ATTACHMENT 9

Nighttime Construction Plan

CAPE COD CANAL PIPELINE RELOCATION PROJECT

Nighttime Construction Management Plan

FERC Docket No. CP25-552-000

Algonquin Gas Transmission, LLC

February 2026

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1.0 INTRODUCTION

Algonquin Gas Transmission, LLC ("Algonquin") has developed this Nighttime Construction Management Plan (the "Plan") for the Cape Cod Canal Pipeline Relocation Project (the "Project") in Bourne, Massachusetts. The purpose of this plan is to establish procedures and measures for managing construction activities that may occur during nighttime hours (7:00 p.m. to 7:00 a.m.) to minimize impacts to nearby receptors. Algonquin plans to conduct construction activities between 7:00 a.m. and 7:00 p.m., Monday through Saturday, with work on Sundays on an as-needed basis due to permit requirements, "make-up" days caused by inclement weather or other construction delays.

Construction delays resulting in the need for nighttime work may be due to several factors including, but not limited to, complications during the HDD process (such as hole collapse, broken tool retrieval, etc.), local or state work hour restrictions dictating nighttime work, inadvertent release clean up during HDD, and/or military activities on the JBCC property that could interrupt construction schedules. Algonquin's Project must be completed before the CCBP is scheduled to start. Construction delays during the execution of Algonquin's project could impact the CCBP starting as scheduled, therefore any construction delays during Algonquin's Project must be compensated to the extent practicable. Algonquin will have to work continuously (24-hour work) as construction delays arise throughout the Project in order to keep CCBP on MassDOT's schedule.

The Plan is intended to identify anticipated nighttime activities, outline management and mitigation measures, and ensure that nighttime construction is conducted in a manner that protects public health and safety, reduces noise and other disturbances to the extent practicable and complies with applicable regulatory requirements. Although the Plan provides a comprehensive assessment of activities that may require nighttime work, there may be other activities not listed in this Plan.

The Plan will be maintained on-site at applicable construction locations and will be available to, and implemented by, all personnel engaged in nighttime work. Any construction activities conducted during nighttime hours would be managed in accordance with the procedures of this Plan and any subsequent updates.

2.0 PROJECT DESCRIPTION

The Project will remove, abandon, and relocate segments of Algonquin's existing natural gas pipeline infrastructure in the Town of Bourne to accommodate the requirements of the Cape Cod Bridge Program (CCBP) and to continue providing uninterrupted natural gas service to National Grid by replacing National Grid's two existing pipelines, one located on the Bourne Bridge and one on the Sagamore Bridge, with new natural gas infrastructure designed to meet the same

natural gas capacity requirements. This Project is needed because the USACE determined that, as part of the replacement or rehabilitation of the Bourne and Sagamore Bridges by the CCBP, pipeline utilities that have facilities attached to the bridges cannot reinstall those facilities to the new bridges but rather must relocate them.

Natural gas supply is currently transported from the Algonquin interstate pipeline system to two existing National Grid delivery points in the Town of Bourne, located on the "mainland" north of Cape Cod Canal. One delivery point is an existing metering and regulating (M&R) station located at the intersection of the U.S. Route 6 and Massachusetts Route 25 at the Bourne Bridge (Bourne M&R Station), which supplies National Grid's Bourne Take Station. The second delivery point is an existing M&R station located south of U.S. Route 6 and Massachusetts Route 3 interchange at the Sagamore Bridge (Sagamore M&R Station) and supplies National Grid's Sagamore Take Station. National Grid Transports this gas across the Cape Cod Canal to its customers via two high-pressure 10-inch diameter pipelines, one of which is attached to the Bourne Bridge, with the other attached to the Sagamore Bridge. These attached pipelines, as well as the joining M&R/ Take station sites and segments of connecting pipe, cannot remain in their existing locations and must be relocated to accommodate the CCBP requirements. MassDOT and Algonquin entered into an agreement whereby Algonquin will construct two replacement pipelines and associated facilities to provide the same natural gas transportation capacity for National Grid's distribution system on Cape Cod as currently exists.

