# **Mohawk Solar**

Case No. 17-F-0182

1001.25 Exhibit 25

**Effect on Transportation** 

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### EXHIBIT 25 EFFECT ON TRANSPORTATION

# (a) Conceptual Site Plan

For the purposes of this Application, the preliminary design drawings prepared in association with Exhibit 11 serve as the conceptual site plan, and those drawings identify access road locations and widths associated with staging yards, O&M site, and substation/switchyard locations. The Route Evaluation Study, which is included as Appendix 25-A to this Application, establishes a Transportation Study Area and identifies public road constraints (e.g., inadequate turning radii/intersections and road widths) and anticipated haul routes. Maps of haul routes are provided in Appendix A of the Route Evaluation Study.

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

The Route Evaluation Study (Appendix 25-A) includes an analysis of existing traffic conditions in the vicinity of the Facility Area. Data on traffic volumes, accident frequency, school bus routes, emergency service responder information, load-restricted bridges/culverts, and roadway permits are presented in Section 2 of the Route Evaluation Study and are summarized below.

#### (1) Traffic Volume and Accident Data

Traffic volume data along proposed approach and departure routes for the Facility were obtained from the New York State Department of Transportation (NYSDOT) Traffic Data Online Viewer to review existing traffic volumes along proposed approach and departure routes for the Facility as well as updated County and local road listings from the NYSDOT Highway Data Services website. The data included information for most of the roadways identified as proposed haul routes in the Route Evaluation Study. For roads where traffic volume data was not available, estimates were made based on the data that was available on the surrounding roadways. Average Annual Daily Trips (AADT) volumes are low for the majority of the evaluated roads. State Route 5S (East Main Street) had the highest estimated AADT volume of 5,346 vehicles and State Route 10 (Ames Road) had the second highest with 2,523 estimated AADT. Appendix B of the Route Evaluation Study includes the vehicle count reports and a table that summarizes existing traffic volume data in the vicinity of the Facility Site.

Accident reports were acquired through a Freedom of Information Law (FOIL) request to the NYSDOT Office in Albany, as well as the NYSDOT Accident Location Information System (ALIS). The data included information for all the roadways identified as haul routes in the Route Evaluation Study.

Based on the existing accident data and AADT for the roadway segments, the annual accident rates can be established and compared to the New York Statewide Average Rate. Of the 17 roadway segments, 6 have

accident rates that are below the statewide average, of which 4 did not have any recorded accidents during the 3-year period. For the remaining 11 segments that have accident rates above the statewide average, most can be attributed to low AADT volumes with 1 or 2 accidents occurring during the time period. The segment of State Route 10 (Ames Road) within the Village of Canajoharie included the intersection at State Route 5S (Main Street) which significantly elevated the accident rate with 31 out of 40 recorded accidents occurring at the intersection. When the segment is evaluated with the intersection, the rate is 3.22 accidents/Million Vehicle Miles (MVM), which is the highest accident rate within the Study Area not attributed to a very low AADT. When the intersection is evaluated independently, the accident rate is 2.52 accidents/Million Entering Vehicles (MEV), which is also above the statewide average of 0.58. This intersection is the only area that raises any safety concerns within the Facility Area and should be taken into consideration when scheduling deliveries and construction vehicles. See Appendix C of the Route Evaluation Study for the Table of Existing Accident Data. Section 2.3 and Appendix C of the Route Evaluation Study includes a table summarizing accident rates in the vicinity of the Facility Site. The final haul routes will be defined in coordination with the contractor.

