signs shall be determined in consultation with the jurisdictional agency; and
3. Flaggers or an electronic traffic device in lieu of a flagger shall be present when equipment is crossing any public road, when equipment is being loaded or unloaded from a vehicle parked on a public road, and where multiple-lane traffic has been reduced to less lane(s).
4. Spotters assigned to ensure the safe operation of heavy equipment shall be utilized where necessary and appropriate.

vi. If applicable, the MPT Plan shall include a Work Zone Traffic Control (WZTC) plan that identifies procedures to be used to maintain traffic and provide a safe construction zone for those activities within the roadway ROW.

1. WZTC plans shall also be provided for each location where construction vehicles will access the project ROW from the local roadway.
2. WZTC plans shall address temporary signage, lane closures, placement of temporary barriers, and traffic diversion.
3. For any proposed traffic detours, specify the duration and notification procedures.

(5) *Stormwater Pollution Prevention Plan.* Include the SWPPP developed in accordance with the New York Standards and Specifications for Erosion and Sediment Control.

i. The Certificate Holder shall include NYSDEC's Letter of Authorization under the SPDES General Permit for Stormwater Discharges from Construction Activity

and/or the NYSDEC-approved SPDES Individual Permit for the project.

(6) *Wetland and Stream Delineation Report.* A wetland and surface water delineation report including a series of maps identifying the boundaries of all federal, State, and locally jurisdictional wetlands and waterbodies present within the temporary and permanent ROWs as well as those outside the ROWs, which are within 100feet of any areas to be disturbed. The report shall consist of a description of waterbody and wetland characteristics including wetland classifications and NYS water quality classifications and standards provided in the approved jurisdictional determination, Cowardin wetland classifications, the Fisheries Index Number (FIN) or Waterbody Index Number (WIN), a description of stream flow (perennial, intermittent, or ephemeral), summary of the field data collected, and associated GIS spatial data.

(7) *Wetland Mitigation Plan.* A Wetland Mitigation Plan, intended to compensate for unavoidable loss of wetland functions and values, which shall include the following:

i. Proposal to address wetlands mitigation for all permanent impacts to State-regulated wetlands and Federally- regulated wetlands, if prescribed by the Army Corps of Engineers. If such proposal is to prepare a detailed mitigation plan for State regulated wetlands, it shall separately address impacts to each of the wetlands benefits described in ECL § 24-0105(7). Plans shall provide for wetland mitigation in the same watershed to the maximum extent possible.

ii. Plans to compensate for unavoidable loss of wetland functions and values, including the following:

1. The creation of compensatory wetlands at appropriate ratios;
2. A construction timeline for the mitigation activities;
3. Construction details for meeting all requirements contained in the Certificate conditions;
4. Agreed-upon performance standards for determining wetland mitigation success;

5. Provisions for post-construction annual monitoring and reporting for a period of five years after completion of the wetland mitigation; and
6. Plans for corrective actions after each monitoring period to implement corrective actions for any areas that do not meet the required performance standards in order to increase the likelihood of meeting the performance standards after five years.

(8) *Stream Crossing Plan.* A site-specific Stream Crossing Plan shall be provided for all stream crossings using trenchless crossing methods. Each site-specific Stream Crossing Plan must be prepared and stamped by a qualified engineer licensed to work in New York State and must be approved by NYSDEC before construction begins on the project. For each proposed trenchless crossing location, the Stream Crossing Plan must include:

i. Detailed engineering plans with plan views and cross sections that contains the stream channel, pipe locations, pipe diameter, locations of boring pits, pullback areas, laydown areas, areas of vegetative clearing/cutting, erosion and sediment control measures, and dewatering wells (if necessary).
ii. Geotechnical data characterizing the soils for the entire depth profile of the crossing within the pipeline trajectory.
iii. A site-specific analysis of the potential for inadvertent returns or frac-outs, including but not limited to, an evaluation of soil strength to resist drilling fluid pressure, and the likelihood to maintain borehole stability.
iv. A site-specific analysis of the appropriate depth of pipe beneath the waterbody to assure sufficient cover is provided considering the potential for vertical and horizontal movement of the streambed. This analysis should account for the Vertical Adjustment Potential (VAP), or lower VAP line, at the point of the stream crossing. This analysis should also consider scour associated with 0.2 percent chance flow events anticipated over the life of the facility, including an appropriate design flow multiplier to account for future flows given a changing climate.