In summary, Algonquin proposes to remove, abandon, and relocate its existing, previously certificated facilities (including pipeline segments and M&R stations) to avoid conflicts with the CCBP development areas while continuing to provide uninterrupted natural gas service to the National Grid distribution system on both sides of the Cape Cod Canal, which powers homes and businesses throughout Cape Cod. Following the completion of the Project, Algonquin's design capacity to transport natural gas to the National Grid delivery points will remain unchanged.

3.0 REGULATORY CONTEXT AND APPLICABILITY

3.1 Federal Regulations

The project is subject to the FERC noise regulation governing interstate gas transmission. The FERC noise regulation is receptor based, and limits sound levels at the surrounding NSAs. NSAs are typically residences, schools, churches or hospitals. The FERC noise limits apply at the NSA structure.

The FERC limit for noise from nighttime construction work is 55 dBA L_{dn} or 10 dB above the measured nighttime level if the existing sound level exceeds 55 dba L_{dn}. This limit is applicable to construction activities performed between 10:00 p.m. and 7:00 a.m.

The 2017 FERC Guidance Manual for Environmental Report Preparation states, "Construction activity that would or may occur during nighttime hours should be performed with the goal that the activity contribute noise levels below 55 dba L_{dn} and 78.6 L_{eq}, or no more than 10 dBA over background if ambient noise levels are above 55 dBA L_{dn}." If construction activities are limited to daytime hours, with no significant noise production at night, then there is no specific sound level target for those activities.

3.2 State Regulations

The Massachusetts Department of Environmental Protection (MassDEP) regulates noise under its Air Pollution Control Regulations. In these regulations, an "air contaminant" is defined to include sound, and a condition of "air pollution" includes the presence of an air contaminant in such concentration and duration as to "cause a nuisance" or "unreasonably interfere with the comfortable enjoyment of life and property" (310 CMR 7.00).

MassDEP's regulations at 310 CMR 7.10 prohibit "unnecessary emissions" of noise. MassDEP Policy interprets a violation of this noise regulation to have occurred if the source causes either:

1. an increase in the broadband sound pressure level of more than 10 dBA above the ambient, or
2. a "pure tone" condition.

"Ambient" is defined as the background A-weighted sound level that is exceeded 90 percent of the time, measured during equipment operating hours (L90). A "pure tone" condition occurs when any octave band sound pressure level exceeds both of the two adjacent octave band sound pressure levels by 3dB or more.

These noise limits are MassDEP policy and are applicable both at a facility property line and at the nearest residences. As a policy and not regulation, MassDEP may waive these limits in certain cases at property line locations where the adjacent land uses are not considered noise sensitive, such as an adjacent industrial or agricultural parcel.

3.3 Local Regulations

All M&R stations and HDD sites associated with the Project are located in the Towne of Bourne. The Town of Bourne bylaws include some discussion of disturbances in n §3.1.23. This section of the bylaws prohibits "…any unnecessary, loud, excessive or unusual noises…" that are "plainly audible" at a distance of 150 feet from the source. However, there are no quantitative sound level limits. Both disturbance and audibility are subjective terms and are therefore not appropriate for establishing engineering standards. Therefore, for this analysis, the quantitative limits set forth by FERC and MassDEP which are designed to be protective of the public will be assumed to also prevent disturbances as discussed in the Town of Bourne bylaws.

4.0 NIGHTTIME NOISE ANALYSIS

4.1 Project Construction Sites Where Night Work May Occur

Although the need for nighttime construction activities may take place throughout the Project construction workspace, there are certain locations where nighttime work is anticipated.

Potential nighttime work areas associated with the two HDDs the Cape Cod Canal HDD entry and exit points and the Sagamore HDD entry and exit points as well as final tie-in locations in multiple locations throughout the Project workspace.

