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Project Commitments

The following commitments have been made by NHDOT and FHWA to address or mitigate possible impacts associated with the Selected Alternative. See Section 4.0 for additional discussion and details.

A. Transportation

- NHDOT will continue to coordinate the reconfiguration of the Exit 3 interchange with the Town of Windham to accommodate the Town's planning goals for the interchange area.
- 2. Three new park-and-ride lots will be constructed at Exit 2, 3 and 5, in addition to the overall corridor highway improvements to support carpooling and enhance ride-sharing opportunities.
- 3. New park-and-ride facilities will include the construction of terminal facilities to support expanded and enhanced bus service in the corridor. A terminal facility will also be considered at the existing park-and-ride lot at Exit 4 to promote consistent service with the corridor.
- 4. The park-and-ride facilities at Exit 2 and Exit 5 will be constructed in advance of the mainline highway widening work to provide options for commuters seeking alternatives during construction.
- 5. NHDOT will continue to work with regional and local officials to implement the recommendations of the Salem to Concord Bikeway Feasibility Study in lieu of in-corridor bicycle facilities. Paved shoulders along intersecting side roads are proposed for shared use bicycle lanes. Providing suitable accessibility for bicycle users through interchange areas will be considered in more detail during final design.
- 6. The current bus service to Boston that operates in the corridor will be expanded to provide service from the new park-and-ride bus station facilities along with the existing Exit 4 lot. NHDOT is committed to supplementing transit service as

- an integral component of the Transportation System in the I-93 corridor as part of the funding strategy being developed.
- 7. All appropriate avenues of funding for bus service will be pursued including CMAQ and FTA funds. Full funding of bus purchases is anticipated along with construction of other required capital improvements (terminal and bus maintenance facilities). Assistance with operating costs for a 3-year start-up period is proposed with the intention that the service will achieve financial viability and be self-sufficient beyond this start-up period. As part of the overall funding strategy, funds for a transit marketing program are included.
- 8. NHDOT will continue to work towards providing enhanced ride-sharing opportunities. NHDOT will continue working cooperatively with public transit agencies, the MPO's, the TMO's and TMA's, as well as the Commonwealth of Massachusetts, to develop a coordinated transit program for the I-93 corridor. NHDOT will work with CARAVAN for Commuters to develop concepts for a ride-sharing program from southern New Hampshire that serves the entire I-93 corridor. NHDOT further proposes to subsidize a commuter incentive program in its early stages.
- 9. NHDOT will continue to develop and improve on Incident Management procedures in the corridor relative to response time, minimizing traffic delays and addressing traffic diversion issues. A number of Incident Management practices will be considered and implemented in the near-term, during construction, and over the long-term, following construction.
- 10. Intelligent Transportation System (ITS) technologies will be incorporated into the overall I-93 improvements to better manage traffic/travel demand, enhance safety and capacity, and supplement Incident Management initiatives. ITS deployment will be involved before, during, and after corridor construction.
- 11. The proposed layout will not preclude future mass transit opportunities within the I-93 corridor or along the former Manchester-Lawrence line. The Selected Alternative will accommodate room in the median to allow future mass transit opportunities in the corridor. In addition, the proposed layout will provide provisions, such as bridge replacements and continued grade-separated crossings at Exit 5, to facilitate possible future rail service on the Manchester-Lawrence line.

12. A Transit Investment Study will be jointly undertaken with the Commonwealth of Massachusetts to consider in more detail the long term rail and transit needs and identify viable options for the overall I-93 corridor between Manchester and Boston.

B. Air Quality

- 1. Air quality will continue to be addressed for the project through the regional Transportation Conformity Air Quality Analysis of the Statewide Transportation Improvement Program (STIP), which includes this project, in compliance with the State Implementation Plan (SIP). The project is, and will continue to be, included in a conforming STIP.
- Mitigation measures for controlling fugitive dust emissions during construction
 will include wetting and stabilization of all work areas, cleaning paved
 roadways, and scheduling construction to minimize the amount and duration of
 exposed earth.
- 3. NHDOT will require that contractors involved with the reconstruction of I-93 include air pollution control devices on heavy diesel construction equipment in accordance with applicable State and Federal laws at the time of construction. The merits and practicality of more stringent or voluntary specification measures will be considered during the final design process and in consultation with the contracting community at large.