#### (2) School District Bus and Routes

The Applicant reviewed school district routes for those districts that serve the Facility Area. To obtain school bus route information, a request was sent to the Canajoharie Central, Cherry Valley, and Fort Plain Central school districts asking for identification of school bus routes, number of buses, and pickup/dropoff times along the possible haul roads needed for delivery trucks and construction vehicles. Canajoharie Central was the only school district that responded with the requested school bus information. The information received shows that there are currently four school buses covering this territory. Route 1 runs from State Route 10 (Ames Road) to State Route 163 and beyond; Route 2 runs from County Route 87 (Seebers Lane), County Route 80 (Clinton Road), Fredericks Street, and County Route 86 (Marshville Road); Route 3 runs along County Route 97 (Heiser Road), County Route 64 (Fisk Hill Road), County Route 80 (Clinton Road), Nestle Road, Tanners Road, Ridge Road, Shaper Avenue, and Cliff Street; and Route 4 runs throughout this territory. Pick up times are 6 to 8 am. Drop off times are 2:30 to 4:30 pm. Based on the types and frequency of construction vehicles, it is not anticipated that construction related traffic will result in noticeable delay to any bus routes. Section 2.7 and Appendix D of the Route Evaluation Study include details about existing school bus routes along the proposed transportation route. The Applicant will consult with school districts again once the project design and construction schedule has been finalized.

(3) Emergency Service Providers

A request for information was sent to local emergency responders identified within and around the Facility Area

(i.e., Canajoharie Police, Fort Plain Police, Montgomery County Sheriff, New York State Police, Canajoharie Fire

Department, South Minden Fire Department, Fort Plain Fire Department, and Mid County Volunteer Ambulance).

This request contained a map showing the suggested emergency response routes to the proposed Facility and

requested each local emergency responder verify the routes they would take to the Facility Site when

responding to a possible emergency. As of May 1, 2019, no responses have been received. See Appendix E of

the Route Evaluation Study for the maps depicting the potential emergency routes for all the local emergency

responders. In addition, Figure 25-1 shows the locations of emergency service provider locations in relation to

the proposed Facility.

During these consultations, the Applicant provided information to the local first responders regarding the Facility,

the Article 10 process, and the Applicant's anticipated interactions with the local first responders during Facility

construction and operation. The Applicant has developed a Preliminary Health & Safety Plan (Appendix 18-A), a

Preliminary Site Security Plan (Appendix 18-B), and a Preliminary Emergency Action Plan (Appendix 18-C), as

part of this Article 10 process. Based on consultations to date with the local first responders, there are no

concerns with accessing the Facility Site. The Applicant will have employees on-site trained in responding to

emergency situations.

A map of all emergency service provider locations and routes will be posted in the Facility's collector substation

and the O&M building (and provided to the emergency service providers).

(4) Available Load Bearing and Structural Rating Information

Regarding load-restricted (R-Posted) bridges and culverts, which based on design or condition, do not have the

reserve capacity to accommodate most vehicles over legal weights, but can still safely carry legal weights.

Existing bridge posting data was acquired from Bridge Data Information by County and the NYSDOT Posted

Bridge Interactive Map. There are no R-Posted Bridges along the suggested haul routes. The Applicant

identified one bridge along the proposed haul routes, Route 5S (East Main Street) over Canajoharie Creek, For

this bridge, information from NYSDOT's Highway Data Services website did not reveal any load restrictions.

BIN:

1002830

**Feature Carried:** 

5S 5S25031110

Feature Crossed :

CANAJOHARIE CREEK

EXHIBIT 25 Page 3 Mohawk Solar, LLC Mohawk Solar Status: 1

A supplemental evaluation of potential haul routes was performed that identified a secondary haul route. The secondary haul route identified is from U.S. Highway 20 to State Route 10 northbound which crosses a number of bridges and culverts including one R-Posted Non-Wavered bridge in the Town of Sharon in Schoharie County (BIN 1007880, Road: 10 95021386, Feature Crossed: Brimstone Creek). As a result, this route is restricted to legal weight vehicles only. No other information has been collected regarding this bridge.

In addition, the Applicant has consulted with the Highway Superintendent in the host Towns of Minden and Canajoharie via phone and email. The Superintendents provided information on the type, thickness, widths, and restrictions of roads within their respective town. Such consultations will continue throughout the Article 10 process and prior to construction.

# (5) Traffic Volume Counts

The Facility is not located within a congested urbanized area, therefore twenty-four-hour traffic counts are not applicable and are not included in the Article 10 Application.