Nighttime work may be necessary during any of the three phases of hydrostatic or pneumatic testing, which would involve the full pipeline alignment. Specific testing locations will be identified following the construction contractor award. The Project will require contractors to select testing and construction locations that maximize separation from nearby noise-sensitive areas (NSAs), to the extent practicable, in order to minimize potential nighttime noise impacts.

Nighttime work may also occur during construction of the meter and regulator (M&R) stations. Table 4.1 summarizes all potential nighttime construction activities associated with the Project.

4.2 General Construction Noise

General construction noise during nighttime hours is expected to consist primarily of routine, non-specialized equipment and activities necessary to support ongoing work. These may include the operation of light plants required for safe illumination, intermittent truck traffic for material delivery or haul-off, non-destructive examinations (NDEs), and use of standard construction equipment such as loaders, generators, and small excavators. These sounds are considered typical of constructions sites and are not tied to any specific expected operation; however, they may be audible at varying distances depending on equipment type, duration of use, and surrounding terrain. The Project will implement reasonable noise-minimization practices to limit the potential for disturbance during any nighttime activities as outlined in Section 5.2.

4.3 Expected and Potential Nighttime Activities

Nighttime construction activities are anticipated to occur primarily during three project components: horizontal directional drilling (HDD), final pipeline tie-in activities, hydrostatic or pneumatic pressure testing of HDD sections, pipeline, and facilities, and construction activities at the meter and regulator (M&R) stations. Other construction activities that require continuous work (24-hour work) and may extend beyond normal construction hours and into Sunday, as necessary, include welding activities; x-ray activities, including nondestructive testing of welds; depressurizing of pipelines; painting/coating of piping; dewatering and drying of test sections, conventional bore pits, and trench or bell holes ahead of mainline installation crews; maintaining

water pumps through the construction crossing cycle at wetlands, water bodies, and residential construction to ensure public safety; aboveground facilities construction (including but not limited to electrical, welding, earth disturbance, and hydrotesting); trenching activities; the Canal Street pipe lay; drilling operations for pullback; holiday detection (jeeping the pipe); final pipeline tie-in; and commissioning, line purge, and line fill activities. Equipment maintenance and service activities may also occur before and after standard work hours

In addition, unplanned or corrective activities—such as spill response, equipment maintenance, or certain HDD-related operations—may necessitate work beyond daytime hours to ensure safe operations and maintain project schedule continuity.

The following sections analyze the four primary activities that may require nighttime work.

4.3.1 Horizontal Directional Drilling

Activity Description and Location

Nighttime construction will likely be necessary at the Horizontal Directional Drilling entry and exit sites. HDD will occur at the Canal HDD entry and exit sites , as well as at the Sagamore HDD entry and exit sites, and consists of three steps including drilling, reaming and pull back. Drilling is the process of using a steerable drill head to drill a small-diameter pilot hole along the designated underground path from the entry point to exit point. Reaming is the process in which, after the pilot hole reaches the exit point, larger cutting tools called reamers are pulled back through the hole to gradually enlarge it until it is big enough for the pipe. Finally, pull-back is the process by which prefabricated pipe sections are positioned at the exit side and attached to the drill string, then pulled back through the enlarged hole to the entry point.

Potential Nighttime Work Scenarios

During the drilling and reaming phases, HDD operations must continue once initiated because borehole stability depends on continuous circulation of drilling fluid. Interruption of circulation reduces hydrostatic support, allows cuttings to settle, and may result in bore collapse, pack-off, loss of drilling fluid returns, or stuck tooling. Maintaining consistent drilling fluid pressure and flow is critical to stabilizing the bore walls, transporting cuttings to the surface, and preventing material from sloughing into the bore. Extended interruptions can compromise bore integrity and require substantial corrective actions.

Similarly, once the pull-back phase begins, the operation must proceed as a continuous and uninterrupted activity to ensure bore stability and successful pipeline installation. Pausing pull-back operations can increase drag forces, reduce bore support, or allow material to accumulate around the pipe, potentially resulting in pipe seizure.

