Hoffman Falls Wind Project

Matter No. 23-00038

900-2.17 Exhibit 16

Effect on Transportation

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EXHIBIT 16 EFFECT ON TRANSPORTATION

On behalf of the Applicant, Westwood Survey & Engineering (Westwood) prepared Traffic Control Plans, Sight Distance Analysis, identified turbine component delivery vehicle information, and used publicly available traffic data information to identify and characterize anticipated haul routes, document existing conditions of public roads, estimate the vehicular trips generated by the construction and operations of the Facility, and identify potential impacts of the associated traffic. The methodology and results of the findings are further described in Appendix 16-A, Appendix 16-B, Appendix 16-C and summarized herein.

(a) Conceptual Site Plan

The Civil Design Drawings for this Facility (Appendix 5-A) identify all access road locations and geometry, including those associated with the approximate number of turbines, collection substation, point of interconnection (POI) switchyard, meteorological (MET) tower, aircraft detection lighting system (ADLS) tower, temporary laydown yards, temporary concrete batch plant, and access roads. No permanent traffic control devices are proposed as part of the Project. The Applicant may use temporary traffic control signage during construction and/or decommissioning of the Facility, as outlined in the traffic control plan (Appendix 16-A). The traffic control devices follow MUTCD standards and include: tubular markers, "ROAD WORK AHEAD" signs, and flaggers. These devices are used to mitigate the speed and traffic in the project area for the safety and protection of the communities involved and the construction staff. No extended road closures are anticipated at this time, however, should the turbine manufacturer require closures at the time of delivery, the applicant will provide a reroute traffic plan. Information on public road constraints, including the number of approach lanes, is provided in Appendix 16-A. A sight distance analysis for access road driveways is provided in Appendix 16-B.

(b) Description of the Pre-construction Characteristics of Roads in the Area

This exhibit includes an analysis of existing road and traffic conditions in the vicinity of the Facility Site. Data on traffic volumes and accident frequency, school bus and emergency responder routes, and load-restricted bridges and culverts are provided below. The area in the vicinity of the Facility Site includes the roads outlined in the delivery flow plan (See Appendix 5-A and Appendix 16-A) to be used for component delivery and internal roads to the site that could be used for lighter construction traffic. The vicinity of the Facility Site is further defined as the roads adjacent to the Facility Site that could see traffic increases as a direct or indirect result of the construction and operation of the Facility.

(1) Traffic Volume and Accident Data

Traffic volume data along proposed haul routes for the Facility were obtained from the New York State Department of Transportation (NYSDOT) Traffic Data Viewer and Highway Services website and field investigations. NYSDOT Traffic Data Online Viewer has available traffic volume data for both county and state roads, while local roads were evaluated by field observations. The four county roads and one State Route listed below have the published traffic volume data:

- US Route 20 (US20) - Annual Average Daily Trips (AADT) of 5,232
- Pleasant Valley (CR 25) - AADT of 392
- Cody Road (CR28) - AADT of 646
- North Street (CR45) - AADT of 909
- Davis Corners Road (CR45) - AADT of 379

Overall, county roads with published traffic volume data in the vicinity of the Facility Site appear to operate below vehicle capacity due to low traffic volumes, while US Route 20 has comparatively high daily traffic volumes.

Crash data from the Madison County Sheriff's office going back to 2015, made publicly available by Madison County, was reviewed to determine if there are any crash patterns or safety concerns within the Study Area (defined as roads in the Project Area and adjacent to the project that may be used by lighter construction traffic like pickup trucks, or the community should they desire to circumnavigate the Project Area). Crash data were obtained for the following roadways:

- US Route 20
- Oxbow Road
- Cody Road (28)
- Old Country Road

In the Period of January 1, 2015, to December 31, 2022, Madison County Reported on average 1,200-1,400 accident occurrences, with the Project Area containing 12% or less of these occurrences. Considering their AADT, the roads listed above had a similar number of accidents as other roads in Madison County. In 2022, the largest percentage of these accidents (38%) were animal related, slippery pavement contributed 19% of these accidents, unsafe speeds 15%, and failure to yield right-of-way and following too closely both just under 5%. A breakdown of the accident data for these periods is available via the Madison County website. (Source: Madison County Sheriff's Department).