#### (c) Facility Trip Generation Characteristics

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

The construction of the Facility will require the use of approximately one oversize/overweight (OS/OW) truck to deliver the 110MW transformer. The exact construction vehicles have not yet been determined; however, the transportation of Facility components will involve numerous conventional and specialized transportation vehicles. The Applicant will apply for a Special Hauling Permit for the delivery of the substation transformer once construction and scheduling details have been finalized. A summary of the numbers and types of construction vehicles that will be used to transport the Facility components (PV panels, inverters) and construction materials/equipment is provided below.

- 3-axel dump trucks with capacity of approximately 13 cubic yards (cy) per truck and an estimated gross weight of 70,000 pounds (lbs.), for access road construction approximately 19,334 cy of crushed stone or gravel are needed or approximately 1,487 truck deliveries.
- Concrete trucks for construction of sub-station and O&M building foundations and transformer pads with capacity of approximately 10 cy per truck and an estimated gross weight of 75,000 lbs. It is anticipated that there will be approximately 400 cy needed for the entire project or 40 concrete truck deliveries.

- Variety of conventional semi-trailers for delivery of solar panel arrays, sub-station components, O&M building, and interconnection facility material. The project currently plans for 326,349 solar panels to be used, assuming a 52-foot flatbed truck (WB-67) is used, each delivery can carry approximately 750 panels per truck equaling approximately 435 truck trips for solar panels. It is estimated that the remaining construction material needed would add approximately 500 more truck trips of similar of smaller sized vehicles.
- Variety of conventional vehicles carrying contractor's equipment and tools, for construction or operation of the Facility.
- There are not any anticipated commercial vehicles needed for carrying water, fuels, or chemicals for construction or operation of the Facility.

Trucks and cars for transporting construction workers, small equipment, and tools are not included in the above list because they are not significant contributors to traffic volumes and damage to the roads. It should be noted that gravel trucks will ultimately originate from the contractor's quarry of choice and may follow alternate routes while accessing the sites. These trips will be spread out over the length of the construction period, which will last approximately 12 months, and will be distributed over the Facility Area.

As a result of the Applicant's review, concerns with a haul route through the Town of Canajoharie were identified, specifically related to the limited, narrow roadway geometry along State Route 10 between Erie Boulevard and Mohawk Street. In response to these concerns, the Applicant evaluated additional haul routes to avoid this area. It was determined that due to a R-Posted Bridge in the Town of Sharon, which based on design or condition, does not have the reserve capacity to accommodate most vehicles over legal weights, but can still safely carry legal weights, a secondary Haul Route from U.S. Highway 20 to State Route 10 northbound is a viable option for legal weight vehicles only.

Table 25-1 below identifies the types and volumes of vehicles that are anticipated during construction. These trips will be spread out over the length of the construction period, which will last approximately 12 months, and will be distributed over the Facility Area based on a more detailed schedule to be developed with the contractor after detailed engineering is completed.

The following is the anticipated construction phasing sequence and schedule:

- Construction begins Q3 of 2020
- Site prep earth moving equipment (gravel delivery) 3 months
- Pier driving 3-4 months (1-2 month overlap with start of next activity)

- Racking installation (miscellaneous delivery) 3-4 months (1-2 month overlap with start of next activity)
- Panel installation (panel delivery)

   3-4 months (1-2 month overlap with start of next activity)
- Substation (concrete and overweight/overwidth delivery)

   3 month installation during Q2 of 2021
- Site restoration during Q3 of 2021
- Commissioning during Q3 of 2021

As presented in the following table (Table 25-1), an order-of-magnitude estimate of the total number of loaded truck trips associated with the Facility's construction is 2,462.