Duration

If HDD operations extend into nighttime hours, the work would be performed continuously on a 24-hour schedule for an estimated duration of two to three months.

Anticipated Noise Making Equipment

Both the HDD entry and exit sites may utilize several types of equipment during temporary construction activities; however not all equipment listed is anticipated to be required at every location. Potential equipment includes light plants, generators, mud pumps, a mud system, the drill rig and associated power unit, D-6 dozer(s), welding truck(s), and excavators.

Potential Impacts

Algonquin evaluated nighttime construction noise impacts at the HDD entry and exit sites for both HDD crossings. The calculated increases above existing nighttime ambient sound levels attributable to nighttime HDD activities are below 10 dBA at all noise-sensitive areas (NSAs) for both the Sagamore Bridge HDD entry and exit sites. Therefore, no additional noise mitigation is required to comply with FERC regulatory sound level limits at the Sagamore Bridge HDD locations.

At the Canal HDD entry site, modeled sound levels at nearby NSAs attributable to nighttime HDD activities are below the FERC limit of 55 dBA Ldn, indicating that additional noise mitigation is not required at this location. However, modeled sound levels at NSA CX2 attributable to nighttime HDD activities at the Canal HDD exit site are expected to exceed the FERC regulatory limit of 55 dBA Ldn. Accordingly, additional noise mitigation is recommended for nighttime HDD activities at this site. Noise mitigation measures for NSA CX2 are described in Section 5.1.1.

4.3.2 Final Tie-Ins

Activity Description and Location

Final tie-ins occur where a newly installed pipeline segment is physically connected to existing sections of pipeline. This process typically involves precise alignment of pipe ends followed by welding and inspection to ensure structural integrity and system continuity.

Potential Nighttime Work Scenarios

Once the final tie-in process begins, work is expected to proceed without interruption due to safety, quality, and pipeline integrity considerations. During tie-in activities, the pipeline is in a temporary non-standard condition that is not intended to persist for extended periods. Suspending work during this phase can prolong exposure to conditions that increase the risk of leaks, structural failure, or unintended pressure migration.

In addition, partially completed welds may be exposed to moisture, contamination, or temperature fluctuations if work is paused, potentially affecting weld quality. Delays can also introduce additional thermal cycling, which may compromise weld integrity. For these reasons,

tie-in activities may extend into nighttime hours to ensure safe and proper completion once initiated.

Duration

If tie-in activities extend beyond 7:00 p.m., they are not expected to continue on a continuous 24-hour basis. Any nighttime work would be short-term, temporary, and limited to the duration necessary to safely complete the tie-in.

Anticipated Noise Making Equipment

Potential noise-generating equipment associated with final tie-in activities may include light plants, a welding unit or welding truck, and excavators with white noise back-up alarms, and a D-6 dozer. Additional minor support equipment, such as small generators, may also be used.

Potential Impacts

Overall noise levels at tie-in sites are expected to be lower than those generated during HDD operations. Standard construction noise mitigation methods will be implemented to minimize and avoid potential impacts on nearby NSAs as described in Section 3.5.2.

4.3.3 Hydrostatic/ Pneumatic Pressure Testing

Activity Description and Location

Pressure testing will be conducted to verify the integrity of the pipeline before it is placed into service. The process begins with pressurization, during which the pipeline is filled with water (for hydrostatic testing) or air/ nitrogen (for pneumatic testing) and gradually brought up to the required test pressure. The pressure is then held for a specified duration while the pipeline is monitored for any signs of leakage or pressure loss. After the test is complete, the system undergoes pressure-down, where the internal pressure is safely reduced. The final step is drying, during which any remaining moisture is removed from the pipeline using mechanical drying equipment to ensure the line is clean, dry, and ready for commissioning.

Pressure testing activities may occur at multiple locations along the pipeline alignment. The number and locations of test sections have not yet been finalized; however, Algonquin will require the contractor to select test sections and associated pressure-testing locations that maximize distance from nearby NSAs, to the extent practicable.