(2) Transit Facilities and Routes

Transit service in the area is provided by the Madison Transit System (MTS) which subcontracts with Birnie Bus Service, Inc. to provide fixed route transit service. The State University of New York at Morrisville provides public transportation through the Madison Transit System as well as MAX Morrisville Area Xpress shuttle service that operate throughout fall and spring semesters, which are limited to the Morrisville area. The Madison Transit System includes a transit route with four loops along US Route 20. The scheduled times along US Route 20 are approximately between 7:55-8:05 am, 8:20-8:45 am, 9:40-9:50 am, 10:00 am-10:20 am, 11:05-11:15 am, 11:25-11:45 am, 1:40-1:50 pm, and 2:00-2:20 pm Monday through Friday. Transit service is provided along US Route 20 in the vicinity of the Facility Site within these timeframes. During the construction of the Facility, construction operations will be conducted with careful consideration to help minimize any potential impacts on the transit service.

On behalf of the Applicant, Westwood reviewed school district routes for those districts that serve the Facility Site. The proposed haul routes travel through Morrisville-Eaton Central School District and the Cazenovia Central School District. The Applicant reached out to each school district to identify routes that will also be used during construction, and the timing that school buses are expected in these areas. Both school districts were contacted several times (see Appendices 2-A and 2-B), but no response has been received to date. Turbine deliveries will be coordinated with school districts prior to delivery. The Applicant will make efforts to avoid delivery of heavy vehicles during morning school bus pick-up and afternoon drop-off hours to avoid disruption of school bus service.

(3) Emergency Service Providers

The emergency service provider stations in the vicinity of the Facility include the Cazenovia Area Volunteer Ambulance Corps (CAVAC), the Smithfield-Eaton Volunteer Ambulance Corps (SEVAC), the Cazenovia Fire Department, the Morrisville Fire Station, and the Smithfield Fire Department. The Safety Response Plan (Appendix 6-A) includes maps that provide the locations of these emergency service providers.

The Applicant has commenced consultations with emergency service providers to minimize potential impacts to emergency service routes throughout the construction process. On October 4, 2023, the Applicant delivered hardcopies of the Site Security Plan (Appendix 6-A) and Safety Response Plan (Appendix 6-B) to local first responders requesting review of the plans and for any comments or questions. In addition to the letters, the Applicant hosted a meeting with representatives from the Morrisville Fire Station, Smithfield Fire Department, and SEVAC on November 28, 2023, to review the draft Safety Response and Site Security Plans. Unfortunately, due to weather conditions and other extenuating circumstances at the time of this meeting, members of the Cazenovia Fire Department and Madison County Emergency Management were unable to attend this meeting. However, the meeting was still productive for those that were able to attend, and feedback from the local emergency responders was taken into account when the Applicant completed relevant edits to the Safety Response Plan (Appendix 6-A) and Site Security Plan (Appendix 6-B). Following the meeting, the Applicant provided a summary of what was discussed to the responders that were unable to attend the meeting via email. The Applicant also requested additional feedback if they had any before the plans are finalized for the 94-c Application submittal. Additionally, the Applicant spoke with a representative of CAVAC, as they indicated they had a scheduling conflict and would not be able to attend the meeting on November 28, 2023. Following that conversation, the Applicant sent an email to CAVAC with a digital copy of the Safety Response Plan and Site Security Plan, as well as a request for any feedback. If any transportation issues are identified by any of these emergency service providers during continued consultation efforts, those will be addressed and the Safety Response Plan and Site Security Plan will be updated accordingly, as needed. Local emergency service providers will be notified in advance of any road closures. Therefore, it is anticipated that there will be minimal to no impacts to local emergency service routes. Figure 1 of Appendix 6-A provides a map of the emergency service provider locations, as well as public roads that may be used to access the site in the case of an emergency.

The Safety Response Plan (Appendix 6-A) was provided to Town Supervisors and emergency service providers in the area and includes detailed instructions and guidelines to be followed by site personnel and emergency responders in the event of a major emergency (see Appendix 2-A for documented correspondence with these parties). The Applicant will have employees on-site trained in responding to emergency situations. Please see Exhibit 6 for a detailed discussion of the consultations completed by the Applicant to date, on-site training, and emergency response procedures.

(4) Available Load Bearing and Structural Rating Information

The transportation study identified and evaluated bridges along the proposed haul routes. There is one bridge located along the proposed haul routes along US Route 20. This site was screened through the NYSDOT Bridge Inventory database and found the operating rating to be 66 US tons along the proposed haul route. This historically has been sufficient for construction and component deliveries. Throughout the life of the Project, any bridges should be monitored for any unusual cracking or noticeable changes. If these are seen, they should be reported to the applicant immediately for further investigation.