C. Surface Water Resources

- 1. Approximately 50 different extended-detention basins and 24 grass swales will be incorporated into the project design. The design objective will be to treat runoff from the entire length of new and reconstructed roadway, including the park-and-ride facilities and the secondary roads and ramps associated with the interchange areas. Both the basins and swales will be designed to maximize treatment efficiencies. Typical grass drainage swales will also be utilized in the project to collect and convey storm water runoff and will provide supplemental treatment benefits.
- 2. I-93 will be relocated toward the median in the vicinity of the Exit 3 Interchange to reduce the overall footprint of the interchange and provide additional buffer area between the highway and Canobie Lake and Cobbetts Pond to enhance water quality protections and opportunities.
- The drainage design, treatment swales, and detention basins will include specific spill containment measures in the vicinity of Canobie Lake to capture and isolate any inadvertent hazardous material spills before they can reach Canobie Lake.

- 4. NHDOT will specify in the contract bid documents that only low phosphorus or no phosphorus fertilizers are to be used in the re-establishment of vegetation within the watershed areas of Canobie Lake and Cobbetts Pond to minimize the potential phosphorus contributions associated with the use of fertilizers during project construction.
- Opportunities to divert runoff into the watershed of Canobie Lake will be further explored in final design, as requested by the Salem Board of Selectmen, in order to maximize the surface recharge to the Lake.
- 6. NHDOT will coordinate with regulated MS4 communities as part of its obligations in meeting the small MS4 regulations under the NPDES Phase II Program in addressing storm water management and treatment measures, eliminating any illicit discharges within the storm drain systems, implementing spill prevention and containment measures with emergency response personnel, and general good housekeeping measures. NHDOT will prepare annual reports detailing the activities and efforts that were undertaken as part of the five-year Statewide Storm Water Management Plan under the NPDES Phase II Permit Program, and how the measurable goals were met.
- 7. NHDOT will continue to pursue best management practices for road salt to optimize the use of material to maximize efficiency and effectiveness of de-icer application. The project will incorporate a Road Weather Information System (RWIS) to provide maintenance staff, real time pavement temperature and moisture data that supports more effective decision making. NHDOT will utilize the Maintenance Decision Support System (MDSS), an advanced decision support tool for winter maintenance managers currently under development, to maximize the efficiency of winter maintenance operations to reduce salt usage with precision timing of material application.
- 8. NHDOT will standardize the use of "pre-wetting" road salt and ground oriented spreader application of road salt to limit scatter and increase effectiveness of applied de-icing material.
- 9. NHDOT will replace and refurbish its vehicle fleet and equipment used to maintain I-93 over approximately the next 10 years and will include equipment to increase efficiency of operations. Equipment purchases will include items such as infrared thermometers to adjust de-icer applications based on specific pavement temperature, and under body scraper plows which remove snow more effectively requiring less de-icer.
- 10. NHDOT will institute the use of salt brine, a mixture of road salt and water spray applied to roadway surface, to reduce and mitigate the amount of road salt applied to this section of I-93.

- 11. Frequent and systematic training of maintenance personnel will be conducted for the crews maintaining I-93 on salt management reduction techniques and the environmentally sensitive areas along the corridor. Trained NHDOT personnel and equipment will be prioritized for the I-93 corridor winter maintenance over private contractors and equipment.
- 12. Sensitive environmental areas will be identified and marked for field crews maintaining I-93 and to raise awareness of the motoring public.
- 13. NHDOT will continue to explore the effectiveness and practicability of alternative de-icers, through limited pilot studies and experiments throughout the State, for potential use in environmentally sensitive areas.
- 14. During the construction phase, additional measures will be undertaken as practicable to ensure that the water quality of Canobie Lake, Cobbetts Pond, and other brooks, streams and wetlands are protected. NHDOT will ensure that Storm Water Pollution Prevention Plans (SWPPP) are prepared for each construction contract per NHDES requirements and the USEPA NPDES Phase II requirements and guidelines for construction activities. The goal of the SWPPP(s) is to reduce or eliminate stormwater pollution from construction activity by implementing pollution control Best Management Practices (BMP's) to protect water quality, including designing and implementing erosion and sediment control measures appropriate for the project specific construction activities and resources. Prior to the commencement of work, the Contractor will submit an erosion control and stormwater management plan specific to the project that will present measures to be employed to limit the extent and duration of exposed soils, temporary stabilization measures to be used and containment measures to prevent downstream sedimentation and turbidity.
- 15. All requirements of the Construction General Permit (CGP) will be met for each construction contract including a Notice of Intent, implementation of the SWPPP, and Notice of Termination upon completion.
- 16. NHDOT will continue to participate with NHDES and USEPA with respect to the regional issues of elevated chloride levels in area streams. NHDOT will participate in continuing water quality monitoring efforts as they relate to characteristics of I-93's contributions and coordinate with NHDES relative to its VLAP Program for monitoring any future changes in chloride concentrations associated with Dinsmore Brook, Cobbetts Pond, and the tributaries to Canobie Lake. NHDOT will participate in the anticipated regional TMDL study and work towards implementing appropriate road salt management plans that may be developed.
- 17. NHDOT will also coordinate and exchange information with local DPW officials regarding new and more efficient ways to store and apply road salt for deicing purposes through the outreach and education efforts as part of the Phase II