Potential Nighttime Work Scenarios

Pressurization of pipeline segments may need to begin during early morning hours (e.g., 3:00 a.m. to 4:00 a.m.) to take advantage of the natural increase in ambient temperature following sunrise. Initiating pressurization during this period helps stabilize internal pressure as temperatures rise, improving test reliability.

Pressure testing activities may extend into nighttime hours due to the overall duration of the testing sequence, which typically requires approximately 12 to 13 hours to complete when conducted without interruption. Depending on the start time, site conditions, and any minor delays, the required pressure-hold period may extend beyond daylight hours, resulting in testing activities continuing into the nighttime period to ensure completion of the test.

Pipeline drying following pressure testing may also extend into nighttime hours. Drying requires the pipeline to reach and maintain specific internal temperature and humidity conditions to effectively remove residual moisture. Once initiated, the drying process must proceed continuously; pausing drying allows the pipeline to equilibrate with ambient temperature and dew point conditions, reducing drying efficiency and potentially allowing moisture to re-enter or condense within the pipeline.

Duration

Pressure testing is typically conducted as a single, continuous operation for each pipeline segment and generally requires approximately 12 to 13 hours to complete, including pressurization, stabilization, and the pressure-hold period. Filling the pipeline with water will occur the day prior to the test. Each test segment must be completed without interruption to maintain test integrity and is typically performed once prior to placing the segment into service.

When the test is complete, the pressure-down step may generate a brief period of elevated noise lasting up to approximately 20 minutes as pressure is safely released.

The duration of pipeline drying will vary depending on the length of the pipeline segment, ambient temperature and humidity, the drying method used, and the amount of residual moisture remaining after testing. Drying must continue uninterrupted until moisture specifications are met, which may require several hours or, in some cases, extend over multiple days.

Anticipated Noise Making Equipment

Drying operations will require the use of high-capacity generators to power heating or air-moving equipment. These generators and equipment produce a steady noise and are expected to operate continuously throughout the drying process. Although this equipment can produce moderate sound levels, they will be operated and, where practicable, positioned to minimize noise exposure to nearby NSAs, consistent with the Project's noise mitigation measures (see Section 5.1.3).

Potential Impacts

Potential noise impacts associated with pressure-testing activities are expected to be minimal. Equipment used during pipeline filling, pressurization, and the pressure-hold period generally produces low to moderate noise levels comparable to typical construction support equipment and is not anticipated to result in measurable noise impacts at nearby NSAs.

The highest noise levels during pressure testing are expected to occur during the pressure-down phase, when the test medium is safely released from the pipeline. This activity may generate a short-duration increase in noise, characterized by a brief "whooshing" sound similar to a controlled high-pressure air release. The pressure-down event is typically short in duration, lasting only a few minutes, and noise levels attenuate rapidly with distance. As a result, pressure-down noise is not expected to cause significant disturbance at nearby NSAs. Applicable noise mitigation measures are described in Section 5.1.3.

4.3.4 M&R Station Construction

Activity Description and Location

Construction of the meter and regulator (M&R) stations is expected to occur primarily during daytime hours; however, certain circumstances may require limited nighttime work. The Project includes four M&R stations: the Sagamore M&R Station, Pave Paw Road M&R Station, Bourne M&R Station, and Bourne Rotary M&R Station. Station location details can be found in the Sound Level Impact Assessment Report in Attachment A.

Reason for nighttime work

Construction delays during execution of Algonquin's Project could affect the ability of the Cape Cod Bridge Project (CCBP) to commence operations as scheduled. To avoid cascading schedule impacts, delays encountered during construction may necessitate extending work into nighttime hours, to the extent practicable, in order to maintain overall project timelines and sequencing.

Duration

The duration of any nighttime construction at the M&R stations would depend on the nature and extent of the delay and the specific tasks required to return the Project to the planned construction schedule. Nighttime work would be limited to the minimum duration necessary to mitigate delays and restore normal daytime construction activities.