Additionally, the Applicant provided copies of draft Road Use Agreements (RUA) to Town Supervisors and Town Highway Superintendents at each respective Town Board Meeting the week of December 11, 2023. Following receipt of comments on the RUAs, the Applicant will work with the Town Supervisors and Town Highway Superintendents to address any concerns. Copies of haul routes and maps will also be provided to the appropriate representatives once finalized. Small culverts exist along the proposed haul routes, but field investigations conducted on July 6, 2023, did not indicate that any culverts would present an issue along the proposed delivery route. As indicated in Appendix 16-D, Culvert Recommendation Map, one culvert located along the proposed haul route will need to be protected and monitored. Additional inspections of this culvert will be conducted as needed during construction and turbine delivery. Continued discussion with Town/County representatives is expected. Culverts will be inspected prior to construction and will be monitored during materials delivery, as necessary. It is not expected that culvert findings will impact or necessitate a change in the proposed haul routes. However, the Applicant will continue to consult with local and county highway supervisors, and it is anticipated that town highway supervisors will provide more information on the conditions of town road culverts.

(c) Facility Trip Generation Characteristics

(1) Number, Frequency, and Timing of Vehicle Trip

Exact scheduling of construction work and required vehicles will be determined by the Applicant's contractor prior to construction; however, the transportation of Facility components will involve numerous conventional and specialized transportation vehicles. Due to the nature of wind projects, it is understood that while trip generation may be low during typical operation of the site, construction of the wind farm may result in higher levels of trip generation. Therefore, trip generation was estimated during construction of the facility based on number of truck trips required for preparation of each

turbine location, delivery vehicles to and from each turbine site, as well as construction vehicles required for intersection improvements. A summary of the types of construction vehicles that are anticipated to be used to transport the Facility components and construction materials/equipment is provided in Table 16-1. Trucks and cars for transporting construction workers, small equipment, and tools are not included in this table because of their minimal impact on traffic volume and road integrity.

Table 16-1. Estimated Total Number of Heavy Vehicle Trips Required for Project Construction

Component / Truck Type	Assumption	Truck Type and Approximate Gross Weight	Approximate Vehicle Dimensions	Trips per Site (One-Way)	Total Trips (Two-Way)
Turbine Components	Includes 3 blades, 1 nacelle, 6 tower sections	Variable (see Appendix 16-C)	Variable (see Appendix 16-C)	10	520
Foundation Steel	Includes rebar, embed rings, and anchor bolts	Flatbed, 5 axles, 30 ton	60′ L x 8.5′ W x 8″ H	5	260
Road Construction	60,575 linear feet of new road at 8″ profile and 16′ width	Triaxle, 35 ton	25′ L x 9′ W x 10.5′ H	130	6,806
Crane	16 Base/Mid Crane pieces, 40 topout crane pieces, 4 miscellaneous	Flatbed, max 22 tons per axle	100′ L x 10′ W x 14′ H 70′ L x 10′ W x 14′ H	120	6,240
Concrete	1,050 Cubic Yards at 10 Cubic Yards per Truck	Mixer truck, 35 ton	26′ L x 9′ W x 10.5′ H	54	2,808
Radius Improvements	Assumed fill for average intersection widening	Triaxle, 35 ton	25′ L x 9′ W x 10.5′ H	100	9,600
Subtotal for Turbine Locations				**419**	**26,234**
O&M Laydown Yard	Gravel and equipment for establishment of yard	Triaxle, 35 ton	25′ L x 9′ W x 10.5′ H	1,162	2,324
Laydown Yard	Gravel and equipment for establishment of yard	Triaxle, 35 ton	25′ L x 9″ W x 10.5′ H	650	1,300
Batch Plant Laydown Yard	Gravel and equipment for establishment of yard	Triaxle, 35 ton	25′ L x 9′ W x 10.5′ H	1,179	2,358
Substation and Switchyard	Assumed fill, gravel, and concrete for substation and switchyard pads; delivery of equipment and structures	Variable[1]	Variable[1]	2,360	4,720
Total Heavy Vehicle Trips Generated					**36,936**

[1] A combination of triaxle, 35-ton; mixer trucks, 35-ton; and flatbed (max 22-tons per axle) trucks are expected to be utilized. 35-ton vehicles were used in calculations to provide a conservative estimate.

Typical daily operational traffic information was determined based on the anticipated number of employees for operation of the Facility. During the operational phase of the Facility, six to eight employees are expected to operate the site daily. Anticipating all employees arrive separately and leave the Facility once during the day, this would result in 32 additional daily trips, or at most, eight additional peak hour trips.

The Applicant has requested waivers from the construction hours requirements for the Towns of Smithfield and Eaton (see Appendix 24-B). The Applicant is seeking to have uniform construction hours applied across all the host Towns in accordance with the construction hour limits in 19 NYCRR §900-6.4(a) to optimize the delivery of turbine components and minimize the overall time frame required to complete the delivery of all the Project's turbine components.