Storm Water Management Plan, discussed above. NHDOT will share its technical experiences and knowledge, provide technical assistance to communities, and investigate venues and opportunities, such as through the UNH Technology Transfer Center, for sharing knowledge and experience relative to road salt management and application techniques.

18. NHDOT will provide funding of up to \$3 million to the NHDES Drinking Water Supply Land Grant Program to be used to purchase property rights to aid in the protection of water quality around Massabesic Lake, which is used to supply drinking water to Manchester, and parts of Derry and Londonderry.

D. Groundwater Resources

- 1. The Selected Alternative will incorporate extended-detention basins and grassed swales to treat roadway runoff for nearly the entire new and reconstructed roadway, including existing pavement areas. This is consistent with NHDES's Recommendations for Groundwater Protection Measures When Siting or Improving Roadways, and Level 2 protection measures for all new and improved roadways in Wellhead Protection Areas (WHPAs), locally designated groundwater protection areas or areas classified as GA1 areas (i.e., watersheds or recharge areas to existing or future water supplies) under the WHPA Program.
- 2. Consistent with the NHDES (1995) recommendations, the practicability of Level 3 measures including impermeable drainage swales and detention basins, and diversion runoff will be evaluated during final design for portions of the reconstructed roadway within 1,000 feet of a community well or 500 feet of the non-community, non-transient wells. This includes specifically the Boumil Grove Condominium's well in Londonderry which is within 500 feet of the proposed roadway area. In lieu of these measures, the possibility of connecting this condominium complex to the nearby municipal water system may also be explored.
- 3. With the "tight-shift" design option, the I-93 roadway in the vicinity of the Pennichuck wells will be relocated further away as part of the Selected Alternative, and will require only Level 2 protection measures.
- 4. The same mitigation measures relative to road salt that were described for Surface Water Resources will also protect groundwater resources.
- 5. As part of the final design, NHDOT will also identify and specify precautions to minimize potential blasting impacts during construction for all known public and private wells within 1000 feet of a blasting area. NHDOT will also coordinate with the area utilities just prior to construction to prevent and repair any inadvertent damage to underground distribution lines.

6. NHDOT will investigate and replace any wells that are subsequently found to be damaged or degraded as a result of NHDOT activities through its Well Replacement Program. In accordance with RSA 228: 34, NHDOT will conduct remedial measures for any wells that are found to have been impacted by construction or maintenance activities in relation to a state highway.

E. Floodplains

- Direct impacts to the 100-year floodplain and floodways will be minimized during final design, by steepening highway embankments and/or utilizing retaining walls where appropriate. Such locations include the areas adjacent to the Spicket River, Policy Brook, and Porcupine Brook in Salem; Beaver Brook in Derry and Londonderry, Wheeler Pond in Londonderry, and Cohas Brook in Manchester.
- 2. A series of up to 14 basins will be constructed at locations immediately adjacent to impacted floodplains or where natural valley storage is being lost.
- 3. Additional flood storage compensation will be created at locations adjacent to flood-susceptible brooks and rivers, or locations upgradient from flood-prone areas. Detention basins are being proposed for stormwater treatment and floodwater storage at a number of locations along the widened highway. These basins are typically designed to store up to a 50-year storm event before discharging to nearby watercourses.
- 4. The design of the wetland creation sites will include the goal of providing both floodflow alternation and compensatory flood storage. These sites include the Pelham Road Mitigation Site, Waste Water Treatment Plant Site, and Baggett Site in Salem; Highway Median Site in Windham; and South Road Mitigation Site in Londonderry.

F. Farmlands

- 1. For impacts that cannot be avoided, owners will be compensated through the right-of-way and acquisition process.
- Top soil will be salvaged during construction and will be re-used on roadway side slopes for revegetation and stabilization.