(9) *Inadvertent Returns Plan.* A site-specific plan to address inadvertent returns or frac-outs that occur within wetlands and waterbodies that includes dedicated equipment and staff on site during active directional drilling as well as identification of downstream access points to immediately collect inadvertently returned materials released into the wetland or waterbody and halt additional spread.

i. The plan shall establish procedures for notifying DPS Staff and NYSDEC of any inadvertent returns or other releases of inadvertently returned materials within 24 hours.

ii. The plan shall include:

1. Detailed work plans, including plan views that include drilling location, bore length and depth, bore pipe specs, number and diameter of back reams, hole volume, and all equipment used for horizontal directional drilling (HDD);
2. Description of the HDD site including physical characteristics, water supply, existing utilities and environmental resources (e.g., sensitive habitats, wetlands and waterbodies);
3. Alternative crossing methods in the event HDD is unsuccessful; and
4. Protocols for restoration of sites where inadvertent returns have occurred.

(10) *Drilling Fluid Management Plan.* A Drilling Fluid Management Plan which includes the following:

1. Drilling Fluid Safety Data Sheet;
2. Description of how drilling fluids will be managed on site, stored, and transported;
3. Description of procedures for disposal of drilling fluids, including plans for characterization of whether drilling fluids constitute hazardous or solid waste, and when such drilling fluids are anticipated to be disposed at an off-site facility, the name and location of any offsite disposal facilities; and
4. Description of how drilling fluids will be neutralized for disposal.

(11) *Spill Prevention Control and Countermeasures Plan.* Provide a plan for the storage, handling, transportation, and disposal of petroleum, fuels, oil, chemicals, hazardous substances, and other potentially harmful substances which may be used during, or in connection with, the construction, operation, or maintenance of the Facility.

i. Address how to avoid spills and improper storage or application in the vicinity of any wetland, river, creek, stream, lake, reservoir, spring, well, or other ecologically sensitive site, or existing recreational area along the ROW and access roads;

ii. Describe procedures for responding to and remediating the effects of any spill of petroleum, fuels, oil, chemicals, hazardous substances, and other potentially harmful substances in accordance with applicable State and Federal laws, regulations, and guidance; and

iii. Describe the consultation that has occurred between the applicant and agencies, landowners and other local municipalities to determine the location of any springs or wells along the project route. Confirmation that refueling and/or storage of hazardous materials will not take place within 100 feet of any private water or municipal water well.

(12) *Dewatering Plan.* Provide a Dewatering Plan for onshore temporary dewatering operations associated with project construction that includes:

i. Plans for discharging water generated from dewatering operations that does not exceed NYSDEC standards, criteria, or guidance values.

ii. Measures to avoid direct discharges into any wetland, stream, or other waterbody, except where approved in the SPDES Certificate.

iii. Plans for handling, treatment and disposal of water generated from dewatering operations that exceeds NYSDEC standards, criteria, or guidance values.

iv. Description of any plans for discharge of effluent from dewatering operations into a municipal sewer system, including:

1. Procedures for prior notification to the municipality, including the timing and expected amount of effluent to be discharged.
2. Confirmation that the Certificate Holder will not discharge effluent from dewatering into any municipal sewer system during periods of precipitation, or when a precipitation event is forecasted to occur within twenty-four hours.

(13) *Geotechnical Engineering Report.* Provide a Geotechnical Engineering Report, summarizing the results of geotechnical investigations and analysis completed for final design of the project. The scope of the Geotechnical Engineering Report will be developed in consultation with DPS staff and may include:

i. The results of any on-site field observations, borings, test pits, and any other geotechnical field investigations for the facility.
ii. A description of the characteristics and suitability of on-site soils to support underground electrical design, structure foundations, and construction of other facility components.
iii. Where applicable, a description of the subsurface conditions and/or stratigraphy found at foundation level, including factors such as soil corrosivity (for both steel and concrete), bedrock competence, and subsurface hydrologic characteristics, including at the locations of splice vaults, splice pits, towers, switchyards, substations, converter stations, and other facility components, as appropriate.
iv. An evaluation of the suitability of subsurface conditions where hydraulic horizontal directional drilling is proposed.
v. Description of mitigation measures, where recommended based on subsurface conditions.
vi. Recommendations for construction of access roads and building and equipment foundations including, as applicable:
    1. An engineering assessment to determine the types and locations of foundations to be employed and access road design specifications.