(2) Cut and Fill Activity

During the design process, every effort has been made to attempt to balance the earthwork on a per access road basis so that all materials removed during construction are reused on-site eliminating the necessity for external transportation. Any remaining cut fill material used for access roads will be redistributed across the site, minimizing the need for external transport. As a result, it is not anticipated that the access road grading to be performed would result in the transport of significant quantities of removed or imported material over roads evaluated in the Traffic Control Plan.

Fill material will be required to construct the substation. To meet this fill requirement, materials will be transported from nearby turbine pads and access roads; transportation on local roads will be minimized to the greatest extent practicable. Most fill needed for the substation site can be met with the cut export from T-5. The distance between this turbine and the substation site is approximately 0.25 miles, with no residential buildings within the travel distance. It is anticipated that this section of Cody Road will see approximately 1,000 additional trips by construction equipment during Facility Construction. More information regarding cut and fill activity at the Facility is provided in Exhibit 5 and in the Civil Design Drawings (Appendix 5-A).

(3) Conceptual Haul Routes and Approach and Departure Routes for Workers and Employees

Appendix 16-A shows the proposed Facility Site routes and approaches. During construction, employees and workers accessing the site with heavy haul/construction equipment (e.g., dump trucks or larger), or anything that exceeds the posted weight limits on public roads, will follow final haul routes. Final haul routes will be developed in consultation with the host municipalities and state, county, and municipal highway officials in coordination with the turbine manufacturer. In accordance with the pre-construction compliance filing requirements, final haul routes shall be accurately depicted in drawings submitted with a Traffic Control Plan before construction begins. See Section 900-10.2(E)(8).

Any workers and employees in regular vehicles (pick-up truck size and smaller) will access the construction site and worker parking areas through use of whichever public road route is most logical and efficient for the respective individual.

(d) Traffic and Transportation Impact Analysis

(1) Comparison of Traffic with and without the Project

The Facility is not within a congested urbanized area as indicated in the traffic volume data. Therefore, a calculation and comparison of the level of service for each representative intersection are not included in this Application.

Traffic Without the Project

The roads evaluated within the facility delivery routes (defined as roads planned to be used for heavy construction traffic or component delivery) carry relatively low levels of traffic (see Section (b)(1)). Although US Route 20 has moderate traffic use for a rural road, other local roadways in the vicinity of the Facility (defined as roads adjacent to the project that may be used by lighter construction traffic like pickup trucks) carry relatively low traffic volumes. While US Route 20 is the busiest road in the Project Area, its estimated AADT is equal to 5,232. Therefore, US Route 20 is not generally considered a busy road when reviewing NYSDOT data. Historical traffic volume data found in the latest version of the Traffic Data Report published by NYSDOT, indicates that traffic volume growth rates have been flat or even negative for some roadways. If the Facility was not built, traffic levels could be expected to remain at these levels.

Traffic During Project Construction

During peak traffic periods, Westwood estimates that these construction deliveries could result in approximately 260 trucks entering and exiting the Facility Site on a given day. Traffic associated with these deliveries and connected construction activities will occur on roads identified in the Traffic Control Plan but will be concentrated in areas where access roads or foundations are being installed and the construction yard areas, which includes the temporary concrete batch plant and laydown yards. In regard to substation construction, there is higher traffic expected on Cody Road (CR28) between the substation area and T-5 entrance. Refer to Section 2 for further discussions regarding cut and fill related traffic.

Traffic Increases from Project Construction

As described in Section (c)(1), during the peak construction traffic weeks, traffic levels will increase. The increase in traffic will be temporary and should not cause more than minor delays for drivers that normally use these roads. Based on the methodology provided in the NYSDOT Highway Design Manual, US Route 20 is currently classified as a "Level of Service C" or better and will continue to be considered so throughout construction and operation of the Facility.

Overall, due to the already low traffic volumes in the vicinity of the Facility Site, and the fact that construction traffic will be spread over a large geographic area, increased traffic volumes associated with Facility construction will not cause a significant impact to the area residents.

Traffic Increases during Project Operation

Traffic projections were prepared for the 2026 expected year of completion. Historical traffic volume data found in the latest version of the Traffic Data Report, published by the NYSDOT, indicates that traffic volume growth rates on roadways utilized have been flat or even negative for some roadways. Therefore, to provide a conservative analysis, traffic projections were prepared for the anticipated year of completion by applying a 0.25% per year growth rate to the existing traffic volumes. While operation of the Facility is expected to result in approximately 32 additional daily trips, even under a conservative analysis, this increase will not substantially increase the AADT and, therefore, will not surpass a "level of service" threshold. As such, no significant impact is anticipated on traffic operations. Likewise, the increased traffic will consist almost exclusively of cars and light-duty trucks associated with ongoing operation and maintenance activities.