G. Wetlands

1. Compensation for unavoidable losses of wetlands and other project impacts will include a combination of creation, restoration/enhancement, and preservation of the following project mitigation/enhancement package, involving protection of approximately 1,000 acres at 16 sites throughout the study corridor. The recommended mitigation sites are summarized as follows:

Salem

Total mitigation provided by four sites will amount to 90 acres (including creation, preservation, and flood storage replacement elements). These sites are:

- Cluff Crossing Road (Site #30), 27 acre parcel
- ➤ Pelham Road Mitigation Site (Site #31), 25-acre parcel
- ➤ Salem Wastewater Treatment Plant Site (Site #32), 32-acre site
- Baggett Property (Site #38) about 6 acres in size,

Windham

Total mitigation provided by three sites in Windham will amount to nearly 318 acres (creation, preservation, and flood storage replacement). Each of the sites is described below.

- ➤ Highway Median Site (Site #24), 17-acre parcel
- Armstrong Property (Site #49), 11-acre parcel
- Southeast Lands Area (Site # 45), approximately 290 acres

Derry

Total mitigation provided by the site in Derry would amount to nearly 200 acres (preservation). The proposed mitigation site is described below.

Sybiak Farm Property (Site #16)

Londonderry

Total mitigation provided by three sites will amount to nearly 290 acres (approximately 299 acres of preservation within which 10 to 12 acres of wetland would be created at the South Road site). The site has also been identified a potential location for passive recreational use by townspeople.

- South Road Mitigation Site (Site #14 and 15), 75-acre parcel
- Norwood Site (Site #63), 37-acre parcel
- ➤ Musquash Brook Parcels (Site #61), 110 acres
- Scobie Pond Area Properties (Site #58), 70 acres

Manchester

Total mitigation provided by the Crystal Lake sites in Manchester will amount to about 120 acres (preservation). The sites are described below.

- ➤ Crystal Lake Area Properties (Site #3, 44, 46, 47, and 53).
- 2. As noted previously, \$3 million in funding will be provided to the NHDES Drinking Water Supply Land Grant Program to protect the watershed surrounding Massabesic Lake. This land and water quality protection effort, in combination with the commitment to provide funding to communities for

- planning technical assistance, will provide future protection of wetland, as well as upland, resources in the I-93 region.
- 3. Attempts will be made to further minimize wetland impacts during final design by steepening slope embankments, where appropriate.

H. Wildlife and Fisheries Resources

- Direct habitat loss, in particular to wetlands, will be offset through the project mitigation in the form of extensive habitat preservation. Generally the preservation sites will be contiguous with adjacent undeveloped or protected properties to create larger unfragmented blocks and provide opportunity to manage portions for varying successional stages.
- 2. The design of the wetland creation sites will include the goal of replacing the wildlife functions of impacted wetlands. Construction plans for restoration, enhancement, and creation will attempt to maximize the diversity and interspersion of wildlife food and cover, as done at the advanced wetland mitigation sites in Salem (Pelham Road) and Londonderry (South Road). A diverse group of native wetland plant species will be planted where appropriate to create a high structural and plant species diversity attractive to a wide variety of wildlife.
- 3. All culverts and bridges at the major stream crossings along the highway corridor (i.e., Cohas Brook, Beaver Brook, Porcupine Brook and Policy Brook) will be examined during final design to determine how a dry-land passage ("shelf") for mammals can be incorporated into the structures.
- 4. Other culvert crossings for smaller perennial streams will also be examined to ensure there are no blockages to wildlife or fish passage. A number of potential improvements to culvert conditions to enhance passage of fish and wildlife have been identified and will be evaluated during final design and implemented where practical. For culverts that require replacement, consideration will be given to oversizing the new structures, as appropriate, to better facilitate wildlife crossing.
- 5. Data will also continue to be collected by District Maintenance staff on the frequency of wildlife–vehicle collisions so that this information can be used to decide whether additional warning signage or fencing along the highway is warranted.
- 6. Several measures will be taken during construction to further reduce impacts on wildlife habitat. The amount of land cleared of vegetation will be limited as practical, especially in areas where there are currently only narrow buffer strips between the highway and other human development. Re-vegetation of the land disturbed by construction activities will take place as soon as possible after

construction is completed, so that erosion is minimized and wildlife habitat is restored. Brush clearing or tree thinning in forests adjacent to the construction areas will not be proposed. Where feasible and safe, snags (i.e., dead standing trees) will be left adjacent to the mowed sections of the right-of-way in order to provide perch sites, nesting cavities, and den sites for wildlife.