2. If piles are to be used, a description and preliminary calculation of the number and length of piles to be driven, the daily and overall total number of hours of pile driving work to be undertaken to construct the facility, and an assessment of pile driving impacts on surrounding properties and structures due to vibration.
3. The identification of mitigation measures regarding pile driving impacts including a plan for securing compensation for damages that may occur due to pile driving.

(14) *Terrestrial Blasting Plan.* Provide a Terrestrial Blasting Plan (if applicable) that includes or otherwise addresses the following:

i. Provide the results of any pre-blast surveys of any buildings, wells, or other structures within 500 feet of any proposed blasting locations, including, for each survey:
   1. Photos depicting the existing structural integrity of the building, well, or other structure; and
   2. Written inspection report, signed and dated by the property owner, noting both existing damage to the property and undamaged areas.

ii. Description of proposed blasting hours, which shall be limited to the hours of 9:00 a.m. to dusk on non-holiday weekdays, unless otherwise approved.

iii. Description of measures to control flyrock or other airborne debris, which may include rubber tire or woven steel blasting mats.

iv. Blasting communications protocols describing procedures and timeframes for notifying host communities and adjacent property owners (and the persons residing on such properties, if different) within 1,000 feet of the blasting site. Blasting notifications to host communities and property owners shall occur at least 48 hours before blasting is initiated a specific location and shall specify:
   1. blasting locations, procedures, and schedule; and
   2. information regarding filing a complaint associated with blasting operations.

v. Procedures for filing a complaint associated with blasting operations.

vi. Procedures for post-blasting surveys to assess complaints or reports of blasting impacts on developed properties, including a description of how and when such post-blast surveys will performed, documented, and resolved.

(15) *Net Conservation Benefit Plan.* An executed Net Conservation Benefit Plan that complies with the requirements of 6 NYCRR part 182.11, or proof that the required payment was made into the Endangered and Threatened Species Mitigation Bank Fund, if required.

(16) *Invasive Species Management and Control Plan.* An Invasive Species Control and Management Plan (ISCMP) prepared in compliance with 6 NYCRR Part 575, which shall include the following information:

i. Baseline mapping of all invasive species within the facility ROW and for 100 feet beyond the facility's LOD, to the extent the Certificate Holder has the required access rights to complete the survey. The baseline mapping and data shall include the relative abundance and distribution of each invasive species prior to the commencement of any construction activities.

ii. Construction Best Management Practices (BMPs)for the on-site management of invasive species, including:

iii. Identification of specific control, removal, and disposal measures to be implemented for each identified and mapped invasive species/plant community during construction activities.

iv. Detailed sequence and schedule for all mechanical and chemical control measures to be implemented during construction activities.

v. A detailed monitoring plan and specific sampling protocols for each identified and mapped invasive species/plant community within the Facility Corridor and for 100 feet beyond the LOD.

vi. Identification of specific control contingency measures to be implemented as part of the ISCMP for each identified and mapped invasive species for the duration of the facility adaptive management and monitoring period (i.e., 5 years, unless extended).

The ISCMP shall include a detailed sequence and schedule for all contingency mechanical and chemical control measures to be implemented during the monitoring period.

vii. Specific contingency measures to be implemented to achieve the final site restoration criteria.

viii. Details regard the responsible party or parties designated to implement the ISCMP and what financial assurances exist to ensure successful monitoring and ISCMP implementation.

ix. Plan for post-construction invasive species monitoring, which shall require:
    1. Post construction surveys of:
    2. LOD, both within the ROW and off-ROW areas and access roads;
    3. Temporary off-ROW access road areas during the final SWPPP inspections; and
    4. LOD areas, including permanent access roads, after the second full growing season from final SWPPP signoff.
    5. All post-construction surveys shall utilize the same invasive species survey protocols used during the baseline pre-construction survey.