(2) Evaluation of the Road System to Accommodate Projected Traffic

A descriptive evaluation of the state, county, and local roads considered for use as a construction transportation route and/or routes for Facility access are outlined below. Traffic interferences are not anticipated along these routes during the construction or operation phases of the Facility.

As noted in this exhibit, the majority of the roads in the Study Area appear to operate below vehicle capacity due to low traffic volumes. A detailed capacity analysis was not conducted; however, field observation of the transportation network did not indicate any locations where traffic flow and/or capacity created undue delays. During Project construction, the increased truck traffic from workers, construction vehicles, and delivery vehicles could present the opportunity for traffic interferences. Construction workers will likely arrive by 7 a.m. and leave by 8 p.m., although departure times may vary seasonally, depending on daylight hours. This timing for worker departures should prevent the peak of construction worker traffic to avoid impacting typical peak rush hour traffic on nearby roadways.

A descriptive evaluation of the state, county, and town roads considered for use as haul routes, construction vehicle routes, and/or routes for Facility access are outlined below. Potential delivery routes between the proximate interstate highways and the turbine locations within the Facility were examined. While the turbine component manufacturer has not yet provided their final routing, and will not be provided until closer to construction, a route from I-90 to N Peterboro Street (CR25) to Oxbow Road to Old County Road has been identified as the most logical delivery route. This route has been analyzed generally has gradual curves, minimal, if any, required obstacle clearing (i.e., overhanging trees), and minimal turns leading to the Project Site. While reviewing other routes off major roadways, such as CR 5, CR13, CR26, there were concerns of sharp turns that would require intense clearing and/or grading, or delivery through highly congested areas of significance, such as downtown Cazenovia. Thus, the route from I-90 to CR25 to Oxbow Road to Old County Road is currently defined as the route into the Project Area for component delivery.[1]

[1] Following the final selection of a turbine supplier, the original equipment manufacturer (OEM) for the turbines may require changes to the delivery flow plan. The Applicant will work with ORES to permit any changes to the delivery flow plan required by the OEM.

Westwood completed a transportation analysis site visit in the summer of 2023 and the results of this site visit were used in conjunction with publicly available traffic data to identify local roads for use by delivery vehicles to access each of the turbine locations. Intersections with acute angle turns and significant grade changes were avoided, to the extent possible. Road conditions and existing geometries were reviewed to identify workable routes. GIS data available through the New York State GIS Clearinghouse was used to identify any load restrictions at bridges or known utility crossings along the route. Limited availability of street-level imagery for many of the local roadways in the region necessitated further field investigations to assess the conditions of all roadways. The site visit was used to note items such as power poles and signage to be avoided or temporarily removed as well as reviewing the condition of the roads. Throughout the visit it was found that the roads have been recently and regularly paved and maintained by local authorities.

During field investigations, road features, such as bridges, culverts, vertical clearance restrictions, vertical curves, and constrained intersection geometries were noted. The majority of the town roads along the preliminary route are paved with drainage ditches located on both sides. Field observations indicate that roads under county and NYSDOT jurisdiction have paved asphalt surface. Roadways along the route are generally in good condition.

Based on these efforts and observed conditions in the field, a feasible routing was refined to exclude problematic intersections and roadway segments and at which implementation of necessary temporary roadway widening and improvements would be challenging. The refined recommended routing for construction and materials delivery is shown in the Civil Design Drawings (Appendix 5-A). A formal study will be conducted prior to construction and will be coordinated with the local municipalities to confirm that the roads can handle the construction traffic.

The following provides a descriptive evaluation of each state, county, or local road considered for use by delivery vehicles during construction:

- US Route 20 (US20), between North Street and Roberts Road is a multilane highway with two paved 13-ft lanes and a paved 10-ft shoulder in each direction. The route is divided by a 24-ft median. Land use along the route generally includes residential and farmland. The posted speed limit is 55 mph. The roadway pavement is in good condition.
- Pleasant Valley (CR25), between Stone Bridge Road and Rich Road is approximately 26-ft wide with one 10-foot travel lane in each direction. A paved shoulder approximately 3 feet wide exists on both sides of the road. Land use along C2 generally includes residential and farmland. The posted speed limit is 55 mph. The roadway pavement is in good condition.
- Cody Road (CR28), between South Road and Mutton Hill Road, is approximately 22 feet wide with two 11-foot-wide travel lanes in each direction. There are no shoulders on either side of the road. The posted speed limit is 55 mph, and land uses along CR38 include residential and farmland. The roadway pavement is generally in good condition.
- North Street (CR45), from US Route 20 until it transitions into Davis Corners Road, is approximately 20 feet wide with two 10-foot-wide lanes in each direction. There are no

shoulders on either side of the road. Land use along CR45 is residential. The posted speed limit is 30 mph and the roadway pavement is generally in good condition.