Table 25-1. Estimated Total Number of Loaded Truck Trips Required for Facility Construction

| Component/Truck Type                                | Assumption                                                                | Trips |
|-----------------------------------------------------|---------------------------------------------------------------------------|-------|
| Gravel Truck                                        | 19,334 cy needed at 13 cy per truck delivery. *Routes may vary            | 1,487 |
| Concrete Truck                                      | 400 cy needed for the entire project at 10 cy per concrete truck delivery | 40    |
| PV Panel Delivery Trucks                            | 326,349 panels total, 750 panels per truck                                | 435   |
| Miscellaneous and Equipment and Material Deliveries | 500 trips                                                                 | 500   |
| Total                                               |                                                                           | 2,462 |

Note: trips represent a total number of entering and exiting (two way) project area heavy vehicles.

Existing traffic may experience short delays when construction vehicles are traveling to the Facility Area and on delivery route roadways. Ideally, deliveries would be limited to off peak hours to minimize delays when possible. Based on the estimated construction vehicle volumes there should be no noticeable delays to existing traffic. Maps of the access routes can be found in Appendix A of the Route Evaluation Study. Table 25-2 below identifies the vehicle routes/volumes for each phase of construction.

**Table 25-2. Construction Vehicle Volumes** 

| Construction<br>Routes | Gravel<br>(Cubic<br>Yards) | Gravel<br>Delivery<br>Vehicle<br>Volume | Concrete<br>Mix<br>(Cubic<br>Yards) | Concrete<br>Vehicle<br>Volume | Number<br>of<br>Panels | Panel<br>Delivery<br>Vehicle<br>Volume | Miscellaneous<br>Delivery Vehicle<br>Volume |
|------------------------|----------------------------|-----------------------------------------|-------------------------------------|-------------------------------|------------------------|----------------------------------------|---------------------------------------------|
| Access Route<br>#1     | 3,867                      | 298                                     | 200                                 | 20                            | 65,270                 | 87                                     | 100                                         |
| Access Route<br>#1A    | 7,734                      | 595                                     | 80                                  | 8                             | 130,540                | 174                                    | 200                                         |

| Construction<br>Routes | Gravel<br>(Cubic<br>Yards) | Gravel<br>Delivery<br>Vehicle<br>Volume | Concrete<br>Mix<br>(Cubic<br>Yards) | Concrete<br>Vehicle<br>Volume | Number<br>of<br>Panels | Panel<br>Delivery<br>Vehicle<br>Volume | Miscellaneous<br>Delivery Vehicle<br>Volume |
|------------------------|----------------------------|-----------------------------------------|-------------------------------------|-------------------------------|------------------------|----------------------------------------|---------------------------------------------|
| Access Route<br>#1B    | 2,900                      | 223                                     | 40                                  | 4                             | 48,952                 | 65                                     | 75                                          |
| Access Route<br>#1C    | 2,900                      | 223                                     | 40                                  | 4                             | 48,952                 | 65                                     | 75                                          |
| Access Route<br>#2A    | 967                        | 74                                      | 20                                  | 2                             | 16,317                 | 22                                     | 25                                          |
| Access Route<br>#2B    | 967                        | 74                                      | 20                                  | 2                             | 16,317                 | 22                                     | 25                                          |
| Total                  | 19,334                     | 1,487                                   | 400                                 | 40                            | 326,349                | 435                                    | 500                                         |

# (2) Approach and Departure Routes for Trucks Carrying Water, Fuels, or Chemicals

During Facility construction, all trucks carrying water, fuels, or chemicals will utilize the haul routes identified in Appendix A of the Route Evaluation Study.

# (3) Cut and Fill Activity

In general, it is not anticipated that significant cut and fill activities will be necessary in order to accommodate vehicles, delivery, or other transportation access. Based on the Preliminary Design Drawings prepared in association with Exhibit 11, it is estimated, with the exception of gravel used for access road construction, fill material will be derived from excavated material, and no fill will need to be imported for construction of the Facility. Furthermore, it will not be necessary for materials to be removed from the Facility Site. Stockpiled soils along the construction corridors will be used in site restoration, and all such materials will be re-graded to approximate pre-construction contours. See Exhibit 11 for the Preliminary Design Drawings and Exhibit 21 for additional information on cut and fill activity.