x. The ISCMP shall include construction Best Management Practices (BMPs)for the on-site management of invasive species, including:
    1. Contractor/subcontractor/employee training on cleaning and other IS management procedures
    2. Inspection of construction materials and equipment by trained staff
    3. Minimization of ground disturbance in IS dominated areas
    4. Proper clearing and disposal practices (i.e., cut and leave in dominated area or dispose off-site in landfill-incinerator or approved disposal site)
    5. Equipment cleaning
    6. Restoration

xi. The ISCMP shall describe procedures for minimization for invasive species propagation, including but not limited to:
    1. Preparing ROW travel routes to prevent IS spread through contact with equipment/vehicles by any

practical combination of matting, IS burial, clean fill cover or IS eradication; and

2. Providing cleaning stations for equipment/vehicles whenever leaving IS dominated areas along ROW.

xii. The initial ISMP will include an Adaptive Management Strategy Plan prepared in consultation with and accepted by DPS, NYSDEC and NYSDAM, and at a minimum, must include the following elements:

1. A project specific list of Prohibited Invasive Species, generated by NYSDEC in consultation with DPS and NYSDAM, pursuant to 6 NYCRR Part 575 and divided into two sub-lists for which management and control will be required:
   a. Invasive Species of Special Concern (ISSC), being comprised of Prohibited IS known to be present in the project area and for which NYSDEC has deemed control is necessary such that there is no expansion as defined below. This list will be generated following the results of pre-construction surveys and an analysis of regional threat (e.g., PRISM Tier rankings).
   b. Invasive Species of High Concern (ISHC), being comprised of invasive species not present in the project area, but which if newly identified in post-construction monitoring, eradication is required. This list will include prohibited invasive species with the highest management concern.
2. In consultation with DPS, NYSDEC and NYSDAM, a discussion of possible adaptive management strategies and control measures (e.g., eradication) and where and when they may be required if the post-construction survey identifies an expansion of ISSC or ISHC in LOD areas caused by construction. This should include consideration of IS phenology, control methodology (mechanical techniques, pesticide use etc.) and control objectives.
3. A discussion of conditions that may necessitate additional post construction monitoring and the extent and duration of such extended monitoring considering ongoing long-range vegetative management practices.

xiii. Upon completion of the post-construction monitoring surveys, if the post construction monitoring report shows the aerial extent of ISSC or ISHC has expanded as defined in the Adaptive Management Strategy as a result of construction of the Project, then DPS, NYSDEC, and NYSDAM will review the final report and DPS, in consultation with NYSDEC and NYSAGM, will determine whether the goals of the post construction monitoring have been achieved or, if applicable, whether a Final Adaptive Management Strategy Plan must be implemented.

(17) *Cultural Resources Avoidance, Minimization and Mitigation Plan.* A Cultural Resources Avoidance, Minimization and Mitigation Plan (CRAMMP) for the project, *providing:*

i. A narrative summary and demonstration that impacts of construction and operation of the facilities on cultural resources (including archeological sites and historic/ above ground resources) will be avoided or minimized to the extent practicable by selection the proposed facility's location, design and/or implementation of identified mitigation measures. At a minimum, the Cultural Resources Avoidance, Minimization and Mitigation Plan shall consist of any approved site avoidance plan, and incorporate any additional avoidance, minimization, or mitigation measures identified by DPS Staff, in consultation with OPRHP.

ii. A Final Unanticipated Discovery Plan, which shall be updated, as necessary, to include the names, titles, and contact information of individuals within the Certificate Holder's construction organizational structure as referenced within the Plan.

iii. A Cultural Resources Mitigation and Offset Plan, either as adopted by federal permitting agency in subsequent National Historic Preservation Act (NHPA) section 106 review, or as required by DPS Staff, in consultation with OPRHP, in the event that the NHPA section 106 review does not require that the mitigation plan be implemented. Proof of mitigation funding awards for offset facility implementation to

be provided within two (2) years of the start of construction of the facility shall be included.