- Davis Corners Road (CR45), from the transition of North Street to Cramer Road, is approximately 20 feet wide with two 10-foot-wide lanes in each direction. There are no shoulders on either side of the road. Land use along this segment of CR45 include residential and farmland. The posted speed limit is 55 mph, and the roadway pavement is generally in good condition.

Local Roadways: The local roadways along the delivery routes are 20 to 24 feet wide with one, 10 to 12-foot-wide travel lane in each direction without any shoulders on either side and are generally paved. Since state and county roads feed into local roadways along the route, local roads are generally low volume, providing access to mainly residential and farmland uses.

State roads and county roads will be utilized as much as possible for construction traffic within the proposed haul routes. Where necessary, local roads will be used as the last point of access to the wind turbine locations. Please see Appendix 5-A for a map of the proposed transportation routes.

(3) Over-sized Deliveries

Existing roadway restrictions (height, width, weight) and deficient intersection radius locations were observed in the field, researched from NYSDOT resources, and evaluated based on aerial imagery during the preparation of the Traffic Control Plan (Appendix 16-A). Detailed maps of intersection turning movements on aerial imagery are included in the Civil Design Drawings (Appendix 5-A).

Construction of the Facility will require the use of large delivery vehicles to deliver turbine blades. All components delivered to the site will be within legal NYSDOT per axle loads for all roads and structures encountered. The Traffic Control Plan utilized the largest turbine model being considered for the Facility to inform the conservative analysis of the adequacy of the evaluated roadway systems. The analysis assumed oversized/overweight (OS/OW) vehicles will require paved roadways that are at least 24.6 feet wide and a minimum inside turn radius (with roadway widening) of up to 250 feet. Additionally, the largest turbine model being considered would require a slewing area free of above grade obstructions with an inside radius of up 302 feet during delivery. To accommodate delivery vehicles of this size, some form of roadway widening and/or vegetation clearing will be required at most intersections where vehicles must make turns.

A total of nine intersections along the recommended delivery route that are not directly tied to Facility access roads or other infrastructure are found to require some level of temporary intersection improvements. These intersections include a combination of improvement on private land and public rights-of-way (ROW). Many of the improvements on private land are located within the Facility Site and the Applicant has initiated discussions with all the applicable landowners. The intersections or roadway segment improvements will generally require widening of the paved roadway and/or clearance of above ground obstructions, such as utility poles, shrubbery, or trees. The owners of the overhead wires that have insufficient clearance for OS/OW traffic will be contacted prior to construction to determine the

appropriate course of action for providing the appropriate clearance. All clearance issues will be reviewed by the Applicant's contractor.

As described above, satellite imagery, GIS data available through the New York State GIS Clearinghouse, and field investigations were utilized to identify workable routes and avoid intersections with acute angle turns, significant grade changes, any load restrictions at bridges, or known utility crossings along the route. Based on these efforts and observed conditions in the field, a feasible routing was refined to exclude problematic intersections and roadway segments where improvements would be necessary or challenging.

The "Public Intersection Improvements" section of the Civil Design Drawings (Appendix 5-A, C500 series) provides a depiction of all the proposed roadway and intersection improvements. Additionally, the drawings show the location of these improvements and detailed figures showing anticipated intersection turning movements. All improvements identified in this Exhibit will require verification and/or update after the final turbine supplier is identified.

(4) Measures to Mitigate for Impacts to Traffic and Transportation

As outlined in Appendix 16-B, there are some areas on public roadways where speed limit signage along the road is lacking. If a 55 mph speed limit is assumed, horizontal and vertical sight distance requirements may not be met in some locations. It is the Applicant's recommendation that signage (either a lower speed limit sign, or a "ROAD AHEAD" sign) be installed in these areas to enhance the safety of residents throughout the community, and those operating and maintaining the Facility. No permanent capacity improvements (e.g., lighting or signage to control traffic volume) are projected to be required to accommodate the operation of the Facility as traffic volume is not expected to significantly increase.