7. Maintenance of the highway right-of-way to provide clear zone areas will be limited to the degree practical. On the one hand, maintaining large swaths of open areas are expensive and not beneficial to wildlife. On the other hand, providing clear zones for motorist's safety and discouraging wildlife from approaching the highway will be important.

I. Endangered and Threatened Species

- Mitigation of impacts to wild lupine south of Exit 3 will focus on relocating these
 individuals by means of re-seeding or transplantation. A written mitigation plan
 specific to this population will be completed in consultation with the NHNHI
 prior to construction.
- 2. A preconstruction study conducted in conjunction with the NHF&GD of potential eastern hognose snake habitat using GIS-level analysis and/or other means will evaluate a sample of known occupied habitats within southern New Hampshire to determine their characteristics. This effort will help identify potential habitat within the project area that might be affected.
- 3. Construction contractor personnel will be trained to recognize the hognose snake and be informed of its protected status through a cooperative effort of NHDOT and NHF&GD. Procedures for reporting occurrences of the snake will be established to ensure proper response and reporting of the snake if encountered during construction.

J. Noise

- 1. Noise barriers will be constructed at 11 locations along the project corridor in accordance with noise analysis and applicable criteria. (See Table 4.8-2)
- 2. Early construction of proposed noise barriers will be considered in the construction sequencing, as appropriate, so that they can provide a reduction in subsequent construction noise to the residences.

K. Visual Resources

- 1. Landscape planting and natural revegetation of all cut and fill slopes and, at the park-and-ride facilities will be developed during final design, as appropriate.
- 2. Structural design considerations for drainage structures, bridges, etc., to enhance their visual appearance will be considered during final design.

- Highway lighting at interchanges and park-and-ride facilities, where appropriate, will be designed with "cut offs" or similar features to limit unwanted light.
- Sound walls will serve a dual purpose by mitigating for both noise and visual impacts. Landscaping amenities will also be added in conjunction with the construction of sound walls where practicable.
- Privacy fencing will be constructed in four locations (at NH 111A in Windham, Fordway Extension in Derry, Charleston Avenue in Londonderry, and Rockingham Road in Londonderry) to help shield adjacent residential properties from the visual impacts of the highway.
- Additional privacy fence locations or landscape screening to minimize the visual impact of the highway and mitigate for the loss of existing vegetative screening will be considered and evaluated as part of the discussions with affected property owners during final design.

L. Cultural Resources

- 1. A Memorandum of Agreement (MOA) has been executed between the FHWA and NHSHPO, with concurrence by NHDOT. The specific mitigation measures are detailed in the MOA (Appendix G).
- Archaeological investigations at the Phase II level will be conducted to determine eligibility of sites identified for further evaluation. Depending on site significance and determination of effects, mitigation may be required including preservation-in-place or data recovery.
- Mitigation for the direct impact to the George F. Armstrong House is to document the buildings to Historic American Building Survey (HABS) standards. It will be reconveyed to the property owner or marketed with protective covenant for relocation. A portion of the demolition costs may be allocated as an incentive for relocation.
- Mitigation for the direct impact to the Robert Armstrong House is to, in part, document the building to HABS standards. The building will be purchased and, if feasible, it will be relocated to a nearby location with a suitable setting. A building relocation study will be conducted for the move. The property will be conveyed to a new owner with agreed to preservation/maintenance covenants.
- Mitigation for removal of the Robert Prowse Memorial Bridge is, in part, to document the bridge to Historic American Engineering Records (HAER) standards. The bridge will be replaced by a steel rigid frame structure of compatible design, if feasible. A concerted effort will be made to find an

- adaptive reuse for the bridge prior to construction. Otherwise, it will be advertised and marketed for reuse by others. An interpretative exhibit about its design and fabrication will be placed at the Salem Rest Area.
- Mitigation for impacts to the Gearty House property is to minimize acquisition and slope impacts. Further reductions in slope impacts and acquisition will be considered during final design.
- 7. NHDOT will document the stone walls associated with Searles Castle that are impacted by the project.
- 8. If impacted, cultural resources included in the wetland mitigation and park-andride sites will be documented.
- 9. NHDOT shall ensure that all purchased historic properties are secured and protected against damage.