(18) *Visual Impact Minimization and Mitigation Plan.* A final Visual Impact Minimization and Mitigation Plan (VIMMP) for the project, including:

i. Visual design feature requirements;
ii. Visual contrast minimization and mitigation measures;
iii. Final Screen Planting Plans, details, specifications, and master plant list.
iv. Plans for construction period oversight by a qualified landscape architect, arborist, or certified nursery and landscape professional (CNLP), to inspect the screen plantings for two (2) years following installation to identify any plant material that did not survive, appears unhealthy, is damaged, and/or otherwise needs to be replaced.
v. Plans for removal and replacement of such plant material that fails to provide proper mitigation in workmanship or growth within two years following the completion of the installation of the plantings.
vi. Long term/operational screen plantings management plans for the inspection and maintenance of plantings for the life of the project, including:
    1. Plans for replacement of plantings where such visual screenings have failed;
    2. Detailed maintenance measures for screen plantings;
    3. Scheduled for regular inspections of plantings throughout the life of the facility; and
    4. Plans for annual screening effectiveness review.

(19) *Operational Noise Plan.* An Operational Noise Plan for the facility, which shall be submitted to DPS Staff for review and comment at least sixty days prior to the start of construction of the substation or converter station, which includes revised sound modeling with the final specifications of equipment selected for construction, any minor or major changes approved for the project, to demonstrate that the project is modeled to meet the sound design goals indicated in the application at any sensitive sound receptor as follows:

i. For substations other than in the City of New York: Final drawings for the substation, incorporating any changes to the design, including:
   1. Location of all noise sources and receptors identified with Geographic Information Systems (GIS) coordinates and GIS files;
   2. Proposed grading and noise source heights and ground elevations;
   3. Site plan and elevation details of substation components as related to the location of all relevant noise sources (e.g. transformers, reactors, filters, HVAC equipment, and gas, diesel or gasoline backup generators, if any);
   4. Identified mitigations, specifications, and appropriate clearances (e.g., for sound walls, barriers, enclosures);
   5. Cut sheets and sound information from the manufacturers for all noise sources (e.g. transformers, reactors, HVAC equipment, emergency generators, if any).

ii. For converter stations other than in the City of New York: Final drawings for the substation, incorporating any changes to the design, including:
   1. Details of proposed noise control features and design requirements to achieve design goals, including prominent tone effects, at noise-sensitive receptor location.
   2. Final drawings for the Converter Station Site, incorporating any changes to the design, including:
      a. location of all noise sources and receptors identified with Geographic Information Systems (GIS) coordinates in tabular format and GIS digital files;
      b. proposed grading and noise source heights and ground elevations;
      c. site plan and elevation details of the Converter Station Site components as related to the location of all relevant noise sources (e.g. Converter station building, transformers, reactors, filters, HVAC and HVDC equipment, and gas, diesel or gasoline backup generators, if any); and

d. identified mitigations, specifications, and appropriate clearances (e.g., sound walls, barriers, enclosures, converter hall building walls, low-noise fans).

3. Sound power level information from the manufacturers. If no manufacturer's information is available, sound information can be based on pre-construction field test(s). The field test(s) will report, at a minimum, measured outdoor sound pressure levels along with clear explanations about how the test was conducted and the sound power levels were obtained.
4. Derivation of sound power levels for the converter station buildings can also be based upon sound power level information from the manufacturers for indoor noise sources, building dimensions, interior absorption coefficients, and transmission losses of envelope materials.
5. If no sound information for electric transformers from the manufacturers is available, sound power levels can be estimated by using the algorithms recommended by the Electric Power Plant Environmental Noise Guide (Volume 1, 2nd edition. Edison Electric Institute. Bolt Beranek and Newman Inc. Report 3637. 1983 Update). General dimensions and NEMA ratings will be reported.

(20) *Complaint Management and Resolution Plan.* A Complaint Management and Resolution Plan for construction and operation of the project, which shall describe the following:

i. The name, mailing address, local or toll-free telephone number, and email address of the appropriate facility contact for development, construction, and operations. The toll-free or local phone number shall include a recorded outgoing message that will, when a call is not answered by a person, provide the caller with the name of the Certificate Holder's representative as well as:
   1. the number to be called in case of emergency; and
   2. when the caller can expect a return call.

ii. The procedure and contact information for registering a complaint.
iii. Contact information for the Department.
iv. Methods for registering a complaint, which shall include a phone number, email address, mailing address, project website, and a form to report complaints.
v. A response to all inquiries or complaints, with an acknowledgement of receipt to the complainant within one business day.
vi. Process for responding to and resolving complaints in a consistent, timely, and respectful manner.
vii. Logging and tracking of all complaints received and resolutions achieved, with records of the following for each complaint containing:
    1. The name and contact information of the person filing the complaint;
    2. Location and owner of the property where the complaint originated;
    3. Date and time of the underlying event causing the complaint;
    4. Description of the complaint; and
    5. Current status and description of measures taken to resolve complaint.
viii. Reporting to DPS Staff of any complaints not resolved within ten (10) business days of receipt.
ix. Mediating complaints not resolved within sixty (60) days.
x. Providing annual reports of complaint resolution tracking to the Department.