# (4) Conceptual Haul Routes and Approach and Departure Routes for Workers and Employees

Workers and employees in regular vehicles (pick-up truck size and smaller) will not be limited to specific haul routes for purposes of accessing the construction site or working parking areas. Employees and workers accessing the site with heavy haul/construction equipment will follow specified haul routes. These routes are described below.

### Haul Route #1 – To North and West Facility Area, Arrays 1C, 1D, 1E Substation and O&M Buildings:

Construction vehicles will exit NY-90 at exit 29, turn right on East Main (Rt 5S) and follow the designated Truck Route to Erie Boulevard to turn right towards State Route 10 (Church Street). They will make another right to travel southbound on Church Street. They will take Church Street to Cliff Street on the right. From Cliff Street they will make a left onto Shaper Ave and continue onto County Route 80 (Ridge Road). Ridge Road turns into County Route 80 (Clinton Road) there is access to arrays 1C, 1D, 1E, substation, and O&M buildings off County Route 80 (Clinton Road) after County Route 97 (Heiser Road). Other deliveries will continue on County Route 80 (Clinton Road) southbound. All Haul Route #1 deliveries will follow these directions until this point.

### Haul Route #1A - To Arrays 1A, 2A, 2B, 2C, 2D, 2E, 2F, 2G, 2H, 3A, 3B, 3D and 3G:

Deliveries will make a right on Nestle Road and access arrays 1A, 2G, 2H and 3G from Nestle Road, deliveries to arrays 2A, 2B, 2C, 2D,2E, and 2F will continue to State Route 163 (Cherry Valley Road) turning right to go north to Moyer Drive.

# Haul Route #1B – To Arrays 4A, 4B, 4C, 4D, 3C, 3E, 3F, 3H, 3I, and 3J:

The vehicles traveling to arrays 4A, 4B, 4C, 4D, 3C, 3E, 3F, 3H, 3I and 3J will follow Route #1 and continue on County Route 80 (Clinton Road) to County Route 86 (Marshville Road) where they will turn right accessing array entrances from County Route 86 (Marshville Road).

### Haul Route #1C - To Arrays 3K, 3L, 4E, 4F and 4G:

The vehicles destined to arrays will follow the first portion of the above directions but continue on County Route 80 (Clinton Road) past County Route 86 (Marshville Road) to County Route 85 (Dygert Road) and Tanners Road those delivering to arrays 3K and 3L will turn right onto Tanners Road. Deliveries to arrays 4E, 4F, and 4G will turn left to access the array entrances off of County Route 85 (Dygert Road).

#### Haul Route #2 – To the South East Facility Areas:

Construction vehicles will exit Interstate 90 at exit 29, turn right on State Route 5S (East Main Street) and follow the designated Truck Route to State Route 5S (Erie Boulevard) to turn right towards State Route 10 (Church Street). They will make another right to travel southbound on State Route 10 (Church Street). They will continue on State Route 10 (Church Street) to State Route 10 (Ames Road) southbound until making a right turn on to County Route 86 (Marshville Road). All Haul Route #2 deliveries will follow these directions until this point.

#### Haul Route #2A – To Arrays 4K and 4L:

The vehicles traveling to arrays 4K and 4L off Fredricks Road will follow the first portion of the above directions then will make a right on Fredricks Road and access array entrances on the left from Fredricks Road.

### Haul Route #2B – To Arrays 4H and 4I:

Deliveries to arrays 4H and 4I off County Route 86 (Marshville Road) will continue on County Route 86 (Marshville Road) westbound making a left turn into the array entrance.

In addition to above haul routes, a secondary Haul Route option has been identified that would allow legal weight vehicles to avoid traveling through the Town of Canajoharie, where lane width is limiting along a portion of State Route 10. The secondary Haul Route accesses the arrays from U.S. Route 20 and State Route 10 northbound to County Route 86 (Marshville Road). This route could provide an option for legal weight vehicles only and would not be an option for any overweight/oversize vehicles due to a R-Posted Bridge crossing in the Town of Sharon.