Anticipated Noise Making Impacts

Only standard construction equipment will be used in the construction of each M&R station with no dynamic compaction or pile driving expected. Each of the M&R Construction sites may utilize several types of equipment during temporary construction activities; however not all equipment listed is anticipated to be required at every location. Potential equipment includes light plants, generators, welding machines, water pumps, light vehicles, sandblasting, and excavators.

Potential Impacts

Potential impacts at the M&R station locations during construction could include short-term increases in sound levels at the NSAs. Algonquin evaluated potential impacts due to temporary nighttime construction at each of these locations. At three of the four M&R stations, existing

ambient sound levels exceed 55 dBA L_{dn}; therefore, nighttime construction noise would be limited to no more than 10 dBA above existing ambient levels at those locations. The sound level at the Pave Paw Road M&R Station may not exceed 55 dBA L_{dn}.

5.0 NIGHTTIME NOISE MITIGATION MEASURES

5.1 Activity Specific Mitigation Measures

5.1.1 Horizontal Directional Drilling

All HDD entry and exit sites are expected to meet the FERC sound level limits without additional mitigation, with exception of the Canal HDD exit site. At this location, unmitigated nighttime sound levels at noise-sensitive area (NSA) CX2 are expected to exceed the FERC limit of 55 dBA L_{dn}. Therefore, noise mitigation will be required during nighttime HDD activities at the Canal HDD exit site.

For temporary construction activities, installation of noise barriers along the perimeter of the work area represents the most effective and commonly used mitigation measure. Noise modeling conducted by Epsilon Associates, Inc. included a 16-foot-tall temporary noise barrier located along the north side of the Canal HDD exit work area. Modeling results indicate that this barrier configuration would reduce sound levels at NSA CX2 to comply with the FERC regulatory limit of 55 dBA L_{dn}. Multiple barrier configurations may be capable of achieving similar noise reductions, and the final barrier location and design may be adjusted if the construction site layout changes. The modeled barrier layout is shown in Figure 6-1 of Attachment A.

5.1.2 Final Tie-In

Final tie-in activities are not expected to exceed FERC's regulatory sound level requirements. These activities will also comply with the general construction noise mitigation measures described in Section 5.2, which incorporate best management practices to minimize noise generation and reduce potential impacts on nearby NSAs.

5.1.3 Hydrostatic/ Pneumatic Pressure Testing

Pressure testing activities, including pressurization, pressure-down, and drying, are not expected to exceed FERC regulatory sound level limits. Noise generated during pressurization and the pressure-hold period is generally limited to support equipment and is anticipated to remain within typical construction sound levels.

The pressure-down phase may produce a short-duration increase in noise similar to a controlled high-pressure air release. This activity is brief, typically lasting no more than approximately 20 minutes, and will be conducted at locations that maximize distance from nearby NSAs, to the extent practicable.

Drying operations may utilize high-capacity compressors or generators that produce moderate, steady noise. Drying equipment and pressure-release components will be located as far from NSAs as practicable to minimize potential disturbance. Equipment will be operated in accordance with standard noise mitigation practices, including directing exhaust away from sensitive receptors, maintaining equipment in good working order, and positioning vehicles or other equipment to provide temporary shielding where feasible.

5.1.4 M&R Station Construction

Noise modeling conducted by Algonquin indicates that construction activities at all M&R station locations are expected to comply with FERC sound level limits without the need for additional mitigation. M&R station construction will also adhere to the general construction noise mitigation measures described in Section 5.2, which include best management practices to minimize noise generation and reduce potential impacts on nearby NSAs.

5.2 General Construction Noise Mitigation

The preferred and most effective method of nighttime noise mitigation is to conduct construction activities during daytime hours. Accordingly, all construction activities will be planned and scheduled for daytime operation as the primary and preferred approach, whenever practicable.

When nighttime construction is required due to safety considerations, technical constraints, quality control requirements, or to maintain project schedule, reasonable and practicable noise reduction measures will be implemented to minimize potential impacts on nearby NSAs.