(21) *Long-Range ROW Management Plan.* The Long-Range ROW Management Plan ("LRRMP") shall:
i. Describe methods for routine maintenance of the ROW for the operational life of the project, including management of danger trees, defined as any tree rooted outside of a project ROW that due to its proximity and physical condition (i.e., mortality, lean, decay, cavities, cracks, weak branching, root lifting, or other instability) poses a particular danger to a conductor or other key component of a transmission facility, specifications for clearances, inspection and treatment schedules, and environmental controls.

ii. Include vegetation management recommendations, based on on-site surveys of vegetation cover types and growth habits of undesirable vegetation species.
iii. Describe proposed chemical and mechanical techniques for managing undesirable vegetation, including herbicide use and limitations, specifications, and control measures.
iv. Establish fence-line clearances, and overhead wire security clearance zone specifications, indicating applicable safety, reliability and operational criteria.
v. Specify inspection and target treatment schedules and exceptions.
vi. Describe standards and practices for inspection of facilities easements for erosion hazard, failure of drainage facilities, hazardous conditions after storm events or other incidents.
vii. Describe landowner notification procedures for planned ROW inspection and maintenance activities.
viii. Substantially comply with 16 NYCRR Part 84 and the final Orders issued by the Public Service Commission in Cases 04-E-0822 and 10-E-0155.

(22) *Pre-Installation Trial Plan (for In-Water Facilities).* A Pre-Installation Trial Plan for any proposed in-water cable installation methods for which suspended sediment and water quality monitoring is required, including jetting or mass flow excavation tools. The plan shall:
i. Establish that pre-installation trials will be conducted within representative sections or areas proximate to the proposed in-water cable route, approximately 1,000 feet in length.
ii. Allow for evaluation of compliance with threshold limits for turbidity, total suspended solids, and water quality standards for any constituents specified in the Certificate.
iii. Describe how the results of the trials will be used to establish operating conditions that will minimize the suspension of in-situ sediments and contaminants during in-water cable installation activities.
iv. Describe how water quality monitoring and sampling will be completed during the trials in a manner that

is consistent with the Suspended Sediment and Water Quality Monitoring Plan.

v. Describe how the results of the pre-installation trials will be evaluated in coordination with the Aquatic Environmental Monitor and DPS Staff to establish operational conditions and controls to minimize risks for water quality violations during construction.

(23) *Suspended Sediment and Water Quality Monitoring Plan (for In-Water Facilities).* The Suspended Sediment and Water Quality Monitoring Plan shall establish monitoring and sampling procedures to be conducted during pre-installation trials, dredging, dewatering of dredged material, barge decanting, pre-sweeping, pre-trenching, jet trenching activities, cable installation and maintenance and decommissioning activities that involve disturbance of sediments. The plan shall:

i. Specify sample location, depth of samples, frequency of sampling, and sampling during various tidal cycles, where applicable, including frequency of visual turbidity observations.

ii. Describe how quality assurance and control of samples will be maintained.

iii. Describe procedures for background (up-current) and compliance (down-current) sampling and monitoring during construction activities for which sampling and monitoring is required.

iv. Describe the use an Acoustic Doppler Current Profiler, or similar technology, to locate the plume.

v. Require whole water samples in the vertical water column from at least three (3) depths, as determined by DPS staff in consultation with NYSDEC, which are representative of surface, mid-depth, and bottom conditions at the edge of the applicable mixing zone. Include an up-current transect outside the influence of monitored construction activities.

vi. Provide that during monitored construction activities, the Certificate Holder will perform real-time turbidity monitoring and water quality sample collection for total suspended solids and any constituents required by the Certificate.

vii. Identify the analytical methods that will be used to measure each contaminant for which the Certificate requires a numeric limit.

viii. If required by the Certificate, describe the pre-activity calibration that shall be conducted for estimating TSS using in-situ turbidity measurements, including where additional calibrations may occur based on significant variations in sediment composition.