M. Socio-Economic Resources

- 1. Properties requiring acquisition will be appraised utilizing techniques recognized and accepted by the appraising profession and in conformity with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and applicable to New Hampshire State Law to determine fair market value. The amount offered for partial acquisitions will be the difference between the fair market value of the property before the highway is built and its value after the portion needed for the highway has been acquired.
- The following relocation benefits will be made available to displaced residences:
 - Fair market value for acquired property
 - Relocation advisory assistance services
 - Payments for moving and relocation costs
 - Replacement housing payments for home owners
 - Residential mortgage interest differential payments and closing costs
 - Replacement housing payments for tenants
- The following relocation benefits will be made available to displaced businesses:
 - Fair market value for acquired property
 - Relocation advisory assistance services
 - Payments for actual reasonable moving
 - Business re-establishment costs
- Should identifying affordable housing for any displaced residents (owners or renters) within the existing housing stock and assistance programs prove unfeasible, last resort housing will be made available, if necessary, in accordance

with Section 206 of the Uniform Act and governing regulations. As part of the right-of-way acquisition process, particular attention will be given to the current residents of these properties to assure that the needs of the displaced individuals are adequately addressed and the project will not knowingly discriminate against low-income and minority residents of the project area.

 NHDOT will continue to coordinate through the design process with the communities to develop project improvements in keeping with their planning goals for potential redevelopment in impacted interchange areas.

N. Secondary Land Use Impacts

\$3.5 million will be provided for the establishment of a Community Technical
Assistance Program to help communities in the area influenced by this section of
I-93 better deal with and manage growth related issues.

O. Hazardous Materials

- 1. Initial Site Assessment (ISAs), and Preliminary Site Investigations (PSIs) as necessary, of properties to be acquired will be performed to address potential and confirmed areas of soil or groundwater contamination.
- 2. Based on the results of the PSIs, contamination may be identified. In the event contamination is identified, the following scenarios are likely:
 - Contamination is limited to groundwater that does not warrant remediation and the groundwater will not be encountered during construction.
 - Contamination is limited to soil that does not warrant remediation and the contaminated soil will not be encountered during construction.
 - The contaminated soil or groundwater identified requires remediation by NHDOT following property acquisition.
 - The contaminated groundwater encountered will not be encountered during construction and assessment/remediation is ongoing by the existing property owner as part of an existing Groundwater Management Zone (GMZ) permit.
 - ➤ Limits of solid waste will be categorized. Removal, or consolidation of solid waste on-site will be performed in consultation with NHDES.
- 3. If contaminated materials are expected to be encountered during construction, appropriate worker health and safety provisions and waste management provisions will be included in the construction documents. All work will be performed in accordance with applicable NHDES regulations and NHDES-approved remedial action plans.

A comprehensive building audit will be performed prior to any scheduled demolition to identify and quantify all regulated building materials and special wastes. Abatement plans will be prepared to address the removal of all regulated building materials.

P. Construction

- To mitigate potential sedimentation impacts during construction, a detailed drainage and erosion control program including BMPs will be developed implemented. Construction schedules will require that areas stripped of vegetation be limited in size and either surfaced or vegetated as quickly as possible after initial exposure. Temporary erosion check-dams will be installed during the construction period in appropriate locations.
- The detailed guidance contained in NHDOT's Standard Specifications for Road and Bridge Construction, Section 699, Temporary Project Water Pollution Control (Soil Erosion) will be followed.
- In general, construction will be accomplished during daylight hours to minimize noise impacts, although some night-time construction should be expected given the traffic volumes during daylight hours and the need to maintain traffic at these times.
- A detailed Traffic Control Plan will be developed as part of the final design and instituted to reduce traffic-related short-term impacts and minimize delays. The plan will include the requirement to maintain 2-lanes of traffic in both directions along the mainline for normal construction activities, and during high volume traffic periods.
- Intelligent Transportation Systems, such as Smart Workzone Technologies, will be employed to more efficiently manage traffic/travel demand and enhance incident management. Specific Incident Management procedures and protocols will be incorporated into the contract documents and specifications.
- Construction activities will be coordinated with all property owners (both business and residential) to assure that reasonable access to properties is maintained. Temporary signing and other issues related to temporary relocation of access points caused by construction activities will be appropriately addressed on an individual basis.
- 7. Land that is disturbed by construction activities will be re-vegetated as soon as possible after construction is completed to minimize erosion and restore wildlife habitat.

8. Construction contractor personnel will be trained to recognize the hognose snake and be informed of its protected status through a cooperative effort of NHDOT and NHF&GD. Procedures for reporting occurrences of the snake will be established to ensure proper response and reporting of the snake if encountered during construction.