### (d) Traffic and Transportation Impacts

# (1) Levels of Service along Linear Segments of Highway

A capacity analysis was performed using HCS (Highway Capacity Software) to estimate the construction route Level of Service (LOS) during the construction phase. Typically, Synchro software is used to analyze road intersections. However, it was not used as part of the LOS analysis in this Application because the Facility is not located in a congested, urban area and therefore, no intersection counts or analysis was needed.

All linear segments of the proposed haul routes operate at a LOS. More information and a comparison table of segment LOS are provided in Section 2.2 and Appendix B of the Route Evaluation Study.

#### (2) Route Evaluation Study

The Applicant's consultant drove all potential arrival and departure routes to identify road conditions and potential obstacles to delivery of Facility components during construction (e.g., road width, turning radii, overhead clearance, presence of culverts, presence of steep slopes, etc.). Section 2.2 and Appendix F and G of the Route Evaluation Study detail the field evaluation of the potential delivery and construction vehicle haul routes to and within the Facility Area. This field evaluation was conducted on July 17 and 18, 2018. Road conditions were evaluated by visual inspection and then rated with an excellent/good/fair/poor designation. The visual pavement condition ratings were based on the criteria from the NYSDOT 2014 Pavement Report under the section "Pavement Condition Measures". Additionally, the field evaluation also reviewed roadside features, bridge and roadway horizontal/vertical restrictions, bridge/culvert locations, and possible restricted intersection radii locations.

Below is a descriptive evaluation of each state, county or town road considered and/or projected to be used as a haul route, a construction vehicle route or that will provide Facility access. See Appendix F of the Route Evaluation Study for the Table of Roadway Field Evaluation showing a condensed version of the field evaluation. See Appendix G of the Route Evaluation Study for Roadway Rating Photos.

**State Route 5S (E. Main Street)** between I-90 exit 29 and West Main/Erie Boulevard is approximately 38 feet wide with 16 foot wide lanes and curbed gutters. Trucks will follow the posted truck route to Erie Boulevard. The posted speed is 30 MPH. The pavement is in good condition.

**Erie Boulevard** between State Route 5S (West Main Street) and State Route 10 (Ames Road) Erie Boulevard is a 28 to 54 foot wide roadway with parking on both sides of the street. The posted speed is 30 MPH. The pavement is in good condition.

**State Route 10 (Ames Road)** between Erie Boulevard and Cliff Street. This portion of State Route 10 is 38 feet wide and includes parking on both sides. The travel lanes are 10 feet wide and adjacent to parallel parking which makes it narrow for large vehicles to navigate. The posted speed is 30 MPH. The pavement is in good condition.

Cliff Street between State Route 10 (Rock Street) and Shaper Avenue. Cliff Street is a town road that has a moderate incline from State Route 10. The travel lanes are 10 to11 feet wide without pavement markings. There are stone curbs at the edge of the pavement with a 3 foot snow storage and 3 foot wide sidewalk on each side. The speed limit is posted at 15 MPH and 30 MPH. Parking is restricted on the roadway. The pavement is in good condition.

**Shaper Avenue** between Cliff Street and Ridge Road. Shaper Avenue is a town road with travel lanes that are 9 to 10 feet wide with grass shoulders and without any pavement markings. The speed limit is posted at 30 MPH. Pavement is in good condition.

**Ridge Avenue** between Ridge Road. and County Route 80 (Clinton Road). Ridge Avenue is a town road and has unmarked 9 to 10 foot wide lanes with grass shoulders. The speed limit is posted at 30 MPH. Pavement is in good condition.

**County Route 80 (Clinton Road)** between Ridge Road and Tanners Road. Clinton Road is a county highway with 11 foot wide travel lanes and stone and grass shoulders. The portion from Ridge Road to Seebers Lane crosses two culverts. There is no posted speed limit so it is assumed to be 55 MPH. Pavement is in good condition.