Roadway turn improvements are proposed for the Facility to ensure that all construction deliveries and other vehicles will be able to navigate to the Facility's access roads, which will be made at the Applicant's expense prior to the arrival of any oversized or overweight construction vehicles. Appendix 5-A identifies locations where turn improvements will likely be necessary.

Final transportation routing will be developed in consultation with the original equipment manufacturer (OEM) of the turbine components. The Madison County Highway Department and representatives from the Towns of Eaton, Fenner, Nelson, and Smithfield will be consulted throughout this process to ensure the approved haul routes avoid and/or minimize safety issues. If damage to local, county, or state roads is caused by construction of the Facility, the Applicant will make repairs in accordance with the proposed RUAs and/or local laws at no expense to the town(s), county, or state. See Exhibit 24 for a discussion on local road requirements. Repairs to the approved haul routes sustained during the construction of the Facility will be completed to a condition equal to or better than the roadway's condition prior to the Facility construction.

Following the completion of construction, repair of damage to roadways along the delivery route caused by heavy vehicles may be required. The Applicant will discuss with all involved parties to determine the exact extent and method or roadway repair necessary. Damage may be repaired utilizing one of the following methods:

- If the roadway was originally of gravel construction, the Applicant will re-grade the roadway back to its original cross slope and then topcoat the damaged areas as needed, with up to 12 inches of crushed stone and a geotextile stabilization fabric, or as specified by local officials.

- If the roadway was originally asphalt, damaged areas will mill to a depth where the damage is removed and then repaved with asphalt, matching the existing pavement lift thicknesses and composition, or as specified by local officials.

The Applicant will also follow all NYSDOT standards for any construction traffic that involves slow-moving vehicles and work on roadsides. Town roads that are expected to be used as haul routes vary in width from 22 to 36 feet wide. Roadside hazards in these locations are minimal, similar to county roads in the vicinity which accommodate heavy equipment travel often. Therefore, it is not anticipated that vehicles passing during construction of the Facility will encounter any issues.

Before construction begins and throughout the construction process, the Applicant will coordinate with the local bus companies, local school districts, and local emergency service providers to avoid impacts and delays. They will also be advised in advance of any road closures and if it is deemed necessary to develop an alternative route. Additionally, most of the traffic for the Facility construction will be during off-peak hours. The Traffic Control Plan (Appendix 16-A) will be provided as a pre-construction compliance filing as required by §900-10.2(e)(8). The Traffic Control Plan will be in effect during Facility construction and will include protocols to ensure that emergency services and school transportation are not prevented from traveling on public roads and will provide notifications in the event of a temporary road closure, route restriction, or detour. It is expected that overall impacts to local bus companies, local school districts, and local emergency service providers will be minimal and no significant mitigation beyond coordination during construction is necessary.

(e) Impact of the Facility on Mass Transit Systems

Transit service in the area is provided by the Madison Transit System (MTS) which subcontracts with Birnie Bus Service, Inc. to provide fixed route transit service. The State University of New York at Morrisville provides public transportation through the Madison Transit System as well as MAX Morrisville Area Xpress shuttle service that operate throughout fall and spring semesters that are limited to the Morrisville area. The Madison Transit System includes a transit route with four loops along US Route 20. The scheduled times along State Route 20 are approximately between 7:55-8:05 am, 8:20-8:45 am, 9:40-9:50 am, 10:00 am-10:20 am, 11:05-11:15 am, 11:25-11:45 am, 1:40-1:50 pm, and 2:00-2:20 pm, Monday through Friday. Transit service is provided along US Route 20 along the Facility Site within these provided time frames; therefore, during the construction of the Facility Site, construction operations will be conducted with careful consideration to help minimize any potential impacts on the transit service.

There are three private airports and one public airport located within a 12-mile radius of the Facility Site, as described in Table 16-2.

Table 16-2. Airports within a 12-mile radius of the Facility Site

Airport	Airport Classification	Distance from Closest Turbine (Nautical Miles)	Runway Length (Feet)
Hamilton Municipal Airport	Public	5.04	5,314
Lakeview Airport	Private	4.23	1,699
Luther Airport	Private	5.62	1,700; 979
Smithfield Airport	Private	2.53	1,199

As discussed in Exhibit 16(f), the impact of the Facility on military and civilian air space, including military training and operations and other airport/heliport operations, are addressed by the Federal Aviation Administration (FAA) as part of its hazard review process. This process includes outreach through the U.S. Department of Defense's Siting Clearinghouse to evaluate the impact of potential aviation obstructions on military readiness. Neither the construction nor the operation of the Facility is anticipated to affect aviation.