(24) *Dredge Management Plan (for In-Water Facilities).* The Dredge Management Plan for in-water facility construction shall:

i. Describe methods and equipment purpose and specifications for any proposed dredging.

ii. Establish that only vessels, barges, or scows in good operating condition shall be used and describe measures to ensure all equipment remains in such condition throughout dredging operations.

iii. Describe procedures for dredge materials management and disposal.

iv. Establish that washing of the gunwales of the scow or other vessels where dredged sediment is stored and transported will be avoided, except to the extent necessary to ensure the safety of workers.

v. Prohibit sidecasting of dredged materials.

vi. Describe the plan for dredge material dewatering or barge decant, where applicable, including:

1. a minimum settling time of twenty-four (24) hours to ensure that decanting does not violate water quality standards or guidance values for TSS, turbidity, and contaminants;
2. additional sampling for projects with contaminated sediments;
3. completed authorization request forms for water treatment chemicals, such as flocculants, planned for use; and
4. practices that will be implemented to reduce resuspension of sediments.

(25) *Anchoring Plan (for In-Water Facilities).* The Anchoring Plan shall:

i. Discuss how the use of anchoring, if any, during construction and maintenance activities will avoid and/or minimize impacts to sensitive benthic habitats and Significant Coastal Fish and Wildlife Habitats (e.g., use of vessels equipped with dynamic positioning systems, installing mid-line buoys) and avoid impacts to existing buried assets.

ii. Outline the parameters for the use of anchors and spuds and identify discrete "No Anchor" areas within the Facility Corridor in the event anchoring is ultimately required.

iii. Describe how midline buoys or alternative measures will be employed to minimize sediment disturbance caused by anchor sweeps during construction of the marine route.

(26) *Cable Monitoring and Maintenance Plan (for In-Water Facilities)*. The Cable Monitoring and Maintenance Plan shall:

i. Provide methods for determining the actual cable location and burial depth of the in-water cables and the timing for undertaking such efforts, including, for example, the use of distributed temperature sensing (DTS) technology.

ii. Include a requirement that the Certificate Holder establish depth of burial relative to sediment surface and the accurate level of the sediment surface relative to vertical datum during post-construction survey operations.

iii. Describe methods for maintaining burial depth.

iv. Establish procedures for periodic monitoring of the actual burial depth (measured from the top of the cable) of the in-water cable throughout the operational life of the project.

v. Describe procedures for evaluating risks if any section of the in-water cable that is at least twenty-five feet long reaches an actual burial depth of less than four feet at any point during the operational life of the project.

vi. Describe procedures for remedying cable exposures with any time-of-year restrictions.

vii. Describe procedures for remedying cable exposures that pose a hazard to public safety, navigation, or marine

resources outside of time-of-year restrictions, including avoidance and minimization techniques for threatened and endangered species.

viii. Include plans for marking the location of any cable exposures and procedures for immediately notifying DPS Staff of any third-party anchor strikes of the cable.

(27) *Decommissioning Plan (for applicable projects)*. For projects that are required to file a Decommissioning Plan, the plan shall include:

i. The anticipated life of the project.

ii. Estimates of the decommissioning costs (in current dollars scrap and resale value cannot be used for offsetting decommissioning costs) for each of:

1. For terrestrial projects, all facilities within New York State; and
2. For in-water projects, including those associated with offshore wind:
   a. that portion of the submarine cable route from the landfall locations to the boundary of New York State territorial waters or opposite landfall location; and
   b. the onshore facilities.

iii. Analysis of the options for decommissioning the project, including any cable protection measures used, and restoring the project area, including any decommissioning methods and potential impacts to the environment for each option.

iv. If applicable, description of how the Certificate Holder will address impacts of leaving any portion of the project in place.

v. Procedures and timeframes for notifying municipal officials and landowners and residents (if different from owners) of all properties that are crossed by or abut against the project ROW along the route about decommissioning activities.

vi. Demonstrate that the Certificate Holder engaged the services of an independent trustee and entered into a Standby Trust Agreement for the administration of the funds from the letter of credit. The form of the Standby Trust Agreements shall be included, with proof of obtaining the relevant security.