EXHIBIT 25 Page 10 **County Route 86 (Marshville Road)** between State Route 163 (Cherry Valley Road) and Dygert Road. Marshville Road is a County highway that has 11 foot lanes and stone and grass shoulders that are approximately 3 feet wide. The speed limit is 55 MPH and pavement is in good condition.

**Tanners Road** between County Route 80 (Clinton Road) and State Route 163 (Cherry Valley Road). Tanners Road is a Town road with 8 to 9 foot unmarked lanes and 5 foot stone shoulders. The pavement is in fair condition.

**State Route 10 (Ames Road)** between Cliff Street and Marshville Road. This portion of State Route 10 is 22 feet wide, and the travel lanes are 11 feet wide with 5-foot-wide improved shoulders. The speed limit is posted at 55 MPH and the pavement is in good condition.

**Fredericks Road** north of Marshville Road. Fredericks Road is a town road with 8 to 9 foot unmarked lanes and 3 to 5 foot grass and stone shoulders. The pavement is in fair condition.

**Nestle Road** between County Route 80 (Clinton Road) and State Route 163 (Cherry Valley Road). Nestle Road is a town road that has 9 foot travel lanes and no pavement markings. There are 3 foot grass and stone shoulders. Pavement is in fair condition.

**State Route 163 (Cherry Valley Road)** between County Route 64 (Fisk Hill Road) and Tanners Road. Cherry Valley Road is a State route that has 11 foot wide travel lanes and 2 to 3 foot stone shoulders. The speed limit is not posted and is assumed to be 55 MPH. Pavement is in good condition.

Once the Facility is commissioned and construction activities are concluded, traffic associated with Facility operation will be negligible and limited to occasional trips associated with routine maintenance activities.

#### (3) Over-sized Deliveries

The substation transformer is the only OS/OW delivery anticipated for construction of the Facility. It is anticipated that it will be delivered on a "lowbed" semi-trailer and require a Special Hauling Permit (Non-Divisible Load) which will identify the specific design vehicle and required haul route.

Existing roadway restrictions (height, width, weight) and deficient intersection radius locations were observed in the field and researched from NYSDOT resources during the preparation of the Route Evaluation Study (Appendix A). As previously noted, the Applicant's consultant drove all potentially impacted roads to identify physical restrictions (widths, turning radii, overhead clearance, presence of culverts, road condition, presence of steep slopes, etc.). The results of this review for each road segment identified as part of a possible

transportation route are summarized in Section (d)(2) above. In addition, the consultant used aerial imagery in conjunction with street-view maps to analyze impacts at various intersections along hauling routes. Maps of intersection turning movements on aerial imagery are included in Appendix F of the Route Evaluation Study.

Improvements to roadways, including the identified haul routes, are not anticipated.

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

Since the construction of the Facility only requires an OS/OW delivery for the substation transformer, it is anticipated that all other deliveries will utilize standard sized vehicles that are able to navigate the haul routes without mitigation to roadway geometry. Mitigation of traffic and transportation impacts may be needed along Church Street (State Route 10) between Erie Boulevard and Rock Road due to the narrow roadway. If mitigation is necessary in this area, temporary parking restrictions may be implemented on one or both sides of the road to allow for a wider travel way during component delivery.

Additionally, there may be a need for roadway shoulder repair and strengthening improvements where delivery vehicles must navigate narrow roadways and short radius curves at intersections. Turning movement diagrams along the haul routes are presented in the Route Evaluation Study (Appendix 25-A) show wheel tracking for the worst-case design vehicle (WB-67) if a smaller delivery vehicle is used, mitigation will likely not be required.

The Applicant identified a secondary Haul Route that would allow legal weight vehicles to avoid travel through the Town of Canajoharie where a narrow roadway exists. This haul route would provide access from U.S. Highway 20 and State Route 10 northbound to Marshville Road (County Route 86). However, it is an option for legal weight vehicles only, as this route involves a R-Posted bridge crossing.

No new traffic control devices are anticipated, and the normal operation of the Facility is not expected to cause damage to roads. However, if damage to local, county, or state roads is caused by construction of the Facility, the Applicant will make repairs to a condition equal or better than the roadway's condition prior to the commencement of the Facility construction at the Applicant's expense.