(f) Federal Aviation Administration Review

In administering Title 14 of the Code of Federal Regulations Part 77, the prime objectives of the FAA are to promote air safety and the efficient use of navigable airspace. To accomplish this mission, aeronautical studies are conducted based on information provided by proponents on an FAA Form 7460-1, Notice of Proposed Construction or Alteration. The submission of wind energy turbines, meteorological tower, and ADLS tower locations to the FAA for review initiates aeronautical studies of the location of each proposed turbine and permanent tower that includes outreach to other agencies. The FAA can issue two types of determinations, one that identifies a potential hazard and another that identifies no hazard. If the proposed structure is over 499 feet or if a potential hazard to air navigation is identified based on the structure's location and/or height, then a Notice of Presumed Hazard (NPH) is issued that must be publicly circulated prior to a final FAA determination. This notification identifies a potential hazard that must be further studied and/or mitigated in some manner. A Determination of No Hazard (DNH) will be issued if the FAA determines that the proposed structure will not pose a risk to aviation, including a review of potential aviation impacts to local airports.

The Applicant submitted a Notice of Proposed Construction or Alteration for each of the 24 proposed wind turbine locations and for the proposed permanent MET tower to the FAA on August 24, 2023. This submission initiated formal consultation and the aeronautical studies described above. Although the FAA has not yet issued determinations for these filings, the Applicant will provide FAA Determinations of No Hazard upon receipt as part of its compliance filings.

The Applicant has also filed a request to the FAA on September 1, 2023, to seek a determination approving the use of an ADLS tower as a wind turbine lighting option. ADLS is a light mitigation technology that utilizes one or more surveillance radar(s) to track aircraft in proximity to the wind turbines. If an aircraft flies

toward, or through an area around the Facility, then the obstruction lights on each wind turbine will be activated. Without the use of an ADLS, the obstruction lighting on all 24 wind turbines must operate during nighttime hours and periods of reduced visibilities because they will exceed 499 feet in height (as per Sections 13.5 and 13.6 of FAA Advisory Circular AC 70/7460-1M). See Exhibit 8 for additional discussion on the use of ADLS.

(1) Consultation with the Department of Defense

The Applicant has also entered discussions with the Department of Defense (DoD), acting through the Military Aviation and Installation Assurance Siting Clearinghouse and the Department of the Air Force (DAF), acting through the Deputy Assistant Secretary of the Air Force for Installations to mitigate any potential adverse impact and to minimize risks to national security while allowing the Project to proceed with development. The Applicant received a Notice of Presumed Risk from the DoD on November 28, 2023 (see Appendix 16-E). This Notice indicated that the DoD would like to enter into mitigation discussions with the Applicant. On November 19, 2023, the Applicant participated in a meeting with the DoD and the DoD indicated that they did not have any major concerns with the proposed Facility. Rather, the DoD would provide the Applicant with potential mitigation options to address minimal concerns and would work to enter into an agreement with the Applicant. The Applicant had a follow-up meeting with the DoD on February 6, 2024 to begin coordination with the DoD on a mitigation agreement. During the course of this meeting, the DoD indicated that such an agreement will mitigate any conflict. The Applicant is working with the DoD to develop an agreement, which is anticipated to be executed in the near term. Upon execution, the DoD and DAF shall deliver to the FAA "No Objections with Provisions" for the wind turbine, ADLS tower, and MET tower locations that are filed with the FAA.

(2) Consultation with Nearby Airports/Heliports

Section 900-2.17(f)(2) of the regulations requires the Applicant to consult with the operators of commercial, cargo, public use, or military airports within 1) 12 miles that have runways exceeding 3,200 feet; 2) within 6 miles with runways less than 3,200 feet; and 3) heliports within 3 miles. Of the airports and landing strips in the vicinity of the Facility, only the Hamilton Municipal Airport meets these criteria. There are no heliports within 3 miles of the Facility.

The Applicant sent a letter to the manager of the Hamilton Municipal airport on November 13, 2023 to explain the Section 94-c process and the steps the Applicant was taking to coordinate with the FAA, NTIA, and other federal agencies. The letter included a detailed map and description of the Project and requested review of, and comment on, the Project by the operators (see Appendix 2-B). In a follow-up phone conversation on January 10, 2024, the Hamilton Municipal Airport indicated that they were coordinating with the FAA in their review of the Facility and would provide any comments to the FAA as part of that process.

There are no military airports located within the 12-mile threshold for outreach set forth in the applicable regulations. As a result, the Applicant did not reach out directly to any military airports/heliports. As previously noted, however, an assessment of the impact of the Project on military

readiness (including aviation operations) will be made as part of the FAA review process through outreach to the DoD Siting Clearinghouse.