5.2.1 Engine-Powered and Continuously Operating Equipment

To reduce noise from stationary and continuously operating equipment, the following measures will be implemented as necessary:

- All internal combustion equipment will be equipped with properly functioning mufflers.
- Equipment will be maintained in good repair and operated according to manufacturers' recommendations.
- Continuously operated diesel-powered equipment, such as compressors, pumps, and generators, will be located as far as practicable from NSAs or otherwise shielded.
- Equipment panels and enclosures will be kept closed and latched, as these components typically provide noise attenuation.

5.2.2 Vehicle Movements and Backup Alarm Minimization

To reduce noise generated from vehicle movement and safety alarms, the following practices will be implemented as necessary:

- Vehicle and equipment idling will be minimized to the extent practicable.
- Pull-through access routes will be used where feasible to reduce backing maneuvers and associated alarm activation.

- Backup alarm noise will be minimized while maintaining compliance with OSHA requirements, including:
    - Consideration of ambient-sensing or broadband (“white noise”) backup alarms.
    - Use of spotters to support backing operations and reduce alarm duration.
    - Use of hand signals, radios, or spotters in place of horns)where safe to do so), or shouting for communication during nighttime operations.

5.2.3 Material Handling and Trucking

To limit noise produced during material handling and general construction activity, the following practices will be implemented as necessary:

- Construction materials will be handled and transported in a manner that minimizes noise.
- Loading, unloading, and material handling activities will be scheduled to minimize nighttime noise where practicable.
- Slamming of dump truck tailgates will be minimized.
- Daytime scheduling will continue to be prioritized for material deliveries whenever feasible.

5.2.4 Temporary Barriers and Site Layout Planning

To further reduce nighttime noise impacts, the following practices will be implemented as necessary:

- Temporary noise barriers will be installed, or existing natural or structural features will be utilized, to shield NSAs from direct nighttime noise transmission where feasible.
- Noise-generating equipment will be positioned to maximize distance from NSAs during night work.
- Equipment will be oriented such that exhaust outlets and primary noise-generating components face away from NSAs whenever practicable during nighttime activities.

TABLE 4.1

Potential Nighttime Construction Noise Activities for the Cape Cod Bridge Relocation Project

Activity	Work Task	Anticipated Locations	Anticipated Work Hours	Estimated Duration	Primary Noise Source(s)	Mitigation Measures
Horizontal Directional Drilling (HDD)	Drilling Reaming Pull Back	Canal HDD Entry Canal HDD Exit Sagamore HDD Entry Sagamore HDD Exit	24-hour Operation	~3 Months	Light Plant Mud Pump Generator Mud System Drill Rig Drill Rig Power Unit D-6 Dozer Welding Truck Excavator	Activity-specific mitigation
Final Tie Ins	Welding	Multiple locations including but not limited to Canal HDD Entry/Exit and Sagamore HDD Entry/Exit	May extend past 7:00 p.m.	~2 days per tie-in	Welding truck Excavator Support Equipment	General Noise Mitigation
Pressure Testing	Pressurization	Throughout the pipeline alignment, away from NSAs as feasible.	May begin before 7:00 a.m.	~13 Hrs	Support Equipment	General Noise Mitigation
	Pressure Down		May extend past 7:00 p.m.	~ 20 min	Pressure release	Activity Specific
	Drying		24-hour operation	Hours to Days	Compressors; generators	Activity Specific
M&R Station Construction	Station construction activities	Sagamore M&R Station Bourne M&R Station Bourne Rotary M&R Station Pave Paws M&R Station	May extend past 7:00 p.m.	Variable	Standard construction support equipment	General Noise Mitigation

Notes

- "Activity-specific mitigation" refers to measures described in Section 5.1.
- "General noise mitigation" refers to best management practices described in Section 5.2.
- Nighttime work is anticipated to occur only when necessary for safety, technical feasibility, quality control, or schedule considerations.