Consistent with the discussion above, the Applicant does not anticipate that road improvements will be needed to accommodate OS/OW vehicles during the construction of the Facility. If improvements are needed for any unforeseen reason, they will be made at the Applicant's expense prior to the arrival of OS/OW vehicles. Final transportation routing will be designed in consultation with the Montgomery County Director of Highways and Bridges and the Highway Superintendent from the Towns of Canajoharie and Minden to avoid/minimize, to the

EXHIBIT 25 Page 12 extent practical, safety issues associated with the use of the approved haul routes. This will confine the heavy truck travel to a few select roads. The Applicant will repair damage to the approved haul routes sustained during the construction of the Facility to a condition equal or better than the roadway's condition prior to the Facility construction.

The Applicant will comply with the substantive requirements of the local laws as related to road use. In addition, the Applicant has discussed the Article 10 process, Road Use Agreements (RUAs) and the general construction and delivery process with the Highway Superintendent from each Town.

# (5) Road Use and Restoration Agreements

In conjunction with this Application, the Applicant has consulted with the Highway Superintendent for the Towns of Minden and Canajoharie to identify all required town permits and to discuss each host Towns' RUA.

Table 25-3 lists the anticipated roadway agreements and permits for the state, county, and towns. The Applicant is requesting that the Siting Board not preempt these requirements, and allow the state, county and towns to approve the listed road or highway work permits. See Exhibits 31 and 32 for additional information.

Table 25-3. Anticipated Roadway Agreement and Permit Table

| Government<br>Agency   | Road Use<br>Agreement | Highway Work<br>Permit for<br>Work Within<br>Public ROW | Special Haul<br>Permit for<br>Oversized/<br>Overweight<br>Vehicles | Divisible<br>Load<br>Overweight<br>Permit | Contact Information                                                                                        |
|------------------------|-----------------------|---------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Town of<br>Canajoharie | х                     | x                                                       |                                                                    |                                           | Highway Superintendent<br>Timothy Jones<br>518-673-5005                                                    |
| Town of<br>Minden      | х                     | х                                                       | Х                                                                  |                                           | Superintendent of Highways<br>Joseph Hanifin<br>518-993-3351<br>townofminderhighway@gmail.com              |
| Montgomery<br>County   | Х                     | x                                                       | x                                                                  |                                           | Director of Highways and Bridges<br>Shawn Cotton<br>518-853-3814                                           |
| NYSDOT                 |                       | X                                                       | x                                                                  | х                                         | NYSDOT Transportation Region 2 Bridge Inspection, Design, Consultant Questions Brian Hoffmann 315-793-2429 |

A separate RUA will be executed between the Applicant and Montgomery County and each host Town to memorialize the rights and obligations for road use and repair during the Facility's construction phase. A sample RUA is included as Appendix 25-B to the Application.

The use of private property adjacent to public roads will be permitted through a lease or easement agreement executed between the Applicant and landowner.

# (e) Impact of the Facility on Mass Transit Systems

There are no mass transit systems within the Facility Area. Accordingly, mass transit systems will not be impacted by the construction and operation of the Facility and are not addressed in this Application.

#### (f) Federal Aviation Administration Review

Using aeronautical charts, airport approach plates, airport 5010 forms, and other available sources, the Applicant identified nine airports and airstrips located in the vicinity of the Facility, as listed below.

- Canajoharie Airport, Canajoharie NY
- Hop House Airport, Canajorarie NY
- Russell Airport, Sprakers NY
- Boyles Landing Airport, Sharon Springs NY
- O'Riley Airport Fort Plain NY
- Nellis Airport Fort Plain NY
- Tomcat Airport, Fort Plain NY
- Hickory Acres Airport, Fort Plain NY

Neither the construction nor the operation of the Facility are anticipated to affect aviation. Therefore, consultations with the airports were not conducted and will not be addressed in this Application.